

#### PhD thesis

Food advertising contents influencing organic food purchase intention and actual purchase behaviour and the moderating role of gender: the case of Thailand

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# FOOD ADVERTISING CONTENTS INFLUENCING ORGANIC FOOD PURCHASE INTENTION AND ACTUAL PURCHASE BEHAVIOUR AND THE MODERATING ROLE OF GENDER: THE CASE OF THAILAND

A thesis submitted in fulfilment of the requirement for the degree of Doctor of Philosophy in Marketing

Chokchai Srianan

Middlesex University 2023

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#### **DECLARATION**

I, Chokchai Srianan, declare that the research concepts, analysis, and conclusions reported in my PhD thesis were performed by me for the purposes of meeting the objectives of the PhD programme at Middlesex University London. The thesis is my endeavour in its entirety unless otherwise stated.

In addition, I hereby certify that this thesis has never been submitted for any other academic degree or qualification at any other academic institution. Unless otherwise stated, the thesis and its contents are my own work.

#### **ABSTRACT**

In recent years, the consumption of organic food has increased, which has a direct impact on consumers' health as well as on the sustainable development. Thailand's organic food consumption is relatively low compared to European countries. This study aims to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge (PK), attitude (Att), subjective norm (SN), perceived behavioral control (PBC) on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). This research also investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge. However, consumers' purchase intention and actual purchase behavior toward organic foods are impacted by food advertising contents, PK, Att, SN, PBC and gender. This study is needed due to the gap in both literature and understanding relating to the influence of food advertising contents, PK, Att, SN, PBC toward the organic foods purchase intention and actual purchase behavior. The study's results can strengthen the context (Thailand) because it will provide valuable consumer data. The study's findings will be used to obtain some recommendations both at policy level, such as measures to promote knowledge about organic foods, and at industry level, such as strategies to increase the market share of organic foods in Thailand. Research gaps are indicated in food advertising content, which has not been investigated based on consumer demographics (gender). There are few studies on the impact of product knowledge about TPB. This study had been performed to reduce these gaps by investigating the moderating effects of gender on the various relationships between the influence of food advertising content and product knowledge, quantitative method was used. This quantitative study aimed to explore the impacts of food advertising contents on PK; PK is related to Att, SN and PBC; the effects of Att, Sn, and PBC on purchase intention; the effect of the purchase intention on actual purchase behaviour; the moderating role of gender on the relationship between food advertising content and PK. Drawing from the literature review, the research model and hypotheses were developed to bridge the research gaps and answer the research questions/objectives. The research model was tested using structural equation modelling (AMOS). The data used to test it was collected from questionnaires sent to 900 Thai consumers who are living in Thailand. The sampling frame could not be available for the whole Thai population, and using probability sampling was impossible. The study needed to use a sample of Thai retail consumers using snowball sampling, a non-probability-based sampling technique. The data were also used to perform multivariate analysis of the data, that included exploratory factor analysis, confirmatory factor analysis and structural equation modelling, to ensure that the scales developed were accurate and reliable. The finding revealed that the The finding revealed that subjective norms strongly impacted Thai consumers' purchase intention and actual purchase behaviour toward organic foods. It also revealed that informativeness is the highest contributor to product knowledge toward the purchase intention and actual purchase behaviour of the consumer toward organic foods. The results showed that (1) the emotional appeals, informativeness and advertising creativity strengthened product knowledge; and (2) product knowledge is positively related to attitude, subjective norm and perceived behavioral control; and (3) attitude, subjective norm and perceived behavioral control have a positive impact on intention to purchase; and (4) intention to purchase has a positive impact on actual purchase behavior; and (5) gender did not moderate the relationship between emotional appeals, informativeness, advertising creativity and product knowledge. TPB was used as it is widely regarded as reliable and is used to investigate all kinds of human behavior. However, the TPB framework does not explain a sufficient proportion of the intention variance. This study expanded TPB related to purchase behaviours by adding more variables to improve TPB's predictive accuracy, such as the food advertising contents and product knowledge, to predict the consumer's purchase intentions regarding organic foods. Previous studies have indicated that new relevant variables might theoretically impact intentions and behaviour to improve the explanatory power of the TPB. The study also considered gender moderates the relationship between food advertising content and product knowledge. Previous studies showed that females tend to buy more than males after exposure to organic products and advertising because they better know the benefits of organic foods. Previous studies found that Thailand is a high context society, meaning Thai people rely more on implicit communication than explicit messages. As a result, Thais read more into what is said than what the words themselves might mean. For most Thais, meaning matters more than what is said. The implications for academic theory relate to the need to take into these food advertising contents that create more greater intentions to buy organics. For practice, marketers need to create these food advertising contents that is a visual communication strategy to increase product knowledge and the intent of buying organic foods. The food advertising content on the organic food product label communicates product information, At the same time, the promotional elements appeal to the needs and values of the target audience and the unique attributes of organic foods.

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#### **CHAPTER I: Introduction**

#### 1.1. Introduction

Consumers' concern about the quality of the food they consume due to food crises has been reflected in the increasing demand for organic food. Food advertising content is used as a persuasive communication tactic to promote judgments, perceptions, attitude and behavioral changes through the presentation of equivalent appeals, framed in terms of the benefits gained (food advertising content). In addition, food advertising content within the context of organic food products has been studied only based on emotional appeal, informativeness and advertising creativity. However, little evidence exists on how food advertising content (emotional appeal, informativeness and advertising creativity) influences product knowledge. There is no evidence of the influence of food advertising content on product knowledge and the Theory of Planned Behaviour (TPB). There have been very few studies on the impact of food advertising content in relation to Theory of Planned Behaviour. Therefore, the objective of this chapter is to introduce the topic and to provide the aim of research which is to examine the impacts of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Also, this research investigates the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge in relation to the TPB.

This chapter explaind the research problem describe how rsearch questions have been elicited from gaps in the literature. Therefore, the study could fill in the gaps that were found in the literature related to several questions, such as "Would the food advertising content (Emotional appeal, Informativeness and Advertising creativity) increase product knowledge of organic food products?", "Is product knowledge positively related to TPB (attitude, subjective norms, and perceived behavioural control)?", "Do attitude, subjective norms, and perceived behavioural control have a positive impact on the intention to purchase?", "Would intention to purchase have a positive impact on actual purchase behaviour?", "Does gender positively moderate the relationships between food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge?"

Moreover, this chapter could provide the research background that is related to the objectives of research, which are as follows:

- 1. To investigate the effect of emotional appeal, informativeness and advertising creativity on product knowledge of organic food products.
- 2. To investigate how product knowledge of organic food attributes is related to attitude, subjective norms, and perceived behavioural control.
- **3.** To examine the effects of attitude, subjective norms, and perceived behavioural control on intention to purchase.
- 4. To examine the effect of purchase intention on actual purchase behaviour; and
- 5. To determine the moderating role of gender on the relationships between food advertising content elements (emotional appeal, informativeness and advertising creativity) and product knowledge toward organic food.

#### 1.2. Research background

Food advertising content has been described by some researchers as a component of product knowledge and visual communication (Cucchiara et al., 2014; Wang et al., 2021). These researchers studied the effects of food advertising content that communicated the context of animal welfare, the environment, and food safety and health on the willingness to purchase organic food. Other researchers (Avineri and Waygood, 2013; Wee, 2014) have studied food advertising content that communicates the context of animal welfare, the environment and, food safety and health to investigate the influence of food advertising content. They defined the influence of food advertising content and showed that it varied depending on the context that was being surveyed. Wirth, Stanton and Wiley, (2012) and Suciu et al., (2019) indicated that food advertising conent communicates the context of the environment in an attempt to communicate the idea that organic food was more environmentally friendly than conventional food. In the context of animal welfare, food advertising content communicates the idea that organic food is good for animals due to the absence of antibiotics and hormones in the animal feed (Lee and Yun, 2015; Kushwah et al., 2019). The concept of food advertising content is derived from other contexts, including the environment, etc. Overall, food advertising content is defined on the basis of terms such as a product quality and intention to purchase organic food. Food advertising content explains the benefits of purchasing organic food products to persuade consumers to purchase an organic food product (Hsu and Chen, 2014; Kim, 2014).

In the context of animal welfare, food advertising content has been studied in relation to the context of intention to purchase organic food (Jin and Han, 2014; Wang et al., 2021), consumers' perceptions (Sangkumchalianga, 2012; Kotler and Armstrong, 2018), and attitudes towards the purchasing of organic food (Lee & Yun, 2015; Wei, 2015), etc. In addition to all those studies, recent studies (Girard and Dion, 2010; Lea and Worsley, 2005; Wang et al., 2021) have suggested that food advertising content communicates animal welfare concerns. However, this kind of advertising content has had less impact on consumers' purchases of organic food than food advertising content that communicates health and safety (Shafi and Madhavaiah, 2013). Some researchers (Lundmark et al., 2014; Dowd and Burke, 2013) showed that respondents from Poland demonstrated the lowest awareness and sensitivity regarding the ethics component of animal welfare and the lowest concern in regard to animal welfare issues associated with organic food selection. These studies suggest that food advertising content that communicates animal welfare concerns has low impact on consumer intention' purchase of organic food (Kim, 2014; Hsu, 2016).

However, this research still want to investigate the impacts of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior towards organic foods, based on the Theory of planned behavior (TPB). This study also expects gender to moderate the relationship between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge.

The reason why this study doe not focus on the impacts of food advertising content that communicates animal welfare concerns is because this type of content cannot be used to impact product knowledge toward intention to organic food product (Irandoust, 2016; Suciu et al., 2019). Moreover, it has not a strong influence on product knowledge when this relationship was moderated by gender (Hemmerling et al., 2015). On the other hand, consumers' increasing demand for organic food products might be attributable to health consumerism. More consumers are aware of the health impacts their food choices may incur (Duval et al., 2020; Hedman et al., 2018). In accordance with a national consumer survey conducted by Simmons Market Research Bureau, more than one-third of consumers declared their intention to pay more for health safety than for animal welfare. These cosnumers were more concerned about their health. This increased awareness in sustainable consumption is expected to impact intention to purchase organic food

products (Lai and Yue, 2020; Alia, 2021). In addition concerns about food safety and health have led to an increase in organic food purchase intention (Mohand et al., 2017). On the other hand, animal welfare is not a determinant that can lead consumers towards the intention to purchase organic food products (Jung et al., 2020; Phillips and Heins, 2022).

According to Irandoust, (2016) and Loebnitz and Aschemann-Witzel, (2016) and Duval et al., (2020), when consumers were purchasing organic food products, the consumers considered the quality considerations of the organic food products that were presented by food advertising content. While the consumers were purchasing organic food products, they did not consider ethical considerations (animal welfare). Therefore, it can be seen that the food advertising content that communicates animal welfare concerns does not motivate consumers to purchase organic food products.

Previous studies have suggested that the motivation for consuming organic foods. There have been multiple literature reviews that have considered the most prominent motives associated with organic food consumption. Yiridoe et al., (2005) and Schleenbecker and Hamm, 2013 and Hemmerling et al., (2015) and Irandoust, (2016) and Alia, (2021) mentioned in their review articles that following issues were the main reasons behind the intention to purchase organic food: (i) consumer awareness and knowledge about organic food products; (ii) consumers' attitudes, perceptions and preferences regarding environmental, health and quality (taste and freshness) benefits; (iii) local origin of organic food products and their logo and labelling systems; and (iv) the level of income and intention to purchase organic food products.

One of the many areas repeatedly recommended for further study by researchers in the food advertising content field is that of food advertising content within the context of healthier and safer food (Deblonde, 2007; Wee, 2014).

Other scholars (e.g. Cucchiara et al., 2014; Gifford and Bernard, 2004; Akbar et al., 2019) studied food advertising content within the context of the intention of purchasing organic food as healthier and safer food. They found the impacts of food advertising content and discovered that it had a strong influence in the context of healthier and safer food. Their findings showed that three aspects of food advertising content created an intention to purchase organic food. Jin and Han (2014) and Kalu and Daniel (2017) examined the creation and development of food advertising content that would motivate consumers purchase organic food. Their research revealed that food advertising content

could persuade consumers to buy organic food when the food advertising content described the organic food product as "safer and healthier for continuity". Chang and Wu, (2015); Lee and Yun, (2015) and Teng and Wang, (2014) investigated the influence of food advertising content on the attitudes of consumers and product knowledge and discovered a significant influence of food advertising content on both. Teng and Wang, 2014 studied and discovered the influence of intention to purchase on purchase behaviour.

Other researchers have discovered that food advertising content has a positive impact on intention to purchase organic food (Gifford and Bernard, 2004; Cucchiara et al., 2014).

Apart from these studies, a few other studies (Gefen, 2004; Suh and Han, 2003; Feldmann and Hamm, 2015) have covered other aspects of food advertising content that communicates regarding the need for safer and healthier food.

However, rather than using food advertising content in the context of safer and healthier products as an interesting topic, these researchers used a construct associated with food advertising content in the context of trust. Food advertising content in the context of trust is regarded as "a state of perceived vulnerability or risk that is obtained from the uncertainty of the individual regarding the intentions, motivations and potential actions of others on whom they rely" (Teng and Wang 2014; Stanton and Cook, 2019).

Researchers have shown that food advertising content increases message effectiveness, product knowledge (Bullock and Johnson and Southwell, 2017; Stanton and Cook, 2019) and intention to purchase organic food (Hsu, 2016; Krishna and Balasubramanian, 2021). Amatulli, (2019) and Wang et al., (2021) studied the effect of food advertising content on the effectiveness of this communication. The findings revealed that when a consumer was exposed to food advertising content with a "safer and healthier" message, the message increases product knowledge of organic food. Zaidi and Muhammad (2012) and Hsu (2016) and Shafiea and Rennieb (2012) used the food advertising content to investigate the impact of food advertising content with a "safer and healthier" message on multiple products. Their findings revealed that food advertising content of "safer and healthier" can increase product knowledge and intention to purchase organic food. Therefore, the positive message framing of the "safer and healthier" message was highly effective when the message endorsed the organic food.

On the other hand, there have been a few studies that have examined the relationship between food advertising content that communicates a safer and healthier message and product knowledge toward intention to purchase organic food (Nasir and Karakaya, 2014; Shaharudin, 2011). Meanwhile other previous studies have investigated the

relationship between food advertising content that communicates a "safer and healthier message and attitudes towards the intention to purchase organic food (Manuela el al, 2012; Zhen and Mansori, 2012).

Besides those studies, a number of other studies (Gifford and Bernard, 2006; Janssen and Hamm, 2012) also investigated the influence of food advertising content that communicated a "safer and healthier" message on the intention to purchase organic food. They discovered that this type of food advertising content could have a direct influence on attitude towards purchase intention. Their findings were further analysed by Hsu and Chen (2014) and Aertsens et al., (2004) in socio-demographic characteristics and product knowledge. Bullock and Johnson and Southwell (2017) investigated the influence of food advertising content on product knowledge. The results suggested that food advertising content had an indirect influence on product knowledge when this relationship was moderated by gender. However, no studies have investigated gender that moderate the relationship between food advertising content and product knowledge (Nasir and Karakaya, 2014; Kushwah et al., 2019).

Chen (2007) and Atta and Abbas and Syed, (2021) used the Theory of Planned Behaviour (TPB) to discover the impact of food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge and intention to purchase organic food and relationship continuity. The findings suggested there was a direct positive influence of food advertising content in these areas. Kothe & Mullan & Amaratunga (2011) and Stanton and Cook (2019) investigated the influence of food advertising content and found that it had a positive impact on product knowledge, attitude, subjective norms, perceived behavioural control and intention to purchase organic food. In recent years, Cucchiara et al., (2014) and Hsu (2016) found that positive message framing had a positive impact on self-image. The finding suggested that food advertising content could provoke positive emotions though a message that activated the self-congruency effect easily. Thus, when a consumers exposed to food advertising content tests what he/she values, the positive message framing will persuade the consumers to buy organic food.

In spite of these studies on the "safer and healthier" context, the context of trust remains a suspicious area within food advertising content. However, as previously mentioned, the context of trust has been regarded as an area of interest for many researchers. The literature suggestes that the context of trust and the context of "safer and healthier" are different from each other (Cowles, 1997; Albrecht and Travaglione, 2003; Wang et al., 2021). Food advertising content in the context of "safer and healthier" has been defined

as an element that shows the result of a certain prospect as a benefit that might be obtained if a product has been purchased or consumed (Amatulli, 2019; Kushwah et al., 2019). Food advertising content in the context of trust has been determined as a common mechanism for decreasing perceived transaction risk by increasing expectations of positive results and perceived certainty about the expected behaviour of the trustee (Janssen and Hamm, 2012; Kotler and Armstrong, 2018). Though this definition of the context of trust is similar to the definition of "safer and healthier", the overall definition, dimensions and components on which the context of trust is based are totally different to those of the context of "safer and healthier" (Amatulli, 2019 and Wang et al., 2021).

Werner and Alvensleben, (2011) and Singhal, (2017) found that few studies had examined the influence of food advertising content and found it had positive impacts on product knowledge, attitude, subjective norms, perceived behavioural control. Instead, it was found that most previous studies had focus on the influence of food advertising content found that positive messaging had impacts on product knowledge and attitude toward intention to purchase organic food (Mhlophe, 2014; Singhal, 2017).

Research has shown that food advertising content is the complete communication of product information, which comprises influence on the intention to purchase, persuasion and providing in the "safer and healthier" context (Gifford & Bernard, 2004; Cucchiara et al., 2014). Food advertising content which has been created within the the safer and healthier" context consists of emotional appeal, informativeness and advertising creativity (Hsu & Chen, 2014; Chang & Wu, 2015). Food advertising content communicates the positive attributes of organic food products to show that organic food does not have any artificial colouring or food additives added during processing (Hsu and Chang and Lin, 2016; Heeres et al., 2013). The past literature (Gifford and Bernard, 2011; Cucchiara et al., 2014) has suggested that food advertising content had an impact on product knowledge and intention to purchase organic food. Food advertising content relates to a pattern of careful and rational thinking.

In contrast, food advertising content (emotional appeal, informativeness and advertising creativity) relates to consumers' comprehension of changing health status and the degree of focus on health requirements (Hsu and Chang and Lin, 2016; Chandra and Cassandra, 2019). In the same way, food advertising content (emotional appeal, informativeness and advertising creativity) is one of the most crucial factors that consumers take into account while they are choosing their food (Lee and Yun, 2015; Singhal (2017). One can conclude that the key differences between emotional appeal, informativeness and advertising creativity lies in the fact that previous organic development was made on the

basis of necessity, while the next stage of development will be made on the basis the of the organic food quality increasing the level of product knowledge (Chekima et al., 2017; Abu Bakar et al., 2021).

The past literature (Lee and Yun, 2015; Hsu et al.,2016) has suggested that necessity, organic food quality category and consumers' emotional/experiential factors are some of the components used in the building of the food advertising content (emotional appeal, informativeness and advertising creativity) (Hsu and Chen, 2014; Chang and Wu, 2015). The dimension of food advertising content, which is comprised by the product knowledge that is generated from emotional appeal, informativeness and advertising creativity, can be explained as a result of the three types of food advertising content (Huber, et al., 2011; Terres and Santos, 2013; Abu Bakar et al., 2021).

Food advertising content can persuade consumer to have an intention to buy organic food. Food advertising content in the "safer and healthier" context consists of three components for its pure comprehension. i.e. emotional appeal, informativeness and advertising creativity. Ignoring any of them might create create problems and may make food advertising content unable to stimulate consumers' intention to purchase organic food. Also, Suh et al. (2012) and Choi et al., (2018) noted that emotional appeal, informativeness and advertising creativity were essential factors regarding intention to purchase organic food. They further explained that if the context of emotional appeal, informativeness and advertising creativity were removed from the food advertising content, the result would be the loss of consumers' beliefs in organic food (Hsu et al., 2016; Jati and Wahyono, 2017). Although all components are important factors, the significance of natural content increases when it is studied in the "safer and healthier context. Food advertising content in the "safer and healthier context. has been studied very little. The high levels of persuasion required for food advertising content mean that it needs to be developed urgently (Terres et al., 2015; Hsu et al., 2016).

On the other hand, regardless of the food advertising content that focuses on food safety and health concerns, firms frequently use food advertising content to communicate only food safety with regard to intention to purchase organic food. There may be several reasons for this, including a good "response" to such food advertising content, leading to product knowledge and intention to purchase organic food; the popularity of the TPB; and the consumer attitude described above, which tends to lean towards an intention to purchase organic food and purchase behaviour. Product knowledge becomes important when individuals discover or identify a relationship with the TPB (Paul et al., 2016; Han

et al., 2010). Raising product knowledge towards the TPB may lead to increasing purchase intention and generate an unbiased predictor of action (Chen, 2007; Paul and Rana, 2012; Singh and Verma, 2017). There is evidence that studies have examined the influence of food advertising content and found that it had positive impacts on product knowledge, attitude, subjective norms, and perceived behavioural control. However, most previous studies have focused on the influence of positive framing, suggesting that food advertising content with the TBP can stimulate intention to purchase organic food by increasing product knowledge (Dean et al., 2012; Han et al., 2010; Singh and Verma, 2017).

In India, there are more than 25 specialised organic retailers such as I Say Organic, Joybynature and Organic Shop, which sell organic food. These companies have used a food advertising content, "naturally healthy food", on organic food product labels. The sales of these companies have increased by 30 per cent to 40 per cent each year (Mathur, 2015; Jiumpanyarach, 2018). Howeve, the market share of organic food in Thailand remains comparatively small. According to Green Net Cooperative, a Thai non-profit group, sales of Thai organic food products rose very slightly from 2014 to 2016 (Economic Intelligence Center 2017). Thai consumers know less about the benefits of organic food as most Thai organic food producers do not promote or market such benefits (Kongsom 2016). Also, it has been found that organic food products are more expensive than general food products (Petty 2015). Hoogland et al., (2007) and Pattweekongkaa and Napompechb and Chaiyasoonthorn (2019) discovered failed to understand the standards with regard to organic labels. Few studies have presented the multiple causes that keep the market share of organic food in Thailand comparatively small. Empirical studies have shown that responses to food advertising content are influenced by age (Irandoust, 2016; Wang et al., 2021), and gender (Shafiea and Rennieb, 2012; Bakar, 2021) and that product knowledge (Kongsom 2016) in response to food advertising content can directly or indirectly influence purchasing intentions (Urwin & Venter, 2014; Stanton and Cook, 2019). Purchasing intention is also influenced by the Theory of Planned Behaviour (Ortega-S, 2011). The findings of empirical studies suggest that food advertising content stimulates intention to purchase organic food. (Hsu and Chen, 2014; Wang et al., 2019). Therefore, this research will examines the influence of food advertising content (emotional appeal, informativeness and advertising creativity) by way of attitude, subjective norm and perceived behavioural control. Other relevant factors are specified that might influence the proposed strategy are specified. One proposed factor is demographic variables (age and gender), which are the moderating variables. By combining these moderating variables with the original factor of consumer buying intention in response to food advertising content, such a frame could be beneficial for the understanding of organic food purchase behaviour in Thailand (Terres et al., 2015; Hsu et al., 2016; Wang et al., 2019).

#### 1.3. Research aims and objectives

This research has the following objectives:

The aim of this research is to examine the impacts of food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods in Thailand, based on the Theory of planned behavior (TPB). Also, this research aims to investigates the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

#### 1.4. Research questions

- 1. Would the food advertising content (emotional appeal, informativeness and advertising creativity) increase product knowledge of organic food products?
- 2. Is product knowledge positively related to the TPB (attitude, subjective norms, and perceived behavioural control)?
- 3. Do attitude, subjective norms, and perceived behavioural control have a positive impact on the intention to purchase?
- 4. Would intention to purchase have a positive impact on actual purchase behaviour?
- 5. Does gender positively moderate the relationships between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge?

#### 1.5. Hypotheses

- H1: The emotional appeals will strengthen product knowledge.
- H2: Informativeness will strengthen product knowledge.
- H3: Advertising creativity will strengthen product knowledge.
- H4: Product knowledge will strengthen attitude.
- H5: Product knowledge will strengthen subjective norm.
- H6: Product knowledge will strengthen perceived behavioral control.
- H7: Attitude will strengthen intention to purchase.
- H8: Subjective norm will strengthen intention to purchase.
- H9: Perceived behavioral control will strengthen intention to purchase.
- H10: Intention to purchase will strengthen actual Purchase Behavior.
- H11: Gender will moderate the relationship between emotional appeals and product knowledge
- H12: Gender will moderate the relationship between informativeness and product knowledge
- H13: Gender will moderate the relationship between advertising creativity and product knowledge.

# 1.6. Why was it so important to conduct this study in Thailand?

Thailand was used for this study because Thailand was the first country in Southeast Asia to start organic farming. Thailand has experienced plenty of food crises such as the foodborne illness crisis in 2003, when Thai people had difficulty buying organic food because organic agriculture in Thailand was at an early stage (Sitthisuntikul, 2018; Rattannasuteerakul, and Thapa, 2012). After that crisis, Thailand promoted organic product projects such as "Food Safety Year" in 2004 to increase organic farmland (Fakged et al., 2016; Jiumpanyarach, 2018).

Thailand has been increasing both organic food products and organic farmland areas continually. In 2015, there were approximately 2.7 million hectares of organic production areas in all plantations (Kongsom and Kongsom, 2016). Between 2004 and 2013, Thailand's organic production increased by an average 39.9 % per year. It was predicted that Thailand would have the largest area of organic food production in Southeast Asia

by 2022 (Mingchai and Yossuck, 2008; Rattannasuteerakul, 2012; Sangkumchalianga, 2012; Pattweekongkaa and Napompechb and Chaiyasoonthorn, 2019).

Also, Thailand is well known for its agricultural producers and the fact that it exports the highest number of organic food products in Southeast Asia. Because Thailand is a leader in producing agricultural, which maske up more than a sixth of the country's exports, Thailand is a major exporter of food, with strong national brand. This excellent position can assist the producers and exporters of organic food (Kongsom 2016; Aungatichart, 2020). Thailand's Ministry of Commerce has also implemented a mission to promote organic food produce, in both international and domestic markets by developing networks for partners, traders and partnerships. The ministry educates relevant entrepreneurs using an operational database called Commerce Intelligence of MOC (CIM). The ministry has extended global and domestic markets for organic food products and produce plus has developed a pilot model for the organic business community (Sangkumchalianga, 2012; Minami et al., 2010; Sriyakul and Sutduean and Sirivanh, 2020).

The Thai government has attempted to reinforce regulations in the domestic market and has recommend a voluntary standard for increased food safety assurance procedures and associated food safety labelling in the market (Fakged et al., 2016; Siripipatthanakul et al., 2022). This is due to increasing awareness of the severity of domestic issues, including increasing pressure from international trading partners to conform to the international standards. It has made the Thai government meet the demands of consumers and enhance the level of food safety assurance provided by the market (Dholvitayakhuna et al., 2013; Cavite and Mankeb and Suwanmaneepong, 2022). Organic food has become a major topic of interest in Thailand (Burusnukul 2011; Duangekanong, 2020).

Thailand uses an organic food label or certification logo that is shown on Thai organic food products to assist individuals in recognizing organic product with a higher level of safety assurance. Thailand could create a strong national organic food brand to increase Thai organic food exports to regions of Southeast Asia and other regions around the world. (Kastner, 2016; Tangnatthanakrit, 2021). This quality and safety certification logo is provided for agricultural products and food products that are in conformity with standards determined under the National Bureau of Agricultural Commodity and Food Standards (Hindol, 2012). Regarding organic certification and standards, the Thai government has issued only one label, "Organic Thailand". This label was first issued by the Department of Agriculture (DOA), when the Thai government determined the

standards of organic plant production in 2000 and created a certification body for organic food products. The major certification body which provides accreditation to Thai organic food products is IFOAM, through the "Organic Agriculture Certification Thailand" organisation (Gerrard et al., 2013; Cavite and Mankeb and Kerdsriserm, 2021; Tangnatthanakrit, 2021). Therefore, this participation in the organic agricultural process by using international associations, such as IFOAM proved the existing cooperation and coordination between the Thai government and international associations. Also, Thailand is in compliance with ISO standards, giving the country worldwide standards compliance through its cooperation with IFOAM.

Therefore, it was very important to do this study in Thailand because of the multiple studies discovered in the literature that explained organic food consumption behaviour. Most of these studies emphasized the increasing demand in developed countries for organic products (Thapa and Rattanasuteerakul, 2011; Jiumpanyarach, 2018). However, the information presented through the literature produced on Thailand indicated the importance of increasing local demand for organic products. The question posed by Kongsom and Kongsom, 2016 was "What are the factors that have motivated consumers' intention to buy organic food products in Thailand?". Although Thailand has established a policy to promote the consumption of organic food in terms of the impact on the environment and the economy, the result of this policy has not been very impressive at all (Fakged et al., 2016; Siripipatthankul et al., 2022). Thailand has lacked empirical studies that specifically examine the relationship between Thai consumers and organic food products (Sitthisuntikul, 2018; Cavite and Mankeb and Suwanmaneepong, 2022).

It was important to undertake this study in Thailand because the goal of the study was to identify the factors that increase the consumption of organic food among Thai consumers. Factors, such as attitude, subjective norm, and perceived behavioural control from the Theory of Planned Behaviour; gender and product knowledge, emotional appeal, informativeness and advertising creativity were selected for examination. This study will also make an important contribution that promotes the consumption of organic food in Thailand and other developing countries such as Vietnam.

Both Thailand and Vietnam are Southeast Asian countries and have very similar economic systems. The Vietnam government's initiative to implement organic farming has had a very low take-up. Less than 100,000 hectares of farmland have been designated for organic production (Writes, 2019; Hengboriboon et al., 2022). However, Vietnam is moving forward with organic food and has already exported large quantities of it. At

present, the Ministry of Industry and Trade of Vietnam wants to increase the sale of organic food in the domestic market (SCB Economic Intelligence Center 2017; Siripipatthankul et al., 2022). In 2017, the Vietnam government launched a policy indicating that organic food is safer than conventional food to increase the demand for organic food. The Vietnam government requires retail shops to label their organic foods as "clean"; however, the policy has not increased the demand for organic food among Vietnamese consumers (Organiccity, 2019; Siriphap et al., 2022).

The findings of the study will help Thailand and Vietnam develop food advertising content to promote Thai and Vietnamese organic food. The study will detail Thai and Vietnamese consumers' basic motivations for purchasing organic food products. The findings will also show how Thai and Vietnamese consumers' knowledge of the organic food impacts how each dimension of food advertising content leads to intentions to purchase organic food products.

This research will also confirm how Thai and Vietnamese consumers' knowledge is impacted differently by the influence of the advertising content of organic food. Therefore, the theory of planned behaviour (TPB) contributes to predicting the purchase intentions and purchase behaviour of Thai and Vietnamese consumers regarding organic food products. Thailand and Vietnam can then choose the most effective strategies for the target consumer groups. Both Thailand and Vietnam will be able to create food advertising content that increases the organic food purchasing intentions."

#### 1.7. Why is this study beneficial to Thailand?

This study wants to focus on exploring the food advertising content that impacts the intention to purchase organic food products in Thailand. In addition, gender is used as the moderation factor. The findings will show evidence of factors influencing consumers' intention to purchase organic food, which will expand the evidence for Thai consumers and will provide beneficial information to stakeholders in Thailand (Wang et al., 2019; Kessaratikoon et al., 2022).

The findings of this research will help increase the market share of organic food products in Thailand. The findings will also increase the purchasing frequency of the 'organic food buyers' and encourage 'non-organic buyers' to try consuming organic food products in Thailand (Xie et al., 2015; Uthai and Boonrahong, 2023). Food advertising content can increase the buying frequency of those who are aware of organic food products and

buying organic food products for health and safety reasons can be accomplished by using the food advertising content within the context of safer and healthier food (Roitner-Schobesberger et al., 2008; Srisathan et al., 2023). Food advertising content can increase the level of product knowledge and impact the intention to purchase organic food because the advertising content explains that organic food is healthier than ordinary food. Also, the findings of this research can impact intention to purchase organic food and expand sales in Thailand because the findings can help Thailand increase the size of the local demand market.

In the same way, the findings of this research can increase product knowledge of organic food products. When the product knowledge of organic food product is increased, consumers will increasingly purchase organic food products. Food advertising content relates to emotional appeal, informativeness and advertising creativity, which provide beneficial information about organic food products to consumers. Providing the consumers with information about the benefits of organic food products and the difference between organic food products and ordinary food can encourage consumers to buy more organic food products. It leads to Thailand increasing the size of the local market (Kongsom, 2016; Parashar and Singh and Sood, 2023).

According to the findings of previous research, consumers exposed to food advertising content that relates to emotional appeal, informativeness and advertising creativity are increasingly aware of organic food benefits. When consumer awareness is increased by these messages, consumers developed the intention to purchase organic food products (Cavite and Mankeb and Suwanmaneepong, 2022; Ramadania and Putri, 2018). In Hong Kong, there are more than 10 specialised organic retailers such as "Just Green Organic Convenience Store", "Green Dot Dot" and "Organic Plus" which sell organic food. These organic retailers have used a food advertising content, "Naturally food" or "all naturals", on organic food product labels increasing the sales of these companies each year. Consumers are increasingly aware that organic food is safer and healthier than conventional food due to their exposure to food advertising content (Mathur, 2015). In the same way, the findings of previous research have identified that food advertising content relates to emotional appeal, informativeness and advertising creativity, which can build awareness of organic food products (Phuah et al., 2011; Paul and Rana, 2012; Ramadania and Putri, 2018).

The findings of this research will help Thailand create food advertising content that increasingly persuades consumers to purchase organic food products increasingly. If

Thailand uses food advertising content within the context of safer and healthier food, Thailand will create advertising messages that increasingly develop consumers' intention to purchase organic food products. Food advertising content emphasizes the promise of personal benefits (e.g. safer and healthier food) to create consumers' beliefs and give credence to organic food products. Lee, 2015; Saxena et al., 2023) have suggested that effective use of food advertising content relates to use of emotional appeal, informativeness and advertising creativity to promote organic food product. This method shows that organic food products are safer and healthier than non-organic food products, which could be harmful to health. This leads to an increase in consumers' organic food purchase intentions once the consumers have been exposed to the food advertising content.

Cucchiara et al., (2014) and Laut et al., (2023) support the promotion of the superiority of organic food in food advertising content rather than using a negatively framed message to persuade consumers to purchase organic food. Gerrard et al., (2013) and Jitrawang and Krairit, (2019) found that food advertising content which provides the health benefits of organic food consumption could be more persuasive in terms of increasing the purchase intent of consumers than exposing consumers to negative massage framing. Similarly, consumers with a low level of involvement in the buying decisions on organic food products tend to be more persuaded by food advertising content (Gamliel, 2013; Panpluem et al., 2019).

The findings of this research will encourage the organic food producers of Thailand to understand consumer's food choice behaviour. Thailand will be able to predict consumers' intentions to purchase organic food product because this research uses the Theory of Planned Behaviour (TPB).

The Planned Behavior Theory (TPB) predicts behavior by evaluating the intention to carry out a specified behaviour (Ajzen, 1991). The TPB has been used in a variety of contexts, including organic food products (Pomsanam, 2014; Brumă, 2020). The TPB explains the intentions of consumers in the food retail market. The wide applicability of the TPB enables it to be an important model for understanding the needs of consumers in the food industry (Kim and Jang and Kim, 2014; Alalwan, 2018). The TPB can predict a wide variety of behaviors and intentions that are under control and appropriate to use for most people. The TPB can be used to investigate a variety of social behaviours in each person's decision-making process, including those related to organic food consumption, food advertising content and intention to purchase organic food.

Therefore, the use of food advertising content has been regarded as an important strategy that can increase the market share of organic food products in Thailand and other developing countries such as Vietnam. Vietnam is a country in Southeast Asia and has an economy that is very similar to that of Thailand (SCB Economic Intelligence Center 2017; Jiumpanyarach, 2018).

Although both Thailand and Vietnam have exported many organic food products to the United States and EU, the market share of organic food products in Thailand and Vietnam remains comparatively small (Burusnukul 2011; Kongsom 2016). The sales of the Thai and Vietnamese organic food products have increased slowly although recent research shows that Vietnamese consumers are concerned about the safety of the food they consume (Economic Intelligence Center 2017; Aungatichart, 2020). In spite of these concerns, many Vietnamese consumers are slow to accept safe and organic food products on a broad scale.

Both the Thai and Vietnamese governments are attempting to increase the knowledge of organic food products among consumers. The Thai government has issued only one label, which is "Organic Thailand" (Sitthisuntikul, 2018). Similarly, the Vietnamese government has supported the production, establishment of a labeling and the certification system. The Vietnamese government has issued an organic label, which is "ORGANIC VEGETABLES" (Rikolto International s.o.n. 2016; Commerce Intelligence of MOC 2015).

These labels do not present a food advertising content that provides information on the health benefits of organic food that in turn increases consumer understanding of organic food. When consumers are exposed to these labels, these labels do not stimulate or increase intent to purchase organic food products.

Rattannasuteerakul and Thapa, (2012) and Sitthisuntikul, (2018) found that consumers failed to understand the standards regarding organic labels (Lee and Yun, 2015; Wang et al., 2021), causing a large gap between consumer knowledge about the perceived meaning of the message on organic labels and the intended meaning of the message on organic labels (Fakged et al., 2016; Akbar et al., 2019).

This is because the organic food product labels of Thailand and Vietnam have not used a food advertising content that provides the benefits of organic food products. This has led to a lack of understanding and knowledge about the benefits of organic food products among both Thai and Vietnamese consumers. Both Thai and Vietnamese consumers have

gained very little knowledge about organic food attributes because they are not identified through the labelling of organic food products. Both Thailand and Vietnam cannot increase the level of consumer knowledge about organic food products, leading to no consumer motivation to purchase organic food products.

Therefore, the findings of this research can provide a better comprehension of the positive message framing that can increase the level of consumer knowledge and intention to purchase organic food products, as well as appropriate marketing strategies that can lead towards the development of the domestic organic food market in Thailand and Vietnam. The findings of this research can explain the Thai and Vietnamese consumers' organic food choice behaviour.

#### 1.8. Strengthening the context (Thailand)

In spite of its strides towards industrialization, Thailand remains primarily an agriculture-oriented country. The agricultural sector plays a critical role in the economy of Thailand both as an employer and as a supplier of inputs to important industrial sectors. The first phase of industrial development in Thailand began in 1939, driven by the goal of replacing imports and domestic consumption. Since the 1940s, the industrial structure of Thailand has undergone important changes and has become mainly export-oriented. Food production for export began in the 1970s. The agricultural industry started with the production of sweetened condensed milk, canned vegetables and fruits and vegetable oils. Thailand added shrimp farming and processing in the 1980s (Setthasakko, 2011; Sitthisuntikul, K, 2018; Fakged et al., 2016; Cavite and Mankeb and Suwanmaneepong, 2022).

Thailand has used a policy of promoting organic agriculture since the late 1960s by taking into account the economic and environmental benefits (Sangkumchalianga and Huang, 2012; Siripipatthanakul et al., 2022). The Government of Thailand also designated 2004 as "Food Safety Year" in order to increase the knowledge of organic food products among consumers (Rattannasuteerakul and Thapa, 2012; Parashar and Singh and Sood, 2023). The sales of Thai organic food products have increased slowly although recent research shows that Thai consumers are concerned about the safety of the food they consume (Economic Intelligence Center 2017; Hengboriboon et al., 2022).

Therefore, results from this study can strengthen the context (Thailand) because this study will provide valuable information about consumers. The findings of this study will

be used to obtain recommendations both at the policy level, such as measures to promote knowledge about organic food products, and at industry level, such as strategies to increase the market share of organic food products in Thailand (Xie et al., 2015; Siripipatthanakul et al., 2022).

In the past 10 years, the organic policy of Thailand has been greatly engaged, resulting in diversity of transformation activities. There are organic product standards and regulations in step by step use as well as the National Organic Product Standard and The Rule on Implementation of Organic Products Certification (Fakged et al., 2016; Voon and Ngui and Anand, 2011).

In contrast, in the Thai government policy to promote organic food products. it seem there has been no desire to decrease the confusing multitude of "Organic Thailand" labels. It has led to Thai consumers not wanting to buy organic food because they do not understand its benefits (Hair et al., 2014; Siriphap et al., 2022). On the basis of strengthening the promotion program of organic food products, food advertising content ought to be used to promote organic food products to overcome market failures caused by data asymmetry. Food advertising content should be created to promote a correct understanding of organic food products as well as organic food production (Setthasakko, 2011; Kessaratikoon et al., 2022).

When consumers are exposed to food advertising content communicating the benefits of organic food, the consumers are made aware that organic food products are safer and healthier than ordinary food (Asif et al., 2018; Uthai and Boonrahong, 2023). This leads to consumers' increasing intent to purchase organic food products. If Thailand launches the policy that uses food advertising content to promote Thai organic food products, Thailand will increase consumers' knowledge of organic food products. Such policy might be the most effective way to increase the organic food market share in Thailand (Smith and Paladino, 2010; Saxena et al., 2023).

Yadav and Pathak, (2016) and Siriphap et al., (2022) found that health concerns, food safety knowledge and healthy food knowledge are regarded as three of the strongest impacts on intention to purchase organic food products among consumers. Food advertising content relates to emotional appeal, informativeness and advertising creativity, which increase consumer awareness of organic food products. Positive message framing might positively impact attitude and intention to purchase organic food products.

Therefore, the findings of this study have significant implications that might strengthen the context (Thailand) in terms of developing an appropriate policy that increases the consumer's intention to purchase organic food products. Based on the findings, this study suggests that Thailand should launch a policy that uses food advertising content to provide information on the benefic of organic food to the consumers.

The findings of this study can strengthen the context (Thailand) as Thailand can identify customer groups who intend to purchase organic food products. Thailand will also be able to understands the customer behavior of those who want to purchase organic food products. Consumer confusion about the status of organic food products can be reduced after Thailand uses food advertising content to promote organic food products. Afer the consumer confusion has been reduced, Thailand should be able to increase the level of product knowledge toward intention to purchase organic food products.

Although the context of positive message framing might not be expected in collective societies like Thailand, the context of food advertising content contributes to new academic literature that relates to the context of Thailand. This study can indicate the relationship between food advertising content, consumer awareness and intention to purchase organic food in Thailand. The Thai government will understand the influence of positive message framing that impacts product knowledge, leading to intention to purchase organic food products.

Finally, the study will contribute to an increase in new academic literature or the new knowledge on applicability of food advertising content, particularly in terms of the marketing aspect accompanying the emphasis on the purchasing intention of consumers concerning organic food products. Also, the research will support modern literature from the perspective of theory and give attention to the limited knowledge of food advertising content in the context of organic food based on the Theory of Planned Behaviour (TPB). Therefore, the study will help the Thai government learn about the target consumers of Thai organic food by identifying the moderated impacts of the demographic factor and prior knowledge on the intention to purchase organic food among Thai consumers. This study strengthens Thai government will know the most prominent factor predicting intention to purchase organic food. Also, the Thai government will be able to increase the market share of organic food products in Thailand.

# 1.9 PESTEL / PESTLE analysis of Thailand – Organic foods

#### 1.9.1 Political factors

There is a lot of political pressure on the food industry as Thai government stability has increased the levels of economic activity in Thailand and the government has promulgated different regulations to regulate business activities (You et, al., 2020).

The Thai government's policy is to increase the consumption of organic food. The government wants to change consumers' food consumption preferences. Therefore, the government must create awareness in the population regarding this changing trend as it would like to make its population healthy and make policies for the agriculture sector (Yanakittkul and Aungvaravong, 2020; Cavite and Mankeb and Suwanmaneepong, 2022). The Thai government has a sense of a health policy in Thailand. This policy can encourage the agriculture sector to grow healthy food products for its people. It can create comparatively simple and convenient legislation to raise the levels of production in Thailand (Yanakittkul and Aungvaravong, 2020). The organic food industry is highly influenced by the policies of the Thai government; moreover, its business trends can be altered (Pongquan, 2017). The Thai government has promoted organic food products and also enacted some legislation to make its work easy (Siripipatthanakul et al., 2022). Political influence can generate free trade agreements, which can be an advantage to a company. They make it possible to expand business operations because of the opportunities that come by way of free trade agreements (Ahmed and Tefera & Kassie, 2020). The Thai organic food industry must face legislation like all other industries where free trade agreements can provide opportunities to expand business operations (Sriwaranun et al., 2015).

The Thai government plays an important role in influencing business operations in the market or industry (Sriwaranun et, al., 2015). For instance, the Thai government is eager to establish regulations for organic and GMO food products. In regard to this matter, a retailer has the chance to develop its standards to ensure that all organic and non-GMO products are properly labelled in an attempt to protect consumer rights. (Loureiro and Hine, 2002).

There is a lot of pressure on the government to provide policies for companies and also attempt to implement the policies effectively. The company can solve the problems raised by the government to ensure its market success (Thuannade and Noosuwan, 2023).

#### 1.9.2 Economical factors

Economic factors, situations and incidents can influence the growth of any industry; moreover, they also impact the retail food industry because of many reasons such as interest rates, disposable income, consumer spending, inflation, taxation, monetary issues, unemployment, and recent economic recessions in various countries (Thuannade and Noosuwan, 2023). In Thailand, several distinct channels are used by the organic food industry for the sale for their organic foods, which are supermarkets, mail order, direct sale and specialized shops, for example, Lemon Farm, which exists in the form of an organic shop or retail store. The Lemon Farm organic wholefood food retailer has around 19 retail stores and was established in 1999 (Doherty & Kittipanya-Ngam, 2021; Kamondetdacha & Janhom, 2022). Lemon Farm also sells organic products via their website (<a href="https://www.lemonfarm.com/th/faq/lemon-farm-online-service/">https://www.lemonfarm.com/th/faq/lemon-farm-online-service/</a>). Lemon Farm Online can help the retailer grow its business; moreover, it can play a significant role in increasing customer demand (Lemon Farm, 2023).

There has been a consistent change in the economy of Thailand as the Thai economy has remained resilient and stable. It has led to organic food retailers being able to increase the sales of their organic foods and expand business rapidly (Biswas, 2023: Sriring and Thaichareon, 2022). The Thai government needs to increase wages and generate rules for the betterment of their working class employees, which the organic food retailers need to comply with. After the labor cost of labour is increased, the supply cost and the selling prices of the organic foods will also be increased (Yuvejwattana, 2022; The Nation, 2022).

Changes in the Thailand's economy has a direct influence on the organic foods market. After the 1997 Asian financial crisis, economic stability was enjoyed in Thailand. An expanding economy caused companies to hire more people; therefore, decreasing the level of unemployment in Thailand (Durongkaveroj, 2022).

However, on 24 February 2022, Russia invaded Ukraine. The invasion of Ukraine by Reussia has resulted in a sharp increase of the cost of living in many parts of the world. In Thailand this is evidently inflation driven (The Friedrich-Ebert-Stiftung (FES), 2022). Since February 2022, the cost of living for ordinary citizens everywhere has increased sharply. Inflation driven by skyrocketing food and energy prices, has increased sharply in Thailand. This trend is reflected in Thailand's economic downturn. Information from the Ministry of Commerce, provided by Dr Kiriya Kulkolkarn, from the Faculty of Economics at Thammasat University, showed that inflation had remained stable, between 1 and 3 per cent, in the decade prior to the Russian invasion. However, by February

2022, the rate had risen to 5 per cent, and by August, it had risen to 7.9 per cent (Chongkittavorn, 2022; Leingchan, 2022)

This has impacted labors in both concrete and measurable terms. Thai people have less purchasing power. Many people have had to take on debt; moreover, they often owe money to creditors who charge exorbitant interest rates. People work harder and longer hours; however, they have less money to pay for basic meals which leads to malnutrition, particularly among children. Some parents may have to take their children out of school due to the fact can no longer afford tuition (Phakdeetham, 2022; Storey, 2022).

#### 1.9.3 Social Factors

Society has an influence on the dietary habits of Thai people and local food trends. In addition, this influence differs from province to province (Thuannadee and Noosuwan, 2023). Thai consumers have attitudes towards organic foods that are complex; moreover, they link organic foods with their identity, consciousness, environment and ethics regarding food. Thai people regard organic foods as healthier and better for their health (Thuannadee and Noosuwan, 2023; Ryan and Casidy, 2018). Despite some social and behavioural issues among the young generation of Thailand, the trend of using organic food products is becoming increasingly popular with those from that generation (Prathansong and Kananurak, 2023).

Wongmonta, (2022) suggested that individuals had a new mindset with regard to healthy lifestyle. In addition, they are turning to good food products, that can provide good health and meet their food requirements (Tiengladdawong and La-Ornual, 2022). There is growing cultural diversity and organic food brands must take note of it. Organic food brands need to offer a variety of products to meet the cultural diversity of its consumers (Aungatichart and Fukushige and Aryupong, 2020; Gonzalvo et, al., 2020). In addition, they need to reach the middle class, so that organic food brands can maximize sales and become popular whit the maximum number of consumers (Siripipatthanakul et, al., 2022).

The changing lifestyles of Thai consumers are regarded as a factor which organic food brands have to address adequately (Mitprasat and Horakul and Umam, 2020). Firstly, Thai consumers have become more sensitive to healthier organic food product of better quality, so this can be an opportunity for the organic food market to cater to the healthy lifestyle trend (Ngoc and Buavaraporn, 2019). Secondly, because of the cultural diversity

of Thailand, offering a diversified mix of food items can be beneficial to a food company. Thirdly, there is a growing wealth gap; this tends to impact the middle-class consumers who are the main target of organic food market (Mie et, al., 2017).

#### 1.9.4 Technological Factors

Technology is applied to gain the competitive advantage over rival brands. A Thai organic food company must face a number of different technological issues from the production of the organic food products to the packing and delivery to consumers. The majority of companies have started taking online orders of organic food products; moreover, they also supply products to the doorstep of their customers (Kitcharoen, 2018; Malewar and Koner and Gupta, 2023). There are many stores in Thailand which are selling organic food products online, such as Happy Farmers, Lemon Farm, Patom Organic Living, SunShine Market, OrgBox Thailand and others (Scott, 2020; OrgBox Thailand. 2023; Lemon Farm, 2023; Happy Farmers, 2023; Patom Organic Living, 2023; Sunshine Market. 2023). In addition, they provide their catalogue to their customers at their home as well as contact numbers email addresses, which increase the sales of organic food products (Kitcharoen, 2018; Pandey and Srivastava, 2016; Malewar and Koner and Gupta, 2023).

Thai organic food companies have used automation technologies to increase the sales of their organic food products. In addition, they have had to comply with regulations on genetically modified organisms (GMOs), which threaten the supply of organic food products in the market; however, they have needed to use specific strategies to decrease dependency on products that contain GMOs (Sriwaranun et al., 2015; Chu, 2018).

Due to the advancement of technology in the food industry, there is a growing demand for Thai organic food companies (including those serving Whole Foods Market) to automate their businesses (Surgenor et al., 2017; Jurado et al., 2019). By doing so, the efficiency of the businesses will increase. In the same regard, the majority of Thai organic food companies (such as OrgBox Thailand, HappyFarmers, and Lemon Farm) have used simple technologies, such as online services which allow consumers to use mobile technology while making purchases (Pham, Shancer and Nelson, 2019; Gil, Kalixto and Quintero, 2018; OrgBox Thailand, 2023). This can help Thai organic food companies to be on par with other organic food companies which are using e-commerce practices to get insights into the organic food market (Punwaree et al., 2021).

The majority of Thai organic food companies have used social media, such as Facebook, Instagram, Twitter, LINE, and TikTok to promote and sell their organic food products. Thus, consumers can purchase organic food products anytime and from anywhere. It has led to Thai organic food companies being able to increase organic food sales (Malewar, Koner and Gupta, 2023; Lee et al., 2023). Mozas et al. (2016) and Jurado et al. (2019) previously suggested that social media could play a very important role for organic operators and help them to create clear competitive advantages. The reasons why social media platforms can provide assistance in this way include their ability to generate trust among consumers (Gil and Kalixto and Quintero, 2018; Deng and Slutskiy & Boonchutima, 2023), the interaction between users and corporate accounts on these platforms and the efficiency with which these accounts are operated. Because Facebook, Instagram, Twitter, LINE and TikTok enable users to keep in touch continually with Thai organic food companies, consumers know more about the benefits of organic food products (Pham and Shancer and Nelson, 2019; Punwaree et al., 2021).

#### 1.9.5 Environmental Factors

An examination of a Thai organic company's ecological strategy proves that its their organic food products have already been purified, extracting diverse materials such as pharmaceuticals, chemical fertilizers, sewage sludge, synthetic pesticides, GMOs and synthetic preservatives (Punwaree et, al., 2021). However, Thai consumers still have serious concerns regarding organic food products such as those of pollution, food safety, and animal and human health and human (Chu, 2018; Scott, 2020). Because the various policies and regulations of the Thai government in this sector, organic food has becomes popular in Thailand (Kerdsriseam and Suwanmaneepong 2015). Because of global warming, farmers' production capacity is impacted; however, Thai organic food companies are performing will by managing food disposal and sustainability (Guney and Giraldo, 2020; Thuannadee and Noosuwan, 2023). It shows the importance of the food market responding to food supply chain challenges (Khanal, 2020).

Meeting ecological requirements is essential for food companies today. In the macro environment that Thai organic food companies operate, global warming is posing a significant amount of threats due the fact it interferes with the production side of the supply chain (Mollers and Bauml and Dufhues, 2022; Paopid and Tang and Leelawat, 2020). Moreover, there is also the major issue of waste disposal. Poor waste disposal can increase environmental pollution (Ditlevsen et, al., 2020; Washio and Ohashi and Saijo,

2019). Therefore, a company has to perform complex but efficient waste disposal measures to prevent such waste from polluting the environment by such waste (Pimoljinda and Hongwiset, 2023; Punwaree et, al., 2021). In addition, it is significant that organic food companies must focus on achieving business sustainability through environmental innovation to minimize ecological impacts (Jurado et, al., 2019).

#### 1.9.6 Legal Factors

Thai brand of organic foods have been complying with the legal requirements to do their business. They pay attention to company law, environmental law and investment regulations, and they abide by them due to the fact it is essential for them to comply with them rigidly (Sapbamrer and Hongsibsong and Kerdnoi, 2017; Hongsibsong and Sittitoon and Sapbamrer, 2017). Thai organic food brands have to inspect the imperative regulations for the production, processing and marketing of vegetable and livestock products, so that they can be shared with other brands of Thai organic products for compliance (Sapbamrer, 2018; Thetkathuek et, al., 2017).

Thai organic food companies need to pay attention to labor law, environmental protection law, and antitrust law so that they can ensure the safety of the labourers and the business (Pye and Chatuthai, 2022; Borras, 2020). In Thailand, labour laws are not sufficient; moreover, they cannot help to meet the needs of customers (Panyasing et, al., 2022; Kaeomuangmoon et, al., 2019). If these policies are followed by Thai organic food companies, then they will be able to improve the standards and image of their brands (Kongtip et, al., 2017; Laohaudomchoka et, al., 2021).

The legal concerns affecting organisational operations include inadequate employee laws, environmental protection laws in Thailand, and antitrust laws (Uthai and Boonrahong, 2023; Leggett, 2020). Although there are stringent environmental policies, it is necessary for each organic food company to apply them to its advantage to enhance its brand image (Mungkung, 2021; Plakantonaki, 2023). Organic food companies need to continually evaluate its suppliers in accordance with fair labour practices (Tiengladdawong and La-ornual, 2022; Tansuchat et, al., 2022). Lastly, antitrust laws restrict Thai organic food companies' ability to reduce growth through mergers and acquisitions although the organic foods market has applied acquisition as its main expansion strategy (Vervoort and Gupta, 2018; Kantamaturapoj, 2022).

# 1.10. Practical importance of food advertising content

During the past decade, consumers have been concerned about the quality of the food they consume due to food crises, such as the foot-and-mouth epidemic, mad cow disease and the dioxin scandal in Belgium (Miles and Frewer, 2001; Saxena et al., 2023). Recurring food safety events have increased the concerns of the consumer over food safety and quality (Liu and Pieniak and Verbeke, 2013; Jitrawang and Krairit, 2019). In addition, many researchers (Chryssohoidis and Krystallis, 2005; Mondelaers and Verbeke and Huylenbroeck, 2009; Siripipatthanakul et al., 2022) suggested that increasing environmental awareness along with the concern regarding safer foods caused individuals to question modern farming practices. This phenomenon has been reflected in the increasing demand for organic food and produce, which is regarded less damaging to the environment and healthier than traditionally grown foods (Mondelaers and Aertsens and Huylenbroeck, 2009; Williams & Hammit, 2001; Cavite and Mankeb and Suwanmaneepong, 2022). On the other hand, Fransen, Reinders, Bartels and Maassen (2010) and Kessaratikoon et al., (2022) discovered that food advertising content related emotional appeal, informativeness and advertising creativity to organic food. These aspects of food advertising content create more positive attitudes and greater intentions to purchase organic foods compared with food advertising content which relates emotional appeal, informativeness and advertising creativity to organic food labels. The food advertising content is a visual communication strategy that has been the focus of marketers to increase the intent of buying organic foods. The food advertising content on the organic food product label communicates product information, while the promotional elements appeal to the needs and values of the target audience and the unique attributes of organic food products (Bauer et al., 2013; Gerrard et al., 2013; Srisathan et al., 2023). For example, both Earth Natural Foods and Planet Organic are an organic food shops in the UK. These organic food shops present food advertising content that is shown on an organic food product label to communicate their organic food product information.

Singh and Verma (2015) and Suciu et al., (2019) and Stanton and Cook, (2019) found that the reason why consumer intent to purchase organic food was influential was because organic food products provided food advertising content related emotional appeal, informativeness and advertising creativity, and this content stated that organic food products were healthier than conventional food. Most consumers who give priority to health that are part of a social group which is different from other groups. This group wants to try new technology (Suciu et al., 2019). Food advertising content based on both

emotional appeal, informativeness and advertising creativity can influence product knowledge that organic food is healthier than typical food. This knowledge is constantly increasing in the Asia-Pacific region and in emerging economies such as India and China (Sheng et al., 2009; Stanton and Cook, 2019). Indian consumers most commonly consume organic food (Chakrabarti, 2010; Sun et al., 2017). In both western and eastern countries, consumers are aware the wider benefits of organic foods as healthy food after they are exposed to food advertising content based on emotional appeal, informativeness and advertising creativity (Frewer and Van Trijp, 2007; Haider and Ahmad and Ghani, 2019).

Food advertising content based on emotional appeal, informativeness and advertising creativity has had an influence on the rapid growth of the Thai and UK organic food product markets. According to the Global Organic Trade Guide, 2021, as set out in Table 1.1, Thai organic food companies posted a 6.2 per cent increase in sales in 2018, reaching THB 135.5 billion, while the total sales of Thai organic food products increased by 8.1 per cent in 2019, reaching THB 149.1 billion, and increased by 11.3 per cent in 2020, reaching a total sales value of THB 166.1 billion. Sales of organic products in Thailand increased by 12.7 per cent in 2021, reaching a total sales value of THB 186.3 billion, and increased by 14.4 per cent in 2022, reaching a total sales value of THB 210.8 billion (Organic City (OC), 2022; Export Connect, 2020; Research and Markets: The World's Largest Market Research Store, 2022).

The Food and Agriculture Organization of the United Nations (FAO). (2018) reported that Thailand's consumption of organic food is still very low, and the retail sales would only be 0. 24 dollars per capita in 2023. This is because consumers are not willing to pay for organic food products, which appears to result from the lack of awareness and information regarding the benefits of organic food products. (Lee, S. (2021) and The Food and Agriculture Organization of the United Nations (FAO). (2018)).

On the other hand, the World Bank. (2023) found that Thai people's consumption level of healthy foods and beverages had been on the increase although these products were generally more expensive than standard products. This means that Thai consumers would increasingly intend to purchase organic food products increasingly if they could get enough information about the benefits of such products (World Bank. (2023) and Uthai and Boonrahong, 2023). Educating consumers in Thailand can be quite difficult due to the wide array of competing "safe food" labels. Words used in these labels include "health food" "quality food", "safety food", "pesticide-free", "non-toxic food",

"hydroponic", "chemical-free", etc. These numerous and diverse labels can confuse consumers and may prevent them from choosing authentic "environmentally superior products" (Visetnoi and Nelles, 2023; World Bank. 2023).

In addition, Visetnoi and Nelles, (2023) and Lilavanichakul, A. (2020) found that many Thai consumers, including people who lived in urban areas, were not aware of the unique characteristics and benefits of organic food products. Therefore, those Thai consumers were unable to distinguish organic food products from ordinary food. As a result, farmers' incentives and efforts to convert farms to organic agriculture have decreased.

Table 1.1: Total Thai Organic food sales and Growth, 2018-2022

Category	2018	2019	2020	2021	2022
Organic food	135.5	149.1	166.1	186.3	210.8
(THB Billion)					
Growth(%)	6.2	8.1	11.3	12.7	14.4

Source: (OTA's), 2016; The Organic Trade Association's (OTA's). 2018; The Organic Trade Association's (OTA's), 2019

# 1.11 The concept of gender

One particular consumer characteristic (gender) is closely related to the impacts of food advertising content (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioural control, and product knowledge on purchase intention and actual purchase behaviour towards organic foods (Tariq et al., 2020; Zhang et al., 2018). Therefore, this research posits that this personal characteristic (gender) has an effect on purchase intention and actual purchase behaviour towards organic foods. Previous literature shows that personal characteristics, such as gender, have such an effect (Oroianet et al., 2017; Shin and Mattila, 2019; Zhang et al., 2018; Zhan et al., 2020; Sandell, 2019).

In that sense, the moderating role of gender affects the relationship between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge. Kapoor and Balaji and Jiang (2023) affirm that this personal characteristic (gender) positively moderates the relationship between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge toward organic foods (Chakraborty and Dash, 2023; Zhan et al., 2020).

Though some studies relate the importance of gender in regard to the food advertising contents, empirical evidence relating the the moderating role of gender with the

relationship between advertising contents and product knowledge remains scarce. This study focus on the root of the proposed gender difference. The definition of gender is "a psychological phenomenon, which refers to learned sex-related behaviors and attitudes of females and males" (Christanto and Sa and Cu, 2023; Su et al., 2022).

Feom the literature, it can be identified that although the term gender is used when referring to purely biological factors (nature), the term sex is applied when referring to cultural factors (Moshtaghian and Bolton and Rousta, 2023). Thus, gender differences are social constructions (Akter et al., 2023; Yeo et al., 2022). Females and males often have different attitudinal and behavioral orientations, partly from genetic makeup, but mainly because of socialization experiences (we discuss some of these experiences in the empirical study section). Therefore, Guiné et al., (2022) suggests that the gender of both parties in a relationship impacts the quality of the relationship and the way it is managed. In the same way, Shimul and Cheah and Khan, (2021) identified that women were able to evolve relationships more easily than males; moreover, they displayed higher levels of product knowledge and intention to purchase organic foods. Empirical evidence on how gender impacts individual behavior is contradictory (Carvalho et al., 2022; Lauterbach and Bantle, 2022). However, this study believes this line of research is worth following. This is due to the fact that gender is one of the most commonly used variables in the selection of a target population and market segmentation because of its simplicity and accessibility (Zhan et al., 2020).

The literature reflects inconsistent results of studies on gender differences in terms of the various relationships between the impacts of food advertising content and product knowledge in relation to the TPB. The results of most studies indicated that women knew more about the beneficial characteristics of organic foods than men after they had been exposed to food advertising content. This shows that food advertising content can lead to females buying more organic foods than males (Rojík et al., 2022; Nagler et al., 2022; Coleman et al., 2022; Burnatowska, Surma & Olszanecka-Glinianowicz, 2022); however, the result of the study of Wang et al. (2023) showed that there was no difference between genders in terms of the various relationships between the impacts of food advertising content and product knowledge in relation to the TPB.

From findings in the United Arab Emirates, it has been identified that men know more about the beneficial characteristics of organic foods than women after they are exposed to food advertising content. This shows that food advertising content can lead to men purchasing more organic foods than females. On the other hand, the results of research conducted in Indonesia yielded results which identified that differences in gender coul lead to different attitudes towards organic foods, females were more obsessed with health and environmental issues than males (Gu et al., 2023; Lauterbach and Bantle, 2022). The same results have been recorded in Turkey as well as in many other countries. The existence of children within a households is a crucial factor affecting the purchase of organic foods (Carvalho et al., 2022).

In accordance with previous studies (Liu and Feng and Hu, 2022), they suggested that women were more highly motivated than men to (1) process nutrition data and (2) make an attempt to choose healthy alternatives. This assumption has been confirmed by other previous research on food advertising contents. (e.g., Carvalho et al., 2022; Lauterbach and Bantle, 2022; Nagler et al., 2022). When food advertising contents is presented, the distinct levels of motivation to process nutrition data of organic foods are expected to differ between genders. Due to the fact that women are more concerned than men about their weight and physical appearance, females are expected to be more motivated to consider health-related aspects than males, who may be inclined to follow primordial taste preferences for items higher in fat, salt and sugar (Yeo et al., 2022).

Thus, in addition to the impacts of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB), gender is also expected to moderate the relationship between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge in this study.

# 1.12. Research gaps

The gaps in the literature show the necessity of studying food advertising content based on both emotional appeal, informativeness and advertising creativity (Chen, 2007; Chen and Lobo and Rajendran, 2014; Lee and Yun, 2015; Xue, 2015; Suciu et al., 2019).

Because of the initial objectives, the researcher in this study investigated the influence of food advertising content on these constructs. Previous researchers have frequently investigated the impact of a similar construct, i.e. the influence of food advertising content (emotional appeal, informativeness and advertising creativity) on consumer attitudes towards food products or organic food product (Hsu, 2016; Shafiea & Rennieb,

2012; Sangkumchaliang & Huang, 2012; Choi et al., 2018). A few researchers have covered more complex topics to study the influence of food advertising content in detail. These studies investigated a particular area as well as the influence of food advertising content (emotional appeal, informativeness and advertising creativity) (Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012; Choi et al., 2018) and product knowledge (Bullock & Johnson & Southwell (2017). In recent years, some researchers have investigated the relationship between the influence of food advertising content and similar constructs to those of study. Chen, (2007) and Cucchiara, (2015) conducted research based on the influence of food advertising content on organic food. Lee and Bonnand and Cho (2015) and Kothe and Mullan and Amaratunga (2011) conducted similar studies, but instead of using emotional appeal, informativeness and advertising creativity, they used food advertising content and examined its impacts on intention to purchase or breakfast consumption, respectively Hsu (2016) and Shafiea and Rennieb, (2012) and Sangkumchaliang and Huang, (2012) and Oktaniar et al. (2020) examined the relationship between emotional appeal, informativeness and advertising creativity and intention to purchase organic food.

Shafiea and Rennieb (2012) and Fotopoulos and Krystallis, (2002) and Aertsens et al., (2011) and Hsieh et al., (2016) investigated the influence of food advertising content on product knowledge, both directly and also based on the moderated impacts of the demographic factor. In the same way, Mullan and Amaratunga (2011) and Singh and Verma, (2017) investigated the influence of food advertising content on consumers' attitude and intention to purchase in terms of increasing breakfast consumption. These studies had very few researchers investigating the influence of food advertising content on product knowledge and intention to purchase based on the TPB.

Although some studies have been performed in this area by Lee and Bonnand and Chou, (2015); Kothe and Mullan and Amaratunga (2011) and Wang, et al., (2019), there has been a very little research that investigated the influence of food advertising content on emotional appeal, informativeness and advertising creativity based on the TPB. According to the Theory of Planned Behaviour, the variables of the TPB create the intention to purchase organic food in response to food advertising content (Kothe & Mullan & Amaratunga, 2011; Shafiea & Rennieb, 2012; Bakar, 2021). This research has used the theory of planned behaviour (TPB) to investigate the influence of food advertising content (emotional appeal, informativeness and advertising creativity), to

examine the intention to purchase organic food, and try to reduce the gaps found in the literature.

Previous research (Shafiea & Rennieb, 2012; Fotopoulos & Krystallis, 2002; Aertsens et al., 2011; Atta and Abbas and Syed, 2021) indicates gender has a moderating impact between the influence of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge and the variables of the TPB. However, there is very little evidence that indicates the influence of food advertising content influence on product knowledge. Therefore, this study investigated multiple factors of consumer demographics. The researcher investigated moderating effects on the influence of food advertising content on product knowledge.

This research also investigated the role of demographic effects on the influence of food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge. In past studies, researchers investigated the influence of demographic on the influence of food advertising content (emotional appeal, informativeness and advertising creativity). However, there is very little evidence indicating that demographic modify the influence of food advertising content (emotional appeal, informativeness and advertising creativity) (Shafiea & Rennieb, 2012; Fotopoulos & Krystallis, 2002; Aertsens et al., 2011; Bakar, 2021).

Previous research indicates gender has a moderating influence on the effects of food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge (Shafiea & Rennieb, 2012; Fotopoulos & Krystallis, 2002; Aertsens et al., 2011; Atta and Abbas and Syed, 2021). All factors also have a direct influence on actual purchase behaviour. On the other hand, there is a little evidence that indicated gender moderates the relationship between the influence of the food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge and actual purchase behavior. Therefore, this study investigated the moderating roles of demographics in explaining the relationship between the influence of food advertising content and product knowledge and purchase intentions regarding Thai organic food.

This research has used the Theory of Planned Behaviour (TPB) to investigate whether the influence of food advertising content (emotional appeal, informativeness and advertising creativity) results in a positive relationship between product knowledge and the variables of the TPB (brand attitude, a subjective norm and a perceived behavioral control) between the intention to purchase behavior and purchase behaviour. Therefore,

this study investigated the influence of food advertising content; the influence of emotional appeal on product knowledge and brand attitude; the influence of informativeness on product knowledge and subjective norm as well as the influence of advertising creativity on product knowledge and perceived behavioral control toward purchase behavior and purchase behaviour.

Previously, researchers have investigated the influence of food advertising content on similar constructs to emotional appeal, informativeness and advertising creativity. Hsu and Chen (2014) and Stanton and Cook (2019) investigated the influence of food advertising content (emotional appeal, informativeness and advertising creativity) on attitudes towards intention to purchase organic food. Chekima et al. (2017) investigated the influence of food advertising content (how product-specific attitude, health orientation and advertising creativity influenced organic food consumption. Lee and Yun (2015) investigated the influence of food advertising content (nutritional content, emotional appeal, ecological welfare, price and advertising creativity). In spite of these studies, few researches have explored in the influence of food advertising content on both Emotional appeal, Informativeness and Advertising creativity. Previous research Shafiea & Rennieb, 2012; Fotopoulos & Krystallis, 2002; Aertsens et al., 2011; Atta and Abbas and Syed, 2021) has indicated the influence of food advertising content on constructs similar to emotional appeal, informativeness and advertising creativity; however, this previous research had very little evidence that investigated the influence of food advertising content on other kinds of constructs. Therefore, this research, using the theory of planned behaviour (TPB), investigated the influence of food advertising content on constructs similar to emotional appeal, informativeness and advertising creativity.

By using the variables of the TPB, Lee and Bonnand and Cho (2015) and Hsu and Chang and Lin, (2016) also investigated the influences of brand attitude, subjective norm and perceived behavioral control on similar constructs associated with intention to purchase and purchase behaviour. Lee and Bonnand and Cho (2015) and Bakar (2021) investigated the influences of brand attitude, subjective norm and perceived behavioral control on intention to purchase organic food and purchase behaviour. Lee and Bonnand and Cho (2015) and Atta and Abbas and Syed (2021) studied the variables of the TPB's relationship with consumers' intention to purchase an organic food. Lee and Bonnand and Cho (2015) and Gustavsen and Hegnes (2020) studied the influence of the variables of the TPB on consumers' intention to purchase an organic food. Aertsens et al. (2009) and Zheng et al., (2016) examined the influence of the variables of the TPB on consumers'

intention to purchase towards purchase behavior. Kothe and Mullan and Amaratunga, (2011) examined the influence of the variables of the TPB on the purchase intention of eating breakfast. In spite of the previous studies (Lee and Bonnand and Cho 2015; Kothe and Mullan and Amaratunga, 2011; Gustavsen and Hegnes, 2020), there have had very little evidence available which proves the influence of the variables of the TPB on the effects of product knowledge, emotional appeal, informativeness and advertising creativity towards intention to purchase organic food.

Previous research (Kothe and Mullan and Amaratunga, 2011; Shafiea and Rennieb, 2012; Atta and Abbas and Syed, 2021) indicates attitude, subjective norm, and perceived behavior control predict consumers' intention to purchase towards actual purchase behavior. Therefore, this research used the theory of planned behavior to investigate the influence of food advertising content (emotional appeal, informativeness and advertising creativity) on consumers' intention to purchase and actual purchase behavior.

Regarding these influences of attitude and subjective norm, previous research has also investigated the influences of perceived behavior control on a consumers' intention to purchase towards purchase behavior. Smith and Paladino (2010) explored the influence of attitude on consumers' intention to purchase and purchase behavior. Singh and Verma (2017) and Atta and Abbas and Syed (2021) examined subjective norms and found that they had a positive influence on a consumers' intention to purchase and actual purchase behavior toward organic food. Kumar and Smith (2017) investigated the positive influence of perceived behavioral control impact to intention to purchase and actual purchase behavior towards local food. Lee and Bonnand and Cho (2015) and Bakar (2021) examined the influences of intention to purchase on a consumer's purchase behaviour towards organic coffee. Singh and Verma (2017) and Feldmann and Hamm (2015) studied how influential factors had a positive impact on actual purchase behaviour towards organic food products through the mediating impacts of attitude and intention to purchase. In spite of previous studies (Smith and Paladino 2010; Kothe and Mullan and Amaratunga, 2011; Brumă, 2020), there is very little evidence available proving the influence of the variaabls of the TPB on the positive relationship between actual purchase behaviour and intention to purchase organic food products (Lee and Bonnand and Cho, 2015; Kothe and Mullan and Amaratunga, 2011; Bakar, 2021). Therefore, this research used the Theory of Planned Behavior to investigate the positive association between actual purchase behaviour and intention to purchase organic food products.

various gaps were found in the literature, which were as follows:

- (i) Studies on food advertising content within the context of organic food products have ignored the constructs of emotional appeal, informativeness and advertising creativity that have been ignored (Oktaniar et al., 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Molinillo et al., 2020). To fill that gap, this study investigates the food advertising content on the basis of emotional appeal, informativeness and advertising creativity to reflect the real consumer intention to purchase organic food.
- (ii) There is little evidence food advertising content (emotional appeal, informativeness and advertising creativity) influenced product knowledge (Krishna and Balasubramanian, 2021; Oktaniar et al., 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Molinillo et al., 2020). Therefore, this research evaluates the influence of the food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge toward intention to purchase organic food.
- (iii) Previous studies which have focused on the influence of food advertising content on (emotional appeal, informativeness and advertising creativity on customer attitude have not been performed on the basis of consumer demographics like gender (Oktaniar et al., 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Molinillo et al., 2020; Akbar et al., 2019). To fill that gap, this study focuses on the influence of food advertising content on emotional appeal, informativeness and advertising creativity on product knowledge and is performed on the basis of consumer demographics such as gender.
- (iv) There was little evidence on the impact of product knowledge on the TPB (attitude, subjective norms, and perceived behavioural control) (Fotopoulos and Krystallis, 2002 and Aertsens et al., 2011; Bakar ,2021). To fill the gap, this study will utilizes the theory of planned behaviour (TPB) constructs (attitude, subjective norm and perceived behavioural control) as a mediator for the relationship between product knowledge and the intention to purchase organic food.

Therefore, this research investigate the mediating effect of perceived behavioural control on the factors influencing actual purchase behaviour towards organic food among Thai consumer, which will become a critical issue, and it will close the gap.

#### 1.13. Ethical considerations

This study examines the perceptions of the consumer on the influence of food advertising content, and as the majority of the population was aged over 18, it was not likely that any problems discussed in this study were delicate. However, during each step, e.g the interview to complete the questionnaire, etc. Diverse ethical considerations were the consent received, the privacy of the participants, the confidentiality of records and the reliability of the research were taken into consideration (Bryman and Bell, 2008; Bakar, 2021). Concerning the progress of this research, approval from the Research Ethics Office of Middlesex University was sought during several steps ensuring that this research was conducted according to ethical guidelines.

## 1.14. Definitions of constructs in this study

For this study, the research used the structure described below. These definitions were made on the basis of the thorough literature review and the findings of quantitative studies:

Advertising creativity - this is defined as the extent to which advertising is unexpected and original. Relevance and divergence are understood to be the leading attributes of creativity in advertising; divergence is related to elements that are novel, unusual or different, whereas relevance is related to elements that are useful, meaningful, appropriate or valuable to the audience. (Oktaniar et al., 2020; Haider and Ahmad and Ghani, 2019; Choi et al., 2018).

**Behavioural intention** - this is defined as the position of a person on a subjective probability dimension regarding a relationship between himself and a certain behavioural action that he will perform (Golnaz et al., 2010; Fleseriu and Cosma and Bocanet, 2020). **Emotional appeal** – this is the persuasion approach used to generate an emotional response to a message by using emotional content (such as pride, horror movie, love, sad story, joy, triumphant music, etc.) (Molinillo et al., 2020; Wang et al., 2021; Japutra, et al., 2021).

Food advertising content - this is defined as a theoretically grounded persuasive communication tactic to promote judgments, perceptions, attitude and behavioral

changes through the presentation of equivalent appeals, framed in terms of either the benefits gained (food advertising content) or negative results incurred (negative message framing) (De Velde et al., 2010; Chang & Wu, 2015; Hsu & Chen, 2014).

**Organic foods** – this is defiened as conventionally safe foods which are produced by using ecologically and environmentally sound methods that are not associated with synthetic inputs such as pesticides and chemical fertilizers. Organic foods do not contain genetically modified organisms (GMOs) and are not processed with industrial solvents, irradiation, or chemical food additives (Paul and Rana, 2012; Singh and Verma 2017; Kessaratikoon et al., 2022).

Perceived behavioral control - this is defined as the "perceived difficulty or ease of performing a behaviour" That is, the TPB emphasises perceived behavioral control to indicate and estimate the actual chances of implementing a specific behaviour is difficult and the resources that will be used when implementing it (Ajzen, 1991). It has been cited that perceived behavioural control is a consumer's awareness of personal control over what to purchase and consume and that he or she is believed to have influence over the decision based on the risks and benefits of organic food products in purchasing situations (Souza, 2022; Abu Bakar et al., 2021; Atta and Abbas and Syed, 2021).

**Product knowledge** - this is defined as stored data in the memory of the individual (Flynn and Goldsmith, 1999). Basically, it consists of familiarity and expertise (Alba and Hutchinson, 1987). Familiarity is elucidated as the number of product-related experiences which have been gathered by the consumer, and expertise has been defined as the ability to successfully perform tasks that are related to the product (Abu Bakar et al., 2021; Krishna and Balasubramanian, 2021; Chekima, et al., 2021).

**Purchase intention** – this is regarded as what consumers think they will purchase (Gottschalk, 2013). According to Ajzen (1991), intention or willingness are important predictors of actual purchase behavior (Ajzen, 1991). Therefore, intention to buy organic food products is a prerequisite for obtaining outcomes in the actual purchase (Brumă, 2020; Moon and Mohel and Farooq, 2021; Hilverda et al., 2018).

**Subjective norm** – this is regarded as a concept which involves social behaviour and context (Saunila, 2015). A subjective norm is also defined as a perception or opinion of the people about what is important and what other people believe a person ought to do, (Souza, 2022; Atta and Abbas and Syed, 2021; Wang, et al., 2019).

**Attitude -** this has been defined as "the degree to which individuals have a favourable or an unfavourable evaluation of a behaviour in question" (Ajzen, 1991), and essentially, it implicates an individual's behavioural intentions (Atta and Abbas and Syed, 2021; Solomon, 2021; Xie et al., 2020).

**Informativeness** – this is the ability to explain the characteristics of explain the features and benefits of organic food products in a way that aims to match consumer wants and desires by making the market more efficient. (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Hansmann and Baur and Binder, 2020; Lilja, 2019).

The actual purchasing behavior- previous research has emphasized on investigating the factors that impact the purchasing behaviour of organic food products, for instance, knowledge, attitude and values (Gustavsen and Hegnes, 2020; Fleseriu and Cosma and Bocanet, 2020; Testa et al., 2019).

# 1.15 Organization of the Thesis

The thesis consists of eight chapters. Chapter 1 discusses the following: Research background, Why was it so important to conduct this study on Thailand?, Why is this study beneficial to Thailand?, Strengthening the context (Thailand), Practical importance of food advertising content, Research gaps, Research questions, Research aim and objectives, Ethical considerations and Definitions of constructs in this study. Chapter 2 provides a detailed account of the issues involved in study- the role of food advertising content, organic food, emotional appeal, informativeness, advertising creativity, product knowledge, socio-demographic factors, attitude, subjective norm, perceived behavioural control, intention purchase and actual purchase behaviour, with the help the existing literature. In addition, a theoretical framework is presented to illustrate the proposed model for testing. Chapter 3 covers methodological issues relevant to the research. Chapter 4 provides the analysis of quantitative data and discusses the pilot study. Chapter 5 provides the data analysis from the main study. In Chapter 6, the findings of the study are discussed and explained. Chapter 7 identifies the conclusions and explains theoretical contributions, managerial contributions, methodological contributions and policy implications.

# Chapter II: Literature Review, Conceptual model and Hypotheses development

#### 2.1. Introduction

This chapter reviews the existing literature on food advertising content and the influence of the content elements. Food advertising content is intended to persuade consumers to purchase the product. For example, organic food labels use advertising content that communicates information about the nutritional benefits of organic food products. Organic food contains higher levels of vitamins and other critical beneficial nutrients than conventional food products. In addition, many consumers report the improved taste of organic food in taste tests and recommendations for safe food handling. At the same time, the promotional components emphasize the needs and values of the target audience and the unique attributes of organic food, such as health benefits, support for fair trade, and purchasing motivation (Bauer et al., 2013; Gerrard et al., 2013; Padel and Foster, 2005; Gifford & Bernard, 2004; Hilverda et al., 2018).

Previous researchers (Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012) frequently investigated the impact of a similar construct, i.e., the influence of the food advertising content like the emotional appeal, informativeness, and advertising creativity on consumer attitudes toward food product or organic food product. However, a few types of research have covered more complex topics to study the influence of food advertising content in detail. These studies investigated an area as well as the power of food advertising content, for example, emotional appeal, informativeness, and advertising creativity (Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012) and product knowledge (Bullock & Johnson & Southwell, 2017). However, few studies have addressed the literature search that examined the influence of food advertising content, on purchasing intentions, toward organic food products, or the relationship between theory of planned behaviour (TPB) variables and food advertising content, purchasing intentions, and behavioural control (Hsu, 2016; Hilverda et al., 2018).

This study research will examine food advertising content via gender, which moderates the influence of food advertising content on purchasing intentions through its impact on product knowledge. This research will use the TPB, a general framework to categorise the significant determinants of purchasing sense, attitude, subjective norms, and perceived behavioural control. After reading the results of research involving TPB, the

results showed TPB that associated indirectly with the influence of food advertising content elements (emotional appeal, informativeness, and advertising creativity) with purchasing intention towards organic food (Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012; Atta and Abbas and Syed, 2021).

This chapter represent the conceptual model used in this study order to investigate the influence of food advertising (emotional appeal, informativeness and advertising creativity) via an attitude, subjective norm and perceived behavioural control. Previous studies (Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012) related to the food advertising content and organic food or breakfast consumption, which studied the food advertising content (emotional appeal, informativeness and advertising creativity) are displayed on advertising message, to estimate consumer willingness-topay (WTP) for increased organic food or breakfast consumption. However, few studies have addressed the food advertising content on product knowledge, and no studies were identified during the literature search that examined the influence of the food advertising content on product knowledge in regard to the intention to purchase organic food products, or the role of Theory of Planned Behaviour (TPB) variables that are in the relationship between the influence of the food advertising content and product knowledge and purchasing intentions and behavioural control. This study will examine food advertising content via product knowledge, and gender that moderates the food advertising content on purchasing intentions through its influence on product knowledge. This study will use TPB, which is a general framework to categorise the significant determinants of purchasing intention: attitude, subjective norms and perceived behavioural control. Theory of Planned Behaviour (TPB) is considered in this chapter because it is a starting point that is useful in describing the relationship between food advertising content and product knowledge. The chapter starts with the presentation of the main theoretical perspectives involved in the study of the food advertising content and product knowledge. The next section in this chapter emphasizes the literature involved with the TPB, intention to purchase and actual purchase behaviour. It is essential to point out that even though the literature review is used to gain an understanding of marketing with a conceptual framework to improve food advertising content that attracts the attention of the customer, the literature review of the food advertising content also engages with society.

It can be asserted that there are significant differences between food advertising content, product knowledge, and advertising in terms of their benefits. This research is involved

with food advertising content; it also focuses on health issues because it is easy to motivate consumers who are interested in food advertising content, as well as those who intend to buy more organic food products. However, this issue becomes more complex with Theory of Planned Behaviour (TPB) and the impact of the food advertising content. There are several types of influence on food advertising content (emotional appeal, informativeness and advertising creativity) and which show a variety of the influence of food advertising content (emotional appeal, informativeness and advertising creativity). The relationship between moderating factors (gender) and the influence of food advertising content becomes crucial to understanding product knowledge on attitude, subjective norms, and perceived behavioural control.

Therefore, this chapter addressed existing literature related to the aim of research that is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Also, this research nvestigates the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

In addition, the study could fill in the gaps that were found in the literature related to several questions, such as "Would the food advertising content (emotional appeal, informativeness and advertising creativity) increase product knowledge of organic food products?", "Is product knowledge be increased by the TPB (attitude, subjective norms, and perceived behavioural control)?", "Does TPB (attitude, subjective norms, and perceived behavioural control) have a positive impact on the intention to purchase?", "Would intention to purchase have a positive impact on actual purchase behaviour?", "Does gender moderate the relationship between food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge?"

In this chapter, the key factors shaping the development of the influence of food advertising content are explained based on literature related to the moderating roles and the TPB to estimate intention to purchase and actual purchase behaviour. This study will describe food advertising content, organic food, and gender of advertising and fieldwork and demographics in sections 2.2, 2.3, and 2.4. The influence of the food advertising content elements in 2.5, 2.6, and 2.7 presents theories used in food advertising content. I will describe the power of product knowledge related to food advertising content in section 2.8. The power of demographic factors on responses to food advertising content

will be described in section 2.9. Finally, theories used in food advertising content, intention to purchase, actual behavioural intention, the theory of planned behavior and use, the theory of planned behaviour and advertising, the original model of the theory of planned behavior and the research framework of the study will be presented in sections 2.10,2.11, 2.12, 2.13, 2.14, 2.15 and 2.16.

## 2.2. What is food advertising content?

Food advertising content is defined as something representing the exact result of a specific opportunity as an advantage and a potential gain that can stimulate people to avoid the risk of diseases. (Hilverda & Kuttschreuter & Giebels, 2016; Olsen & Slotegraaf & Chandukala, 2014). It has also been more effective for products and behaviour related to prevention (i.e., avoiding risk) or for products with no- or limited risk (Tu and Kao, and Tu 2013). In the same way, the definition of food advertising content is positive, physical, monetary, or psychological, and they are results of a service or product (Hsu & Chen, 2014; Stanton Cook, 2019). Decision making of an individual may be influenced by food advertising content if presented as a potential gain (Xue, 2015; Bakar, 2021). If a message focuses on the positive results of a particular behaviour, the individual is inclined to avoid risks that will be stimulated. Although the construction of message framing has yet to be thoroughly checked in green advertising, it has a crucial role in researching health communication and social marketing (Lee, 2011; Hindol, 2012; Abbas and Syed, 2021). Some researchers suggested that positively framed advertising has had more effective outcomes than negatively framed advertising on purchase decisions, particularly for transformational products.

However, other researcher have argued that negatively framed messages or loss-framed messages might be more persuasive than food advertising content or gain-framed because consumers tend to discriminate against negative information that is more important, salient, and credible (Xue, 2013; Hindol, 2012; Stanton and Cook, 2019).

Also, food advertising content is associated with organic food consumption because consumers are more responsive to content that emphasizes altruistic healthy (Tu and Kao, and Tu, 2013; Bakar, 2021). Therefore, the food advertising content explains the benefits of purchasing an organic food product. Thus, organic food packages present an example of food advertising content.

Food advertising content contains messages that describe organic food as "safer and healthier," while other message framings say that organic food is grown without "dangerous" pesticides (Gifford and Bernard, 2004; Wang et al., 2021). Food advertising

content is intended to persuade consumers to purchase the product. For example, the label on organic food uses food advertising content that communicates the information about products, such as the fact that nutritional organic food contains higher levels of vitamins and other beneficial nutrients than conventional food products.

Many consumers report that the taste of organic food has improved by doing taste tests. The promotional components connect the needs and values of the target audience to the unique attributes of organic food, such as trust, environmental safety, support for fair trade and purchasing motivation (Bauer et al., 2013; Gerrard et al., 2013; Padel and Foster, 2005; Gifford & Bernard, 2004). Cucchiara et al. (2014) have supported the superiority of food advertising content rather than negatively framed information that could persuade consumers to purchase organic food. Gerrard et al. (2013) found that food advertising content that has provided health benefits of organic food consumption could be more persuasive in increasing consumers' purchase intention, than exposing consumers to negative message framing.

Suppose some organic food products are unfamiliar to buyers. In that case, consumers will need more knowledge of production processes and agriculture and more understanding of the effects of the decision to purchase food on the food supply chain. It leads to food advertising content being unable to persuade consumers to buy such organic food. (Cucchiara et al., 2014; Gerrard et al., 2013).

Consumers with high involvement in purchasing organic food are less likely to be persuaded by food advertising content. The finding can increase the credibility of a recent study showing that consumer involvement has been a vital moderator (Lee, 2011; Hindol, 2012; Wang et al., 2021; Atta and Abbas and Syed, 2021).

# 2.3. What is organic food?

The essential definitions of organic food products focus on the practices of manufacturing, principles, the technology used, and "organic philosophy" (i.e. Kongsom, 2016; Sangkumchalianga, 2012). Specific definitions emphasise dimensions such as the food's "natural production system," or that it is "biological" (Singh, 2017; Jiumpanyarach, 2018), 'environmentally friendly,' or 'green' food (Quinn, 2015). However, some researchers focus on limiting the use of various chemicals in producing organic food (e.g., Minami et al., 2010; Paul and Rana, 2012; Aungatichart, 2020) or its general philosophy (e.g., Burusnukul, 2011).

According to Pattweekongkaa and Napompechb, and Chaiyasoonthorn (2019) and Helpguide. (2019), organic foods are improved to maintain food integrity instead of

using artificial content, preservatives, or irradiation. In simple terms, it is food that is processed or produced without using mineral fertilisers, pesticides, or other chemicals. Therefore, such foods can be identified as organic food. In addition, organic food is also regarded as food produced from an animal that has not been given growth hormones or antibiotics (Organic Foods Production Act, 1990; Sriyakul and Sutduean and Sirivanh, 2020). Therefore, organic foods are conventional food-safe, manufactured using environmental and ecological methods that are not related to synthetic factors such as chemical fertiliser and pesticides, have not genetically modified organisms (GMOs) and have not been processed with industrial solvents, chemical food additives, or irradiation (Paul and Rana, 2012; Cavite and Mankeb and Suwanmaneepong, 2022).

In the same way, Carter (2019) and Singh (2017) found that organic food is defined as food that is produced following standards designed to hold the manufacturing process more 'natural.' Organic food is manufactured by farmers who focus on using renewable resources and conserving soil and water to exalt the quality of the environment for future generations. Fakged (2016) and Burusnukul (2011) suggested that organic dairy products, eggs, poultry, and meat come from live animals that have not been given or injected with growth hormones or antibiotics—the terms of organic food cited to the methods of planting and processing agricultural products. Organic food is the yield of organic farming, a natural and environmentally friendly way of land management. Duangekanong (2020) and Singh (2017) have shown that organic foods often contain beneficial nutrients, such as antioxidants, which traditionally grown food does not include. Individuals with allergic reactions to food, chemicals, or preservatives often find their symptoms decrease or disappear after they start to consume only organic food, and it is usully fresher because it contains no preservatives making it usable for longer. Organic food is often, but not always, produced on smaller farms closer to the sale location (Soil association organic. 2017; Tangnatthanakrit, 2021).).

Although one of the main benefits of eating organic food is that it does not contain insecticides, conventionally grown food is often cheaper. Also, the subsistence farmers in the area often use organic farming methods, but sometimes they cannot become or register as accredited organic farmers (Quinn, 2015; Minami et al., 2010; Sriyakul and Sutduean and Sirivanh, 2020) because of the difficulty of organic food production. Farmers must pay attention to the details and are supported by strict and independent inspections and certifications (Helpguide, 2019; Singh, 2017). In addition, foods grown organically might contain pesticides and other contaminants processed by wind, water, or

soil debris (Carter, 2019; Kongsom, 2016). While free of some pollutants, organic products do not need to be more flavorful or nutritious than conventional food. In general, retailers want higher prices for organic food products, but such yield might spoil faster due to it needing to be treated (About the American Academy of Pediatrics. 2011; Laut et al., 2023).

# 2.4 Gender in advertising and fieldwork and demographics

The majority of gender identity is widely regarded as a social construction, and representations encourage and preserve the cycle of ideology which can emerge in behaviour. Images and advertisements on television and in the media can change audiences perceptions of themselves and society (Knoll and Eisend and Steinhagen, 2011; Amson et, al., 2022). Advertising has also proved to be an effective medium which applies picture, language, and representational constructions to carefully shape the viewer's perception of reality and effectively mirror their needs to impact purchase decisions (Demers-Potvin et, al., 2022; Elliott and Truman, 2019).

Though advertising has undergone changes since the early twentieth century, food advertising has stayed the same when it comes to the message sent to the spectators (Boyland et, al., 2020). Most advertisements promote food in gendered terms that relate cooking and shopping with females. Now it is clear that females have come a long way from being the stay at home mom and just a caretaker for the home. For this reason, females are in the focus for advertisers (Signal., 2017; Qutteina et, al., 2022). In accordance with Katherine Parkin in the US, the serving food and kitchen are mainly portrayed as female's jobs that are regarded as a demonstration of love for their family. Advertising creates and reinforces the belief that, by purchasing and producing the advertised product, females could have a happy marriage, healthy children and a social status (Hill and Friel, 2020; Mulligan et, al., 2020).

The great distinction between the way males and females are presented is revealed in how working roles are portrayed. Females are usually shown to be in non-working roles; moreover, if women are in working roles, they are most often presented as employees (An and Kim, 2006; Kent et, al., 2019). Although women's participation in the labor market has shown a significant increase, females in commercials are still attached to a domestic setting; moreover, they are presented as a mother, wife or housewife. In addition, women have been depicted as dependent on others at home and shown against a background of children, providing an opinion-based rather on a "scientific" dispute for

the advertised product (Furnham and Li, 2008; Elliott and Truman and Aponte-Hao, 2022). In general, males are portrayed as adventurous, aggressive, active, powerful and largely unrelated in human relationships.

Consistent with the comments of Boyland et, al (2020) and Harris and Yokum and Fleming-Milici, (2021), in many advertisements, females has presented in a few clearly defined positions, such as being working or unemployed in typical women's roles, such as a mother or wife, who dependent on others and do household chores. On the other way, the "sexy" type of woman who is described as young, slim, smiling, seductive, and sexually accessible, the "housewife" kind of woman can be classified as dependable, submissive, neat, tidy, unconfident, and gentle (Mulligan et, al., 2020; Amson et, al., 2022). Moreover, due to repeated exposure to advertising stereotypes has been related to the emergence of gender beliefs, violence against women, sexual harassment, eating disorders, and stereotyped perceptions of behavior toward males and females. The advertisements have the potential to impact the beliefs and thoughts of their audiences (Bärebring et, al., 2020; Kent et, al., 2019).

This is the reason why food advertising seems to be central to how some industries exploit on female stereotypes, especially when it comes to health and image (Pollack et, al., 2021; Busse, 2018). The nutritional focus linked to a lot of food products is a perceived "feminine" concern, though the product category as a whole may not carry obvious gender biases (Wulf and Schneider and Beckert, 2018; Castonguay and Bakir, 2019). Women seem more responsive to emotional cues when choosing food products (Pounders, 2018; Amson et, al., 2022) and are commonly thought to be more concerned about the consequences of food intake, as well as the content of food itself (Pollack et, al., 2020).

The attitude that females consume healthy food and males consume less healthy food is very common in the developing countries such as Thailand (Windels, 2016; Busse, 2018). These sociocultural influences end up impacting what we purchase in grocery stores, and what we choose to consume more (Thompson-Whiteside, 2020; Sandhu, 2019). Marketers seem to be exploiting these attitudes. Food products they advertise are gender stereotyped (Eisend, 2019; Windels, 2016).). On the other hand, men and women are impacted by gender-stereotypical food advertising (Eisend and Hermann, 2019; Kim et, al., 2020). Researchers identified that both males and females tended to see unhealthy food options as masculine and healthy options as feminine, and people are more inclined

to dislike food products which did not match these stereotypical gender characteristics (Kordrostami and Laczniak, 2021; Busse, 2018).

In addition, researchers found that females tend to go for nutritious and diet-conscious foods (Eisend and Rößner. 2022; Eisend and Muldrow and Rosengren, 2023). However, males have less healthy food options (McNeilly, 2016). Females, by contrast, seem to be more responsive to emotions and feelings Campos and Bernardes and Godinho, 2020; Lou and Tse, 2021), such as craving sweets when dealing with breakups and PMS. The perception that "females crave dessert more than males" is a paradox given the fact that they consume healthier foods (Rozas et, al., 2020; Verhellen and Dens and De Pelsmacker, 2016).

The gender dimension of health is regarded as a critical analytical and explanatory variable in research. If gender is ignored, Our understanding of existing health issues will become incomplete and may be biased, which might limit our ability to evolve effective measures and policies (Amson et al., 2022). This is reflected in other commodities such as alcohol and tobacco that have successfully used gender-based marketing strategies to attract and retain consumers (Tatlow-Golden and Parker, 2020). However, there are few studies on the role gender plays in the design and influence of the marketing of healthy food (Pollack et al., 2021).

Given that differences exist between females and males in the perception of food advertising content, product knowledge (organic food products), and intention to purchase organic food products, this research shows that there are gender-based differences in the relationship between the impacts of food advertising content and product knowledge in relation to the TPB. It is important to investigate the intention to purchase and purchase behaviour towards organic food products of Thai consumers. This research is critical to evaluate the food advertising content that is shaping product knowledge (organic food products) among male and female Thai consumers to provide insights as to whether gender differences in product knowledge play a role in the intention to purchase and purchase behaviour towards organic food products, and to help inform marketing policies.

Therefore, the pilot study of the study was to determine if females and males were exposed to different food advertising content including the product knowledge, attitude, subjective norm and perceived behavioral control used to increase the intention to purchase and purchase behaviour towards organic food products. It was hypothesised that

food advertising content used to increase the level of product knowledge (organic food products) would vary by gender in relation to the TPB.

### 2.4.1 The socio-demographic and the actual buying behaviour

The socio-demographic profile seems to influence the actual buying behaviour towards organic foods. The actual buying behaviour is mainly impacted by age, gender, level of education, income and the presence of children in the household (Zeynalova and Namazova, 2022; Jaiswal and Kant, 2018; Pekerşen and Canöz, 2022).

Age seems to impact actual buying behaviours toward organic foods. Especially, organic food buyers are likely to be younger than those who do not (Grubor and Djokic, 2016). Age also seems to affect consumer attitudes towards organic foods. Young people are more concerned about the environment; however, they are not willing to pay more because their low purchasing power, while older adults are more concerned about health. Moreover, they are more willing to pay more for organic foods (Nagar and Guha and Chandra, 2017; Oroian et, al., 2017; Joshi and Rahman, 2016). On the other hand, Singh and Verm, (2017) found that older respondents were less likely to purchase organic food products than younger respondents. It is also interesting to to observe the conflicting finding of Jaiswal and Kant, (2018) that older people might be willing to deviate and switch to organic foods due to health-related reasons.

Females seem to be more interested in organic foods than males However, they purchase organic foods more often than males (Gisha and Ramya. 2016; Dangi and Gupta and Narula, 2020; Manuchehr, 2016). Overall, more positive attitudes towards organic food products have been detected among females than males (Manuchehr, 2016). In the same way, male and female consumers have differing buying behavior for organic food products in terms of the impact of antecedents (Hwang, 2016). In addition to women between the ages of 30 and 45, women having children and those with high disposable income usually choose to eat organic food products (Pekerşen and Canöz, 2022). On the other hand, Hwang, (2016) demonstrated that gender does not influence intention to purchase organic food products.

In addition, education has been reported to be an important factor that impacts the actual buying behaviour towards organic food products (Van Droogenbroeck and Van Hove, 2017). Persons with higher education are more likely to exhibit a positive attitude towards organic food products; moreover, they need more information regarding organic production and processing methods of organic food products (Vietoris et al., 2016; Dangi

and Gupta and Narula, 2020). They also have higher confidence in negotiating conflicting claims about organic food products (Singh and Verm, 2017; He et al., 2021); are more willing to pay extra for organic food products. The majority of previous studies indicated that there is a positive correlation between education and organic food consumption. On the other hand, some studies have reported that there is a negative relationship between education and organic food consumption (Hansen and Ingerslev Sørensen and Riwerts Eriksen, 2018). Basha and Lal, (2019) found that education level had no statistically significant impact on organic food purchase patterns.

In addition, demand for organic food products appears to be positively correlated with income (Shanmugapriya and Srivarshini, 2018). In accordance with findings of Singh and Verm, (2017), wealthier households tend to spend, and even spend more on organic foods. Higher income households tend to generate positive attitudes and to buy more organic food products (Manuchehr, 2016; Dangi and Gupta and Narula, 2020). On the other hand, income seems to affect largely the quantity of organic food products bought and not the general willingness to purchase. Households with higher incomes tended to show more positive attitude and purchase more organic food products indicate higher likelihood of organic food purchases. Some low-income groups appears to be more entrenched buyers (Rawat, 2022). Gao et, al., (2014) indicated that low-income consumers are more likely to purchase organic food. Because of these conflicting results, it is necessary to examine the impact of demographic factors on the actual purchasing behavior of consumers.

In addition, the presence of children in the household has been regarded as an important factor, that positively impacts consumers' attitudes and actual buying behavior towards organic food (Van Droogenbroeck and Van Hove, 2017; Singh and Verm, 2017). On the other hand, children's age is regarded as an important factor, which means that the higher the age of children in the household, they are less likely to purchase organic foods (Shanmugapriya and Srivarshini, 2018).

Therefore, according to previous research, this study anticipates a significant moderating effect of gender on the relationship between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge in relation to the TPB.

## 2.5. What is emotional appeal

Teichert et al. (2018) and Busse (2016) found that the definition of emotional appeal is the persuasion approach to generate an emotional response to a message by using dynamic content (such as pride, horror movie, love, sad story, joy and triumphant music). In the same way, the emotional appeal aims to stimulate consumers' emotional and affective responses by using a message that communicates the attributes of the product (such as the attributes of organic food). Emotional appeals primarily contain love, joy, humour, pride, and so on to encourage consumers to purchase organic food (Teichert et al., 2017; Bublitz and Peracchio, 2015; Teichert et al., 2018). In addition, an emotional appeal instead emphasises the positive emotions connected to organic food purchase intention. Various studies have displayed the effectiveness of emotional appeals in distinct domains (Teichert et al., 2018; Zarantonello et al., 2016; Wei and Rickard and Brown, 2015), including actual purchase behaviour (Carfora and Caso and Conner, 2016; Teichert et al., 2017).

In addition, the definition of emotional appeal is the perceived ability of the underlying product to generate negative or positive feelings among consumers. The vital task of emotional value identifies that emotion plays an essential role in the decision to buy, along with rational decisions (Kushwah et al., 2019; Teichert et al., 2017). In addition, Emotional appeal also varies with individual experiences; moreover, it might be neutral, positive or negative. It depends on different consumption conditions (Janssen, 2018b). Previous literature recommends that the emotional state of an individual (such as joy, happiness, satisfaction, enjoyment, fun and pleasure) is considered to be based the emotional appeal and has an important relationship with the intention to purchase (Hashem et al., 2018; Kushwah et al., 2019).

Similarly, from research in the field of food advertising, emotional appeals use a more persuasive message than rational appeals that focus on nutritional claims (Josephine Previte and Russell-Bennett and Parkinson, 2015; Molinillo et al., 2020). For example, the advertisement uses messages and imagery that connect the advertised organic food product to the idea of being healthy and communicates that it is a "healthier and safer food". As a result, the advertisement could increase the person's intention to purchase organic food products (Japutra et al., 2021; Widya (2019).

In the same way, emotional appeals are critical to consumption (Leone et al., 2005) and, in particular, to understanding consumer behaviour in response to healthy messaging and

social communication (Agrawal and Duhachek, 2010). Furthermore, emotional appeals impact consumers' intentions to purchase organic food. (Agrawal and Duhachek, 2010; Molinillo et al., 2020). For instance, when consumers intend to purchase organic food products, they may take pride (in maintaining healthy behaviours). Furthermore, in approach motivation, behaviour is stimulated or directed by a desirable event or possibility/positive. From previous studies of emotional appeals and motivated reasoning, the study explored the message can evoke emotions and subsequently impact consumers' judgements and intentions to purchase organic food products. (Wicks et al, 2009; Teichert et al., 2017).

Emotional appeals are also powerful persuasive tools in the context of public health messaging. Though many of the emotional appeals studied and used in the persuasion literature are negative (such as anger, fear, and guilt), positive emotions, such as happiness, health, and safety, are also used to increase intention to purchase organic food products (Dowd and Burke, 2011; Wang et al., 2021).

On the other hand, the success of the message may depend mainly on whether the emotion is matched well with the target group in that it elicits the appropriate reaction without causing the target group to feel controlled or to reject the message (Bleakley et al., 2015; Akbar et al., 2019).

McKay-Nesbitt et al. (2019) and Wang et al. (2021) found that an emotional appeal is associated with an individual's psychological, message and social needs for purchasing some product (such as organic food products). Many consumers can be emotionally motivated or driven to make some purchases. Advertisers aim to pay for an emotional appeal, which works incredibly well when there is little difference between multiple product brands and their offerings. Emotional appeals often include social and personal aspects (Wicks et al., 2009; Widya, 2019). Emotional appeals use messages that can drive individuals to purchase organic food products, including safety, health, love, happiness, joy, stimulation, sentiment, pride, nostalgia, comfort, ambition, self-esteem, pleasure etc. (Carfora and Caso & Conner, 2016; Kalu and Daniel, 2017).

For example, a Super Bowl advertisement introduces Oikos, a new brand of Greek organic yoghurt. The advertisement uses a message to explain the attributes of organic food products (Such as safe, healthy yoghurt made from fresh and delicious organic milk with incredible creaminess). Also, the company has created satisfying taste expectations for their product. Super Bowl advertisement could help explain the "15% sales increase"

of Stonyfield's Greek organic yoghurt product line in the year after it aired (Dowd and Burke, 2011; Wang et al., (2021).

Hsu et al., 2016; Molinillo et al., 2020; Prentice et al., 2019; Rana and Paul, 2017) found that emotional appeal is a construct associated with actual purchase behaviour; moreover, it can be positively associated with purchasing organic food products. In the same way, the findings from Widya (2019) and Wei (2015) identified that advertising with an emotional appeal effectively increases consumers' interest in buying and feeling satisfied. Buying and feeling satisfied with a purchase is due to positive stereotypes that have been established that could be caused by advertising material that first showed consumer awareness.

In contrast, Taute and McQuitty and Sautter, 2011; Molinillo et al., 2020) found that a few studies have explored the effectiveness of emotional appeals that associate messages with the intent to purchase organic food products. Also, an emotional appeal has been reported to be more effective. But information sent by the messages is more influential if the target group is older adults. In addition, older adults react more positively if exposed to informational appeals (Teichert et al., 2017).

Furthermore, some researchers (Suki & Suki, 2015; Widya, 2019) did not find any association between emotional appeal, intention to purchase organic food products and consumer behaviours. In addition, the practical effect also shows that emotional appeal did not contribute to the intention to purchase organic food products among Iranian consumers (Rahnama and Rajabpour, 2017; Molinillo et al., 2020).

Table 2.1: The critical analysis of the previous study of Emotional appeal

Chronologically	Author	Theme	Methodology
2009	• Wicks et al.,	Dual-modality disclaimers, emotional appeals, and production techniques in food advertising airing during programs rated for children	• ANOVA
2010	Agrawal and Duhachek	Emotional Compatibility and the Effectiveness of Antidrinking Messages: A Defensive Processing Perspective on Shame and Guilt	• ANOVA

2011	Dowd and Burke,	Informational and emotional daily messages to reduce red and processed meat consumption      Multi-variate analysis (MANOVA)
2015	Previte and Russell-Bennett, and Parkinson	Shaping safe drinking cultures: evoking positive emotion to promote moderate-drinking behaviour      Structural equations model
2015	Wei and Rickard and Brown	Effects of consumer weight level and advertising appeals on consumer attitude toward food and advertisements      ANOVA      ANOVA
2016	• Busse	Food Content of TV Shows     Seen by Children in Peru: A     Double Dose of Food     Messages?      Chi-square test
2016	Carfora and Caso, and Conner	Randomized controlled trial of a messaging intervention to increase fruit and vegetable intake in adolescents: Affective versus instrumental messages      MANCOVA
2017	Teichert et al.	<ul> <li>How to Implement Informational and Emotional Appeals in Print Advertisements: A Framework for Choosing Ad Appeals Based on Advertisers' Objectives and Targeted Demographics</li> <li>A principal component analysis using SPSS 21 allocates items to their related structure.</li> <li>Likert scale items</li> </ul>
2019	McKay-Nesbitt et al.	Effects of age, need for cognition, and affective intensity on advertising effectiveness
2021	Japutra et al.,	Unraveling the mechanism to develop health consciousness from organic food: a cross-comparison of Brazilian and Spanish millennials      The partial least square structural equation modelling (PLS-SEM)

### 2.6. What is informativeness

Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, (2020) and Vainio et al. (2018) suggested that the definition of informativeness in advertising is the ability to explain the characteristics and benefits of organic food products in a way that tries to match consumer wants and desires by improving the market more efficient. Similarly, consumers seek organic food product information supported by a message or image.

In the same way, Saxena and Khanna (2013) found that information from advertising might become viral because consumers can learn from the experience of other consumers by sharing information among consumers. Therefore, informativeness in advertising can generate a rational link between the organic food product and the consumer's response. Therefore, advertising ought to be informative, which is a causal variable of food advertising value (Dao et al., 2014; Pollay and Mittal, 1993).

In the same way, CHA, LYU (2019), and Lilja (2019) found that the information of advertising could be defined as the ability to satisfy the consumer by informing them regarding the organic food product. Therefore, the information can be a basic feature of the advertisements to convey information regarding the organic food product. Furthermore, Ha, Park, and Lee (2014) and Vainio et al. (2018) found that the transmission of information about an organic food product's function or characteristics is the fundamental factor determining the acceptability of the organic food product to a consumer. Also, the accuracy of the information provided can be a critical factor in increasing the value of advertising.

Similarly, Buaprommee and Polyorat (2016) and Vainio et al. (2018) suggested that the impact of perceived informativeness is significant for organic food products in contexts where consumers cannot assess the safety of organic food products accurately. This may be due to the fact that several characteristics or credence attributes of the organic food product may be complex for the consumers to assess, such as general food safety (such as dioxins, microbial infections and BSE) and residue-related quality (such as antibiotics and hormone residues) (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020).

Olsena and Tuu (2017) and Ahmed (2017) found that, with advertising information, consumers get messages that explain the performance and quality of the organic food product. This leads to the consumers gaining a natural feel of the performance and quality of the organic food product. The information offered by advertising is regarded as

helpful and valuable for consumers' decisions to purchase. Similarly, if consumers receive more information on organic food products, they will increasingly intend to purchase them (Choe et al., 2009; Lilja, 2019).

Food advertising content (informativeness) emphasises the objective characteristics of organic food products (such as their health or nutrition). Most research has used food advertising content (informativeness) to highlight the positive consequences on health (Cordts and Nitzko, and Spiller, 2014; Martinez, 2014). In addition, food advertising content (informativeness) reflects the presence of explicit and objective product features so that organic food products can persuade consumers by stimulating their rationality and thus largely emphasise cognitive consumer responses (Sheeran and Harris and Epton, 2014). The advertisements use food advertising content (informativeness), typically emphasises the quality of organic food products and value performance) (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Vainio et al., 2018). Informativeness in food advertising content composed ingredients utilitarian values, ingredients and features about organic food products through videos, images and posts are a direct chance for interaction undertaken by marketers (Nam and Dân, 2018). Lilja (2019) confirmed that the food advertising content uses attractive images and videos with short-informative captions to explain the benefit of organic food products. It leads to food advertising content that can capture large pools of audiences' intention to purchase organic food products (Lilja, 2019; Ahmed, 2017).

Ahmed (2017) found that informativeness in food advertising content was the most important factor in the intention to purchase organic food products. In addition, Nam and Dân, 2018 found that consumers regarded the food advertising content (Informativeness) as a positive aspect of advertising when they could learn about the benefits of organic food products.

Therefore, informativeness is an essential factor that increases the value of advertising in the context of healthy food (such as organic food products). Moreover, informativeness has an indirect and positive impact on consumer attitudes. (Olsena and Tuu, 2017; Buaprommee, and Polyorat, 2016; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020).

On the other hand, in the context of healthy food (organic food products), informativeness has little impact on consumer attitude. Participants intended to avoid buying healthy food (such as organic food products) increasingly due to them rejecting

most of the organic food products information. The problem lies in a person's ability to filter, catalogue and conserve valuable information and abandon that which has no value in terms of usefulness (Ortega et al., 2011; Logan and Bright and Gangadharbatla, 2012; Vainio et al., 2018). Increasingly, if advertisements provide limited information about the benefit of organic food products, they cannot change consumer attitudes toward purchasing organic food products (Saxena and Khanna, 2013; Núñez-Barriopedro, 2020).

Similarly, Buttlar and Walther (2018) argued that food advertising content (emotional appeal) has a more significant effect on consumers' product acceptance than food advertising content (informativeness).

Table 2.2: The critical analysis of the previous study of informativeness

Researchers	Purpose	Outcomes	Methodology
2008	Van Rijswijk and Frewer	Consumer perceptions of food quality and safety and their relation to traceability.	The semi-structured interview
2009	• Choe et al.,	Effect of the food traceability system for building trust: Price premium and buying behavior	• The Partial Least Squares (PLS)
2011	Ortega et al,	Modeling heterogeneity in consumer preferences for select food safety attributes in China	A random parameters logit (RPL) and A latent class model (LCM),
2013	Saxena and Khanna	Advertising on Social     Network Sites: A Structural     Equation Modelling     Approach	Structural equations model
2014	• Dao et al.,	Social media advertising value	• The partial least squares (PLS)
2014	Ha and Park, and Lee	A framework for mobile SNS advertising effectiveness: user perceptions and behaviour perspective	The average variance extracted (AVE) value
2016	Buaprommee, and Polyorat	• Intention to Purchase Traceable Meat: The Impacts of Perceived Information Asymmetry, Informativeness, Usefulness, and NormNathamon	Structural equation modelling (SEM)
2017	Olsena and Tuu,	Time perspectives and convenience food consumption among	A confirmatory factor analysis (CFA)

		teenagers in Vietnam: The dual role of hedonic and healthy eating values	
2019	CHA and LYU	• Influence of SNS Characteristics on the Brand Image of Infant Food Products.	Structural equation modelling (SEM)
2020	Cuesta-Valiño and Rodríguez and Núñez-Barriopedro	<ul> <li>Perception of Advertisements for Healthy Food on Social Media: Effect of Attitude on Consumers' Response</li> </ul>	Structural equation modelling (SEM)

# 2.7. What is advertising creativity?

Haider, Ahmad, and Ghani (2019) and Choi et al. (2018) found that advertising creativity is defined as the extent to which advertising is unexpected and original. Relevance and differentiation are understood to be the leading attributes of creativity in advertising. Divergence is related to elements that are novel, unusual or different, whereas relevance is related to elements that are useful, meaningful, appropriate or valuable to the audience (Mamtani and Singh, 2018; Rosengren and Dahle and Modig, 2013; Shen et al., 2013). Creative messages attract more attention and can lead to positive attitudes regarding the featured products (such as the features of organic food products) (Ahmad and Mahmood, 2011; Choi et al., 2018).

Additionally, a euro was invested in a highly creative advertising campaign. On average, almost double the sales effect of a euro is spent on a non-creative campaign. Jati and Wahyono (2017) and Anupama and Suresh (2018) suggested that creative advertising could increase motivation to process advertising and develop attitudes towards advertising and the positive impact of organic food products. Furthermore, advertising creativity can increase the intention to purchase organic food products (Rosengren, Dahle and Modig, 2013; Mamtani and Singh, 2018).

On the other hand, (Lee and Hong, 2016) found that many customers still regard advertising message as interference rather than as a crucial or helpful information. Therefore, advertisers must spend time carefully creating the right message, rather than simply conveying information.

The definition of advertising creativity is authentic, astounding, original, meaningful, unexpected, unpredictable, not imitative advertising, which can influence emotions. Creative advertising causes the audience to pay attention to organic food products'

attributes (Maniua and Zaharie, 2014; Kim and Han and Yoon, 2010; Ali, 2016). Advertising creativity is defined as relevant, memorable and original that needs to have the ability to obtain the attention of the target customer. Advertising creativity can be crucial for advertisers to influence target customers. There are distinct views in the literature that advertising creativity can investigate (Choi et al., 2018; Mamtani and Singh, 2018).

According to Anupama and Suresh (2018), advertising creativity focuses on impacting consumers and establishing a positive attitude towards the intention to purchase organic food products.

Definitions of advertising and surveys from the public's perspective toward advertising do not emphasise ideas about creativity (Ali, 2016; Haider and Ahmad and Ghani, 2019). The target customers have to look at an advertisement as creative. For example, advertising can display the image of a food product and persuade consumers to purchase; however, this means restricting the emphasis and segmentation of the market according to demographic profiles, which have a distinct tendency to purchase the product (Oktaniar et al., 2020).

Mamtani and Singh (2018) and Shen et al., 2020 suggested that consumers comprehend and analyse advertising related to their wants and needs. People view advertising as creative if it can react to their wants and needs. Choi et al. (2018) argues that there needs to be a good association between advertisers and target customers. Both ought to comprehend each other's view of creativity, which can help maintain a long-term relationship.

Anupama and Suresh (2018) and Oktaniar et al. (2020) found that creative advertising could differ from the majority of advertisements. However, ads that are similar to most kinds may not be able to penetrate the competitive crowd. Additionally, the advertisements must capture customers' attention (Rosengren, Dahle and Modig, 2013; Lilja, 2019). For example, nearly 90% of European consumers perceive that buying organic food products may affect health outcomes. In addition, 77% of European consumers intend to pay a premium price for organic foods because they believe in the claims contained in organic food products advertisement. As a result, they purchase organic food products regularly (Hsieh et al., 2016; Choi et al., 2018).

Advertising creativity needs to deliver the core message originally and unexpectedly because the message can show the attributes and surprising benefits of organic food

products. After a consumer sees the ad message, the consumer may be influenced to purchase organic food products (Kim and Han and Yoon, 2010; Haider and Ahmad and Ghani, 2019). According to Suciu et al. (2019) and White and Shen and Smith (2002), persuasive messages exert an impact on the individual's beliefs or opinions and intention to purchase. Attention guides are what consumers focus on and remember and what the consumers consider essential in a given message. Most researchers found common ground in believing that a persuasive message is one of the main factors that impacts the intention to purchase and advertising attitudes (Shen et al., 2013; Wang et al., 2021).

Though advertising creativity may be more effective than standard advertising, this result cannot be guaranteed due to many factors that tend to moderate the effectiveness of advertising. These include the kind of advertisement, and whether it is a commercial or a public service advertisement (PSA) (Hsieh et al., 2016; Choi et al., 2018).

Table 2.3: The critical analysis of previous study on advertising creativity

Researchers	Purpose	Outcomes	Methodology
2002	White and Shen, and Smith,	Judging Advertising     Creativity Using the     Creative Product Semantic     Scale	• ANOVA
2010	Kim and Han, and Yoon	Advertising Creativity in Korea	• Exploratory factor analysis (EFA)
2011	Ahmad and Mahmood	An Empirical Investigation of the Association between Creative Advertising and Advertising Effectiveness in Pakistan	Multi-variate     Analysis of Variance     (MANOVA)
2013	Rosengren and Dahle and Modig,	Think Outside the Ad: Can Advertising Creativity Benefit More Than the Advertiser?.	• t-test
2013	• Shen et al.,	The impact of advertising creativity, warning-based appeals and green dispositions on the attentional effectiveness of environmental advertisements	• ANOVA
2014	Maniua and Zaharie,	Advertising creativity – the right balance between surprise, medium and message relevance	Structural equations model
2016	Lee and Hong,	Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity	• AMOS
2017	Jati and Wahyono,	• The Mediating Role of	• The Cronbach alpha

		Environmental Concern and Perceived Consumer Effectiveness on the Relationship between Consumer Skepticism Toward Advertising and Green Purchasing Behavior	coefficient ranging
2019	Haider and Ahmad, and Ghani,	<ul> <li>Content Analysis of Award         Winning Television         Advertisements:         Implications for Advertising         Creativity in Pakistan</li> </ul>	• T-test
2020	Oktaniar et al.	The Effect of Halal Labeling, Advertisement Creativity and Lifestyle on Purchase Decisions of Wardah Products (Case Study of Students of Universitas Malahayati)	Structural equations model

# 2.8. Product knowledge

In this part, the research indicates that prior experience is a moderating variable. In addition, product knowledge is a moderating variable that might affect the influence of the food advertising content elements (emotional appeal, informativeness and advertising creativity) (Abu Bakar et al., 2021; Krishna and Balasubramanian, 2021).

Product knowledge is defined as data stored in the individual's memory (Logan and Bright and Gangadharbatla, 2012; Stanton and Cook, 2019) and consists of familiarity and expertise (Pieniak and Aertsens and Verbeke, 2010; Lu et al., 2017). Closeness is the number of experiences associated with the product accumulated by the consumer, and expertise is considered the ability to successfully take a product-related task (Abu Bakar et al., 2021; Chekima et al., 2017). Previous studies (Van Loo et al., 2013; Tan et al., 2015; Jin, 2014) have confirmed that product knowledge is essential to decision-making. Therefore, they have studied the role of the previous experience of the consumer in diverse aspects, and they have displayed that the prior knowledge of the consumer impacts their data processing process, receiving new information and use of existing data (Loua and Yuan, 2019; Abu Bakar et al., 2021).

However, Abu Bakar et al. (2021) found that the results of a hierarchical regression analysis indicated that knowledge of organic foods negatively influences the intention to purchase. Thus, the consumers' previous experience with organic foods might only sometimes increase the consumers' intent to buy organic food. In the same way, Smith and Paladino (2010) agreed that the knowledge of food advertising content did not have

an impact on intention to purchase and purchase behaviour. They suggested this might be because customers might still doubt food advertising content for organic food despite showing a positive attitude towards it.

In the same way, product knowledge is an essential factor that will impact intentions to purchase and consumer behaviour in which prior experience is information caused by self-learning and stored in the person's memory. The intent to purchase the consumer will be different if the consumers have different product knowledge (Abu Bakar et al., 2021; Singh & Verma, 2017). The purchase of healthier and safer products cannot be separated from product knowledge of the consumers about health and safety (Chekima et al., 2021; Abu Bakar et al., 2021) and knowledge of organic food products (Parmenter and Waller and Wardle, 2000; Singh, 2017). For instance, Tan al et (2015) and Kim et al. (2016) discovered that respondents believed that organic products are free of pesticides, artificial fertilizers, growth regulators, and chemical products. The survey also showed that respondents in the UK recognised that organic farming meant growing food naturally without chemicals or intensive farming techniques (Stanton and Cook, 2019).

On the other hand, food advertising content increases information to the existing knowledge about the food advertising content influences on organic food. The interaction might be caused by the impact of product knowledge on consumer information processing, leading to different purchase intentions. In particular, food advertising content communicates messages about health and safety, influencing individuals with much knowledge (Logan and Bright and Gangadharbatla, 2012; Hsu and Chang and Lin, 2016; Wang et al., 2019).

Consumers' product knowledge can impact both the level of confidence and the level they need and, consequently, the perceived gap (Stanton & Cook, 2019; Abu Bakar et al., 2021). At low levels of product knowledge, for instance, consumers might not know what they do not realise and feel confident in making decisions. On the other hand, when the customers have more knowledge, the consumers are increasingly familiar with the product's attributes. As a result, they are more prepared to find specific details about various product options (Wang et al., 2021 Kushwah et al., 2019).

These findings represent a recognised gap in confidence which can be closed with a search for information. In this sense, higher product knowledge facilitates the application of available information for decision-making (Krishna & Balasubramanian, 2021; Loua & Yuan, 2019). In addition, such product knowledge enables subsequent and extensive

information to bear meaning and be properly associated with the previous information, thus promoting additional knowledge about the matter.

On the other hand, with a low level of product knowledge, consumers do not have the data to draw upon to estimate the attributes of the product successfully and thus limits the attributes these consumers consider before making a decision (Stanton & Cook, 2019; Wang et al., 2021).

Clearly, empirical analysis of knowledge needs to measure product knowledge. The general practice has been to apply respondent self-reported knowledge, generally with a multi-item scale which can reflect the respondents' views on their knowledge. For instance, Kim et al. (2016) and Kotler and Armstrong (2018) measure system, action-related and efficient knowledge with one Likert scale question for each question. As actual knowledge can be difficult to assess, some studies have applied a manipulation method by providing respondents with limited or somewhat extended information regarding the product applied in the research (Lu et al., 2017; Wang et al., 2021).

Table 2.4: The critical analysis of previous studies on product knowledge

Researchers	Purpose	Outcomes	Methodology
2010	Smith and Paladino,	Eating clean and green?  Investigating consumer motivations towards the purchase of organic food	The Pearson correlation measure
2012	Logan and Bright, and Gangadharbatla	Facebook versus television:     advertising value     perceptions among females	Structural equation modelling (SEM)
2013	• Van Loo et al.,	Consumer attitudes, knowledge, and consumption of organic yogurt	Structural equations model
2014	• Jin	Interaction between message framing and consumers' prior subjective knowledge regarding food safety issues	• t-test
2016	Hsu and Chang, and Lin	Explaining consumer attitudes and purchase intentions toward organic food; Contributions from regulatory fit and consumer characteristics	Samples were gathered in Taiwan from April to May 2014, with 252 effective questionnaires returned. This study used structural equation modelling to analyse the data.
2017	Chekima, et al.,	Narrowing the gap: Factors driving organic food	Structural equation

		consumption	modelling (SEM)
2019	• Loua and Yuan,	Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media	Partial Least Squares     (PLS)
2019	Stanton and Cook	Product knowledge and information processing of organic foods	Structural equations model
2019	• Wang et al.	Factors Influencing     Organic Food Purchase     Intention in Developing     Countries and the     Moderating Role of     Knowledge	Analysis of Moment Structure (AMOS)
2021	Abu Bakar et al.,	Effective Communication for Water Resilient Communities: A Conceptual Framework	Structural equation modelling (SEM)

# 2.9. Socio-demographic factors

In this part, the research indicates the relevant external factor moderating variables. These moderating variables might influence the relationship between the influence of food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge (Oroian et al., 2017; Mehra & Ratna, 2014; Chen & Lobo & Rajendran, 2014).

Besides socio-demographic characteristics, consumers' intention to purchase organic food products is related to product knowledge, food advertising content (emotional appeal, informativeness and advertising creativity) and the Theory of Planned Behaviour (TPB) variable (attitude, subjective norms, and perceived behavioural control). Product knowledge, food advertising content and the Theory of Planned Behaviour (TPB) variables increasingly stimulate female and male consumers' intent to purchase organic food products. This happens after they see an advertising message that communicates an attribute of organic food products (Gracia & Magistris, 2007; Prentice and Chen and Wang, 2019; Oktaniar and Listyaningsih and Purwanto, 2020).

On the other hand, previous studies have found that gender socio-demographic characteristics (such as gender) may not be a relationship between product knowledge, food advertising content and the Theory of Planned Behaviour (TPB) variable toward intention to purchase organic food products. Due to an advertising message provides information about organic food products that are difficult to understand (Stone and Besser and Lewies, 2000; Yang & Smith, 2009; Shen et al., 2020).

Grunert, Wills, and Ferna'ndez-Celemin (2010) indicated that socio-demographic characteristics (such as gender) could be helpful. It can show that demographic characteristics impact the food advertising content (Emotional appeal, Informativeness and Advertising creativity). However, the causal mechanisms can be quite different. In addition, Gracia and Magistris (2007) pointed to socio-demographic characteristics (such as gender) as significant in explaining the intention to purchase organic food products, mainly in empirical studies performed in the USA.

Previous studies have indicated that several socio-demographic factors significantly impact consumers' demand and intention to purchase organic foods. Therefore, socio-demographic characteristics have been mentioned in the theory of planned behaviour (TPB) (Shin & Mattila, 2019). However, previous studies have proposed implicitly due to a group of consumers that have been segmented by the distinctness in socio-demographic factors and might also vary about the influence of positive message framing (the natural content, health consciousness, and the sensory appeal) and intention to purchase (Mehra & Ratna, 2014; Chen & Lobo & Rajendran, 2014).

The definition of gender that is regarded as "soft" values (e.g., eco-friendliness) appears to be more suited to women's perspectives due to most women that are often worried about health and healthy food. Lea and Worsley (2005) and Kumar and Smith (2017) found that young women have positive thoughts about organic agricultural products rather than men. Chang and Thach, Olsen (2016) and Shin and Mattila (2019) have discovered that more women than men have a positive attitude towards organic food. Mehra and Ratna (2014) and Oroian et al. (2017) noted that a higher proportion of females wanted to purchase or consume organic food after the females were exposed to food advertising content that communicated the natural content, health consciousness, and sensory appeal.

The definition of gender is regarded as a subjective and social structure (Paul & Rana, 2012; Stojanovic and Filipovic and Mugosa, 2013; Teichert et al., 2018). Even though the descriptions of society and individual that define gender change all the time, the original role of the gender, or part of it, still exist in our society (Paul & Rana, 2012; Chekima et al., 2021). There has been a consensus about the characteristics identified as male or female (Shin & Mattila, 2019). Individuals have not only been expected to follow the norms that control gender roles, but also tend to follow societal standards for their gender (Kumar & Smith, 2017). Gender-based reasoning impacts individual perceptions and behaviours (Irandoust, 2016; Teichert et al., 2018).

Gender is one's identity in society. The identity of a society is defined as the level of identification with either male or female characteristics (Irandoust, 2016), and gender is essential for one's self-concept (Chekima et al., 2021; Akbar et al., 2019). This is the difference between ideal and genuinely existing self-prompt compensation actions (Sangkumchalianga & Huang, 2012; Wang et al., 2021). Compensation actions include the endorsement characteristics related to an in-group that has defined their ideas and avoids the features associated with a group outside (Oroian et al., 2017; Wei and Rickard and Brown, 2015).

Gender is a subjective and social construction (Zhanga, Li, Yangb and Zhang, 2017). Though personal and social meanings, which define gender, change over some time, traditional gender roles, or some part, remain in our society (Chen & Lobo & Rajendran, 2014; Kalu & Daniel, 2017). There is a consensus about the characteristics identifying women or men (Shin & Mattila,2019; Akbar et al., 2019). People not only expect to follow the norms that control sexual roles but are more likely to comply with gender norms (Kumar & Smith, 2017). Gender-based reasoning exerts causes on people's perceptions and behaviours (Irandoust, 2016; Oroian et al., 2017; Mehra & Ratna, 2014). Being determined by a distinct gender segregates one from an ideal self. Thus, men avoid selecting a food product with advertising content with a female connotation (Oroian et al., 2017). Such a tendency of avoidance extends to a subsequent alternative. When the initial meanings are related (versus irrelevant) to feminine meanings, males are less likely to select products for women (Shin & Mattila, 2019; Chang & Kung, 2017). In addition, females are more interested in healthy eating than males (Grunert and Wills and Ferna'ndez-Celemin, 2010; Wang et al., 2021).

Gender is another factor that affects consumers' response to food advertising content (Emotional appeal, Informativeness and Advertising creativity) (Teichert et al., 2018). On the other hand, less than 15% of advertisements are directed toward females; less than 5% toward males; and the remaining 80% are general advertisements for both genders (Chang & Kung, 2017; Wei, 2015). Furthermore, the selectivity model (Darley & Smith, 1995) indicated that they are more likely to receive more extensive information. Therefore, process it in distinct parts and apply a comprehensive strategy. In addition, females consider both subjective and objective characteristics of the product.

However, males often rely more on mental shortcuts to process information; moreover, men do apply all the available information to make a judge; however, males are subjective and selective. Teichert et al. (2018) and Akbar et al. (2019) examined the impact of food advertising content (Emotional appeal, Informativeness and Advertising

creativity) on the purchase intention variable. They could conclude that gender acted as a moderator. Females and males are impacted by the food advertising content (Informativeness and Advertising creativity) (Wei and Rickard, and Brown, 2015). For instance, the results of a study examining gender differences in response to food advertising with the food advertising content (Emotional appeal and Informativeness and Advertising creativity). The results showed that when females were exposed to food advertising content (Emotional appeal and Informativeness Advertising creativity), they knew more about the benefit of organic food products. Therefore, it leads to females will purchase organic food products increasing. On the other hand, males did not show significantly different attitudes in all three cases (Wei and Rickard and Brown, 2015; Akbar et al., 2019; Kalu & Daniel, 2017).

Table 2.5: The critical analysis of the previous study of Socio-demographic factors

Researchers	Purpose	Outcomes	Methodology
2005	Lea and Worsley	Australians' organic food beliefs, demographics and values	Principal components analyses
2012	Paul and Rana	Consumer behavior and purchase intention for organic food	Chi-square test
2012	Sangkumchalianga and Huang,	Consumers' Perceptions and Attitudes of Organic Food Products in Northern Thailand	Chi-square
2014	Chen and Lobo and Rajendran	Drivers of organic food purchase intentions in mainland China – evaluating potential customers' attitudes, demographics and segmentation	An exploratory factor analysis
2014	Mehra and Ratna	Attitude and behaviour of consumers towards organic food: An exploratory study in India,	Principal component analysis
2016	• Irandoust	Modelling Consumers'     Demand for organic food     products: The 83odelli     experience	An exploratory factor analysis
2017	Chekima, et al.,	Narrowing the gap: Factors driving organic food consumption	Structural equation modelling (SEM)
2017	Daniel and Kalu	Advertising Appeal and Purchase Intention of Beer Consumers in Port Harcourt	• ANOVA
2017	Oroian et al.,	Consumers' Attitudes towards Organic Products and Sustainable Development: A Case	<ul><li>Descriptive statistical analysis</li><li>ANOVA</li></ul>

		Study of Romania
2017	Kumar and Smith	<ul> <li>Understanding Local Food Consumers: Theory of Planned Behavior and Segmentation</li> <li>ANOVA</li> </ul>
2017	Zhanga et al.,	Why do domestic tourists choose to consume local food? The differential and non-monotonic moderating effects of subjective knowledge      Structural equation modelling (SEM)
2019	Shin and Mattila,	When organic food choices shape subsequent food choices: The interplay of gender and health consciousness

# 2.10. Theories used in food advertising content.

### 2.10.1. What is the Theory of Planned Behaviour (TPB)

The theory that has been used to create the conceptual model of the research is the theory of planned behaviour (TPB). Ajzen first presented TBP in 1991 and used the TBP to predict the 'behavioural intention' of the individual.' The theory was centred around model intentions being the immediate precursor to the efficient practice of any behaviour. Generally, the more the will to carry out behaviour, the more likely the individual's behavioural purpose can be controlled (Ajzen, 1991). The TPB has successfully explained consumers' food choice behaviours (Chen, 2007; Atta and Abbas and Syed, 2021). Therefore, the TPB was regarded as the most appropriate theory for discovering the motivation of consumers' choices to purchase organic food products.

The work of Ajzen (1991) has been adopted further by other researchers to help interpret the impact of food advertising content in different contexts, such as organic food products (Singh & Verma, 2017; Gustavsen & Hegnes, 2020), organic coffee (Lee and Bonnand and Cho, 2015), and breakfast consumption (Kothe and Mullan and Amaratunga, 2011). The essence of the TPB in all these studies is that the TPB relates to the food advertising content of organic food products. Organic food products send that to consumers to persuade them to purchase organic food products (Singh & Verma, 2017; Kothe and Mullan and Amaratunga, 2011). Therefore, the TPB indicate that consumers would respond to different messages regarding the positive impact of organic consumption or breakfast consumption (Singh & Verma, 2017; Kothe and Mullan and Amaratunga, 2011; Atta and Abbas and Syed, 2021).

In the past few years, the theory of TPB has been studied in marketing communications. The literature regarding marketing communications indicates that the TPB displays a theoretical insight into comprehending positive message framing (Singh & Verma, 2017; Atta and Abbas and Syed, (2021).

From the perspective of marketing, the previous has found that the potential impacts of positive message framing communicate about animal welfare, which cannot increase the frequency of intention to purchase organic food that has developed by using the TPB as a model to change behaviour (Kothe and Mullan and Amaratunga, 2011; Lu et al., 2017). One way to increase intentions to purchase organic food is to use food advertising content regarding healthier and safer purchase behaviour toward organic food products (Chen, 2007; Gustavsen & Hegnes, 2020). The context of more nutritious and safer purchases can increase the frequency of intentionally purchasing organic food that has developed explicitly by using the TPB as a model to change behaviour (Singh & Verma, 2017). The TPB, defined as the type of faith model, is accepted well by individuals' decision-making. The TPB has been widely accepted and pragmatic in assessing consumer behaviour (Shah Alam & Mohamed Sayuti, 2011; Atta, Abbas and Syed, 2021). Therefore, the TPB has been incorporated to explain the consumer's intention in the retail food market.

On the other hand, the TPB model has been criticized because it lacks the component of experience involving the purchasing behaviour of the consumer (Wee et al., 2014). Also, the model of TPB indicated that the behaviour of actual use is the result of intention. Thus, the behavioural intention should precede usage behaviour (Al-Swidi al et, 2014; Lu et al., 2017; Atta and Abbas and Syed, 2021).

In the past few years, many researchers ((Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012; Bullock and Johnson and Southwell,2017) have studied diverse contexts of food advertising content that led to the discovery of the TPB. As a result, examples of emotional appeal, informativeness, advertising creativity, and customer awareness appeared in the literature. In addition, many researchers (Hsu, 2016; Shafiea & Rennieb, 2012; Sangkumchaliang & Huang, 2012; Gustavsen & Hegnes, 2020) have demonstrated the influence of positive message framing on product knowledge.

Though the TPB has been adopted to investigate food advertising content of various contexts on various setups, there has been minimal food advertising content within the

context of healthier, safer, and product knowledge. Furthermore, the content included little evidence of the influence of food advertising content on emotional appeal, informativeness, advertising creativity and product knowledge based on the TPB. The research examines the influence of positive message framing and its impact on advertising messages to reduce these gaps. It relates to emotional appeal, informativeness, advertising creativity and product knowledge, attitude, subjective norm, and perceived behavioural control.

The theory of planned behaviour has evolved from the Theory of Reasoned Action (TRA) that initially developed in 1975 (Ajzen, 1991). Following the TRA, a person's intention to execute the behaviour is regarded as the most essential factor in performing the behaviour. Behavioural intent is directly imposed by attitude and the subjective norm. Attitudes toward specific behaviour might be either negative or positive. More favourable attitudes towards the behaviour ought to increase behavioural intention. Subjective norm means "the social pressure to perform or not perform the behaviour" (Ajzen, 1991; Gustavsen & Hegnes, 2020; Atta and Abbas and Syed, 2021). Ajzen suggests that the TRA failed to identify behaviours of people that do not control themselves completely or the ability to willfully select whether or not to participate in the specified behaviour. Therefore, the TRA has been developed to cover the creation of perceived behavioural control (PBC) by considering the assumption that a person's degree of confidence in one's capability to engage in a behaviour is an essential factor of behavioural intention (Ajzen, 2002; Atta and Abbas and Syed, 2021).

The theory of planned behaviour (Ajzen, 1991) is regarded as a type of faith model and is accepted well by individuals' decision-making. The TPB has been used widely so that researchers can understand a broad range of health and social behaviours, including copyright violations (Smith & Paladino, 2010; Gustavsen & Hegnes, 2020). The TPB has been used to show that intentions have been the most proximate determinant of conduct and are formulated by three factors, namely attitude, subjective norm, and perceived behavioural control (Ajzen, 1991). An individual's attitudes are mainly supported by their faith about the disadvantage and advantages of completing the target behavior.

Subjective norm is underpinned by the normative beliefs of an individual involved to the extent that significant others would agree or disagree with them involved with the behaviour.

On the other hand, this meddling depends on only one text that targets each of TPB's three elements. Moreover, specific features of the particular advertising influenced will be used to determine the findings; for example, the aim of designing messages is to target different faith and might have accomplished different consequences (Kothe and Mullan and Amaratunga, 2011; Fleseriu and Cosma and Bocanet, 2020).

The TPB is a theoretically structured framework that describes and predicts human behaviour according to attitudes and beliefs (Ajzen, 1991). The TPB hypothesises that the proximal determinant of behaviour is the intention of the person to execute the behaviour when three conceptually independent ideas create meaning: attitude, subjective norm, and perceived behavioural control. Specific conspicuous beliefs that dominate behavioural, normative, and control beliefs influence the entire constructs (attitude, subjective norm, and perceived behavioural control). The TPB is also one of the main expectancy-value models research uses to investigate behaviour-related food selections and behavioural intention. Many studies cited the TPB to equip the theoretical basis, such as healthy eating (Kothe and Mullan and Amaratunga, 2011; Smith & Paladino, 2010; Fleseriu and Cosma and Bocanet, 2020), dietary habits (Singh & Verma, 2017), a selection of food (Shah Alam & Mohamed Sayuti, 2011; Gustavsen & Hegnes, 2020), customer complaints about the restaurant (Lian, 2017), and the choices for eating out (Wee et al., 2014; Fleseriu and Cosma and Bocanet, 2020). Accordingly, this research will use the TPB to understand the food advertising content within emotional appeal, informativeness, advertising creativity and product knowledge via attitude, subjective norm, and perceived behavioural control. In addition, other relevant factors are specified that may influence the scheme proposed. The proposed factor is the demographic variable (gender), a moderating variable. By combining these moderating variables with the original elements of consumers' buying intention to participate in the food advertising content, such a frame is more beneficial in the context of the food advertising content in Thailand.

Therefore, this TPB model will propose the conceptual model of this study in the context of the influence of food advertising content, which extends the current literature.

#### 2.10.1.1. Attitude

In accordance with the TPB, attitudes are an essential determinant of behavioural intentions. The more positive a person's attitude towards the behaviour, the stronger their intention to carry it out. In the same way, research on the intention to purchase organic

food products has confirmed the positive and essential association between attitudes and intent to purchase (Teng & Wang, 2015; Wang et al., 2019).

The definition of attitude toward the behaviour is the degree, too, if an individual has an unfavourable or favourable evaluation of the conduct in question (Ajzen, 1991). This also attitude includes deciding whether the behaviour is good or bad and whether the actor would like to show the behaviour (Paul and Modi and Patel, 2016; Atta and Abbas and Syed, 2021). In the same way, Abu Bakar et al., 2021 suggested that attitude is defined as the consequences of awareness associated with the behaviour. Paul and Rana (2012) and Spence et al. (2018) said that the definitions of attitude are regarded as the main critical predictor of intention behaviour. Perspective is viewed as psychological emotions transmitted through the assessment of consumers, and if positive, intentional behaviour tends to be more positive (Lee and Bonnand and Cho, 2015; Atta and Abbas and Syed, 2021).

Paul and Modi, and Patel (2016) and Zhang et al., 2017 noted that consumers prefer food advertising content within the context of emotional appeal, informativeness and advertising creativity on organic food products if they have a positive attitude towards better health.

Abu Bakar et al. (2021) and Solomon (2021) examined this proposition in the context of food consumption. In organic food consumption, many studies have indicated that attitude positively impacts intention (Wang et al., 2019; Nguyen, 2011); Kothe and Mullan and Amaratunga, 2011; Smith & Paladino, 2010). In the choice behaviour of organic food, scholars have examined the positive association between attitudes and intentions (Dean et al., 2012; Zhanga et al., 2017) to determine that the reasons for attitude-intention persuade a consumer to consume an organic food product. Our literature review shows that a change in attitude towards buying organic food will increase the intention to purchase organic food.

In contrast, if consumers are exposed to food advertising content within the context of emotional appeal, informativeness and advertising creativity, the attitude of consumers will not intend to purchase organic food (Solomon, 2021; Zhanga et al., 2017). However, if food advertising content is within the context of emotional appeal, informativeness and advertising creativity shown on the label of organic food products, consumers' attitudes will increase their intention to purchase organic food (Daniel & Kalu, 2017; Dean et al., 2012).

On the other hand, if consumers care about health, and have already taken medicine such as vitamins and "health food" as a dietary supplement, food advertising content within the context of emotional appeal, informativeness and advertising creativity that is not able to motivate the attitude of the consumers to increase intention to purchase organic food (Daniel & Kalu, 2017; Paul and Modi and Patel, 2016).

If an individual has a good attitude towards the product, Aizen and Fishbein suggested that this can lead them to certain conducts and favourable purchasing intentions. Therefore, in accordance with TPB, if an individual would like to do so in some way, they will probably do so (Atta and Abbas and Syed, 2021; Zhanga et al., 2017).

Attitudes have motivational qualities which can impact consumers towards or away from specific behaviour (Egan, 2015; Spence et al., 2018). Although attitudes are related to consumers' opinions, preferences and feelings (Solomon, 2021; Xie et al., 2020), perspectives on attitudes are associated with the complication in measurement when the consumers might have a positive attitude towards the object; however, at the same time, they can also have a negative attitude towards a specific element of the object.

In addition, they are seen to have motivational qualities which can control specific behaviours (Egan, 2015; Abu Bakar et al., 2021). On the other way, they take a negative attitude towards game meat because of the awareness of food safety risks (Zhang & Yin, 2014; Xie et al., 2020), although others can find a positive attitude towards game meats has a more significant impact on intention to purchase (Demartini et al., 2018; Atta and Abbas and Syed, 2021).

Table 2.6: The critical analysis of the previous study of Attitude

Researchers	Purpose	Outcomes	Methodology
1991	• Ajzen	The theory of planned behavior behavior	Secondary analysis
2010	Smith and Paladino	Eating clean and green?     Investigating consumer     motivations towards the     purchase of organic food	• Exploratory factor analysis
2011	Kothe and Mullan and Amaratunga,	Randomised controlled trial of a brief theory- based intervention promoting breakfast consumption	• ANOVA
2011	Nguyen,	A Comparative Study Of The Intention To Buy Organic Food Between Consumers In Northern And Southern Vietnam	<ul> <li>Structural equation modelling (SEM)</li> </ul>
2012	Dean et al.,	• The role of self-identity,	• Structural equation

		past behavior and their interaction in predicting intention to purchase fresh and processed organic food.  modelling (SEM)  modelling (SEM)
2012	Paul and Rana,	Consumer behavior and purchase intention for organic food      Chi-square test
2015	Lee and Bonn and and Cho	Consumer motives for purchasing organic coffee: The moderating effects of ethical concern and price sensitivity      This used structural equation modelling, confirmatory factor and descriptive statistics to analyze the data.
2016	Paul and Modi, and Patel, (2016).	<ul> <li>Predicting green product consumption using theory of planned behavior and reasoned action</li> <li>Structural equation modelling (SEM)</li> </ul>
2017	Daniel and Kalu	<ul> <li>Advertising Appeal and Purchase Intention of Beer Consumers in Port Harcourt.</li> </ul>
2017	Zhanga and Li and Yang and Zhang	Why do domestic tourists choose to consume local food? The differential and non-monotonic moderating effects of subjective knowledge      Structural equation modelling (SEM)
2019	• Wang et al.	<ul> <li>Factors Influencing         Organic Food Purchase         Intention in Developing         Countries and the         Moderating Role of         Knowledge</li> <li>The Statistical Package         for the Social Sciences         (SPSS)</li> </ul>
2021	Abu Bakar et al.,	<ul> <li>Effective Communication for Water Resilient Communities: A Conceptual Framework</li> <li>Structural equation modelling (SEM)</li> </ul>

### **2.10.1.2. Subjective norm (SN)**

In the theory of planned behaviour (TPB), the subjective standard is regarded as a second factor determining behaviour intention. The definition of the subjective norm is the perception of social pressure not to perform or carry out the behaviour (Ajzen (1991), cited in Wang et al. (2019). In the same way, the subjective norm is often defined as a person's perception or opinion regarding what significant others trust the person ought to do (Daniel & Kalu, 2017; Atta and Abbas and Syed, 2021).

Paul and Modi, and Patel (2016) and Souza (2022) emphasised the influence of other people who are significantly close to the individual or actor, such as co-workers, close friends, relatives, or business partners. Subjective norms can capture the individual's

feelings regarding the social pressure they feel about defined behaviour. Consumers have positive personal standards towards a defined behaviour, and the concerned behaviour intentions tend to be positive (Lee and Bonnand and Cho, 2015; Singh & Verma, 2017; Atta and Abbas and Syed, 2021).

In the context of marketing and consumer behaviour, many studies have recorded subjective norms are a critical determinant of intention, including the intent to purchase organic food (Dean et al., 2012; Abu Bakar et al., 2021), intention to use technology (Paul and Modi and Patel, 2016; Ghazalia et al., 2017), participation intention (Singh & Verma, 2017; Ali et al., 2017), environmental awareness of consumption (Daniel and Kalu, 2017.; Nguyen, 2011), and intention to revisit green hotel (Paladino & Smith, 2010; Lee and Bonnand and Cho, 2015). These studies have noted a positive relationship between subjective norms and intentions. For example, when consumers recognise that their "important others" want to purchase organic food increasingly because they are exposed to food advertising content within the context of emotional appeal, informativeness and advertising creativity, consumers will more likely want to purchase organic food. Therefore, it is expected that consumers will adopt group behaviour, such as the purchase of organic food.

Singh and Verma (2017) and Thom'e et al. (2019) examined the relationship between subjective norms and intention to purchase organic food more thoroughly and determined the cause of a common link from the standard to intent to buy organic food. The authors significantly discovered the path from subjective norms to the intention to purchase organic food. Daniel and Kalu (2017) and Dean et al. (2012) examined how personal standards influence consumers' intention to purchase organic food.

In accordance with, Atta and Abbas and Syed (2021) and Singh and Verma (2017), subjective norms are defined as the beliefs/rules which are likely to keep an individual in a specific behaviour that associates with professed social pressure and appropriate purchase behaviour that is individually or in a group.

Subjective norm has been mentioned above and is regarded as social pressure from important others such as peers, friends and family (Ajzen, 2002). Although subjective norm did not display any importance in healthy food purchase behaviour (Thom'e et al., 2019; Abu Bakar et al., 2021), other researchers have found that subjective norm positively impacted intention to purchase organic meat (Singh and Verma, 2017 and Atta

and Abbas and Syed, 2021). However, halal meat could positively impact the intention to purchase (Ali et al., 2017; Singh & Verma, 2017).

Similarly, the subjective norm is also associated with a person's perceived social pressure to participate in some behaviour (Ajzen, 2002). When people are in groups, there are norms, rules, or beliefs about appropriate consumption behaviour. According to Teng and Wang (2015), consumers are more likely to have a positive intention to purchase a product if they think those critical others have positive opinions and attitudes towards such products. Souza (2022) and Wang et al. (2019) also emphasized the significance of subjective norms in predicting the intention to purchase. Furthermore, (Ghazalia et al., 2017; Daniel & Kalu, 2017) highlight that subjective norms were regarded as the main factor impacting ecologically friendly purchases compared to environmental and financial compensations.

On the other hand, the previous study discovered a non-critical prediction for intention to purchase, as well as Pomsanam and Napompech and Suwanmaneepong (2014), Paul and Modi and Patel (2016). Subjective norms have been recognized as the weakest link in the model of purchase intention by the previous study, which had utilized the framework of TPB in general (Ajzen, 1991), and also specifically to organic food makes (Zhanga et al., 2017; Atta and Abbas and Syed, 2021). Consumers believe that the approval of "important others" is not crucial for purchasing organic food products. Their family members and peers failed to give a positive impetus for buying organic products.

Table 2.7: The critical analysis of previous studies on Subjective norm

Researchers	Purpose	Outcomes	Methodology
1991	• Ajzen,	The theory of planned behavior behavior	Secondary analysis
2010	Paladino and Smith	Eating clean and green?     Investigating consumer     motivations towards the     purchase of organic food	Descriptive and inferential analysis
2011	• Nguyen	A Comparative Study Of The Intention To Buy Organic Food Between Consumers In Northern And Southern Vietnam	Structural equation modelling (SEM)
2012	Dean et al.,	The role of self-identity, past behavior and their interaction in predicting intention to purchase fresh and processed organic food.	Structural equation modelling (SEM)
2014	Pomsanam and Napompech and Suwanmaneepong,	An exploratory study on the organic food purchase intention among Thai-	Bivariate person

		Cambodian cross-border consumers	correlation analysis
2015	Lee and Bonnand and Cho	Consumer motives for purchasing organic coffee: The moderating effects of ethical concern and price sensitivity	This used structural equation modelling, confirmatory factor and descriptive statistics to analyze the data.
2016	Paul and Modi, and Patel,	Predicting green product consumption using theory of planned behavior and reasoned action	Structural equation modelling (SEM)
2017	Daniel and Kalu,	Advertising Appeal and Purchase Intention of Beer Consumers in Port Harcourt.	• ANOVA
2017	• Singh and Verma (2017).	Factors influencing Indian consumers' actual buying behavior towards organic food products	<ul><li>t-test,</li><li>ANOVA</li></ul>
2019	Wang et al.	• Factors Influencing Organic Food Purchase Intention in Developing Countries and the Moderating Role of Knowledge	The Statistical Package for the Social Sciences (SPSS)
2017	Zhanga, et al.	Why do domestic tourists choose to consume local food? The differential and non-monotonic moderating effects of subjective knowledge	Structural equation modelling (SEM)
2021	Abu Bakar et al.,	Effective Communication for Water Resilient Communities: A Conceptual Framework	Structural equation modelling (SEM)

#### 2.10.1.3. Perceived behavioural control (PBC)

Among these three determinants in the model of the theory of planned behaviour (TPB), PBC is the most critical determinant when regarding those certain behaviours are partially under accidental control. The definition of control behaviour recognition "means" perception of difficulty and ease in carrying out the behaviour (Ajzen,1991) and reflects the prior experience and expected obstacles. Zhanga et al. (2017) and Souza (2022) indicated that behaviour control, such as ability and motivation, are determinants of behaviour. Therefore, the aggregate of non-inspiring factors includes the concept of resources (Ajzen, 1991), the real chances (Ajzen, 1991; Zhanga et al., 2017), facilitating elements (Teng et al., 2014), and control of the action (Paul and Modi and Patel, 2016; Souza, 2022).

In contrast, Cornford and Pupat's (2019) concept of self-efficacy is defined as "personal judgments of an individual's capabilities to carry out a behaviour." Self-efficacy regards internal control factors (Kothe and Mullan and Amaratunga, 2011; Abbas & Syed, 2021), whereas PBC focuses on general and external factors (Dean et al., 2012; Atta and Abbas and Syed, (2021). Many studies have demonstrated that PBC has a positive relationship with intentions in various research contexts, such as recycling (Daniel and Kalu, 2017), green hotels (Han et al., 2010; Teng et al., 2014), conservation (Albayrak et al., 2013), organic food products (Pomsanam and Napompech and Suwanmaneepong, 2014; Zhanga et al., 2017), and green products in general (Paul and Modi and Patel, 2016; Abbas & Syed, 2021).

Perceived behavioural control is perceiving the difficulty or ease of interesting behaviour (Ajzen, 1991). It relates to a situation in which persons do not provide complete control with an entirely problematic behaviour (Ajzen, 2002; Abbas & Syed, 2021). Perceived behavioural control has gotten experience and predicting obstacles (Ajzen, 1991). This relates to organic food products because of the price and availability and is most likely to prevent or limit the intention to purchase organic food. Thus, perceived behavioural control is a critical factor to consider due to consumers tending to act out behaviours they can fully control (Zhanga et al., 2017; Abu Bakar et al., 2021)

Evidence has suggested that behaviour is impacted by a person's perceived behavioural control (Ajzen, 1991). Also, Ajzen (2002; Spence et al., 2018) argued that perceived behavioural control could indirectly impact the intention to purchase due to a higher level of perceived behavioural control that ought to perform to increase the purpose of behavioural action.

The research will show that when consumers are exposed to the influence of food advertising content, the levels of perceived behavioural control of consumers will be increased. As a result, it increases consumer likeliness to purchase organic food (Cornford and Pupat, 2019; Abbas and Syed, 2021). However, perceived behavioural control might be due to procrastination among consumers who intend to buy an organic food product rather than as a factor ideal for changing behaviour (Dean et al., 2012; Thom'e et al., 2019).

PBC is the abilities, opportunities and possession of resources individuals believe they have to carry out a specific behaviour. This factor, compared to an individual's attitude toward carrying out a specific behaviour and SN, not only impacts the behavioural

intentions; however, SN also affects the actual behaviour (Souza, 2022; Zhanga et al., 2017).

In addition, perceived behavioural control is the specific behaviour that evolved from the belongings, resources and opportunities. According to Atta and Abbas, Syed (2021) and Zhanga et al. (2017), these factors influence behaviour and behavioural intentions.

PBC is how individuals feel that they have less control over the performance of behaviour and tend to decrease their choice intention, although their attitudes are good (Ajzen, 2002; Cornford & Pupat, 2019). The behavioural control point indicates the ease or difficulty in finding game meats. Though consumers might prefer to consume game meat regularly, they tend to restrict their intake because of the convenience of receiving the product, its availability, or other circumstances, such as restricted promotions (Ghazali et al., 2017; Spence et al., 2018).

After consumers are exposed to food advertising content, prior PBC displays positively predict intentions to consume meat (Spence et al., 2018; Abu Bakar et al., 2021). Similarly, because of its influence on intention or choices, PBC is important if consumers believe their actions can lead to expected results.

Therefore, in this study, it predicts the influence of food advertising content that can increase consumers' levels of perceived behavioural control. When consumers' levels of perceived behavioural control are increased, it affects consumers' behavioural intention to purchase an organic food product.

Table 2.8: The critical analysis of the previous study of Perceived behavioural control

Researchers	Purpose	Outcomes	Methodology
1991	• Ajzen,	The theory of planned behavior behavior	Secondary analysis
2011	Kothe and Mullan and Amaratunga,	Randomised controlled trial of a brief theory- based intervention promoting breakfast consumption	• ANOVA
2012	Dean et al.,	The role of self-identity, past behavior and their interaction in predicting intention to purchase fresh and processed organic food.	Structural equation modelling (SEM)
2014	Pomsanam and Napompech and Suwanmaneepong,	An exploratory study on the organic food purchase intention among Thai- Cambodian cross-border consumers	Bivariate person correlation analysis

2014	• Teng et al.,	Integrating altruism and the theory of planned behaviour to predict patronage intention of a green hotel.      Confirmatory factor analysis
2015	Lee and Bonnand and Cho	Consumer motives for purchasing organic coffee:     The moderating effects of ethical concern and price sensitivity      This used structural equation modelling, confirmatory factor and descriptive statistics to analyze the data.
2016	Paul and Modi, and Patel,	<ul> <li>Predicting green product consumption using theory of planned behavior and reasoned action</li> <li>Structural equation modelling (SEM)</li> </ul>
2017	Daniel and Kalu,	Advertising Appeal and Purchase Intention of Beer Consumers in Port Harcourt.
2017	• Zhanga, et al.,	Why do domestic tourists choose to consume local food? The differential and non-monotonic moderating effects of subjective knowledge      Structural equation modelling (SEM)
2019	Cornford and Pupat	<ul> <li>An Empirical Study Of Factors Influencing On Workers' Purchase Intention Towards Organic Diet Capsule In Bangkok, Thailand</li> <li>Descriptive analysis Multiple linear regression analysis</li> </ul>
2021	Abu Bakar et al.,	<ul> <li>Effective Communication for Water Resilient Communities: A Conceptual Framework</li> <li>Structural equation modelling (SEM)</li> </ul>

# 2.11. Intention to purchase

The Theory of Planned Behavior (TPB) has been used to interpret the intention to purchase organic food. The definition of purchase Intention is regarded as the cognitive representation of an individual's readiness to execute a defined behaviour. Most researchers also consider the intention to purchase as the immediate antecedent of behaviour (Mohamad and Rusdi, and Hashim, 2014; Brumă, 2020). As such, the TPB has been used in the consumption of organic food products from the attitudes and product knowledge towards organic food products, subjective norms such as green society or environmentally friendly society, and perceived behavioural control such as food safety, environmental and animal friendliness (Cornford & Pupat, 2019; Smith & Paladino, 2010).

The attitude to organic food, whether it is regarded as good or bad, is impacted by the awareness and beliefs of customers towards the concept of organic food products they receive during their lifetime (Nguyen, 2011). Malaysian consumers are interested in products that are more likely to be safer and healthier, such as organic food products, increasing the demand for limited supply (Lee and Bonnand and Cho, 2015; Hilverda et al., 2018).

In the same way, establishing the intention to purchase is the primary function of its three direct factors or antecedents of attitude related to behaviour, subjective norm, and perceived behavioural control (Kumar & Smith,2017; Moon and Mohel and Farooq, 2021). The construct is an example of the drive or option of the individual to carry out a specific behaviour (Mohamad and Rusdi, and Hashim, 2014; Testa et al., 2019). Also, it can be considered the immediate determinant of the undertaking and the predictor for future purchase decisions (Ajzen, 1991; Cornford & Pupat, 2019).

The TPB suggests that the behaviour will become easy to predict when there is a good understanding of the intention. Excluding challenges or unexpected events, such as resources or skills, and no general opportunity, a person will typically behave inconsistently with their intentions, which is consistent with the TPB. Intent can be used as a nearby behavioural measurement instrument (Paul, Modi, and Patel, 2016; Zhou et al., (2013). However, this intent cannot mean that there has been a constant, perfect relationship between intention and behaviour because some situations need to use the actual measurement of the constructed behaviour (Paul & Rana, 2012; Shareef et al., 2017).

An assumption is that the model of TPB can be virtually used with incredible sufficiency and predictability even if there has not been an existing determination of the actual behaviour (Mohamad and Rusdi, and Hashim, 2014; Wang et al., 2019; Li and Jaharuddin, 2021).

The construct of intention to purchase is the basis of the TPB due to its variable aims to draw the influence of all the motivations or prior determinants of attitude, subjective norm and perceived behavioural control that are represented in the three primary constructs that display it (Ajzen, 1991; David et al., 2017; Raza and Bakar and Mohamad, 2020). This reinforces the construct of purchase intention for assessing the actual behaviour.

In addition, the attributes of emotional appeal, informativeness and advertising creativity generated by the food advertising content have been widely addressed to purchase and purchase behaviour in different contexts (Alalwan, 2018; Lee & Hong, 2016; Shareef et al., 2017; Atta and Abbas and Syed, 2021). At the same time, in buying organic food, the function of the food advertising content in stimulating the intention to purchase organic food products has been addressed in the relevant literature (Brumă, 2020; David et al., 2017; Hilverda et al., 2018).

The important influence of the food advertising content on the intention to purchase organic food products can be reflected by great values. David et al. (2017) and Paul and Modi and Patel (2016) and Souza, (2022) indicated that benefit awareness of food advertising content is regarded as an essential factor. It impacts the intention to purchase organic food products, with research results supported by a relevant study conducted by Lin and Kim, 2016 and Brumă, 2020).

Fishbein and Ajzen (1975) and Daniel and Kalu (2017) defined intention as a subjective probability for certain people to participate in a specific behaviour. The same definition can be expanded to the intention to purchase and consumers' willingness to develop purchase behaviour. In accordance with Hilverda et al., 2018 and Cornford and Pupat, 2019, intention to purchase cites to those transactional behaviours that occur after consumers have estimated a specific product as well as the food advertising content (emotional appeal, informativeness and advertising creativity). Brumă (2020) and Abbas and Syed (2021) and Kim and Hwang, (2020) suggested that the intention to purchase starts from the mind of persons due to everyone having distinct needs, wants, tastes and satisfaction. Therefore, there is a necessity for them to have various purchase intentions, as what drives one might not drive another. Therefore, there is a necessity for markers to make sure that these needs should be considered before performing advertising.

Table 2.9: The critical analysis of the previous study of Intention to purchase

Researchers	Purpose	Outcomes	Methodology
2015	Lee and Bonnand and Cho	Consumer motives for purchasing organic coffee: The moderating effects of ethical concern and price sensitivity	This used structural equation modelling, confirmatory factor and descriptive statistics to analyze the data.
2016	Paul and Modi, and Patel,	Predicting green product consumption using theory of planned behavior and reasoned action	Structural equation modelling (SEM)

2017	Kumar and Smith	<ul> <li>Understanding Local Food Consumers: Theory of Planned Behavior and Segmentation</li> <li>ANOVA</li> </ul>
2019	Cornford and Pupat	<ul> <li>An Empirical Study Of         Factors Influencing On         Workers' Purchase         Intention Towards         Organic Diet Capsule In         Bangkok, Thailand</li> <li>Descriptive analysis         Multiple linear regression analysis.</li> </ul>
2019	Wang et al.	Factors Influencing Organic Food Purchase Intention in Developing Countries and the Moderating Role of Knowledge  The Statistical Package for the Social Sciences (SPSS)
2020	Kim and Hwang,	Merging the norm activation model and the theory of planned behavior in the context of drone food delivery services: Does the level of product knowledge really matter?.      Confirmatory factor analysis      o      analysis
2020	Raza and Bakar and Mohamad,	The effects of advertising appeals on consumers' behavioural intention towards global brands:     The mediating role of attitude and the moderating role of uncertainty avoidance.      Confirmatory factor analysis (CFA)
2021	Atta and Abbas and Syed, .	• Study of Consumer Values for Organic Personal Care Products in the Fields of Health and Cosmetics
2021	Li and Jaharuddin,	Influences of background factors on consumers' purchase intention in China's organic food market: Assessing moderating role of word-of-mouth (WOM).      Structural equation modeling (SEM)      modeling (SEM)
2022	• Souza	Game meats: Consumption values, theory of planned behaviour, and the moderating role of food neophobia/neophiliac behaviour      Structural Equation Modelling      Modelling

# 2.12. Actual purchase behaviour

According to Smith and Paladino (2010) and Moon and Mohel, and Farooq (2021), the definition of actual purchase behaviour is the study of related processes when people or groups select, use, purchase or sell a product, ideas, services, or experiences to meet the needs and demands. Before consumers make the actual purchase, they will seek the relevant information associated with the product and then estimate the product according to their expectations toward the product. They may display an intention to purchase the product, purchase the product based on a trial or might purchase for actual usage (Yeung & Yee, 2012; Zheng et al., 2016).

Ajzen (2003) found that consumers with a positive attitude toward organic food products may sometimes have the intention to purchase organic food products. Also, consumers are unwilling to pay more for organic food (Lee and Bonnand and Cho, 2015; Norton et al., 2017). Singhal (2017) noted that consumers' purchase intention is impacted by their satisfaction with a product that is directly associated with their attitudes..

However, Lee and Bonnand and Cho (2015) and Zheng et al. (2016) found that the intention to purchase is impacted by 'subjective knowledge'; if consumers have higher subjective knowledge, they have a more positive idea of buying organic food products. Therefore, they will intend to purchase organic food products to increase, and this is analysed by Thøgersen (2007) and Fleseriu and Cosma and Bocanet (2020). However, the latter has discovered that negative uncertainty impacts the intention to buy organic food products. Therefore, the intent to purchase does not translated into an actual purchase (Voon and Ngui and Anand, 2011; Testa et al., 2019).

Singhal (2017) and Zheng et al. (2016) investigated that if consumers buy organic food products frequently, they are willing to pay more for organic food products. However, due to the quality of the products, consumers might not be willing to pay more for organic food products regularly and might purchase organic food products once or twice on a trial basis (Dean et al., 2012; Moon and Mohel and Farooq, 2021).

Consumers are interested in organic food products related to health claims (Paladino & Smith, 2010; Smith & Paladino, 2010; Fleseriu and Cosma and Bocanet, 2020). This is because they consider regular food unhealthy (Lee and Bonnand, and Cho, 2015; Gan et al., 2008; Jagannathan, 2021). The most important reason for buying organic food is that it is healthier (Dean et al., 2012; Gustavsen & Hegnes, 2020). This was after they were exposed to food advertising content that communicated the natural content, health

consciousness, and sensory appeal (Voon and Ngui and Anand, 2011; Papadas and Avlonitis and Carrigan, 2017).

Consumers also choose to use organic food products due to their positive impact on health. Therefore, most consumers buy organic food products because of concern for their health (Souza, 2022; Lee and Bonnand and Cho, 2015; Fleseriu and Cosma and Bocanet, 2020). In recent years, the company mainly covered organic food products and applied the influence of food advertising content within emotional appeal, informativeness and advertising creativity. The company regards food advertising content as a main competitive advantage in their line businesses. Food advertising content also maintains competition in the market (Rawat, 2022; Thogersen, 2007; Gan et al., 2008; Testa et al., 2019).

In accordance with this, the consumers' purchasing decision is very complex; moreover, purchasing behaviour is essential when considering and evaluating a product. This behaviour is impacted by psychological motivations (Fleseriu and Cosma, and Bocanet, 2020; Singhal, 2017; Sharma and Bhatia, 2019). The intention to purchase is an important factor when predicting the purchasing process. Consumers will be driven by their intention to purchase organic food when deciding to buy the product. The intention is the best prediction of human behaviour, being the pre-step, guiding consumers to actual purchase actions (Zheng et al., 2016; Nagar and Guha and Chandra 2017). When the researchers would like to analyse the purchasing behaviour for organic food products, they have indicated a significant positive association between intention to purchase and purchasing behaviour (Gustavsen and Hegnes, 2020; Woo and Kim, 2019; Singh and Verma, 2017).

On the other hand, there may be a mismatch between the consumers' intentions and the consumer's actual purchase behaviour at the time of buying (Papadas and Avlonitis and Carrigan, 2017), cited as an intention-behaviour gap. This intention behaviour gap has been determined by various research on organic food consumption behaviour (Testa et al., 2019; Testa et al., 2016; Feldmann & Hamm, 2016; Moser, 2015).

This discrepancy of the intention-behaviour gap can be prevalent in the intention to purchase organic food products. In addition, it has been found that consumers often overestimate their organic food consumption, as an important proportion of consumers claim that they buy organic food products at least once a month. However, they did not purchase it at all (Testa et al., 2019; Fleseriu and Cosma and Bocanet, 2020; Bashir et al., 2018).

Although there is an intention-behaviour gap, few studies exist on the actual purchase behaviour of organic food products, and previous researches underline to ascertain consumers' actual purchase behaviour (Yazdanpanah & Forouzani, 2015; Gustavsen & Hegnes, 2020). Without the intention to purchase, it is not impossible to evaluate the consumer purchase behaviour of a specific product (Moon and Mohel and Farooq, 2021; Norton et al., 2017; Yadav & Pathak, 2016; Woo & Kim, 2019; Yazdanpanah & Forouzani, 2015).

Table 2.10: The critical analysis of previous studies on Actual Purchase behaviour

Researchers	Purpose	Outcomes	Methodology
2013	• Zhou et al.	The moderating role of human values in planned behaviour: the case of Chinese consumers' intention to buy organic food	Structural equation modelling (SEM)
2015	Lee and Bonnand and Cho	Consumer motives for purchasing organic coffee: The moderating effects of ethical concern and price sensitivity	This used structural equation modelling, confirmatory factor and descriptive statistics to analyze the data.
2017	Nagar and Guha and Chandra	Gender differences in buying decision for Food and Grocery products.	• T test
2017	Singhal	A Study of Consumer Behavior Towards Organic Food and the Moderating Effects of Health Consciousness	Moderated regression Analysis
2017	Singh and Verma,	Factors influencing Indian consumers' actual buying behavior towards organic food products	<ul> <li>Factor analysis</li> <li>Independent t-test</li> <li>ANOVA multiple linear regression</li> <li>Hierarchical multiple regression analysis.</li> </ul>
2018	Bashir et al.,	Factors affecting consumers' intention towards purchasing halal food in South Africa: a structural equation modelling	Structural equation modelling
2019	Sharma and Bhatia	Consumer Buying     Behaviour towards Organic     Fruits and Vegetables	• Structural Equation Modelling
2021	Jagannathan	Influence of Demographic variables on Consumer Buyer Behaviour during the Global Pandemic	• One-way ANOVA •
2022	Rawat	Conjoint Analysis of Buyers' Behaviour towards Instant Food Products	<ul><li>Factor analysis</li><li>Correlation</li><li>Standard deviation</li></ul>

2022	• Souza,	Game meats: Consumption	Structural Equation
		values, theory of planned	Modelling
		behaviour, and the	
		moderating role of food	
		neophobia/neophiliac	
		behaviour	

Food advertising content emphasises the positive, physical, monetary, or psychological results of a service or product. Decision making of an individual may be influenced by food advertising content if presented as a potential gain (Xue, 2015; Fleseriu and Cosma and Bocanet, 2020). The literature reveals that more research needs to be done on the influence of food advertising content, as shown in Table 2.13. If a message focuses on the positive results of a particular behaviour, the individual is inclined to avoid risks that will be stimulated. Although the construct of message framing has yet to be thoroughly checked in green advertisement, it has had a crucial role in research on health communication and social marketing (Lee, 2011; Hindol, 2012; Moon and Mohel and Farooq, 2021). Some researchers found that positively framed advertising is more effective than negatively framed advertising on purchase decisions, particularly for transformational products; In contrast, other researchers disputed that negatively framed messages or loss-framed might be more persuasive than positively framed messages or gain-framed because consumers tend to distinguish negative information that is more important, salient, and credible (Xue, 2013; Hindol, 2012; Gustavsen & Hegnes, 2020). Food advertising content is also associated with associated with green advertising because environmental advertising appeals tend to emphasise either altruistic motives, stimulating consumers to engage in environmentally friendly behaviours (Tu and Kao and Tu 2013; Testa et al., 2019), feelings of guilt, or informing consumers of environmental problems that may occur due to the consumption and production process.

In the same way, food advertising content explains the benefits of purchasing an organic food product. Organic food packages present examples of food advertising content. Food advertising content contains messages that describe organic food as "safer and healthier," while other message framings say that organic food is grown without "dangerous" pesticides (Gifford & Bernard, 2004; Brumă, 2020). Food advertising content is intended to persuade consumers to purchase the product. For example, the label uses the positive message framing on organic food that communicates the product's information, such as nutrition (organic foods can contain higher levels of essential vitamins and other beneficial nutrients than conventional food products). In addition, the improved taste of

organic food is reported to many consumers and in taste tests. At the same time, the promotional components invoke the needs and values of the target audience and the unique attributes of organic food (such as trust, environmental safety, support for fair trade, and purchasing motivation) (Bauer et al., 2013; Gerrard et al., 2013; Padel & Foster, 2005; Gifford & Bernard, 2004; Moon and Mohel and Farooq, 2021).

Cucchiara et al. (2014) and Japutra et al. (2021) have supported the superiority of food advertising content rather than a negatively framed message that could persuade consumers to purchase organic food. In addition, Gerrard et al. (2013) and Molinillo et al. (2020) have found that food advertising has provided health benefits of organic food consumption, which is likely to be more persuasive to increase consumer purchasing intentions than consumers who are exposed to negative message framing.

In contrast, consumers with low involvement in purchasing organic food are more likely to be persuaded by the food advertising content (Cucchiara and Kwon and Ha, 2014; Rahnama & Rajabpour, 2017).

Also, researchers have shown that food advertising content (emotional appeal, informativeness and advertising creativity) can increase product knowledge and purchase intention on an organic food product. Over the past few decades, researchers have stepped forward on essential topics to study food advertising content in detail (Molinillo et al., 2020; Lilja, 2019; Oktaniar et al., 2020). For example, Bullock and Johnson and Southwell (2017) and Prentice et al. (2019) studied how food advertising content impacts the purchase intention of organic food and the influence there. Findings have revealed that when a consumer has been exposed to food advertising content, the knowledge of organic food will be increased by the content that effectively increases consumer awareness.

Food advertising content can also diminish the consumers' high uncertainty about organic foods' credence attributes. Zaidi and Muhammad (2012); Hsu (2016); Shafiea and Rennieb (2012); Moon and Mohel and Farooq (2021) investigated food advertising content related to emotional appeal, informativeness and advertising creativity on willingness to pay for organic food. Their findings found that food advertising content can increase consumers' positive knowledge of organic foods by developing the accessibility of useful and objective information.

Other studies (Hilverda and Kuttschreuter, and Giebels, 2016; Olsen and Slotegraaf & Chandukala, 2014; Buttlar & Walther, 2018) have investigated the influence of food

advertising content on the purchase intention of organic food. In the same way, Ayadi and Lapeyre (2016) and Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, (2020) have found the influence of food advertising content on willingness to pay for green products. They have found that the information of food advertising content could directly influence attitude, attitude towards purchase intention, and willingness to pay. Furthermore, Hsu and Chen (2014) and Aertsens et al. (2009) and Bakar (2021), and Zhang et al. (2018) have further monitored their findings in socio-demographic characteristics. Finally, Bullock and Johnson and Southwell (2017) and Oktaniar and Listyaningsih and Purwanto (2020) have investigated the influence of food advertising content on product knowledge. The result suggested that food advertising content could indirectly influence consumer awareness with product knowledge moderated this relationship.

Although food advertising content is effective in creating a positive attitude towards organic food products, food advertising content is not inevitably effective in increasing hedonic expectations, awareness of healthiness, or intention to purchase organic food products (Hsu & Chen, 2014; Souza, (2022). Therefore, it could be that, despite having positive attitudes towards functional organic food products in general, the persons may need help understanding or valuing the positive message framing that communicates the benefit of organic food. Similarly, previous studies have already indicated that consumers were less enthusiastic about the food advertising content that communicates the benefit of organic food because they had already considered these benefits (Tudoran and Olsen and Dopico, 2009; Bullock and Johnson and Southwell, 2017; Abbas & Syed, 2021; Demirtas, 2018).

Little research has been conducted to investigate the contribution of TPB variables (attitude, subjective norms, and perceived behavioural control) to purchasing intentions in response to food advertising content. There has likewise been little research done on the impact of positive message framing and the TPB, as shown in Table 2.14. However, the findings of a few studies provide some insights. Singh and Verma (2017) and Mkhize and Ellis (2020) found that positive message framing improved attitudes toward the intention to purchase organic food but worsened attitudes toward the rest of the brands featured in the study, including all the food products. Smith and Paladino (2010) and Souza (2022), and Abbas and Syed (2021) also found a relationship between food advertising content, attitudes, and behavioural intentions in a study of reactions to the intent to purchase organic food. Food advertising content influences both product knowledge and consumer attitude. When consumers are exposed to food advertising

content, communicating about health and safety, the positive news will develop the product knowledge and attitude of the consumer. As a result, the consumer attitude also will become positive. Therefore, consumers' intention to purchase organic food will increase (Feldmann and Hamm, 2014; Spence et al., 2018). Also, a review of past research conducted by Bullock and Johnson and Southwell (2017) and Chekima et al. (2021) found that attitudes toward a positive message frame in advertisements are influenced by age, gender, and culture.

The belief is that high levels of perceived behavioural control increase intentional resistance. This finding needed to be more anticipated and conflicted with the conclusion of a majority of researchers (Asif et al., 2018). Previous research confirms that a person who understands has a high level of behavioural control and will have gotten more favourable attitudes towards the offered behavioural change. They also have stronger behavioural intentions, and the connection between attitudes and intentions might be more robust (Al-Swidi et al., 2014; Souza, 2022). In the same way, per the protection motivation model (PMM) has been improved by Rogers (1983), behavioural control is the variable that best describes the effectiveness of food advertising content. Our research specifies that high levels of perceived behavioural control increase the intention to purchase organic food (Singh & Verma, 2017; Abbas & Syed, 2021). However, they have yet to discover any other studies that provide the same effect.

This finding is consistent with the study performed by Pomsanam et al. (2014) and Ghazalia et al. (2017). They found that attitudes and perceived behaviour control are better predictors of intentions when the social environment is more conducive and supportive to performing a behaviour (eating healthy food). So, consumers' intent to purchase organic food is impacted by their safety perceptions (Smith & Paladino, 2010; Souza, 2022). This outcome might indicate that consumers look at organic food that is healthier and safer than ordinary food (Smith & Paladino, 2010; McDonald & Crandall, 2015). Feldmann and Hamm (2014) and Cornford and Pupat (2019), and Hwang and Chung (2019) found that a consumer who trusts they have high levels of behavioural control might convince themselves that it is going to be easy to purchase and consume This happens when they believe in food advertising content that communicates the benefit of organic food, influencing their judgment. For example, consumers might have the capability to readily identify the benefit of organic food after they are exposed to food advertising content that communicates about the benefit of organic food, therefore, impacting perceived behavioural control (Pomsanam et al., 2014; Teng & Wang 2014; Demirtas, 2018).

Basha and Lal (2019) and Daniel and Kalu (2017) indicated that subjective norms are particularly crucial in a country that has high levels of social interaction, where people are likely to follow a particular reference group leader who, in return, impacts the group towards some behaviours' and actions. Many organisations often use certain kinds of reference individual brand ambassadors to stimulate the consumer to buy their products. This is intended for organically and non-organically produced products (e.g., see:). Also, Pomsanam et al. (2014) and (Abbas & Syed, 2021) discovered that subjective norms are essential to positively impact buying organic foods in Thailand. Anvar and Venter (2014) indicated that the consumption of organic food products had been relatively high, impacted by subjective norms.

The previous study showed that Indian consumers were extremely concerned about subjective norms. The results of these findings suggested that consumers were worried about the reference group of consumers and their cultural and social norms. Indian society may be highly socialised, culturally aware, and encourages societal norms (Basha & Lal, 2019; Wang, 2014; Souza, 2022).

To understand the influence of normative social impact in the context of positive message framing, most previous research used the Theory of Reasoned Action (TRA). This theory argues that that voluntary behaviour is predicted by behavioural intention and that intentions are influenced by subjective norms and attitudes toward the behaviour (Anvar & Venter, 2014; Mkhize & Ellis, 2020; Souza, 2022). For example, the intention to participate in behaviour such as the purchase of product promoted through advertising content will be predicted by the attitude of the actor toward the advertisement and referent subjective norms for purchasing the promoted product (Chen, 2007; Atta and Abbas and Syed, 2021).

Subjective norms relate to food advertising content that communicates about health and safety, to carry out a behaviour that has been constructed to combine the expectations of what the individuals find important in their life, such as family, friends, and significant others (Gassler et al., 2018; Melnyk et al., 2019) and think about executing that particular behaviour. Subjective norms designate how each person needs to rely on the decisions of significant others and the members of their society when deciding to execute a specific behaviour (Vermeir & Verbeke, 2008; Souza, 2022). After the reference groups of consumers are exposed to a positive message frame, communicating about the benefit of organic food, they believe organic food that is healthier and safer than ordinary food. As a result, the reference groups of consumers will persuade consumers to purchase organic food (Wang, 2014; Abbas & Syed, 2021) because the consumers trust that persons

critical to consumers understand organic food that is healthier and safer than ordinary food. As a result, consumers had more intention to purchase organic food (Suh and Eves and Lumbers, 2015; Moon and Mohel and Farooq, 2021).

In other words, when people consider food advertising content that communicates the benefit of organic food, they often think about the opinions of important people in their lives towards purchasing organic food (Teng & Wang, 2014; Souza, 2022). Subjective norms have been evaluated through a list that Ajzen and Fishbein developed (1980) that contains a request that the people agree or disagree with someone else's behaviour and expectations with the comment that they give priority to something (Lee & Goudeau, 2014; McDonald and Crandall, (2015).

However, through word-of-mouth, consumers realize that their "friends" are willing to be exposed to and share advertising content that communicates the benefit of organic food. Their "friends" will think organic food products are defective, causing consumers to have a lower intention to purchase them (Gassler et al., 2018; Atta and Abbas and Syed, 2021).

This study used positive message framing to influence attitude, subjective norm, and perceived behavioural control.

# 2.13 The theory of planned behavior and use

In the past, though the TPB has been used to study various health-related behaviours of which a number have been food related (Scannell et al., 2020; Qi and Ploeger, 2019), few studies have applied it to investigate intention to increase the consumption of vegetables and fruits.

The Theory of Planned Behaviour (TPB; Ajzen, 1985) is an extension of the Theory of Reasoned Action (TRA; Fishbein & Ajzen, 1975). This has been regarded as the dominant theoretical approach to guide research on health-related behaviour over the past thirty years. This theory has been widely recognized among researchers and is also familiar to many practitioners, practitioners, and policy-makers. In addition, the Theory of Planned Behaviour (TPB) has been developed from the earlier Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975); moreover, it presents that behaviour can be determined by a combination of individuals' intentions to participate in that behaviour and their perception of behavior control. On the other hand, intentions are predicted by attitudes towards the behaviour, subjective norm (perceived social pressure) and perceived behavioural control (PBC) (Carfora et al., 2021; Kothe and Mullan, 2015; Sniehotta and Presseau and Araújo-Soares, 2014).

TPB puts forward that volitional human behaviour is regarded as a function of the intention to carry out the behaviour and perceived behavioural control (PBC) (Soomro et al., 2022; Wang et al., 2021). The intention is assumed to be a function of attitudes towards the behaviour, subjective norm and perceived behavioural control (Yuzhanin and Fisher, 2016; Bhutto et al., 2021). The degree to which PBC impact behaviour directly (rather than indirectly through intentions) is assumed to depend on the degree of actual control over the behaviour (Borusiak et al., 2020; Al Mamun et al., 2018). Attitudes, subjective norms and PBC are considered to be based on the strength and assessment of accessible behavioural, normative and control beliefs (Carfora et., 2019; Ma et 2021).

In addition, the TPB proposes three mediation hypotheses. Firstly, intention is hypothesized to fully mediate the impact of attitude and subjective norm on behviour, and partially mediate that of PBC. Secondly, the impacts of normative, behavioural and control beliefs on intention and behaviour are hypothesised to be mediated through attitude, subjective norm and PBC, respectively.

Therefore, the TPB should be used in empirical health behaviour research to explain purchasing and consuming behavior, such as predicting healthy consumption behaviors, sustainable consumption and pro-environmental purchase intentions, such as customers' intentions to visit green hotels and adoption of energy-efficient home appliances (Sniehotta and Presseau and Araújo-Soares, 2014). Because the vast majority of empirical health behaviour research has used correlational designs to examine crosssectional and prospective associations between TPB cognitions and behaviour (Noar & Zimmerman, 2005). The latest systematic review of 237 independent prospective tests indicated that the TPB accounted for 19.3% of variability in health behaviour with intention becoming the strongest predictor (McEachan et al., 2011). Moreover, it was found that the TPB was much less predictive of behavior if studies applied a longitudinal rather than a 'shortitudinal' design, if the participants were not university students; moreover, if outcome measures were used objectively rather than as a self-report (Bhutto et al., 2021; Al Mamun et al., 2018). Although intention, attitude, subjective norm, and PBC still play a role in understanding, predicting and changing health behaviour, a better understanding of the role of these reasoned action variables can result from a broader theoretical guidance (Al Mamun et al., 2018; Aboelmaged, 2021; Ma et 2021; Wan and Shen and Choi, 2021).

Experimental tests of the TPB are surprisingly rare, moreover, tests and those that have been carried out have not supported the theory's assumptions. A systematic review by

Hardeman and colleagues (2002) identified that 24 studies in which the TPB was applied in the evolution and/or evaluation of an intervention and found that the available evidence was insufficient to draw a clear conclusion about the effectiveness of the theory. Factorial experimental tests of the TPB with interventions targeting one or all of the theory's cognitive predictors have been either unsuccessful in altering the theoretical target variables (McCarty, 1981; Ma et 2021) or, when cognitions were successfully altered, these changes did not translate into behavioural changes (Chatzisarantis and Hagger, 2005; Bhutto et al., 2021). Sniehotta (2009) applied a 2\*2\*2 factorial design randomly providing students to persuasive messages to discuss salient behavioural, normative and/or control beliefs about applying their university sports facilities. The behavioural belief intervention was found to result in post-intervention alteration in attitudes; however, it did not impact intention or behaviour. The normative belief intervention improved subjective norm and intention, however, it but did not improve behaviour. The control belief intervention did not impact PBC or intentions; however, it showed an impact on behaviour estimated objectively using recorded attendance at sports facilities (Sniehotta, 2009; Al Mamun et al., 2018).

In addition, the TPB should be used to understand the underlying motivations of behavior among young people (Sniehotta and Presseau and Araújo-Soares, 2014). According to McEachan et al., 2011; Sniehotta et al., 2013, they found that the TPB seems to be the most predictable among young, affluent and fit; moreover, when predicting self-reported behaviour over a short term, that may less compatible with populations in which behaviour change theory can be most needed.

When researchers use the TPB, they should make subtle changes to the choice architecture by changing the salience, reinforcement and cost of behavioural choices outside of a person 's awareness (Sniehotta and Presseau and Araújo-Soares, 2014). It may lead to behaviour alters without impacting PBC or intention (Marteau et al., 2011). On the other hand, although considerable support, the TPB has also been criticized on several occasions. The major criticism cites to the need to include additional variables to develop its predictive and explanatory power (Ertz et al., 2017; Wang and Liu and Qi, 2014; Alam et al., 2020). It is disputed that the TPB framework cannot explain a sufficient proportion of the variance in intention (Soomro et al., 2022).

Practically, if researchers wanted to alter strategies to their interventions and elaborate around the TPB, they can use 'extended' forms of the TPB and add self-regulatory behaviour (Sniehotta and Presseau and Araújo-Soares, 2014). On the other hand, by

doing this, the researcher indicates that they cannot believe that the TPB as it stands provide a sufficient explanation for human behaviour; therefore, the TPB must be changed or extended. The TPB originator can acknowledge that research has made significant progress since the TPB was presented; however, the TPB originator does not suggest alters to the actual theory incorporating new insights (Ajzen, 2011). In addition, Ajzen, (2011) argues that the TPB allows for integrating additional variables when they contribute greatly to explaining behavior. Therefore, many researchers suggested incorporating new variables which may be relevant in the sense that they might theoretically influence intentions and behavior to develop the explanatory power of the TPB (Bhutto et al., 2021; Ma et al., 2018; Al Mamun et al., 2018).

Researchers have expanded TPB with respect to purchasing and consuming behaviour by adding more variables to develop the prediction accuracy of TPB such as perception of benefits and costs (Jain et al., 2020), situational factors (Ma et al., 2018), environmental concern and self-efficacy (Al Mamun et al., 2018), past behaviour (Oztekin et al., 2017), institution and governance (Mak et al., 2019), awareness towards the environmental problems and knowledge (Echegaray and Hansstein, 2017; Nduneseokwu and Qu and Appolloni, 2017), environmental consciousness (Kaffashi and Shamsudin, 2019), concern for the community (Tonglet and Phillips and Read, 2004), place attachment and awareness of consequences (Wan and Shen and Choi, 2021), socio-economic factors, peer and surrounding influence (Ceschi et al., 2021), and product knowledge.

At present, several studies have used the TPB model applied by Ajzen as a theoretical framework to can explain intention to purchase food products. These studies indicated that specific behavior is driven by an individual's intention to act. The intention can reflect cognitive planning and motivations for engaging in the behavior, which can be determined by three key cognitive factors: attitude, subjective norm, and perceived behavioral control (PBC). (Kothe and Mullan, 2015; Reipurth et al., 2019). The term "attitude" refers to a personal perspective and evaluation of a particular behavior. Attitude is regarded as a subjective response to a specific situation, which can be negative or positive. In general, it is regarded as an induced emotional state toward a particular issue, object or organization (Contini et al., 2020; Lwin and Malik and Lau, 2020).

Attitudes have been identified as an important predictor of significant predictors of customers' actual purchase behavior toward the consumption of vegetables, fruits and health foods. This was revealed by Rajaee et al. who indicated that in Iran, consumers'

attitudes toward vegetables, fruits and health foods significantly influence their consumer intentions. In accordance with, Lwin and Malik and Lau, (2020) and Imani et al., (2021), found that favorable attitudes towards food products has a noticeable effect on food choice behaviour. The studies on vegetables, fruits and health foods have found that positive attitude regarding the vegetables, fruits and health foods influence intentions and behavior toward on the vegetables, fruits and health foods. Therefore, in general, the literature supports the hypothesis that there is a strong positive association between attitudes about food products and influence intentions and behavior toward vegetables, fruits and health foods.

The concept of subjective norms (SN) refers to a person's sense of societal pressure regarding whether or not an individual ought to act on something. When talking about social pressure, the individuals in your life, such as your friends and family, can impact your behavior. Individuals tend to act in such a way that is favored by intimate individuals (Barley and Lawson, 2016; Scannell et al., 2020). Previous studies have determined that subjective norms have a significant impact on health food purchase intention. Qi and Ploeger, (2019) examined the psychological factors that impact the intentions of Chinese advertising towards health food, finding that subjective norms could significantly enhance the intentions to purchase health food products. In accordance with, Khan et al. applied the TPB lens to investigate behavioral intentions towards purchasing health food in the context of developing countries. Subjective norms have significantly impacted consumers' intention to purchase vegetables, fruits and health foods. Many studies shown a significant positive association between subjective norms and intention (Carfora et al., 2021; Chen, 2020).

The definition of perceived behavioral control is "an individual's perceptions of their ability to carry out a particular behavior". It is used to measure a person's conviction and control over a particular activity, that can reinforce their commitment to take such behavior (Contini et al., 2020; ; Reipurth et al., 2019). Many studies have investigated PBC that is used as a predictor of behavioural intention. In developing countries, previous research has shown that PBC is a strong predictor of consumers' intention to purchase vegetables, fruits and health foods (Shin et al., 2018; Chen, 2017).

On the other hand, 'Extended-TPB' models can do a disservice to the novel concepts which such extensions furnish and test unnecessary support to a model that in aggregate has been extended well-beyond recognition (Sniehotta and Presseau and Araújo-Soares, 2014). People to test new falsifiable hypotheses that can explain behavioural phenomena

to better help persons can change their behaviour and to help those who can design and can deliver interventions to help persons to do just that (Sniehotta and Presseau and Araújo-Soares, 2014; Carfora et al., 2019; Alam et al., 2020).

# 2.14 The theory of planned behaviour and advertising

The TPB was developed from the theory of reasoned action (TRA) (Ajzen 1991), that was originally presented by Fishbein and Ajzen (1975). The TPB was proposed by Ajzen (1991) modulates TRA by adding perceived behavioural control (PBC) so that the model can more accurately describe variations in behavior which are not entirely voluntary.

A person develops a negative or positive attitude towards a behaviour based on their behavioural beliefs, perceives subjective norms regarding the behaviour based on their behavioural beliefs, perceives subjective norms regarding the behaviour based on their normative beliefs and measures PBC based on their control beliefs (Ajzen 1991, 2006). Attitude, subjective norm and perceived behavioural control impact purchase intention. Purchase intention was used as a predictor of actual purchase behaviour, as actual purchase behaviour identifies how much effort a person is willing to put into carrying out a behaviour. Therefore, the greater the intention to carry out the behavior, the more likely the behaviour is to carried out (Ajzen 1991, 2006).

Therefore, the TPB points out that the more positive the attitude towards advertising, the more friends are perceived to encourage the behaviour (subjective norms), and the greater the person's perception that they are free to engage or not with the advertising (perceived behavioural control). In addition, the stronger the intent to purchase a product (purchase intention), the more likely it is that a consumer will actually purchase it (Potgieter and Naidoo, 2017; Sanne and Wiese, 2018).

Since the TPB was developed, it has been successfully applied in diverse contexts to predict and comprehend human behaviour (Ajzen 1991; Yang and Su, 2017). It has proven to be generalisable to most contexts (Strickland and Stoops, 2018; Khoa, 2023;). Interestingly, it depends on the context the TPB was used to, attitude, subjective norm and perceived behavioural control had different impacts on actual purchase behaviour, with some being stronger influencers than others (Ajzen 1991; Ho et al. 2015).

Therefore, TPB could be used in an advertising context to predict engagement with advertising by considering attitude towards, subjective norms of and perceived behavioural control towards the advertising (Lin et al., 2019; Khoa, 2023).

#### **2.14.1 Attitude**

Attitude is regarded as an antecedent of purchase intention in the TPB (Ajzen 1991). The definition of attitude is the degree to which a person evaluates the behaviour as negative or positive (Ajzen 1991; Naybezade et al., 2017). Attitude is developed from subjective outcome measures and behavioural beliefs. Behavioural beliefs are regarded as the beliefs that carry out the behaviour or will provide a certain result. Subjective outcome evaluations determine the value the individual determine to the expected outcome (Ajzen 1991).

Attitude is based on instrumental beliefs and affective or experiential beliefs of carrying out the behaviour (Ajzen & Driver 1992). Instrumental beliefs regarding the behaviour involve the use or cost and benefits of carrying out the behaviour. Experiential or affective beliefs regarding the behaviour can consider the emotional benefits of carrying out the behaviour (Ajzen & Driver 1991). In other words, behaviours are regarded as necessary because of their perceived usefulness or because of their perceived enjoyment value (Ho et al. 2015). Kim and Hwang, (2020) considered attitude as the individuals' evaluation (positive or negative) towards engaging with advertising.

Previous studies in diverse advertising contexts have found a strong association between attitude and intention to purchase. It has been shown that the better the attitude towards some behaviour is, the more likely the persons are to generate an intention to purchase to carry out the behaviour (Verma and Chandra, 2018; Han and Hyun, 2017; Paul and Modi and Patel, 2016). In addition, the finding of previous studies indicated that a positive attitude towards engagement with advertising can lead to a better probability of the formation of a behavioural intent to engage with advertising (Han and Meng and Kim, 2017).

Therefore, it is recommended that marketers ought to focus on changing persons' attitudes towards advertising by focusing on impacting persons to believe that advertising is favourable, good, pleasant, wise and a positive thing that can be beneficial to the person (Han et al., 2019; Kim and Hwang, 2020). If an enjoyable feature of advertising is provided, persons will develop a positive attitude towards the advertising. The persons

more readily rely and accept on the information that is presented by the advertising (Naybezade et al., 2017; Verma and Chandra, 2018).

In addition, organic food companies ought to promote organic food advertisements to enlighten consumers about the healthy role of organic food products to increase their level of product knowledge. For instance, it is recommended to provide the outcomes of pilot programs which showcase the importance of healthy eating through pop-up messages or info graphics for mobile users. Importantly, recent studies have shown that displays in organic food advertisements are regarded as the driving force behind raising public awareness of healthy issues and consumer's health consciousness (Kim and Hwang, 2020; Naybezade et al., 2017; Verma and Chandra, 2018).

Thus, healthy advertisements would be an effective way to motivate the health obligations of consumers when they purchase organic food products (Kim and Hwang, 2020). In addition, due to the results of data analysis supported the sequential process of problem awareness and ascribed responsibility in generating the personal norm, these types of advertisements are recommended to convey messages not only to health obligations; however, it also impress the negative consequences of ordinary food (Khoa, 2023; Kim and Hwang, 2020).

## 2.14.2 Subjective norms

Subjective norms are regarded as an another antecedent of intent in the TPB (Ajzen 1991). The definition of subjective norms is the social pressures an individual perceives to carry out a certain behaviour (Ajzen 1991). These social pressures usually depend on how often the person believes the behaviour appears among others, as well as their perception of others' approval or disapproval of the behaviour (Ajzen 1991; Han et al., 2019). Subjective norms are developed from normative beliefs and the incentive to satisfy the expectations of others. Normative beliefs are what the person perceives significant referent individuals to expect in terms of conducting the behaviour. Moreover, the motivation to perform with these expectations depends on the perceived social pressure and the person's willingness to follow (Ajzen 1991).

Subjective norms are impacted by both societal referents (e.g. mass media) and personal referents (e.g. friends and family) (Han et al., 2019). In general, personal referents are considered to have a stronger impact on subjective norm than societal referents (Byun and Jang, 2019). Another prior study identified that subjective norms are the social expectations (both on a personal and on a societal level) that the person perceives about

engagement with advertising (Kim and Hwang, 2020; Atta and Abbas and Syed, 2021). Prior studies applying the TPB have indicated a positive correlation between subjective norms and intention to purchase (Thom'e and Pinho and Hoppe, 2019; Souza, 2022). It has been shown that the more the person perceives the subjective norms to promote the carrying out of the behaviour, the more likely the person is to generate an intention to purchase to carry out the behaviour (Ali et al., 2020). Therefore, positive subjective norms of engaging with advertising can lead to a better probability of the formation of a behavioural intent to engage with advertising.

Therefore, organic food companies ought to place put more emphasis on word-of-mouth, also known as voluntary advertising (Han et al., 2019; Ghazalia et al., 2017). For example, incentive programs should be used by offering value-added credits through coupons or discounts to the individuals who use food advertising content to promote the benefits of organic food products in advertising or social networking services (Abbas and Syed, 2021; Daniel and Kalu, 2017). These initiatives could provide more chances for positive interactions in online communities based on consumer-to-consumer networks. Moreover, influencers and expert endorsements could be introduced to create social pressure on individuals to consume organic food products that are healthy food (Ali et al., 2017; Singh & Verma, 2017). This type of effort helps to create an atmosphere that can stimulate a consumer's intend to increasingly purchase organic food products (Souza, 2022; Wang et al., 2019).

#### 2.14.3 Perceived behavioural control

Perceived behavioural control is regarded as the final antecedent of behavioural intention in the TPB (Ajzen 1991). The definition of perceived behavioural control is a person's perceived ability to carry out the behaviour, that varies across situations depending on factor which either assist with or obstruct the operating of the behaviour (Ajzen 1991, 2006). Perceived behavioural control is evolved based on control beliefs and the perceived power of the impacting factors. Control beliefs are the beliefs the person get about the extent of control they have over choosing to carry out the behaviour, regarding barriers, abilities and resources (Ajzen 1991). The perceived power of the impacting factor considers as the person's perception of how much the factors can impact the performing of the behaviour, by either obstructing it or assisting it (Ajzen 1991). The previous study found that PBC is regarded as the person' perceived ability to engage with advertising.

Perceived behavioural control not only impacts behavioural intent; however, it also directly impacts behaviour. As the intention to perform the behaviour might be strong; however, a factor outside of the person's control might obstruct the actual performing of the behaviour (Ajzen 1991). On the other hand, only the impact on intent will be studied, because studies have displayed that PBC does not directly impact behaviour in advertising (Wu and Tsai and Lee, 2017; Kim and Hwang, 2020; Ali et al., 2020).

Prior studies have shown that the greater the perceived behavioural control towards a certain behaviour is, the more likely the person is to generate an intention to purchase to carry out the behaviour (Souza, 2022; Spence et al., 2018). Therefore, better perceived behavioural control of engaging with advertising can lead to a better probability of the formation of a behavioural intention to engage with advertising.

Therefore, the marketers should create advertising that focuses on promoting the benefits and accessibility of organic food products to the general public (such as accessible, safe, environmentally friendly and healthy); moreover, advertisings are a good product information source, can provide timely information, are up-to-date, and are convenient for increasing consumer recognition and common acceptance of organic food products (Abbas and Syed, 2021; Cornford & Pupat, 2019; Abu Bakar et al., 2021). The previous studies identifies that good product information sources and related knowledge perceived by consumers has an important impact on consumer trust in organic food products, that will impact their intention to purchase organic food products (Souza, 2022; Kim and Hwang, 2020).

## 2.14.4 Intention to purchase

Intention to purchase is regarded as a direct antecedent to behaviour; moreover, it is applied in the TPB to predict actual purchase behaviour (Ajzen 1991; Ho et al. 2015). In addition, it might be defined as the amount of effort a person is willing to make to carry out the behaviour in question (Ajzen 1991). Previous study found that the behaviour to be a persons' engagement with advertising. Previous studies support the association between intention to purchase and purchasing behaviour in advertising (Zuo et al., 2017; Benyamin and Djuwita and Ariyanto, 2018; Lim and An, 2020).

## 2.15. The original model of the theory of planned behaviour

Figure 2 illustrates the indirect and direct relationships offered by the TPB. Behaviour is regarded as a function of intention and PBC. The intention has been determined by attitude, subjective norm, and PBC, defined by conspicuous beliefs or beliefs involved with a behaviour (Ajzen, 1991; Moon and Mohel and Farooq, 2021). Ajzen specifies three types of salient beliefs: behavioural faiths, normative faiths, and control beliefs. Attitude is defined by behavioural faiths, subjective faith about attributes and expected results related to behaviour, and results in evaluation associated with the behaviour. Subjective norm is formed by normative beliefs and the individual's motivation to conform with normative beliefs. Per the TPB, normative beliefs reflect the perception of faiths overwhelmed by peer groups or "referent persons" associated with the behavioural function (Ajzen, 1991). Finally, control beliefs and perceived power are regarded as determinants of PBC. Control beliefs are considered to be subjective beliefs about existing factors that can either help or hinder the performance of exciting behaviour. Perceived power is the person's expectation regarding the potential of resources and barriers to facilitate or inhibit behaviour performance (Ajzen, 1991).

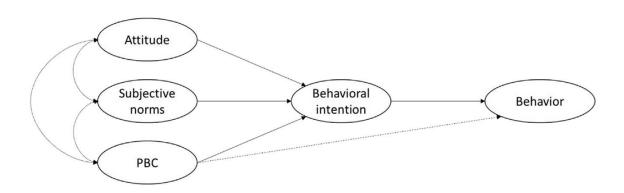


Figure 1: The original model proposed in the theory of planned behavior

**Source**: "Social cognitive aspects of the participation in workplace health promotion as revealed by the theory of planned behavior" by Scalco et al., 2017

# 2.16. The research framework of the study

The study will use the research framework of this study. This study uses the framework developed from TPB which were developed by using the concepts created from the theory of planned behaviour. Theoretical based studies are more successful in predicting intention to purchase, compared with those that do not have a theoretical basis. The

theory of planned behavior hypothesizes that behavioral intention (an indicator, of the readiness of individuals to execute some behavior) is the previous behavior of the individual (and most critical determinants) of behaviour. Behaviors and intentions have been guided by three constructs: attitudes, subjective norms, and perceived behavioral control. These structures are based on a consistent set of beliefs: behavioral, normative, and control beliefs.

The research framework of this study (Figure 1) contains of the following supporting domains: the influence of food advertising content (emotional appeal, informativeness and advertising creativity), the moderating factors (gender), product knowledge, Theory of Planned Behaviour (TPB) (attitude, subjective norms, and perceived behavioural control).

This research hypothesizes that these factors interact generating influence on the intention to purchase by the consumer (indicating the readiness of the consumer to increase consumer's consumption of health and safety food), influencing the purchase behaviour of the consumer toward organic food products. In contrast to the Theory of Planned Behavior, this research also hypothesizes and identifies other factors (gender) that might affect the influence of food advertising content on product knowledge (directly impacting consumer's organic food consumption) (Chen, 2007; Chen & Lobo & Rajendran, 2014; Lee & Yun, 2015; Xue, 2015). All factors might have a direct influence on actual purchase behaviour.

To further investigate food advertising content via product knowledge, and gender that moderates the influence of food advertising content on purchasing intentions through its influence on product knowledge. This research will use TPB as a general framework to categorise the significant determinants of purchasing intention: attitude, subjective norms, and perceived behavioural control. This research hypothesizes that consumers' behavioral intention is impacted by (a) their attitudes (favorable or not) toward their organic food consumption. The attitudes are directly impacted by the belief of consumers that the attributes of health and safety food consumption (behavioral belief) are presented by food advertising content in the context of emotional appeal, informativeness and advertising creativity. Consumers acknowledge positive values relate to the consumption of healthy and safety food. (B) subjective norm is the belief that most people or important reference group (e.g., family members, peers) (normative beliefs) agree or do not agree with a food advertising content that indicate certain kinds of food is beneficial to health after they were exposed to food advertising content relates to emotional appeal, informativeness and advertising creativity. Subjective norm is regarded as the motivation of individual to

perform with what each important referent think. Subjective norm(s) refer to that kind of norm (s) which an individual follows due to social pressure. Subjective norm is the behaviour individuals follow due to social pressure from important referents think. (C) Perceived behavioral control, which is consumers' overall perception of what kind of food is beneficial to health after they are exposed to the food advertising content relates to emotional appeal, informativeness and advertising creativity, that indicate the kinds of food that are beneficial to health.

The perceived behavioral control construct is used by the ability to control the perception of the consumer delete period. (Such as the perception that the consumer can control increases of consumption of the kind food that is beneficial to health), and perceived self-efficacy (the perception of their ability or confidence by increasing consumption of the kinds of food that is beneficial to health). The demographic factors of age and gender could also impact whether or not the consumer increases to consumption of food that is beneficial to health. Consumers also will increase purchasing an organic food product substituting organic products for ordinary food consumption that is not as healthy or safe. Consumers, once aware of the kinds of food that are beneficial to health, increasingly adopt the intention to purchase organic food products. As a result of consumers exposure to the influence of food advertising content indicating the kinds of food that are beneficial to health,-consumers or customers are persuaded to change purchasing habits to safe food from the influence of their reference group.

Finally, gender might indirectly or directly impact the influence of positive message framing and the product knowledge. This leads consumers to increase the kinds of food that are safe to health. Also, consumer intent to purchase an organic food product increases. If the influence of product knowledge shows the more positive the consequence, a organic knowledge will be increased. This influence of food advertising content is more likely to generate product knowledge.

For this study, the indicators associated with the TPB's two main determinants, behavioural intention and intention to purchase, adopted herein, have been validated in organic food research. In addition, the food advertising content relates to emotional appeal, informativeness and advertising creativity, product knowledge, moderators, and gender is also validated in other existing studies (Singh & Verma, 2017; Lina, 2017; Smith & Paladino, 2010).

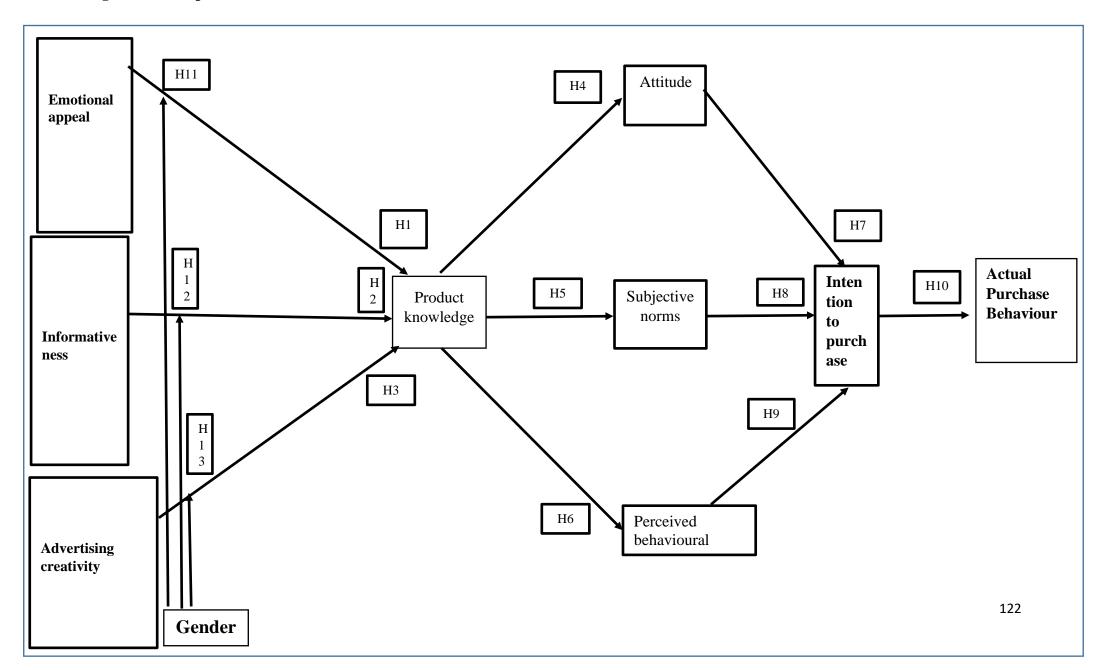
On the other hand, the relationship between product knowledge and subjective norms or perceived behavioural control is validated very little in other existing studies (Wong & Aini, 2015; Voon et al., 2011). For example, Asif et al. (2018) and Wong and Aini

(2015) found that few existing studies found that subjective norms and perceived behaviour control could increase product knowledge, generating intention to purchase organic food products. However, these findings might be due to the need for more resources or specific rules to carry out specific behaviours.

Similarly, few existing studies study the relationship between perceived behavioural control and purchase behaviour. (Pomsanam, Napompech and Suwanmaneepong, 2014; Leong and Paim, 2015). On the other hand, most previous studies suggested that perceived behaviour control did not significantly influence the actual purchase behaviour of organic food products (Leong & Paim, 2015; Teng & Wang, 2014).

Therefore, this research did not hypothesize if perceived behavioural control might impact purchase behaviour. In the same way, this study did not identify if product knowledge might not impact subjective norms and perceived behavioural control (Chen, 2007; Smith & Paladino, 2010; Asif et al., 2018; Lee and Bonn and Cho, 2015).

Figure 2. Conceptual Model



#### 2.16.1 Emotional appeals and product knowledge

An advertisement's emotional appeal is an advertising message associated with consumers' psychological and social needs for purchasing an organic food product. Many consumers' purchasing motivations are emotional, and consumers' feelings about an organic food product and consumers knowledge of the organic food product's attributes or features (Shukor et al.,2016; Molinillo et al., 2020). Therefore, emotional appeal will increase the consumers' emotional needs and response to their psychological status (Belch & Belch, 2012; Wang et al., 2021). As a result, consumers know more about organic food products after they are exposed to advertising messages about the attributes of organic food products. Therefore, these studies have shown that emotional appeals strengthened product knowledge.

Some characteristics of emotional appeals are associated with personal feelings such as love, joy, fear, safety, nostalgia, affection, security, comfort, pride sentiment, self-esteem, grief and sorrow. Other characteristics of emotional appeals are associated with social-based feelings such as status, involvement, recognition, respect, affiliation, acceptance, embarrassment, approval and rejection (Belch & Belch, 2012; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021). Therefore, they found that the emotional appeals strengthened product knowledge.

Lockiea et al. (2004) pointed out that the consumption of organic food products can be influenced by emotional appeal. Japutra et al. (2020) and Wang et al., 2021 identified a relationship between organic food products and emotional appeal. Thus, consumers purchase organic food products. They know that organic food makes them healthy after being exposed to advertising messages about the attributes of organic food products.

Prentice and, Chen and Wang (2019) and Molinillo et al. (2020) studied the influence of emotional appeals on health cognitions pointed out the relationship between emotional appeals and knowledge. Advertising message present the attributes of organic food products (such as organic food being safer than ordinary food). The message can increase the knowledge of consumers about organic food products. It leads consumers to purchase organic food products increasingly because they want to preserve their health. These messages can induce individuals to purchase organic food products. (Suki, 2016; Kushwah et al., 2019). They identified that emotional appeals strengthened product knowledge.

On the other hand, the previous study found that knowledge about organic food could not impact consumers' moods or the way the consumers did not intend to increasingly purchase organic food products. However, they knew about the value of organic food products because the consumers were concerned about the price. Therefore, they compared the cost of organic food products with ordinary food (Lu and Bock and Joseph, 2013; Japutra et al., 2021).

After consumers were exposed to an advertising message communicating the benefit of organic food products, they were more receptive to them. This is due to the message helping to convey the fact that they will have better health or that organic food products are safer and healthier than ordinary food (Lin & Huang, 2012; Akbar et al., 2019).

The previous finding found that emotional appeal in advertising messages can increase the consumers' knowledge about the benefit of organic food products. The message also motivates consumers to purchase organic food because they want safe and healthy food. In addition, they are concerned about the quality of ordinary food and their health. (Rex and Baumann, 2007; Lin and Huang, 2012; Molinillo et al., 2020). The previous finding also revealed that the emotional appeals strengthened product knowledge.

The food advertising content (emotional appeal) might serve as external clues which can provide a signal to consumers. When consumers are exposed to food advertising content (emotional appeal), they obtain valuable knowledge regarding organic milk products (Wang et al., 2021; Molinillo et al., 2020). Furthermore, they may be motivated by their inner desires if they understand organic milk due to the regard of organic milk products as healthy products that can provide more benefits and nutrition for human health (Suciu et al., 2019; Japutra et al., 2021). Thus, the food advertising content (emotional appeal) might guide consumers' behaviours and attitudes towards organic milk products because they might purchase organic food products essential for their health and well-being (Kushwah et al., 2019; Molinillo et al., 2020).

For instance, consumers often enjoy certain foods because they find them delicious. Sometimes, consumers also enjoy organic food products because they are safer and healthier than ordinary food after being exposed to the food advertising content (Informativeness) that explains the benefit of organic food products. One example is the case of McDonald's and organic food products (Wang et al., 2021; Japutra et al., 2021). Many consumers enjoy McDonald's food because they feel McDonald's food is delicious after they are exposed to McDonald's advertising. On the other hand, many

other consumers might internally enjoy organic food products because they are organic, tasty and healthy. Provided that is the case, consumers internally want an organic food product because they know it is organic and healthy (Kotler & Armstrong, 2018; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021). Therefore, consumers are internally stimulated to obtain helpful knowledge from the food advertising content. These studies conclude that emotional appeals strengthens overall product knowledge.

This study could make critical contributions to the current knowledge. Its emphasis is based on filling gaps that were found in the literature related to the aim of this research. This study examines the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to the question such as "Would the food advertising content (emotional appeal) increase product knowledge of organic food products?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of food advertising content (emotional appeal) and the other constructs; secondly by examining the impacts of food advertising content (emotional appeal) on the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of this research have achieved a milestone by identifying a number of gaps in the literature. Firstly, the concept of emotional appeal within the context of food advertising content was not very clear. Previous researchers (Wang et al., 2021; Kotler and Armstrong, 2018; Lin and Huang, 2012) had focused on emotional appeal; moreover, there was a little evidence on emotional appeal. From previous studies, it is evident that emotional appeal was an outcome of product knowledge, and excluding one or the other made product knowledge incomplete (Molinillo et al., 2020; Akbar et al., 2019; Suki, 2016). This study contributes to the existing literature by studying food advertising content based on emotional appeal which strengthens product knowledge.

Therefore, an advertising message communicating the benefit of organic food can increase consumers' health consciousness and food safety. In addition, consumers know

that organic food product can impact their health. For this reason, consumers intend to purchase organic food products.

Therefore, it is hypothesized that:

H1: The Emotional appeals will strengthen product knowledge

#### 2.16.2. Informativeness and Product knowledge

Informativeness is understanding the ability of the advertising message to communicate with consumers regarding the advertised product (such as organic food products). Thus, it leads the consumers to have more knowledge about the attribute of organic food products. Moreover, they will also purchase organic food products increasingly (Hansmann and Baur and Binder, 2020; Hamouda, 2018). Furthermore, Gracia and Magistris (2007) and Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, (2020) identified that consumers are more likely to perceive information as a favour when consumers are aware of new products, product comparison details and the advantage of products in advertising. Therefore, these studies identified that informativeness strengthened product knowledge.

In addition, Kotler and Keller (2008) and Stanton and Cook (2019) found that the efficiency of information in advertisement can depend on how the advertising message is presented in advertising. In advertising, it is important to create and deliver information regarding the product's attributes (such as the attribute of organic food products) to the target audience. After consumers are exposed to the advertising message that provides the benefits of reliable facts about organic food products, the consumers have more knowledge about the attribute of organic food products. As a result, consumers will purchase purchase organic food products. Arora and Agarwal (2020) and Stanton and Cook (2019) displayed that when advertisements provide more information, it can motivate consumers to purchase organic food products. Consumers are more likely to participate and show a positive attitude toward the advertising message after exposure to the advertising message that provides valuable facts regarding the organic food product (Zhang et al., 2016; Sun et al., 2017). Therefore, previous studies found that informativeness strengthened product knowledge.

Martins et al. (2019) identified that after the information in advertising was considered valuable and credible, consumers are more likely to know the information as a good source. According to the study of Logan et al. (2012) and Stanton and Cook (2019), consumers may favour an advertising message that provides useful information.

Advertising message that provides enough information will generate a favourable relationship between product knowledge and the intention to purchase organic food products and advertising (Morvarid et al., 2012; Hamouda, 2018). For example, in India, the high knowledge level regarding organic food products is one of the main reasons that motivate Indian consumers to purchase organic food products because Indian consumers are exposed to advertising messages that provide more information about organic food products (Krishna & Balasubramanian, 2021; Sun et al., 2017). Therefore, these studies noted that informativeness strengthened product knowledge.

According to Cai et al. (2016) and Sun et al., 2017), high knowledge levels can develop consumers' information regarding organic food products' accuracy and effectiveness. It also helps generate the intention to purchase organic food products because consumers have sufficient information about them. Therefore, it leads consumers to increasingly purchase organic food products. For this reason, informativeness can be one strategy that increases knowledge of organic food products. Therefore, it also increases the intention to purchase organic food products. In addition, these studies found that informativeness strengthened product knowledge.

The previous study found that informativeness is significantly related to product knowledge and intention to purchase organic food products. Because of food advertising content (informativeness) consumers can see the benefits of organic food products (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Stanton and Cook, 2019). After the consumers are exposed to the food advertising content, they can compare the differences between organic foods and other foods because they know more about the benefit of organic food products emphasized by the food advertising content information. Therefore, they believe in the benefit attribute of organic food products, which can stimulate them to purchase them (Hamouda, 2018; Naser and Ismail, 2020). Moreover, they also believe that informativeness strengthened product knowledge.

Similarly, the previous study found that food advertising content (informativeness) can increase product knowledge of organic food products after exposure to the food advertising content (informativeness). Therefore, consumers with high product knowledge will be more likely to purchase organic food products because they have no prejudice towards the organic food product (Stanton and Cook, 2019; Cai et al., 2016; Naser and Ismail, 2020). Moreover, the previous study also revealed that informativeness strengthened product knowledge.

The previous study found that consumers have a lower knowledge of organic foods after the consumers are exposed to the food advertising content (informativeness) that explains the benefit of organic food products. Therefore, they will be less likely to purchase organic food products because they agree with the benefit of organic food products (Stanton & Cook, 2019; Hansmann and Baur and Binder, 2020). In the same way, this study also found that the food advertising content (informativeness) needs to explain the benefit of organic food products clearly. Resultantly, the level of consumers' product knowledge of organic food products remained the same. As a result, they will not purchase organic food products (Sun et al., 2017; Zhang et al., 2016; Hansmann and Baur and Binder, 2020).

Thus, an informativeness element in an advertising message is crucial to deliver precise and accurate information to the audiences (Naser and Ismail, 2020).

On the other hand, the previous study's finding argued that participants have a high level of knowledge regarding organic food products after being exposed to an adverting message that provided information about organic food products. Therefore, the participants will compare different advertising messages and weigh the reliability of the information, which strengthens the framing effect (Nelson and Clawson and Oxley, 1997; Cai et al., 2016; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020).

This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to organic foods. The aim of this research is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to the question, such as "Would the food advertising content (informativeness) increase product knowledge of organic food products?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of food advertising content (informativeness) and the other constructs; secondly by examining the impacts of food advertising content (informativeness) on the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying a numerous of gaps in the literature. Firstly, the concept of informativeness within the context of food advertising was not very clear. Previous researchers (Naser and Ismail, 2020; Hamouda, 2018; Sun et al., 2017) had focused on informativeness; moreover, there was a little evidence on informativeness. From previous studies, it is evident that informativeness was an outcome of product knowledge, and excluding one or the other made product knowledge incomplete (Stanton & Cook, 2019; Arora and Agarwal, 2020; Cai et al., 2016). This study has contributed to the existing literature by studying food advertising content based on informativeness which will strengthen product knowledge.

Therefore, it is hypothesized that:

H2: Informativeness will strengthen Product knowledge

### 2.16.3 Advertising creativity and product knowledge

Oktaniar and Listyaningsih, Purwanto (2020) and Choi et al., 2018 identified that advertising creativity could enhance knowledge of products (such as organic product knowledge) and the intention to purchase organic food products. Moreover, the effect could increase over time and reach the highest level at the longest delay (such as a 5-week delay; see Baack et al., 2008; Oktaniar et al., 2020).

Advertising creativity can be creative messages that can grab more attention and generate a positive attitude regarding the featured products (Reinartz & Saffert, 2013; Haider and Ahmad and Ghani, 2019). According to Shen et al., 2020, the creative message influences the person's knowledge to purchase organic food products because the message communicates the positive attribute of organic food products. In addition, the message points out important benefit of organic food. Therefore, it leads consumers to purchase organic food products (Oktaniar, Listyaningsih, and Purwanto, 2020; Lilja, 2019). Additionally, Simola et al., 2011 and Choi et al., 2018 pointed out that a previous study that investigated the impact of advertising creativity and product knowledge (organic food knowledge) on the intention to purchase organic food products found that the variable of advertising creativity had a significant impact on product knowledge (organic food knowledge) towards the intention to purchase organic food products. Oktaniar and Listyaningsih, and Purwanto (2020) and Oktaniar et al., (2020) discovered that the previous finding exposed the impact of advertising creativity and product knowledge (organic food knowledge) on the intention to purchase organic food products. The result could be interpreted by the fact that respondents rated food advertising on organic food products as having unique or distinct advertising, smart ads

or advertisements that can impact emotions and advertising messages that are easy to know and understand. They also know more about that attribute of organic food products (Yang & Smith, 2009; Shen et al., 2020; Oktaniar and Listyaningsih and Purwanto, 2020). Furthermore, previous studies also stated that advertising creativity strengthened product knowledge.

It states that the better the advertising creativity, the better the intention to purchase organic food products. This is because advertising creativity can motivate consumers to pay attention to the advertisement in detail, stimulating consumer intention to purchase organic food products (Wilaso & Casper, 2016; Oktaniar et al., 2020). Moreover, the previous stuied revealed that advertising creativity strengthened product knowledge.

Altsech (1995) and Shen et al. (2020) identified that the consumers' intention to purchase organic food products has relations to product knowledge (organic food knowledge) and advertising creativity because advertising creativity is an advertising message that can increase product knowledge (organic food products). Consumers will perceive the product's attribute (the attribute or benefit of organic food products) after exposure to the advertising message. Therefore, consumers will increasingly purchase organic food products. For this reason, the consumers will know and understand more health benefits of the product (organic food product) (Bublitz & Peracchio, 2015). The consumers can also evaluate the benefit of the product (organic food product) they will encounter. Therefore, consumers will likely purchase organic food products (Chen and Wang and Liang, 2019; Rosengren and Dahlen and Modig, 2013; Anupama and Suresh, (2018). According to Rothenberg and Hausman (1976) and Shen et al. (2020), adverting messages communicate the product's benefit, which is regarded as an aspect of defining advertising creativity. Furthermore, previous studies noted that advertising creativity strengthened product knowledge.

On the other hand, advertising creativity often impresses the audience due to the advertisement's design or the novelty of the presented concept. However, ingenious ideas and unusual characteristics may also generate creative advertisements that are difficult to understand (Stone and Besser and Lewies, 2000; Yang & Smith, 2009; Choi et al., 2018; Wang et al., 2021). In addition, few studies investigate the relationship between advertising creativity and product knowledge (organic food knowledge) on intention to purchase organic food products (Shen et al., 2020; Wilaso & Casper, 2016). This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research is to examine the impacts of the food advertising contents (emotional

appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to the questions such as "Would the food advertising content (advertising creativity) increase product knowledge of organic food products?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of food advertising content (advertising creativity) and the other constructs; secondly by examining the impacts of food advertising content (advertising creativity) on the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying a number of gaps in the literature. Firstly, the concept of advertising creativity within the context of food advertising content was not very clear. Previous researchers (Shen et al., 2020; Choi et al., 2018; Haider and Ahmad and Ghani, 2019) had focused on advertising creativity; moreover, there was a little evidence on advertising creativity. From previous studies, it is evident that advertising creativity was an outcome of product knowledge, and excluding one or the other made product knowledge incomplete (Wang et al., 2021; Wilaso and Casper, 2016; Haider and Ahmad and Ghani, 2019). This study contributed to the existing literature by studying food advertising content based on advertising creativity which will strengthen product knowledge.

Therefore, it is hypothesized that:

H3: Advertising creativity will strengthen Product knowledge

#### 2.16.4 Product knowledge and attitude

The definition of attitude toward the behaviour is the degree in which an individual has a favorable or unfavorable estimation of the behaviour in the question" (Ajzen, 1991). Also, the definition of product knowledge is regarded as consciousness. In terms of the marketing concept, product knowledge is defined as consumer consciousness where consumer's knowledge regarding a specific company and product, stimulates the consumers to obtain the greatest benefit form what they buy (Wang, et al., 2019; Zakowska-Biemans, 2011). The product knowledge toward organic food products is

very high level due to consumer attitudes and awareness of safer and healthier consumption. The consumer attitude can stimulate consumer desire to purchase organic food that does not have a chemical component. They also will pay more money if the organic food product is confirmed by the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) which are displayed on the label (Sankar, 2015; Bryła, 2016; Von Essen and Englander, 2013; Atta and Abbas and Syed, 2021). Therefore, the previous studies also found that product knowledge strengthened attitude.

Moreover, the consumers' attributes are based on product knowledge and the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) that successfully communicating the natural content, health consciousness and the sensory appeal. Consumer attributes distinguish the impact or consequences of consumption. The consumers' purchasing power can change consumption (Mehra and Ratna, 2014; Solomon, 2021). The finding of previous studies reveals product knowledge toward organic food product and the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) have been the most persuasive factors on the consumers' attitude towards organic food product (Bryła, 2016; Xie et al., 2020). The results also indicated that consumers displayed positive attitude towards organic food. They are also aware organic food products are healthier food product. They are eager to get product information and compare the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity). This leads to the knowledge that organic food products are a healthy choice. They are satisfied with a better taste, and are happy to pay a higher price for organic food (Zakowska-Biemans, 2011; Solomon, 2021). Therefore, these findings also revealed that product knowledge strengthened attitude.

Furthermore, the findings suggested that most consumers know that organic food products are a safer and healthier food choice than ordinary foods after they were exposed to food advertising content (Emotional appeal, Informativeness and Advertising creativity) (Sankar, 2015). Although most consumers are in the middle income group, they displayed a positive attitude toward organic food product and intended to purchase organic food product. Therefore, these food advertising content (Emotional appeal, Informativeness and Advertising creativity) can increase the level of product knowledge in consumers leading to an increase in the intention to purchase

organic food product (Von Essen and Englander, 2013). Therefore, these studies also identified that product knowledge strengthened consumer attitude.

Although the influence of food advertising content (emotional appeal, informativeness and advertising creativity), can stimulate consumers to understand that organic food products are a healthier alternative than ordinary foods and have a positive attitude toward organic food product, there is only a small proportion of consumers that intend to purchase organic food product. That is because most consumers are aware of organic food product as a fashion product (Zakowska-Biemans, 2011; Sankar, 2015).

Similarly, the previous study found that the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) could increase consumers' positive attitude toward the intention to purchase organic food products (Demirtas, 2018; Solomon, 2021; Xie et al., 2020). This is because consumers know more about the beneficial attribute of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients). Most consumers consider the benefits of organic food products when purchasing organic food. Therefore, these attributes of organic food products positively influence consumers' attitudes toward purchasing organic food products (Hansen and Sørensen and Eriksen, 2018; Spence et al., 2018). Therefore, the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) is an important factor that can make positive attitudes towards purchasing organic food products (Mehra & Ratna, 2014; Wang et al., 2019). Also, the food advertising content increases product knowledge of health issues (Voon et al., 2011). In addition, they also believed that product knowledge strengthened attitude.

However, Rana and Paul (2017) and Wang et al. (2019) found that most respondents showed neutral attitudes towards an organic food product after they were exposed to food advertising content (Emotional appeal, Informativeness and Advertising creativity). The findings suggested that the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) might not increase product knowledge toward organic food products because the respondents needed more convincing of the benefits of organic food products. They slightly acknowledged that "there are no chemical ingredients in organic food products" and "organic production does not use fertilizers".

Also, Pino and Peluso and Guido (2012) and Atta and Abbas and Syed, 2021 noted that the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) do not impact regular consumer attitude towards organic food products. It is in line with studies on consumer behaviour towards organic foods in China about the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) that is the primary motivator for intention to purchase organic food products (Chen & Lobo, 2012; Sirieix and Kledal and Sulitang, 2011; Thøgersen & Zhou, 2012).

The previous study's findings indicated that product knowledge is positively related to attitude toward the intention to purchase organic food products. Because after consumers are exposed to the food advertising content (emotional appeal, Informativeness and Advertising creativity), they know more about the health benefits. After they obtain reliable and clear information that is very important for intention to purchase organic food products, they will make informed buying decisions based on their budget and preference (Teng & Wang, 2014; Atta and Abbas and Syed, 2021). Therefore, product knowledge is likely related to the intention to purchase organic food. The food advertising content sends quality signals to consumers; moreover, it is a crucial tool to help them determine and develop positive attitudes towards organic food products (Feldmann & Hamm, 2015; Solomon, 2021). In addition, these studies showed that product knowledge strengthened attitude.

In the same way, the previous study's finding pointed out that product knowledge was positively associated with attitude toward the intention to purchase organic yoghurt. This is because the food advertising content provides genuine and clear information about the benefits of organic food products. Furthermore, genuine and clear information increases consumer awareness of health and safety issues that can satisfy consumer needs and demands (Ghazalia et al., 2017; Atta and Abbas and Syed, 2021). In addition, Raza and Bakar and Mohamad (2020) and Raza and Hasnain and Khan (2018) found that the influence of food advertising content on attitude and product knowledge is an important antecedent of the (TPB). Therefore, these findings also revealed that product knowledge strengthened attitude.

This study could make critical contributions to the knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived

behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to the question, such as "Is product knowledge positively related to TPB (attitude)?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly, by exploring the meanings of product knowledge and the other constructs; secondly by examining the impacts of product knowledge on the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying a numerous gaps in the literature. Firstly, the concept of product knowledge was not very clear. Previous researchers (Wang, et al., 2019; Atta and Abbas and Syed, 2021; Bryła, 2016) focused on product knowledge; moreover, there was a little evidence on product knowledge. From previous studies, it is evident that product knowledge was an outcome of **attitude** which made product knowledge incomplete (Xie et al., 2020; Solomon, 2021; Sankar, 2015). This study contributed to the existing literature by studying food advertising content based upon product knowduct which strengthen attitude.

Therefore, it is hypothesized that:

H4: Product knowledge will strengthen attitude.

### 2.16.5 Product knowledge and subjective norm

The definition of subjective norm is the perception of social pressure to not perform or carry out the behaviour (Ajzen (1991), cited in Han et al. (2010). The definition of product knowledge is regarded as consciousness. In terms of the marketing concept, product knowledge is defined as consumer consciousness where consumer's knowledge regarding specific companies and products, which stimulates consumers get the greatest form what they buy (Zhen and Mansori, 2012; Souza, 2022; Chekima, et al., 2021). Therefore, they revealed that product knowledge strengthened subjective norm.

Subjective Norms (SN) related to the influence of food advertising content (emotional appeal, informativeness and advertising creativity) could help motivate consumers to carry out behaviors that have been created to combine the expectations of what the important persons in his or her life expect. (e.g., family, friends, and significant others)

(Hamzaoui-Essoussi and Zahaf, 2012; Zhu, 2018; Souza, 2022) Subjective norms relate to the product knowledge that people have which could influence decisions on whether to consume a product or not. That is, a person's awareness about social pressure could convince someone to carry out the behaviour in question or not. Thus, subjective norms disclose the beliefs to people about how they are viewed by their reference groups if they engage in some behaviors (Sevtap Ünal and Deveci and Yıldız, 2019; Atta and Abbas and Syed, 2021). SN includes two interactive elements: belief in the interests of other people and how other people want to see a person carry out these beliefs by giving a positive or negative judgment regarding each belief (result evaluations) (Wong and Aini, 2017).

This product knowledge practically enables a person to buy organic food products due to how they relate to the opinions of other people who might have the power to influence more people about a specific product. This idea can, thus, significantly impact purchase intention associated with organic food products (Zhen and Mansori, 2012; Wang, et al., 2019). Therefore, these findings also showed that product knowledge strengthened the subjective norm.

Abrams and Meyers and Irani, (2010) Souza, (2022) and Atta and Abbas and Syed, (2021) and Wang, et al., (2019) suggested that the findings of previous research revealed that after consumers were exposed to food advertising content (emotional appeal, informativeness and advertising creativity) the person knew that organic food products were healthier foods than ordinary foods. If a consumer considers organic food products to be good, then consumers will have more intention to buy organic food products. After the consumers have been made aware that organic food products are healthier and safer foods, consumers will be aware that the important persons surrounding them believe organic food products to be better than ordinary foods, consumers will have more intention of buying organic food products (Choe and Kim 2019; Abu Bakar et al., 2021). Also, Han et al. (2010) and Abu Bakar et al., 2021 cited that the findings of their studies indicated SN could increase knowledge about an organic food product amongst consumers which could lead to an increase in the level of product knowledge toward intention to purchase organic food as a social norm. These findings are consistent with the Al-Swidi, Mohammed Rafiul Huque research which states that the level of product knowledge tends to be impacted by the perception of other persons. Therefore, these previous studies also indicated that product knowledge strengthened subjective norm.

Similarily, other previous research findings also found that important consumers will know more about the beneficial attributes of organic food products (such as no chemicals, good taste, and good nutrients) (Ahmad et al., 2019; Teichert et al., 2018). Due to people being exposed to food advertising content (emotional appeal, informativeness and advertising creativity). consumers now know more about organic food products as being healthier than ordinary foods. It points to the fact that important consumers who can motivate consumers are aware that organic food products are more nutritious than everyday foods. Therefore, consumers will increasingly purchase organic food products (Zhen and Mansori, 2012; Krishna and Balasubramanian, 2021). In addition, the previous studies also proposed that product knowledge strengthened subjective norm.

Subjective norms are essential in positively impacting the intention to purchase organic food products. Therefore, subjective norms are also regarded as a critical determinant stimulating product knowledge about purchasing organic food products. If consumers are highly worried about subjective norms, they will be concerned about their social and cultural norms and their reference group (Basha and Lal, 2019; Teichert et al., 2018). Furthermore, the findings of the previous studies also pointed out that product knowledge strengthened subjective norm.

On the other hand, after important consumers were exposed to food advertising content (emotional appeal, informativeness and advertising creativity), they will now be aware that organic food products are healthier and safer than ordinary foods (Chen, 2007; Akbar et al., 2019). However, important people of consumers cannot increase product knowledge towards the intention to purchase organic food products. Because each person's intentions to purchase organic food are not likely to be strengthened if the individuals do not trust that their loved ones expect them to do so or they do not wish to be identified with other individuals who intend to purchase organic food products (Wong & Aini, 2015; Chekima et al., 2021). Similarly, Dowd and Burke (2013) and Abu Bakar et al. (2021) argued that if consumers believed that important people who considered organic food products as bad, consumers would know more about organic food products that are harmful. Therefore, consumers will not intend to purchase organic food products.

This study could make critical contributions to the knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research is to examine the impacts of the food advertising contents (emotional appeal,

informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of Planned Behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to questions such as "Is product knowledge positively related to TPB (subjective norms)?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly, by exploring the meanings of product knowledge and the other constructs; secondly by examining the impacts of product knowledge on the other constructs; and finally, by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying numerous gaps in the literature. Firstly, the concept of product knowledge was not very clear. Previous researchers (Chekima, et al., 2021; Zhu, 2018; Wang, et al., 2019) focused on product knowledge; however, there was a little evidence on product knowledge. From previous studies, it is evident that product knowledge was an outcome of **subjective norms** or others which made the product knowledge incomplete (Teichert et al., 2018; Krishna and Balasubramanian, 2021; Basha & Lal, 2019). This study contributes to the existing literature by studying food advertising content based on product knowledge which consequently strengthens subjective norms.

Therefore, it is hypothesized that:

H5: Product knowledge will strengthen subjective norm.

#### 2.16.6. Product knowledge and Perceived behavioral control

Perceived behavioral control is defined as product knowledge of her/his control over what to purchase and consumption of which he or she considers to impact the judgment of organic meat risks and benefits (Wong and Aini, 2015; Souza, 2022). For instance, a consumer might not have the ability to readily understand organic meat labels, thus this impacts his perceived behavioral control. In accordance with Ajzen (1991), perceived behavioral control focuses on a persons' product knowledge at the level they are able to carry out a defined behaviour. Then, this underlying awareness is regarded as their trust regarding the comfort or difficulty in carrying out the behaviour and the scope of the practice depends on them (Hjelmar, 2011; Abu Bakar et al., 2021). Furthermore,

previous studies stated that product knowledge will strengthen perceived behavioral control.

Thus, it is expected that if a consumer is aware of behavioral control of buying organic meat, the intention to buy organic meat is higher. Chen's study revealed that if a consumer had difficulty understanding the organic meat labels, the intention to buy organic meat is reduced (Chen, 2007; Abbas and Syed, 2021). A study done by Voon et al (2011) shows cost and convenience to create the construct of affordability that might influence intention to buy organic meat (Wong and Aini, 2015; Abu Bakar et al., 2021). According to Ajzen (1991), it is expected that persons who are aware of more behavior control will have more intention of performing such behaviour. If consumers are aware of increased behaviour control of buying organic food products, then the intention to purchase organic food products will be higher (Voon et al 2011; Krishna and Balasubramanian, 2021). Additionly, they revealed that product knowledge will strengthen perceived behavioral control.

The finding of previous studies revealed that after consumers were exposed to food advertising content (emotional appeal, informativeness and advertising creativity) that indicated that organic food products are health foods, they know more about organic food products as increasingly healthier food products. They now know more about organic food products that are easily better than ordinary foods (Voon et al 2011; Chekima, et al., 2021). Food advertising content increases the level of product knowledge of organic food products. This means the consumer's positive awareness toward more behavioral control perception significantly increases the consumer's intention to purchase organic food products. Perceived Behavioral Control (PBC) positively impacts consumers' intention to purchase organic food products. In addition, the finding of previous studies supported the fact that product knowledge strengthened perceived behavioral control.

In the contract, Hjelmar, (2011) and Cornford and Pupat, (2019) argued the finding of previous studies showed that if consumers had difficulty understanding the labels of organic foods, thus the intention to buy organic foods will lower. Ajzen (1991) argued that the scope to which PBC impacts intention depends upon types of behavior and the characteristics of the situation. The PBC-intention relation that is strong and PBC independently predicted intentions and behaviour in multiple contexts.

However, the previous judgment found a positive relationship between the perceived behavioural control of consumers and product knowledge towards intention to purchase organic food products. For this reason, consumers are able to perceive higher health and beneficial attributes of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients) after they are exposed to food advertising content (emotional appeal, informativeness and advertising creativity). As a result, consumers increasingly knew about the beneficial attributes of organic food products. Furthermore, it leads to the assumption that consumers are aware of the beneficial attributes of organic food products that make the body healthy. Therefore, they increasingly intend to purchase organic food products (Demirtas, 2018; Spence et al., 2018). Furthermore, previous studies also stated that product knowledge will strengthen perceived behavioral control.

On the other hand, Yazdanpanah & Forouzani (2015) and Souza 2022 and Zhanga et al. (2017) suggested that the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity), could not increase the level of product knowledge of organic food products. Perceived behavioural control does not influence product knowledge about purchasing organic food products because consumers are already aware of the beneficial attribute of these products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients). Consumers also regard organic food products as good for health. Therefore, perceived behavioural control cannot motivate consumers to purchase organic food products (Pomsanam, Napompech and Suwanmaneepong, 2014).

Similarly, consumers from collectivistic countries might experience high pressure from their reference groups. However, the customers are also willing to follow their reference groups' opinions. Therefore, consumers need a higher level of independence and self-confidence (perceived behavioural control) when making decisions about trying/buying new products. For instance, if a husband needs to ask a question about a product, the husband will automatically prefer that the answer come from his wife and vice versa (Wang et al., 2019; Asif et al., 2018).

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of product knowledge and the other constructs; secondly by examining the impacts of product knowledge on the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying a number of gaps in the literature. Firstly, the concept of product knowledge was not very clear. Previous researchers (Souza, 2022; Krishna and Balasubramanian, 2021; Atta and Abbas and Syed, 2021) focused upon product knowledge; however, there was a little evidence on product knowledge. From previous studies, it is evident that product knowledge was an outcome of perceived behavioural control which made product knowledge incomplete (Demirtas, 2018; Asif et al., 2018; Solomon, 2021). This study contributed to the existing literature by studying food advertising content based on product knowduct will strengthen perceived behavioural control.

Therefore, it is hypothesized that:

H6: Product knowledge will strengthen Perceived behavioral control.

## 2.16.7. Attitude and Intention purchase

Mhlophe, (2016) and Atta and Abbas and Syed, (2021) suggested that attitude affects the intentions that are held by consumers and the greater the positive attitude, the more intention to carry out the behaviour. The TPB hypothesized that a strong attitude to some behaviour brings out more intention to carry out that behaviour (Ajzen, 1991). The previous study suggested that most attitudes is the critical predictor of how consumers get value from their intention to purchase organic food products. Other previous studies have displayed the attitude-intention connection based upon certain statistical evidence that, for instance; healthy and safe attitude does have an impact on consumers' intention to purchase organic food products (Mhlophe, 2016; Daniel and Kalu, 2017). Furthermore, previous studies also noted that attitude strengthened intention to purchase.

Moreover, the objectives of the previous study with citations to causal links or associations are specific to this study. We specifically attempted to investigate the empirical objective data to determine the extent that consumers 'attitudes influence consumers' intentions to purchase organic food. The finding of the study discovered that positive message framing on the context of healthier and safer impacts of consumer purchase intention for organic food (Werner and Alvensleben, 2011; Tung and Shih and Wei and Chen 2012; Mkhize and Ellis, 2020). Because of the expectation of important results, such behavior is a critical factor toward the intention of behavior. Organic food was seen as being much more healthy, natural, nutritious, and sustainable than regular foods after consumers were exposed to food advertising content (Emotional appeal,

Informativeness and Advertising creativity) (Singhal, 2017; Bakar, 2021). Therefore, the attitude of consumers toward the intention to purchase organic foods is naturally believed to have a positive relationship regarding attitudes towards organic food. In addition, in accordance with TPB (Ajzen, 1991), once the attitude of the individual towards participation in consuming organic food becomes positive, then he or she tends to engage in such behavior. Therefore, the findings of these studies found attitude strengthened intention to purchase.

Similarly, the previous study suggested that attitude positively influences the intention to purchase organic food products. Due to the food advertising content (Emotional appeal, Informativeness and Advertising creativity) which communicates the beneficial attributes of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, good taste, and good nutrients). After consumers are exposed to the food advertising content, they will know the attributes of organic food products that can keep them healthy. They may be expected to rely on the food advertising content and other observable characteristics of organic food products as quality and measures of trustworthiness (Voon et al., 2011; Chen, 2007; Atta and Abbas and Syed, 2021). It follows that knowledge of the beneficial attribute of organic food products can increasingly motivate consumers to buy them. Furthermore, if the consumers are concerned about their health, the beneficial attribute of organic food products generate a positive attitude towards organic food products (Honkanen et al., 2006; Xie et al., 2020; Solomon, 2021). Therefore, message framing about desirability of organic food attributes generate positive attitudes towards consumers are the intention to purchase organic food. Therefore, the previous study's findings also showed that attitude strengthened intention to purchase.

Mhlophe (2016) and Ahmad et al. (2019) found a positive relationship between attitude and consumers' intention to purchase organic food products. This study suggested that respondents felt the intention to purchase organic food products after exposure to the food advertising content that communicated the beneficial attribute of organic food products. Furthermore, the respondents agreed that the beneficial attributes of organic food products impacted their intention to purchase them. For this reason, daily food's beneficial characteristics could play a critical role in consuming and purchasing the selected food product. Consumers often seek food products that contain the nutritional value and beneficial characteristics of food that can benefit the body, create good health, and bring good things to life. Therefore, consumers care about their health and want

nutritional value and beneficial characteristics in food consumption. Thus, the food advertising content can influence the attitudes towards intention to purchase organic food products (Daniel & Kalu, 2017; Holst & Iversen, 2011; Solomon, 2021). Moreover, they noted that attitude strengthened intention to purchase.

On the contrary, other researchers discovered that positive attitudes could not be replicated in the purchase intentions of consumers (Lee and Bonn and Cho, 2014; Brumă, 2020). Though behavioural studies support the relationship between attitudes and intentions to purchase (Mhlophe, 2016; Daniel & Kalu, 2017; Werner & Alvensleben, 2011), empirical consequences of this correlation are not yet conclusive.

In addition, the research of Tung and Shih and Wei and Chen (2012) and Solomon (2021) discovered that there were attitudinal inconsistencies once consumers wanted to purchase organic food products. This might mean that consumers might have a positive attitude towards purchasing organic food products, but they might be confused simultaneously, leading to indecision. There is a probability that is not a positive intention to purchase. Therefore, comprehension has challenged the general proposition that having a too-positive attitude causes a positive intention to purchase (Werner & Alvensleben, 2011; Moon and Mohel and Farooq, 2021).

Alternatively, attitude is often defined as the permanent psychological or neural willingness obtained from experience, providing the directive and dynamic and directive impact on a person's response to situations and objects that a person encounters (Bakar, 2021; Hilverda et al., 2018). The previous study's findings found that participants have broadly positive attitudes towards the intention to purchase organic food products. A favourable attitude towards organic food products is a stimulus and the motivator for the intention to purchase organic food products (Teng & Wang, 2015; Moon and Mohel and Farooq, 2021). The majority of consumers are concerned about their health and environmental protection, the more likely it is that the consumers have a positive attitude towards organic foods; moreover, these attitudes significantly increase organic food purchase intention (Mkhize & Ellis, 2020; Hilverda et al., 2018). Yadav and Pathak's (2016) and Xie et al. (2020) study of Indian consumers also found that attitude played an important role in determining organic food purchase intention. This finding was also confirmed by Macovei (2015) 's research on the prediction of pro-environmental behavior in Romania, which indicated consumer's positive relationships between attitudes and behaving in a pro-environment manner, which in turn results in a positive impact on their intention to work in a proenvironmental manner. Therefore, the findings of the previous studies supported that attitude strengthened intention to purchase.

On the other way, attitude alone cannot lead to action. Although attitudes are favourable, consumers' actual purchase behaviour of organic food products might still need to be higher (Mhlophe., 2016; Xie et al., 2020). This behaviour is the attitude-behaviour gap (Atta, Abbas, and Syed, 2021; Solomon, 2021).

This study could make critical contributions to the knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Additionally, its main contribution was based on filling gaps that were found in the literature related to the question such as "Do attitude has a positive impact on the intention to purchase?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of attitude and intention to purchase and the other constructs; secondly by examining the impacts of attitude on intention to purchase and the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying a numerous gaps in the literature. Firstly, the concept of attitude was not very clear. Previous researchers (Mkhize and Ellis, 2020; Atta and Abbas and Syed, 2021; Bakar, 2021) focused on attitude; however, there was a little evidence on attitude. From previous studies, it is evident that attitude was an outcome of intention to purchase which made product knowledge incomplete (Xie et al., 2020; Solomon, 2021; Mhlophe, 2016). This study contributed to the existing literature by studying attitude will strengthen intention to purchase.

Therefore, it is hypothesized that:

H7: Attitude will strengthen intention to purchase.

### 2.16.8. Subjective norm and intention to purchase

The association between subjective norm and intention to purchase has been extensively studied in literature on the market (for example, Ajzen, 1991; Mhlophe, 2014); Pomsanam et al., 2014; Daniel and Kalu, 2017; Tarkiainen & Sundqvist, 2005; Souza, 2022). The importance of the subjective norm has been widely criticized in theory.

Additionally, academics have frequently found subjective norms as being the weakest prediction of intention (Holst and Iversen, 2011; Bagozzi, 1992; Armitage and Conner, 1998; Atta and Abbas and Syed, 2021). When the subjective norm is applied to the context of organic food, the importance of positive relationship was discovered between subjective norms and intention to purchase (Chen, 2007; Mhlophe, 2014; Pomsanam et al., 2014).

On the other hand, the finding of Pomsanam et al. (2014) and Wang, et al., (2019) discovered that subjective norm had little effect on purchase intention of consumers in Thailand - Cambodia concrening organic food. Other researches have confirmed the cross-over impacts of subjective norms to other variables.

The finding found that there has been a positive association between subjective norm and intention to purchase organic food. The finding was confirmed by the conclusion of Pomsanam et al. (2014) and Boizot-Szantai and Hamza and Soler, (2017) on Thai consumers, but not Cambodian consumers like Chen, 2007; Mhlophe, 2014); Daniel and Kalu, 2017), who also discovered a significant positive association between subjective norm and intention to purchase organic food. Therefore, they believed that subjective norm strengthened the intention to purchase.

Moreover, the subjective norm has presented social pressures that recognize how each person feels while participating in certain behaviors. It is established upon those beliefs of the person that has been essential to them in their lives. Therefore, subjective norms are impacted by other people's expectations about specific behaviour combined with the person's motivation to conform to those expectations (Souza, 2022; Atta and Abbas and Syed, 2021; Wang, et al., 2019). On the other hand, Holst and Iversen, (2011) found the creation of a subjective norm is regarded as the weakest prediction of intention to purchase organic food. Therefore, subjective norms were removed from their study. In contrast, Lee and Bonnand and Cho, (2015) suggested that subjective norms have a strong relation with the intention to purchase organic food. Chen (2007) discovered that positive subjective norms of consumers significantly influenced their intention to purchase organic food. Chen's findings suggested that when consumers who trust the

individuals who are important to them think that organic food as being fresher, healthier, more reliable, and produced in an environmentally friendly way they will have better intention to purchase organic food. Therefore, they believed that subjective norms strengthened intention to purchase.

Although some studies have argued that the construct of the subjective norm is regarded as weakest predictor of intention to purchase and wanted to remove the subjective norm from the analysis, the finding of Lee and Bonnand and Cho, (2015) and Brumă, (2020) have argued that the construct of the subjective norm has been discovered to be a strong prediction of the intention to purchase organic food. Due to most studies of TPB have adopted single-item measures for subjective norm. Holst and Iversen, (2011) and Moon and Mohel and Farooq, (2021) indicated that the weakness of the predictive power of the subjective norm might be partially because insufficient measurements. Their meta-analysis showed that several item measures of the subjective norm correlated significantly with intention rather than single measures.

Furthermoe, Voon et al, (2011) and Atta and Abbas and Syed, (2021) and Wang, et al., (2019) suggested that subjective norms positively impact to the intention to purchase organic food product. This study accepted subjective norms had a significant, although weaker, positive direct influence on the intention to purchase organic food products. The significant influence of subjective norms on intention to purchase organic food products reflects the high power distance culture that is characteristic of Malaysians. Therefore, consumers are likely to be impacted by the opinions or advice of significant others, especially those whom that they hold in high admiration. In addition, Malaysia is regarded as a highly collectivist society. Malaysians consumers are more likely to conform to the consumption choices of significant individuals. This means that consumers tend to be actively influenced by those whom they hold in high esteem through their recommendations or beliefs, as well as passively, through their behaviours. This finding is in line with a previous study that proposed subjective norms impact to intention to purchase organic food products. This result might again be because of the inability of survey respondents to perform appropriately about their attitudes (Daniel and Kalu, 2017; Souza, 2022). Moreover, they stated that subjective norm strengthened the intention to purchase.

On the other hand, Paul and Modi and Patel, (2016) and Brumă, (2020) suggested that subjective norms were not positively related to the intention to purchase organic food product, like Tarkiainen and Singhal, (2017) who had similar results, but not the same

as Chen and Tung (2014), Chen and Peng (2012), Han et al. (2010). The findings of previous study had already identified subjective norms as the weakest links in models for the intention to purchase organic food products. Consumers consider that the approval of "important others" cannot be the main factor towards intention to purchase organic food. Their family members/peer groups/friends/ fail to give any positive push regarding a reason for purchasing organic food product (Demirtas, 2018; Hilverda et al., 2018).

In contrast, the finding of previous study found that there is a relationship between subjective norms and the intention to purchase traditional meats (Souza, 2022). This is because significant others have a positive attitude and opinions regarding the traditional meats after they are exposed to the food advertising content that explains the attributes of the traditional meats. It leads to the consumers increasingly purchasing traditional meats due to thinking that those important to them have positive attitudes and opinions about the traditional meats (Teng and Wang, 2015; Brumă, 2020). Therefore, they noted that subjective norm strengthened the intention to purchase.

On the other hand, the finding of previous studies suggested that subjective norms were not positively associated with purchase intention for the organic food products (Han and Chung, 2014; Moon and Mohel and Farooq, 2021). In general, the choice of food product may be driven by interests and personal factors rather than friends, reference groups and family members. According to McDonald and Crandall, (2015) and Souza, (2022), it has been indicated that subjective norms that are fundamental to affecting social life. Moreover, it is regarded as the most important predictor due to this research showing its importance. This represents the existence of social reinforcement such as approval, especially since practitioners have promoted social norms, as a persuasive tool to determine consumer behavior (Melnyk et al., 2019; Atta and Abbas and Syed, 2021). Therefore, marketers should use subjective norms to design their marketing strategies so that they can increase the intention to purchase organic food product.

Otherwise, consumers may believe that the consumption of organic food products might not be socially acceptable behaviour (Boizot-Szantai and Hamza and Soler, 2017; Souza, 2022) due to "important others" not being fully aware of the benefits of organic food consumption.

This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research and to examine the impacts of food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived

behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of Planned Behavior (TPB). In addition, its main contribution was based on filling the numerous gaps that were found in the literature which related to questions such as "Do subjective norms have a positive impact on the intention to purchase?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of subjective norms and the other constructs; secondly by examining the impacts of subjective norms on intention to purchase and the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research has achieved a milestone by identifying numerous gaps in the literature. Firstly, the concept of subjective norms was not very clear. Previous researchers (Souza, 2022; Atta and Abbas and Syed, 2021; Wang, et al., 2019) had focused on subjective norms; moreover, there was a little evidence on subjective norms. From previous studies, it is evident that subjective norms were an outcome of intention to purchase or the intention to purchase being incomplete (Mohel and Farooq, 2021; Brumă, 2020; Kalu, 2017). This study contributed to the existing literature by studying subjective norms that will strengthen the intention to purchase.

Therefore, it is hypothesized that:

H8: Subjective norm will strengthen intention to purchase.

#### 2.16.9. Perceived behavioral control (PBC) and intention to purchase

If people perceive a barrier to participating in a particular behaviour, they might not intend to participate in such behaviour. PBC is defined as the perception of individuals rather than their behaviour when they think about those associated benefits and risks. The main obstacle to buying organic food has been considered to be the price of organic food, which is more expensive than regular food (Souza, 2022; Abu Bakar et al., 2021; Atta and Abbas and Syed, 2021). Similarly, the main benefit to buying organic foods are to have healthier and safer benefit (Kumar and Smith, 2017; Hwang and Chung, 2019). Therefore, these studies identified that perceived behavioral control strengthened the intention to purchase.

Ajzen (1991) theorized that persons who have perceive themselves as having more behavioral control, also have a better intention to employ that behaviour. Pomsanan and Napompech and Suwammaneepong, (2014) and Brumă, (2020) indicated that PBC supported to the prediction of intentions about behaviour that related to health. Chen (2007) and Moon and Mohel and Farooq, (2021) displayed that the PBC of the consumer significantly increases their intention to purchase organic food products. Perceived behavioral control also is refined as the degree of competence and control that persons recognize themselves giving then the ability to prevail over specific behaviors (Ajzen, 1991). Therefore, previous studies found that perceived behavioral control strengthened the intention to purchase.

According to the findings previously revealed that perceived behavioral control has a significant impact on Thai and Cambodian consumers' purchase intention (Kumar and Smith, 2017; Thogersen, 2007). Both Thai and Cambodian consumers perceived the benefit of the organic food after they were exposed to food advertising content (Emotional appeal, Informativeness and Advertising creativity). This leads them to increasingly purchase organic food although the price of the organic food is more expensive than regular food (Hilverda et al., 2018; Cornford and Pupat, 2019). There are other reasons why both Thai and Cambodian consumers' organic food purchase intentions have been impacted significantly by perceived behavioral control. Both organic food companies and Thai and Cambodian governments have used food advertising content on the context of organic food is healthier and safer. Consumers might rely on the perception of behavioral control over attitudes or subjective norms over attitudes or subjective norms (Lee and Bonnand and Cho, 2015; Asifa et al., 2018). Therefore, these studies suggested that perceived behavioral control strengthened the intention to purchase.

The finding of previous study also found that the perceived behavioral control positively influenced the intention to purchase organic food products. The findings found that the perception of product quality positively impacted the intention to purchase organic food product. Perception is a significant indirect impact (such as full mediation) against actual purchasing behavior. (Gassler et al., 2018; Souza, 2022). In addition, the findings previously revealed that perceived behavioral control strengthened the intention to purchase.

After respondents are exposed to the food advertising content, the respondents will perceive the beneficial attributes of organic food products (such as natural ingredients, no chemical, no artificial ingredients, a good taste, and good nutrient) that are advantageous to health. The respondents will thus focus on the beneficial attributes of

organic food products when they want to purchase organic food product. Food advertising content can increasingly motivate the respondents who intend to purchase organic food products due to the respondents regarding the beneficial attributes of organic food products as worth to spending money and time on it (Cornford and Pupat, 2019; Atta and Abbas and Syed, 2021). Because of PBC, its impact on choices and intentions to purchase is important, if consumers believe their actions can lead to the a positive outcome (Souza, 2022; Asifa et al., 2018). In addition, the findings previously revealed that perceived behavioral control strengthened the intention to purchase.

In the same way, respondents are convinced of the beneficial attributes of organic food products. They have also adopted the organic lifestyle and might be less likely to be hindered by the high costs. Thus, they may be more willing to accept a higher price tag on the organic food products (Daniel and Kalu, 2017; Abu Bakar et al., 2021). In addition, the findings of a previous study found that perceived behaviour control was positively related to the intention to purchase organic food products (Ghazalia et al., 2017; Atta and Abbas and Syed, 2021). Consumers are exposed to food advertising content that explains the benefits of organic food products, so they will know more about the benefit of organic food products that help them keep healthy. Moreover, they also believe in the benefit of organic food products, which then leads to them purchasing organic food products more ofter (Abbas and Syed, 2021; Gassler et al., 2018). According to Souza, (2022) and Brumă, (2020), PBC directly predicts behaviour if it can reflect actual control over behavioural performance. In particular, Spence et al., 2018 suggested that when an individual may expect that PBC control is related positively to the intention for a positively assessed behaviour, this cannot be the case of negatively assessed behaviour, recommending that an individual may expect control to be unconnected or not important. Furthermore, The finding of previous studies revealed that perceived behavioral control strengthened the intention to purchase.

In contrast, the finding of the previous study, above, noted that food advertising content (Emotional appeal, Informativeness and Advertising creativity) in the context of environmental protection affected the intention to purchase organic coffee. The findings of this study suggested that food advertising content (Emotional appeal, Informativeness and Advertising creativity) did not increase the intention to purchase organic food products. More consumers regard the positive message framing in the context of environmental protection. The positive message framing could be a critical motivation

when consumers purchase organic coffee, thus influencing their behavioural control more (Paul and Modi and Patel, 2016; Asifa et al., 2018; Moon and Mohel and Farooq, 2021).

Similarly, Al-Swidi, (2013) and Hilverda et al., (2018) suggested that there is not a positive relationship between perceived behavioural control and intention to purchase organic food product. For this reason, affordability can be a problem for consumers who purchase organic food products occasionally or who may yet be convinced of the beneficial attributes of organic food products. Although the consumers perceive the beneficial attributes of organic food products, they will not purchase them because they do not have enough income to purchase organic food products. Thus, consumption costs tend to have a major impact on decisions to purchase organic food products that are more expensive than ordinary food. For other reasons, Hwang and Chung, (2019) and Souza, (2022) identified that the consumers might not have much confidence or competency or lack of control when making these choices. A high or low feeling of control is related to behavioural choices. However, it was not positively significant in this case as confidence in retailers is also important.

This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to question, such as "Do perceived behavioural control have a positive impact on the intention to purchase?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of perceived behavioral control and intention to purchase and the other constructs; secondly by examining the impacts of perceived behavioral control on the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objective of research have achieved a milestone by identifying a numerous gaps in the literature. Firstly, the concept of perceived behavioral control was

not very clear. Previous researchers (Souza, 2022; Cornford and Pupat, 2019; Gassler et al., 2018) were focused on perceived behavioral control; however, there was little evidence on perceived behavioral control. From previous studies, it is evident that perceived behavioral control was an outcome of the intention to purchase or the intention to purchase becoming incomplete (Kumar and Smith, 2017; Moon and Mohel and Farooq, 2021; Brumă, 2020). This study contributed to the existing literature by studying perceived behavioral control which could strengthen the intention to purchase.

Therefore, it is hypothesized that:

H9: Perceived behavioral control will strengthen intention to purchase.

## 2.16.10. Intention to purchase and actual purchase behaviour

In accordance with the theory of planned behaviour (TPB), the effectiveness of behaviour is a linked function of intentions and perceived behavioural control. Evidence regarding the association between intention to purchase and actual purchase behaviour has been gathered with respect to various kinds of behaviors (Lian, 2017; Moon and Mohel and Farooq, 2021). It is noted that when behaviours do not have serious problems in behaviour control, they are able to be evaluated by high-precision intentions (Ajzen, 1991). In accordance with Ajzen (1991) the willingness to purchase and the intention to purchase are important predictors of purchase behaviour. Therefore, the intention to buy organic food products is regarded as a prerequisite in generating the required purchase behavior. The study findings presented that influencing factors such as product knowledge, Socio-demographic factors, and the food advertising content (Emotional appeal, Informativeness and Advertising creativity) have a positive impact toward actual purchase behaviour (Singh, 2017; Testa et al., 2019). In addition, previous studies noted that an intention to purchase will strengthen purchase behaviour.

The intention to purchase is regarded as the cognitive representation of an individual's readiness to act on the prescribed behaviour, and the best predictor of behaviour is intention to purchase. In accordance with the theory of planned behaviour (TPB), the stronger intention of the person to carry out the particular behaviour, the greater the particular behaviour will be performed (Ajzen, 1991). In accordance with Singh (2017) and Woo and Kim, (2019), consumers who intend to purchase some types of products will show a higher rate of purchase behaviour than those consumers who do not show that they have an intention to purchase. The findings of studies have supported that the routes from intention to purchase organic food to purchase behaviour is positive and

important (Such as Singhal, 2017; Wee et al., 2014; Daniel and Kalu, 2017). Therefore, the findings of previour studies found that intention to purchase will strengthen purchase behaviour.

On the other hand, Thøgersen (2007) and Brumă, (2020) found that uncertainty on organic food has a direct negative influence on the intention to purchase organic food and also negative side effects to translation from the intention to purchase organic food product from this evidence.

The intention to purchase is regarded as a predictor of future buying decisions (Singhal, 2017; Taufique and Vaithianathan, 2018). Previous studies have disclosed significant differences significant between intention to purchase and actual purchase behaviour (Lian, 2017; Demirtas, 2018; Moon and Mohel and Farooq, 2021). For example, there has been a difference between purchase intention to purchase and the actual purchase behaviour of the consumer. On the other hand, the finding of the study indicated the perception of the customer cannot be ignored. In fact, many studies have examined the importance and positive association between intention to purchase and purchase behaviour of consumers (Hilverda et al., 2018; Gustavsen and Hegnes, 2020). Therefore, they suggested that intention to purchase will strengthen purchase behaviour. Also, the finding of previous study also found that the intention to purchase positively impacts the purchase behaviour of organic food products. Because respondents are exposed to a positive message framing, the respondents will perceive the beneficial attributes of organic food products (such as natural ingredients, no chemical, no artificial ingredients, a good taste, and good nutrients) that are beneficial to health (Singh and Verma, 2017; Fleseriu and Cosma and Bocanet, 2020). Afterwards, the respondents will know the beneficial attributes of organic food products that can be beneficial to the body. Product knowledge can determine a consumers' intention to purchase organic food products. Such knowledge will then lead to the actual purchase of organic food products. Product knowledge is also critical in the purchase decision of organic food products. The highest impact on the intention to purchase is the perceived beneficial attributes of organic food products. The finding indicated respondents who have organic food purchase intention tend to display the expected buying behavior when purchasing the organic food products (Wee et al., 2014; Gustavsen and Hegnes, 2020; Fleseriu and Cosma and Bocanet, 2020; Testa et al., 2019). The intention to purchase is regarded as the most important factor in positively impacting the performance of the behaviour because the consumers' purchase behaviour is a function of the purchase intention to carry out the mentioned behaviour (Demirtas, 2018;

Hilverda et al., 2018). Moreover, previous studies supported that intention to purchase strengthened purchase behaviour.

Intention to purchase refer to the extent to which a person is willing to carry out a certain behaviour and can be used to tell how many times an individual will attempts to carry out a definite behaviour. Humans are regarded as rational actors, so they can plan to achieve a specific target and then carry it out accordingly, which means human behaviour is determined by the intentions (Akbar et al., 2019; Brumă, 2020). Therefore, a specific product purchase intention can lead to the adoption of that product or the purchase behaviour of consumers. In addition, these findings also revealed that intention to purchase strengthened purchase behaviour.

In another way, there may be a mismatch between intentions declared by the consumers and the actual pruchase behavior of the consumer at the time of buying (Papadas and Avlonitis and Carrigan, 2017; Moon and Mohel and Farooq, 2021) which is cited as intention-behavior gap. This intention behavior gap has been determined by various researchers on organic food consumption behaviour (Testa et al., 2019; Testa et al., 2016; Feldmann and Hamm, 2016; Moser, 2015).

This discrepancy of the intention-behavior gap can be prevalent in the intention to purchase organic food product. In addition, it has been found that consumers often overestimate their organic food comsuption. An important proportion of consumers claim that they purchase organic food product at least once in a month. In reality, however, they didn't purchase it at all (Testa et al., 2019; Hilverda et al., 2018).

Although there is an intention-behaviour gap, there are few studies exist on the actual purchare behaviour of organic food product and previous research underlines the need to ascertain consumers' actual purchase behaviour (Yazdanpanah, and Forouzani, 2015; Moon and Mohel and Farooq, 2021). Without the intention to purchase, it is not possible to evaluate the consumer purchase behaviour for a specific product (Moon and Mohel and Farooq, 2021; Norton et al., 2017; Yadav, and Pathak, 2016; Woo and Kim, 2019; Yazdanpanah and Forouzani, 2015).

In contrast, Smith and Paladino, (2010) and Brumă, (2020) and Testa et al., (2019) did not find that a positive relationship between the intention to purchase organic food product and consumer purchase behaviour of organic food products. Although the majority of respondents exposed to the food advertising content (Emotional appeal, Informativeness and Advertising creativity) could communicate the beneficial attributes of organic food products, they did not want to purchase organic food products because

they were not concerned about their health. This leads to the majority of respondents who do not have an organic food purchase intention still displaying the buying behaviour of purchasing the organic food products. Positive message framing communicates the beneficial attributes of organic food products, but may still not positively impact the intention to purchase organic food products and consumer purchase behaviour of organic food products (Shafi and Madhavaiah, 2013; Moon and Mohel and Farooq, 2021).

This study could make critical contributions to the knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, its main contribution was based on filling gaps that were found in the literature related to the question, such as "Would intention to purchase have a positive impact on actual purchase behaviour?"

The aim and question of research gave rise to objective. Based on the aim, question and objective of research, this study has made contributions to the current literature in various ways: firstly, by exploring the meanings of the purchase intention and actual purchase behavior and the other constructs; secondly by examining the impacts of the purchase intention on actual purchase behavior and the other constructs; and finally, by examining the impacts of the other constructs on each other.

The aim, questions and objective of research has achieved a milestone by identifying numerous gaps in the literature. Firstly, the concept of the purchase intention was not very clear. Previous researchers (Lian, 2017; Moon and Mohel and Farooq, 2021; Souza, 2022) had focused on the purchase intention; however, there was little evidence on the purchase intention. From previous studies, it is evident that purchase intention was an outcome of actual purchase behavior or other factors which made the purchase intention incomplete (Woo and Kim, 2019; Singh, 2017; Hilverda et al., 2018). This study contributed to the existing literature by asking whether or not the purchase intention will strengthen actual purchase behavior.

Therefore, it is hypothesized that:

H10: Intention to purchase will strengthen purchase behaviour.

## 2.16.11. Emotional appeal and product knowledge and gender

The moderating role of gender on the relationship between the emotional appeal and product knowledge (Daniel and Kalu, 2017; Kalu and Daniel, 2017). The definition of gender are regarded as "soft" values (e.g. eco-friendliness) which appear to be more suited to perspectives of women because most women worry about health and healthy food (Shin and Mattila, 2019).

Martín and Jiménez (2011) and Wei (2015) identified the need to study gender and particularly the connection between food advertising content (emotional appeal) and product knowledge and gender. The gender differences are a critical factor in the food advertising content (Emotional appeal) and product knowledge (Kemp and Kennett-Hensel and Kees, 2013; Akbar et al., 2019). Food advertising content relates to emotional appeal, which serves to enhance intention to purchase organic food and will therefore increase product knowledge and increase the chances of intention to purchase organic food (Curvelo et al., 2019; Wang et al., 2021). Moreover, they noted that gender moderated the relationship between emotional appeal and product knowledge.

Furthermore, Authors such as Daniel and Kalu, (2017) and You and Zhang and Koyama, (2013) presented the positive influence of emotional appeal on product knowledge in the context of the food advertising content. Barrena and Sánchez, (2010) and Wang et al., (2021) indicated that although consumers will not be able to touch, or try the product, pleasant purchasing experiences make consumers aware of the effects that are less beneficial than consumers who do have previous purchase experiences. Therefore, the findings of these studies found gender moderated the relationship between emotional appeal and product knowledge.

However, gender purchasing differences might exist between men and women. Though we have not found any studies in the current literature that support this influence, Kassim and Abdullah, (2010) and Wei, (2015) pointed out that, in theory, different personal characteristics, such as gender and age have a moderating impact on the association between natural content and consumer awareness. The previous study has analysed the demographic features of consumers. The findings of the previous study have shown that most respondents were male (Wang et al., 2021; Kalu and Daniel, 2017).

However, most female respondents indicated that food advertising content relates to emotional appeal and that is a significant reason to purchase organic food (Martín and Jiménez (2011). Due to the context of natural content stimulation, most females intend

to purchase organic food. They also regard food advertising content (emotional appeal) as presented on the label of organic food as being significant reasons to purchase organic food (Zhanga, et al., 2017; Wang et al., 2021). On the other hand, the minority of respondents were male. They do not intend to purchase organic food after being exposed to the food advertising content (Emotional appeal) (Chekima, et al., 2021; Akbar et al., 2019). However, most females have agreed that the context of the natural content plays a significant role motivating female purchase of organic food (Swahn et al., 2012). The result confirms the previous consequence where respondents indicated the natural content is the biggest personal reason for purchasing organic foods (Wang et al., 2021; Chekima, et al., 2021). Therefore, these studies identified that gender moderated the relationship between the emotional appeal and product knowledge.

Also, Lea and Worsley (2005) and Wang et al. (2021) suggested that gender has a positive relationship between the emotional appeal and product knowledge. Females

knew more about the beneficial attributes of organic food products (such as natural ingredients, no chemicals, and no artificial ingredients) because women were motivated by positive message framing that clearly communicates the natural content. Females are more likely to be concerned about the long-term health effects of residues, chemicals and preservatives. When the females doubt an ordinary food may contain chemical or artificial ingredients, they will avoid consuming ordinary food. This increasingly leads to a women's intention to purchase organic food products (Kushwah et al., 2019; Wei, 2015). Therefore, the positive message framing can motivate females to be aware that organic food does not contain residues, chemicals or preservatives. As a result, the females intend to pay more for organic food products and buy them, although they are more expensive than ordinary food. For this reason, the females perceived the beneficial attributes of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, and a good taste) (Bauer and Heinrich and Schäfer, 2013; Wang et al., 2021). Furthermore, previous studies noted that gender moderated the relationship between emotional appeal and product knowledge.

The study found that females purchase organic food products more than males after exposure to food advertising content (emotional appeal). This is because they know more about the benefit of organic food products and their effects on their health. They had a positive attitude toward organic food products when exposed to the food advertising content (emotional appeal) (Wei, 2015; Kushwah et al., 2019). Females

have more positive attitudes toward food advertising content (emotional appeal) than males. The food advertising content (emotional appeal) encourages females to consume more organic food products. This makes them to increasingly purchase organic food products (Wang et al., 2021; Shin & Mattila,2019). In addition, the previous finding revealed that gender moderated the relationship between the emotional appeal and product knowledge.

On the other hand, gender does not moderate the relationship between the food advertising content (emotional appeal) and product knowledge. Although both females and males know more about the benefit of organic food products after they are exposed to the food advertising content (emotional appeal), they will not purchase organic food products (Akbar et al., 2019; Daniel and Kalu, (2017) because the food advertising content (emotional appeal) may not cover more organic food product information and why such organic food product may be better than their rivals (Kalu & Daniel, 2017; Chekima et al., 2021). It lead to both females and males do not respond positively to the food advertising content (emotional appeal). The message female and male consumers receive can not influence their behaviour and purchase intentions.

This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research and to investigate the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge in relation to TPB. In addition, its main contribution was based on filling gaps that were found in the literature related to the question, such as "Does gender positively moderate the relationships between food advertising content (emotional appeal) and product knowledge?"

The aim and questions of research gave rise to various objectives, i.e. to determine whether product knowledge toward organic food products and intentions to purchase are impacted in different degrees of the moderating effect of gender; to determine the moderating role of gender on the relationship between food advertising content elements (emotional appeal, informativeness and advertising creativity) and product knowledge in the intention to purchase organic food.

Based on the aim, questions and these objectives of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of gender and food advertising content (emotional appeal, informativeness and advertising creativity) and other constructs; secondly by examining the impact of gender which appears to moderate the relationship between emotional appeal and product knowledge and the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and these objectives of research have achieved a milestone by identifying numerous gaps in the current literature. Firstly, the concept of gender was not very clear. Previous researchers (Curvelo et al., 2019; Wang et al., 2021; Daniel and Kalu, 2017) had focused on gender; but there was little evidence on how gender moderates the relationship between emotional appeal and product knowledge. From previous studies, it is evident that gender moderates the relationship between emotional appeal and product knowledge or the others which made purchase intentions and actual purchase behavior incomplete (Kushwah et al., 2019; Chekima, et al., 2021; Zhanga, et al., 2017). This study contributed to the existing literature by studying whether or not gender moderates the relationship between emotional appeal and product knowledge.

Therefore, it is hypothesized that:

H11: Gender will moderate the relationship between the Emotional appeal and product knowlegde

### 2.16.12. Informativeness and product knowledge and gender

This is a moderating role of gender upon the relationship between Informativeness and product knowledge (Zhang et al., 2018). The consequences of Gracia and Magistris, (2007) and Hemmerling and Hamm and Spiller, 2015 and Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, (2020) indicated that informativeness positively impacts the intention to purchase organic food. Rao and Monroe, (1988) and Srinieng and Thapa, (2018) presented that there is a strong and significant relationship between informativeness and product knowledge towards organic food purchasing. Gracia and Magistris, (2007) and Altarawneh, (2013) and Hansmann and Baur and Binder, (2020) suggested that there was a significant relationship between product knowledge and intention to purchase organic food. It identified that the informativeness influences a consumers' intention to purchase organic food once consumer know more about organic food as being healthier and safer food than conventional food. Therefore, they revealed that gender moderated the relationship between informativeness and product knowledge.

The previous literature indicated inconsistent outcomes of studies on gender differences in intentions. The findings of most studies indicated that female have a higher intention to purchase organic food than males (Enrique Murillo, 2016; Gracia and Magistris, 2007; Lilja, 2019). This study found no difference between genders in the intention to purchase organic food. But overall research review indicated that intention to purchase organic food is likely to be different between males and females. When consumers perceived an advertising message communicate the attribute of organic food products, male and female consumers increased their knowledge of the nutritious value of organic food and that this can increase the demand for organic food (Świda et al., 2019; Gross and Roosen, 2021; Huh and DeLorme and Reid, 2004). Therefore, Gracia and Magistris, (2007) and Chandra and Cassandra, 2019 have identified this moderating influence of gender on the relationship between informativeness and product knowledge. Furthermore, the findings of previuos studies also suggested that gender moderated the relationship between informativeness and product knowledge.

Unlike Świda et al., (2019) and Chandra and Cassandra, 2019 who argued males know the information of organic foods' nutrient content is important for the purchase of organic food. Therefore, an advertising message should communicate information about organic food products, which stimulates consumer purchase organic food product.

The differences in the organic food purchase intention rate relates to the level of product knowledge toward an advertising message that communicates the beneficial attribute of organic food products. In other words, gender impacts product knowledge and the intention to purchase organic food products. The previous study's findings indicated that organic product buyers tended to be females (Lagerkvist & Hess, 2011; Kehlbacher et al., 2012; Grimsrud et al., 2013; Gross & Roosen, 2021). Compared to men, most females are aware of the beneficial attributes of organic food products (such as good nutrients) that keep them healthy after they are exposed to a positive message framing because females are often the primary food shoppers within a household (Veljković and Stojanović and Filipović, 2015; Chandra & Cassandra, 2019). Therefore, they are more likely to pay more attention to health. Thus, the advertising message can increase female product knowledge about purchasing organic food products. Informativeness and product knowledge were also impacted by the demographic characteristics (gender) of the organic food buyers. Female respondents wanted to purchase organic food products, although they are more expensive than ordinary food (Świda et al., 2019; Hemmerling and Hamm and Spiller, 2015; Oktaniar and Listyaningsih and Purwanto,

2020). This is because females have good product knowledge toward purchasing organic food products because they consider their health. In addition, females are concerned about communal goals (such as caring for others and social relationships). Females are also more likely to go beyond social causes associated with their in-group (Gross and Roosen, 2021; Srinieng and Thapa, 2018). In addition, the findings of previuos studies suggested that gender moderates the relationship between informativeness and product knowledge.

The suggestion that women knew more about the health benefits related to organic vegetables after exposure to food advertising content (informativeness) respectively, than their male counterparts is correct because females generally have greater responsibility for purchasing and cooking food for their families. In addition, females have more responsibilities to take care of their children and the elderly and sick family members (Sriwaranun et al., 2015; Shen et al., 2020). Indeed, females are always finding information associated with health and the impacts of different food products, including organic vegetables (Srinieng & Thapa, 2018; Veljković and Stojanović and Filipović, 2015). In addition, the findings of previuos studies suggested that gender moderates the relationship between Informativeness and product knowledge. This is inconsistent with the results of other studies that displayed that gender moderates the relationship between the food advertising content (emotional appeal) and product knowledge (Altarawneh, 2013), unlike (Świda et al., 2019; Akbar et al., 2019).

Females regard complete and correct information provided by the food advertising content (Informativeness) as the most important stimulus factor. With complete and accurate information, females obtain valuable information suitable for them (Chandra & Cassandra, 2019; Enrique Murillo, 2016; Hansmann and Baur and Binder, 2020). In addition, females become more self-confident and secure after being exposed to food advertising content (informativeness) (Hemmerling and Hamm and Spiller, 2015; Świda et al., 2019). Therefore, after females know more about the benefit of organic food products, they are increasingly more likely to purchase them because they have a more positive attitude toward them. Therefore, these findings supported that gender moderates the relationship between informativeness and product knowledge.

Therefore, the previous study indicated that females showed a positive product knowledge towards organic food products and knew the consumption of organic food products to be a healthy food option. Furthermore, females were eager to get product information and compared the advertising message while they were choosing nutritious

foods (Świda et al., 2019; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020). Similarly, Świda et al., (2019) and Chandra and Cassandra, 2019 argued males knew that the information of an organic foods' nutrient content is important for the purchase of organic food. Therefore, an advertising message which communicates information about organic food products stimulates consumers to purchase organic food products. Moreover, previous studies suggest that gender moderates the relationship between informativeness and product knowledge.

On the other hand, this is inconsistent with the results of other studies that displayed that gender does not moderate the relationship between the food advertising content (informativeness) and product knowledge (Altarawneh, 2013), unlike (Świda et al., 2019; Akbar et al., 2019). In addition, The previous study's findings indicated that both males and females would not like to purchase organic food products although they were exposed to food advertising content (informativeness); moreover, they know more about the beneficial attributes of organic food products. This is because they have low income. Their income is a major obstacle to purchasing organic food products (Oroian et al., 2017; Martínez-Padilla., 2023).

Similarly, the previous studies indicated that both males and females will purchase organic food products increasingly after they were exposed to food advertising content (informativeness) because they know more about the beneficial attributes of organic food products (Alotaibi et al., 2023; AlAmer et al., 2020). In addition, they trust for the beneficial attributes of organic food products that are explained by the food advertising content (Taufique et al., 2019). Both genders intend to purchase and pay more for the organic food products (Martínez-Padilla., 2023; Świda et al., 2019). Horská et al. (2011) and Gajdoš Kljusurić et al., (2015) emphasized that price and quality are critical aspects in the consumers' food choice; however, lower purchase intention does not mean that consumers do not care about the quality of the food product.

According to Gajdoš Kljusurić et al. (2011) and Gajdoš Kljusurić et al. (2015) indicated that both males and females intend to purchase organic food as food that will improve their health due to the fact that they know more about the beneficial attributes of organic food products after they were exposed to food advertising content (informativeness). Becuase both genders would like to consume food that can improve their health; moreover, they want to avoid the negative nutrients in food products. Thus, food advertising content (informativeness) affected product knowledge toward organic food

product purchase intention and purchase behaviour (Sharma, 2021; Rana and Paul, 2017).

In the same way, Mahgoub et al. (2007) and Taufique et al., (2019) found both males and females will purchase organic food product because they can obtain knowledge on the nutritional content of organic food product after they are exposed to food advertising content (informativeness), that guided them to select organic food products. Similarly, the finding of previous studies indicated that food advertising content (informativeness) and product knowledge did not significantly differ according to gender (Affram and Darkwa, 2015 and Chen et al., 2023).

This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research which is to investigate the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge. In addition, its main contribution was based on filling gaps that were found in the literature related to questions such as "Does gender positively moderate the relationships between food advertising content (informativeness) and product knowledge?"

The aim and question of research gave rise to various objectives. Based on the aim, questions and the objectives of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of gender and food advertising content (emotional appeal, informativeness and advertising creativity) and the other constructs; secondly by examining the impact of gender which moderates the relationship between the informativeness and product knowledge and the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and the objectives of research have achieved a milestone by identifying numerous gaps in the literature. Firstly, the concept of gender was not very clear. Previous researchers (Chandra & Cassandra, 2019; Hansmann and Baur and Binder, 2020; Świda et al., 2019) have focused on gender; moreover, there was a little evidence on how gender moderates the relationship between informativeness and product knowledge. From previous studies, it is evident that gender moderates the relationship between the informativeness and product knowledge or the other which made purchase intention and actual purchase behavior incomplete (Shen et al., 2020; Świda et al., 2019; Akbar et al., 2019).

This study contributes to the existing literature by studying how gender could moderate the relationship between informativeness and product knowledge.

Therefore, it is hypothesized that:

H12: Gender will moderate the relationship between Informativeness and product knowledge

## 2.16.13. Advertising creativity and Product knowledge and Gender

The moderating role of gender affects the relationship between food advertising content (advertising creativity) and product knowledge (Mkhize and Ellis, 2020; Chekima, et al., 2021). In general, one of the main reasons for purchasing organic food is health consciousness and support for using healthier and safer food (Heru, 2015; Zhou and Belk, 2004; Oktaniar et al., 2020). The consequences of Lynch and West, 2017) indicated that health consciousness positively impacted the intention to purchase organic food. Mohamad and Rusdi and Hashim, (2014) and Haider and Ahmad and Ghani, (2019) presented a strong and significant relationship between advertising creativity and product knowledge in organic food purchasing. Lynch and West, (2017) and Choi et al., (2018) suggested gender moderated the relationship between advertising creativity and product knowledge toward organic food. They identified that the health consciousness of the consumer affected the intention to purchase organic food once the consumer became aware that organic food was healthier and safer food than conventional food. Therefore, they revealed that gender moderated the relationship between advertising creativity and product knowledge.

Furthermore, the previous literature indicated inconsistent outcomes of studies on gender differences in intentions. The findings of most studies indicated that female have a higher intention to purchase organic food than males (De Backer and Hudders, 2015; Kim and Chung, 2011; Kilgour, 2006; Grunert and Wills and Ferna´ndez-Celemin, 2010). This study found no difference between genders in the intention to purchase organic food. The overall research review indicated that the intention to purchase organic food is likely to be different between males and females (Heru, 2015; Oktaniar et al., 2020). When consumers perceived a food advertising content communicating health consciousness, male and female knowledge increase their knowledge of the nutritious value of organic food, which can then increase the demand for organic food. Therefore, Jinadasa et al., (2020) and Shin and Mattila, (2019) identified this moderating influence of gender on the relationship between advertising creativity and product knowledge.

Additionally, the findings of previous studies supported that gender moderated the relationship between advertising creativity and product knowledge.

The previous studies discovered that consumers were aware of organic food products being beneficial to a health. This awareness might be concerned with the area in which the respondents were living in the city since consumers might be exposed to a food advertising content (advertising creativity) communicating about the beneficial attributes of organic food products. The context of food advertising content can be a key motivation for buying organic food products (Heru, 2015; Mallia and Windels, 2017; Oktaniar et al., 2020). Furthermore, previous studies noted that gender moderated the relationship between advertising creativity and product knowledge.

The findings of previous studies indicated that there was a difference in the intention to purchase organic food products between a male and females. This confirms the results of previous research that indicated that gender impacts the consumer purchase behaviour of organic food products. Gender differences create different behavioural intentions as well. Women tend to give more importance to health, which helps support a positive attitude and the intention to purchase organic food product (Mamtani and Singh, 2018; Haider and Ahmad and Ghani, 2019; Choi et al., 2018). Unlike Simola et al., (2011) and Akbar et al., (2019) who argued males know information about the nutrient content in organic food, which is important for the purchase of organic food. Therefore, food advertising content (advertising creativity) communicates the benefitcial attribute of organic food to purchasers who buy organic food products, which stimulates consumer purchase. Furthermore, the previous finding noted that gender moderated the relationship between advertising creativity and product knowledge.

The differences in the organic food purchase intention relate to the level of product knowledge toward a food advertising content (advertising creativity) communicating about the benefit attributed to organic food products. In other words, it shows that the gender significantly impacts product knowledge and the intention to purchase organic food products. The finding of a previous study indicated that the buyers of organic products tend to be females Listyaningsih, and Purwanto, (2020) and Oktaniar et al., (2020). Compared to men, females know more about the beneficial attribute of organic food products (such as good nutrient) that keep them healthy, especially after they are exposed to a food advertising content. This is because females are often the primary food shoppers for their household (Mamtani and Singh, 2018; Wang et al., 2021). They

are also more likely to pay more attention to health. Thus, the food advertising content can increase the level of female knowledge towards the intention to purchase organic food products. Food advertising content (advertising creativity) and product knowledge are also impacted by the demographic characteristics (gender) of the organic food buyers. Female respondents tend to purchase organic food products even when they are more expensive than ordinary food (Heru, 2015; Haider and Ahmad and Ghani, 2019). This is because females have positive awareness towards the intention to purchase organic food products, not only due to them considering their personal health, they are concerned about communal goals as well (such as caring for others and social relationships). The females are also more likely to go beyond social causes that are associated with their in-group (Kilgour, 2006; Chekima, et al., 2021). Additionally, the findings of previous studies supported that gender moderated the relationship between advertising creativity and product knowledge.

Therefore, females show a positive awareness towards organic food product and are aware of the intake of organic food products to be a healthy food option, as found by a previous study. Females are eager to get product information and compare, the food advertising content while choosing nutritious foods (Lynch and West, 2017; Mkhize and Ellis, 2020).

On the other hand, the moderating role of gender does not affect the relationship between food advertising content (advertising creativity) and product knowledge (Mkhize and Ellis, 2020; Chekima, et al., 2021). Finding of previous studies indicated that both males and females will increasingly purchase organic food products. In addition, they know more about the beneficial attributes of organic food products after they are exposed to food advertising content (advertising creativity) because they have a high level of education (Shen, et al., 2021 Simola, et al., 2020).

Similarlly, the finding of previous studies found that both male and female with higher education are more willing to pay a higher price for organic food products and more likely to purchase these products after they exposed to food advertising content (advertising creativity) (Rosengren, et al., 2020; Modig and Dahlen, 2019). Because food advertising content (advertising creativity) contains unexpected details (such as the benefit of organic food product) that make a person healthy (Bellman, et al., 2017; Kong, et al., 2019). When consumers know more about unexpected details (the benefit of organic food product), the consumers will purchase organic food products increasingly. Both gender like food advertising content (advertising creativity) that fits

their expectations. In addition, food advertising content (advertising creativity) was perceived as unexpected, creative or persuasive by viewers (both female and male) (Brady and Gantman and Van Bavel, 2020; Choi, et al., 2018).

Fulgoni and Pettit and Lipsman, (2017) and Tantawi and Negm, (2018), indicated that both males and females will increasingly purchase organic food products after they are exposed to food advertising content (advertising creativity) because they know more about the needed and new information of organic food products. It leads to food advertising content that motivates both males and females to increasingly purchase organic food products.

Clear advertising will capture both male and females' attention and make them pay attention to food advertising content. Food advertising content (advertising creativity) influences both male and female opinions, product knowledge or beliefs toward purchasing organic food products. Good content can increase perceived product quality amongst consumers of both genders (Sanchez and Alley, 2016; Kong, et al., 2019). Similarly, the finding of previous studies indicated that food advertising content (advertising creativity) and product knowledge did not significantly differ according to gender (Shen, et al., 2021; Rosengren, et al., 2020).

This study could make critical contributions to the current knowledge. Its main contribution was based on filling gaps that were found in the literature related to the aim of this research which is to investigate the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge. In addition, its main contribution was based on filling gaps that were found in the literature related to questions such as "Does gender positively moderate the relationships between food advertising content (advertising creativity) and product knowledge?"

The aim and question of research gave rise to various objectives. Based on the aim, questions and objectives of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of gender and food advertising content (emotional appeal, informativeness and advertising creativity) and the other constructs; secondly by examining the impact of gender which moderates the relationship between advertising creativity and product knowledge and the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objectives of research have achieved a milestone by identifying numerous gaps in the literature. Firstly, the concept of gender was not very clear. Previous researchers (Heru, 2015; Oktaniar et al., 2020; Jinadasa et al., 2020) focused on gender; however, there was a little evidence on gender moderating the relationship between the advertising creativity and product knowledge.

From previous studies, it is evident that gender moderates the relationship between the advertising creativity and product knowledge and made purchase intentions and actual purchase behavior incomplete (Shin and Mattila, 2019; Mallia and Windels, 2017; Oktaniar et al., 2020). This study contributed to the existing literature by studying gender which moderates the relationship between the advertising creativity and product knowledge.

Therefore, it is hypothesized that:

H13: Gender will moderate the relationship between Advertising creativity and Product knowledge

# **2.17** . **Summary**

In this chapter, the author has studied the literature surrounding the author's education, author reviews and various theories about food advertising content, such as the influence of food advertising content within the context of emotional appeal, informativeness and advertising creativity on product knowledge and the theory of planned Behaviour (TPB) approach used by previous studies to test, as well as an analysis of the findings in the recent past.

Furthermore, The aim, questions and objective of research have achieved a milestone by identifying the influence of consumers' attitudes towards emotional appeal, informativeness and advertising creativity, as well as their impact on product knowledge, attitude, subjective norm, perceived behavioral control, intention to purchase and actual purchase behavior. An analysis of the literature and theories on emotional appeal, informativeness and advertising creativity and its association with other constructs have been performed. The report of literature, discussed, whether emotional appeal, informativeness and advertising creativity had any influence on other constructs. Secondly, it had discussed whether consumers' different demographic groups (gender) had any impact on celebrity trust's effect on the other constructs. Finally, it explained the impacts of emotional appeal, informativeness and advertising creativity on product knowledge, as well as the impact of product knowledge on

attitude, subjective norm and perceived behavioral control, the impact of attitude, subjective norm, and perceived behavioral control on intention to purchase, and the intention to purchase on actual purchase behavior.

Because of the uniqueness of this study, the researcher provided an exhaustive effort in reviewing and examining the literature on this topic that provided clear ideas for the researchers and resulted in the creation of 13 hypotheses on this topic.

# **Chapter III: Methodology And Research Design**

## 3.1. Introduction

This chapter describes and alters the paradigm of methodology, designation of research, and method of analysis used to create the influence of the food advertising content scale and investigate its association with other constructs, and activate this. This chapter has been divided into several parts.

# 3.2 Research design

This research will use the methodology based on the study's aims and objectives. The aim of research that is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Also, this research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge. Therefore, these aims and objectives will be fulfilled; therefore, a paradigm will be chosen which provides guidelines for understanding the subject and creating reliable and accurate results.

In addition, this chapter could describes and alters the paradigm of methodology, designation of research for these reseach questions. The study could fill gaps that were found in the literature related to several questions, such as "Would the food advertising content (Emotional appeal, Informativeness and Advertising creativity) increase product knowledge of organic food products?, Is product knowledge be increased by TPB (attitude, subjective norms, and perceived behavioural control)?, Does TPB (attitude, subjective norms, and perceived behavioural control) have a positive impact on the intention to purchase?, Would intention to purchase have a positive impact on actual purchase behaviour?, Does gender moderate the relationship between food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge?"

Different methods define a paradigm. Some researchers (Bryman, 2007; Foroudi, 2012; Novak & Hoffman, 2023) have described the paradigm as the group of beliefs or guidelines that determine what should be studied, how the research should be conducted, and how the outcomes have to be interpreted. Other studies (Bryman, 2007;

Foroudi, 2012; Jumani & Muhamad, 2022) have defined the paradigm as a worldview or a belief system that guides the decisions that researchers will make something. On the other hand, other definitions (Tashakkori & Teddlie, 1998; Baima and Santoro and Pellicelli, 2021) describe the paradigm as a system that relates to ontological, epistemological, and methodological assumptions. The definition of ontology is how researchers describe social reality's nature and patterns (Gupta et al., 2011; Möller and Halinen, 2022). The critical question is whether social entities ought to regard objective items as having an external reality to social actors or consider social constructionist things established from the social actors' awareness and action (Foroudi, 2012; Wang et al., 2021). These positions are often referred to as objectivism and constructionism, respectively (Morse, 1991; Lou et al., 2022). Epistemology, on the contrary, cites to what is considered good knowledge in the field of study. An essential question in this context is whether or not the social world may and must be studied following the same procedures, principles and ethos as the natural sciences or whether it must be the position that social scientists are required to understand the subjective meaning of social actions (Foroudi, 2012; Walters & Djokic, 2022). The final hypothesis of the paradigm is regarded as a methodology. The methodology is considered to be the technique that researchers use to find reality and associate with the questions and methods that are used in a study to collect and examine empirical evidence (Desphande, 1983; Gupta et al., 2011; Foroudi, 2012; Sahebi and Kordheydari and Aghaei, 2022).

The majority of researchers suggested that researchers should apply quantitative methodology. Quantitative methodology is research conducted using a structured research method with a population sample to create quantifiable insights on motivations, behaviour and attitudes (Wilson, 2012; Gligor et al., 2022). In other words, a quantitative methodology is a structured research method that involves a sample of the population to generate quantifiable insights on motivations, behaviour and attitudes (Ting and Tan and John, 2017; Oesterreich et al., 2022). The mixed methodology in human or social sciences was started by researchers and methodologists who trusted qualitative viewpoints and methods useful when they answered their research questions (Johnson et al., 2007; Sahebi and Kordheydari and Aghaei, 2022). Early researchers (Desphande, 1983; Gupta et al., 2011; Sazu & Jahan, 2022) adopted this methodology in the study of cultural anthropology, and current researchers in business studies have subsequently used this methodology.

Researchers have introduced (Foroudi, 2012; Wilson, 2012; Li and Hou and Wanxiang, 2022) that if the study is more likely to involve large samples of people, the study should use the quantitative methodology to collect the data because many quantitative methodologies include samples in the region of 100-200 persons. However, some quantitative studies might involve tens of thousands of respondents. The quantitative methodology, therefore, not only provides researchers who create methods to gather data but also provide them with answers that may quantify the incidence of motivations, particular behaviour and attitudes in the population that are under investigation (Ave and Venter and Mhlophe, 2015; Lutfi et al., 2023).

Denzin (1978), Sunday, Opeyimika, and Felicia (2023) explained using quantitative methodology. He suggested that in the quantitative methodology, researchers could adopt various quantitative methodologies (Johnson et al., 2007; Sunday and Opeyimika and Felicia, 2023). Morse (1991) and Nord and Garfinkel (2022) summarized a quantitative methodology. The previous studies used the quantitative methodology. However, the previous studies also provided some limitations of quantitative methodology. For example, data collection is more structured and less flexible than qualitative methodology because it is more likely to apply predefined questions consistently used for all respondents (Ba'rcenas et al., 2001; Xueyuan & Le, 2023; Kessaratikoon et al., 2022).

Simeone and Marotta (2010) and Wilson, 2012 and Greene and the Faculty (1989) indicated various reasons for adopting quantitative research methodologies. Firstly, replication (repeating the study is possible due to standardized data collection protocols and tangible benefit definitions of abstract ideas). Secondly, Direct comparisons of results (The study can be repeated in other cultural environments, times or distinct groups of participants. The results are statistically comparable). Thirdly, large samples, Large sample data can be analyzed and processed using consistent and reliable procedures through quantitative data analysis. Finally, (using acceptable and formalized hypothesis testing procedures means that researchers must carefully consider and report their research variables, predictions, testing methods and data collection before they can be concluded. The quantitative methodology aims to gather numerical data from a group of individuals and then summarize those outcomes for a larger group of persons to describe the phenomenon. Researchers often use quantitative research to get objective, conclusive answers (Apuke, 2017; Fishera et al., 2023; Tiwasing et al., 2023).

For example, a chocolate brand wants to survey a sample of their target group (teenagers in the U. S.) to check if U.S. teenagers like the taste of the chocolate. The outcome of this survey will expose how all teenagers in the United States feel about the taste of the chocolate. In the same way, the organization that runs the project to develop the literacy rate of the village might consider how many individuals came to their project, how many individuals dropped out and each individual's score before and after the project. The organization can use these metrics to assess its project's overall success (Gelo, Braakmann, and Benetka, 2008).

The quantitative methodology uses measurable data to determine facts and reveal patterns in research. The collections of quantitative data are much more structured than the collection of qualitative data. Wilson (2012) and Yu (2023) suggested that quantitative methods of gathering data include various types of surveys, such as mobile surveys and kiosk surveys, online surveys, paper surveys, systematic observations, website interceptors, longitudinal studies and online polls. Also, the quantitative methodology will allow researchers to get numbers that the researchers can use statistical analysis to examine their hypotheses. For example, the researchers will know "Was that issue real or just an individual's awareness?" The problematic facts obtained will allow researchers to make decisions based on objective observations (Tucker, 2014; Lockie & Lyons, 2002).

Sengel et al. (2015) and Zhou et al. (2023) found that quantitative methodology tends to have more respondents than qualitative research due to quantitative methodology is usually easier to conduct a multiple-choice survey than a series of interviews or focus groups. Therefore, the quantitative methodology can help participants answer broad questions. For example "Do people prefer you rather than your competitors?" "What message is the most interesting?" (Pieniak and Perez-Cueto and Verbeke, 2013; Ling et al., 2023). This research will be conducted as a quantitative study: investigation and conclusions. This research will use data that will be collected from primary and secondary sources and also uses quantitative research.

This study will use quantitative methods to collect data related to the constructs of the study through a questionnaire survey (Asif et al., 2018; Karabagias & Nayik, 2023). A researcher-administered survey questionnaire is preferred as the data collection technique due to a deductive study. A researcher is seen as different from the study and can barely prejudice respondents' answers. Similarly, the survey questionnaire can be

prefaced with a brief description of 'the organic food products', which is maintained as neutral as possible (Chen, 2007; Tiwasing et al., 2023).

The researcher distributed and gathered the questionnaires when permission was given from the respondents. The survey forms clearly state that respondent anonymity will be protected and that their responses must always be kept confidential. It was also made clear to the respondents that this study was purely for academic purposes and complied with all necessary ethical requirements before data was collected (Mhlophe, 2016; Tiwasing et al., 2023).

This study will use the survey questionnaire to examine what elements of food advertising content (emotional appeal, informativeness and advertising creativity) increase product knowledge toward organic food products, which will, in turn, impact purchase intentions based on the TPB. Previous studies have used the survey questionnaire to investigate potential factors that can affect the organic food purchase intention of consumers (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021). Moreover, this study can confirm that the questions and dimensions are in line with Thailand's current development of its organic food industry and that the survey questionnaire can effectively measure the true feelings of consumers (Hsu and Chang and Lin, 2016; Wang et al., 2019; Kessaratikoon et al., 2022). Although previous studies wanted to investigate potential factors that can affect consumers' organic food purchase intention, no previous studies used the qualitative method to collect data through a focus group.

This study does not need to use a focus group to collect data because the quantitative method is used to develop the purpose of this study. This study can design the questionnaire based on TPB guidelines (Ajzen, 1991). Indirect and direct measures of organic food consumption are highly associated with the sample size (Wong & Mullan, 2009; Atta and Abbas and Syed, 2021).

This study will use the survey questionnaire to collect data because this study finds that the survey questionnaire can measure (1) the demographic characteristics of respondents; (2) organic food purchase behaviour; (3) intention to purchase organic food, (4) the influence of food advertising content (emotional appeal, informativeness and advertising creativity) increasing the level of product knowledge towards organic

food purchase intention (5) the product knowledge impact attitude towards organic food purchase intention (6) attitudes impacting organic food purchase intention (7) subjective norms impact organic food purchase intention (8) organic food purchase intention impacting actual purchase behaviour (9) gender (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021).

Also, the research will use the quantitative method to verify the scale validation and to investigate the proposed hypotheses. Eight academics will be engaged to verify the accuracy of the content and the accuracy of the research (Brumă, 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020). Next, a pilot study will be provided to customise the measurement tool and to explain that the questionnaire will be used and does not contain a vague item. The questionnaire respondents can easily answer each question and have no problem recording educational data (Hair et al., 2006). The self-management questionnaire will be distributed to a small proportion of the participants to confirm the validity and reliability of the scale. Cronbach's analysis will be used to verify the validity and reliability of the issue (Hair et al., 2003; Steptoe et al., 1995; Oktaniar et al., 2020).

Finally, a survey will be performed, and the distribution of the questionnaires will use convenience sampling and a snowball technique (Patterson & Smith, 2003; Bocanet, 2020; Krishna & Balasubramanian, 2021). Information from the questionnaire will be analysed in three ways. Firstly, exploratory factor analysis will be used to investigate the scale's factorial structure and decrease the number of observed variables to a smaller and more controllable set. Secondly, confirmatory factor analysis will be used to confirm if the number of factors and the loadings of observed variables with them confirms what will be anticipated based on the theory of planned behaviour (TPB) and empirical research (Gupta et al., 2011; Brumă, 2020; Moon and Mohel and Farooq, 2021). Finally, the method of structural equation modelling (SEM) used AMOS. SEM will be performed to examine the causal relationship between the structures. It will be tested by goodness-of-fit indices and by evaluating the paths between the constructs to measure the hypotheses.

Therefore, questionnaires will be distributed to 900 Thai consumers considered for this analysis. As the generally accepted rule of thumb, structural equation modelling (SEM) ought to be performed on samples of no less than 200 (Kline, 2005; Cuesta-Valiño and

Rodríguez and Núñez-Barriopedro, 2020). On the other hand, other studies suggested that 5–10 responses per each estimated parameter will result in an appropriate sample size (Bentler & Chou, 1987; Hair et al., 1998). As per this guideline, at least 325 participants must examine the model. In accordance with one of the strictest sample size requirements, the minimum sample size suggested for this study is 900, on nine latent variables and three moderating variables, when a desired significance level is .05 (Cohen, 1988; Lee & Yun, 2015). It is expected that due to the sample size greater than 400, which is recommended for Structural Equation Modeling (SEM), it is sufficient to qualify. The main goal of the SEM analysis is to confirm the research hypothesis about variances, the observed means, and covariances of a set of variables. The hypothesis is expressed by several structural parameters (such as regression paths and factor loadings), which are smaller than the number of observed parameters. To demonstrate a confirmatory approach, researchers need to use SEM to examine models with strong empirical or theoretical foundations (Hair et al., 2014; Fleseriu and Cosma and Bocanet, 2020). In the same way, Comrey and Lee (1992) and Krishna and Balasubramanian (2021) suggested that the sample size of 50 was inferior, 100 was poor, 200-299 was fair, 300-499 was good, more than 500 was very good and nearby or above 1,000 was excellent.

Therefore, under the four guidelines mentioned above, the sample size of this study is 900 and considered acceptable and statistically sufficient as it accurately displays the population.

# 3.3 Reasons for this research paradigm

Currently, most research uses two paradigms: positivism and some characteristics of critical realism. The study will use a predominantly quantitative approach and a qualitative one.

The current studies on organic food have used quantitative methods. This study will use quantitative methods to collect data that relates to the constructs of the study through a questionnaire survey (Asif et al., 2018; Abbas & Syed, 2021). Firstly, the quantitative method can provide new insights and develop an understanding of the overall phenomena associated with the research topic. For example, it can help to understand the fundamental descriptions of intention to purchase behaviour and purchase intention toward organic food products. This allows the researcher to develop themes from the respondents' opinions (Wilson, 2012). Secondly, the quantitative method can restructure

and reduce complex problems to a limited number of variables. It also helps to identify new measures (Lockie & Lyons, 2002). Finally, the quantitative method can increase the study's validity, reliability and general competence (Tucker, 2014).

The quantitative method can quantify behaviours, attitudes, opinions, and other variables and generate general information from large populations. Quantitative research uses quantitative information to articulate the facts and reveal the form of research. The quantitative method involves using statistical and mathematical tools to derive results. For example, when determining the number of problems, quantitative data will be summarized according to its objective and understand how dominant it is by looking for predictable results for a large population (Wong & Mullan, 2009; Gelo and Braakmann and Benetka, 2008).

This study will start with a research paradigm focusing on the quantitative method. The study uses the quantitative method because there needs to be more understanding of the influence of food advertising content (emotional appeal, informativeness and advertising creativity) to increase product knowledge toward organic food products, which impacts purchase intentions based on the TPB. The influence of food advertising content on product knowledge and the TPB have obtained preliminary insight in the past. Therefore, it is also adapted to generate additional measures for the questionnaire (Voon and Ngui and Anand, 2011; Krishna & Balasubramanian, 2021; Chekima et al., 2021; Brumă, 2020).

The quantitative method can provide insights and understanding of the problems (Wilson, 2012; Hansmann and Baur and Binder, 2020). The literature on business contexts and social psychology will be reviewed. Items based on the influence of food advertising content (emotional appeal, informativeness and advertising creativity), attitude, subjective norms, product knowledge, perceived behavioural control and product knowledge towards organic food purchase intention (Hsu and Chang and Lin, 2016; Singh & Verma, 2017; Lina, 2017; Smith & Paladino, 2010).

In the first phase, the researcher wanted to go through the literature. The study wanted to use a positivist paradigm based on a quantitative methodology. The quantitative method is used to examine the associations between distinct constructs and to improve the accuracy, reliability and general capabilities of research. This study will be developed a self-administered questionnaire (or survey) that will be distributed to 900 Thai consumers to examine the influence of food advertising content (emotional appeal,

informativeness and advertising creativity) and its impact on product knowledge towards organic food purchase intention and theory of planned behaviour (TPB). These self-administered questionnaires were based on a seven-point Likert-type scale ranging from "strongly agree" to "strongly disagree".

In conclusion, this research will use the dominant approach of the quantitative method (Ting and Tan and John, 2017). To conduct the study, we will use the qualitative method because the influence of food advertising content (emotional appeal, informativeness and advertising creativity) and its relationship with product knowledge towards organic food purchase intention and the theory of planned behaviour (TPB) gave little evidence of exploration in previous studies. The other reason this research will use the quantitative method is to understand this topic and improve research instruments such as survey questions scale. Also, the researcher is seen as different from the study and may slightly prejudice respondents' answers (Mhlophe, 2016; Gustavsen & Hegnes, 2020; Fleseriu and Cosma and Bocanet, 2020).

The researcher will also use the quantitative method to increase the research's validity, reliability and general competence. The quantitative method creates a survey instrument such as a questionnaire. It leads to the researcher having a better and broader understanding of the phenomenon (Creswell et al., 2003; Ting and Tan and John, 2017; Tiwasing et al., 2023).

The study's second phase will collect data in Thailand through a self-administered consumer questionnaire survey. Respondents above 18 years old in Thailand are included in the target population. The data will be obtained from a survey of 900 Thai consumers. Thai customer samples will be used to investigate the reaction to organic food products from Thailand's Market. This allowed the researcher to measure Thai consumers' motivations for purchasing organic food products. Thus, the use of the Thai customer samples is the most appropriate sample to use for this objective. Furthermore, the Thai customer samples can be assured that their participation will be kept strictly confidential.

The influence of food advertising content (emotional appeal, informativeness and advertising creativity) will be impacted by product knowledge towards organic food purchase intention, the theory of planned behaviour (TPB), and gender will be measured (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-

Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021).

The questionnaire will be developed to investigate the moderating effects of gender on the various relationships between the influence of positive message framing and product knowledge in relation to the Theory of Planned Behaviour (TPB). To achieve this objective, Chen's (2007) and Karabagias and Nayik's (2023) research study on the motivation for choosing organic food, the antecedents of purchase behaviour, intention to purchase and Theory of Planned Behaviour (TPB) will be adopted and applied to the organic food context. In addition, the survey of the study will include items that estimate the impacts of "gender" which previous studies have noted that gender relates to consumers' organic food product purchasing behaviour (Lee and Bonn and Cho, 2014; Wang et al., 2021).

For this reason, the questionnaire will contain questions that relate to the influence of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge towards organic food purchase intention, the theory of planned behaviour (TPB), gender (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021). Also, some openended questions explain the influence of food advertising content behind the intention to purchase organic food products. The questionnaire will be designed in English. However, for a proper translation of the questionnaire that Thai respondents can fully understand, the original English questionnaire will be translated into Thai to gather data from Thai consumers (Asif et al., 2018).

However, the study will use a back translation method to translate the original English questionnaire into Thai. This study uses the translation method because the sample groups are Thai consumers who must become more familiar with English. The researcher can be confident that respondents are asked the same question in that language (Khosravani & Dastjerdi, 2013; Chekima et al., 2021).

Son (2018) and Nord and Garfinkel (2022) found that the back translation method is the process of translating documents that have already been translated into a foreign language back to the original language. The back translation method has been proposed for a different objective. For example, in the 1970s, it was used to denote the structural

and conceptual differences between the original and target languages in translating Sacred texts. The back translation is necessarily literal (Asian Market Terminology, 2010; Li and Hou and Wanxiang, 2022). In addition, back translation is also sometimes used in contrastive linguistics to compare the structural and lexical characteristics of two or more languages. Finally, the method can display the problematic points in the process of code-switching (Hagell et al., 2010; Ling et al., 2023).

The back translation method is a common technique to evaluate the accuracy of the translation. The method is also commonly used to investigate translation accuracy in multi-country research. In the back translation method, the bilingual native speaker of the target country will translate the text into the target language (Epstein and Santo and Guillemin, 2015; Xueyuan & Le, 2023).

The researcher will choose a questionnaire survey to reach the highest number of respondents (Singh & Verma, 2017; Xueyuan & Le, 2023). As a result, adults can evaluate and compare the available choices and make a selection (Han et al., 2010; Han & Kim, 2010). Also, the respondents have enough time to think before completing the questionnaire (Sekran, 2000; Lutfi et al., 2023), reducing their no-response rates (Kinnear & Taylor, 1996).

In the second stage of the research, the development of the questionnaire, face validity, and the correctness of the content will occur. To conduct validation of the content, five scholars from the marketing field will participate. Scholars have often used it to judge scale in previous research (Zaichowsky, 1985; Arnold & Reynolds, 2003; Sunday and Opeyimika and Felicia, 2023). The academics have provided a conceptual definition of each structure. The academics also will be asked to weigh them depending on each item's representation of the construct domain.

The academics will be asked to comment on the suitability of the items to investigate whether the items evaluated all the aspects of the structures and to investigate the clarity of the wording of the items. Their feedback was used to correct (for example, either remove or add) items from the questionnaire. At this phase, items for each construct will be reworded or deleted according to the scholar's answer. In conjunction with this procedure, face validity also will be occurring. The researcher will ask three additional scholars to measure the face validity of opinions. Each scholar will be asked to fill out the questionnaire and comment on the clarity, wording, ease of completing, outline, overall time spent completing information, and, most critically, whether the items or questions could estimate the constructs.

After the exploratory research (including face validity and content validity), a pilot study will be carried out to comprehend whether the constructs were correct and the measurement scales will be able to assess reliability. The pilot study will refine the measuring tool and clarify that the questionnaire did not have ambiguous items. Its lead respondents will be able to answer questions easily. The respondents also are fine with recording the data (Saunders et al., 2007; Sazu & Jahan, 2022). For this purpose, a questionnaire will be developed with the help of specialists. These questionnaires (nearly 42 questionnaires) will be distributed to consumers who are living in Thailand. A pilot study will be carried out on 110 respondents to ensure that respondents easily understand the questionnaires (Al-Swidi, 2013; Sahebi and Kordheydari and Aghaei, 2022). Nine hundred questionnaires will be received during the twenty-week collection period in April 2022 (Lian, 2017; Oesterreich et al., 2022).

The final stage of research involves the primary survey. For this phase, the researcher will use a nonprobability sample, such as a convenience sample, in addition to snowball sampling will be chosen. The population for this study is consumers living in Thailand, which will be selected because Thailand is the first country in Southeast Asia to produce organic farming (Kongsom, 2016; Gligor et al., 2022). Thailand is well known for its agricultural production and exports of organic food products in Southeast Asia (Xie et al., 2015; Walters & Djokic, 2022). Thailand also has a diverse culture (Go Thailand tours,2020). The hard or soft copies of the questionnaires will be distributed to the participants. The researcher will use Google Forms to design the online questionnaire and the links will be sent to the participants via social media or personal email. In addition, questionnaires are distributed according to various locations. (For instance, at shopping and the university.).

For this reason, the researcher can ensure that participants come from various backgrounds and parts of society to have a mixed sample from various segments of the population that will be engaged. Each question in the scale will be based on a seven-point Likert-type scale (from 0, "strongly disagree" to 7, "strongly agree") designed by Churchill and Peter (1984) and Xiao et al. (2022).

The reason why the researcher uses snowball sampling is because snowball sampling is regarded as a non-probability sampling technique which relates to recruiting new units as sample members from among the existing units. It can be utilised to study individuals with particular traits who may be rare in other methods. The participation can spread like a snowball tumbling downhill across a network of connected individuals (Paul et

al., 2022; Adeoye, 2023). This method can be very useful if the researcher is not familiar with the target demographic; moreover, the researcher has difficulty reaching out or accessing that information (Afifah and Mudzakir and Nandiyanto, 2022; Sevim, 2022). Snowball sampling also has got the benefit of being simple and quick to find subjects due to them originating from credible sources. This method is convenient and inexpensive as compared to other approaches. In addition, this method helps in situations where they can ask for a reference from individuals known to each other (Isaac, 2023; Browne et al., 2023; Paul et al., 2022). On the other hand, snowball sampling may only be able to access to a small group of individuals and might not be able to complete conclusive outcomes (Obilor, 2018; Kmetty and Stefkovics, 2022).

This study followed the two-step method suggested by Anderson and Gerbing (1988). Several analytical tests will be applied to the data received from the survey. The data will first be investigated using structural equation modelling (SEM). Then, this study's hypothesised model will be examined using the structural equation modelling (SEM) approach supported by AMOS 27 employing the maximum likelihood estimation method.

The researcher will use SEM to investigate a causal association among latent variables in the second stage of this research (Paul and Modi and Patel, 2016; Cho et al., 2022). The main goal of the SEM analysis is to confirm the hypothesis of research regarding the variances, observed means, and covariance of a set of variables. Therefore, the researcher needs to use the SEM to investigate models with a strong theoretical or empirical basis (Hair et al., 2014; Sarstedt et al., 2022). Furthermore, the researcher will use SEM because 900 participators will be considered in the analysis, which is higher than the recommended value of more than 400 for structural equation modelling (SEM) (Wong and Hsu and Chen, 2018; Cho et al., 2022).

Next, the researcher uses confirmatory factor analysis (CFA) to analyse the data and assess the validity and reliability of the model. CFA will be used in the measurement model. Reliability will be investigated using the composite's internal consistency and reliability, while validity will also be confirmed by means of discriminant, convergent and nomological validity. Reliability assessments will be carried out to diminish measurement error (Hair et al., 2003; Jan-Benedict et al., 2023). After verifying the accuracy of the structure, the structural model will be examined to analyse the hypothesis and fit of the model (Al-Swidi, 2013; Chummee, 2022). Finally, the CFA

will evaluate whether the measurement variables could reflect the hypothesised latent variables. (Anderson and Gerbing, 1988; Pimdee et al., 2022).

Also, this study will investigate the discriminant and convergent validity of the latent factors by performing confirmatory factor analysis (CFA) (Wang et al., 2019; Sovey and Osman and Effendi, 2022).

Finally, structural models will be used to investigate the associations and hypotheses determined in the conceptual model.

## 3.4 Data collection process

Currently, most research uses two paradigms: positivism and some characteristics of critical realism. The study will use a predominantly a quantitative approach and a qualitative approach. This research will take this method paradigm due to the fact that the method can reduce methodological bias and strengthens the overall research (Teddlie & Tashakkori, 2006; Foroudi, 2012; Bourlakis et al., 2014; Pimdee et al., 2022). The approach will be used in this study, as demonstrated in figure 4.1, provides several strengths. Firstly, this method improves the comprehension of the overall phenomena associated with the research topic, can provide new insights and develop an understanding of fundamental explanations of social phenomena and human behaviour, which will help the researcher can develop the themes from the participant's point of view (Creswell, 2003; Gupta et al., 2008; Foroudi, 2012; Chummee, 2022). Secondly, the mixed method can help identify new measures (Deshpande, 1983), and finally, this method can increase the study's validity, accuracy and generalisability (Churchill, 1979; Lou et al., 2022).

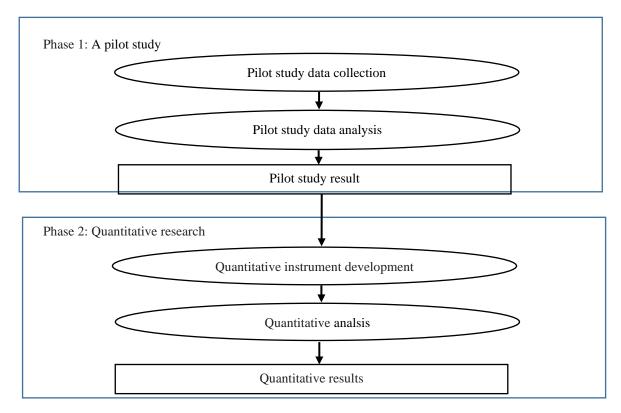
This study starts with a research paradigm focusing on exploratory research (including face and content validity). A pilot study will be carried out to comprehend whether the constructs were correct and the measurement scales will be able to assess reliability. The pilot study will refine the measuring tool and clarify that the questionnaire did not have ambiguous items. It leads respondents to be able to answer questions easily. The respondents also do not have problems recording the data (Saunders et al., 2007; Wang et al., 2021). For this purpose, a questionnaire will be developed with the help of specialists. These questionnaires (110 questionnaires) will be distributed to 110 Thai consumers to confirm the reliability of the research. A pilot study will be conducted on 110 respondents by the end of September 2021 to ensure that respondents easily understand the questionnaires (Al-Swidi, 2013; Pimdee et al., 2022).

In the final stage of the research, the researcher wanted to go through the literature. The study wanted to use a positivist paradigm based on a quantitative methodology. The quantitative method is used to examine the associations between distinct constructs and to improve the accuracy, reliability and general capabilities of research. This study will be developed as a self-administered questionnaire (or survey) that was distributed to 900 Thai consumers from 15 November 2021 to 15 April 2022 to examine the influence of the food advertising content elements (Emotional appeal, Informativeness and Advertising creativity) and its impact on product knowledge towards organic food purchase intention and theory of planned behaviour (TPB). These self-administered questionnaires were based on a seven-point Likert-type scale ranging from "strongly agree" to "strongly disagree".

Also, the current studies on organic food have used quantitative methods. This study will use quantitative methods to collect data that relates to the constructs of the study through a questionnaire survey (Asif et al., 2018; Möller & Halinen, 2022). Firstly, the quantitative method can provide new insights and develop an understanding of the overall phenomena associated with the research topic. For example, it can help to understand the fundamental descriptions of intention to purchase behaviour and purchase intention toward organic food products. This allows the researcher to develop themes from the respondents' opinions (Wilson, 2012). Secondly, the quantitative method can restructure and reduce complex problems to a limited number of variables. It also helps to identify new measures (Lockie & Lyons, 2002; Baima and Santoro and Pellicelli, 2021). Finally, the quantitative method can increase the study's validity, reliability and general competence (Tucker, 2014; Cooper et al., 2023).

The quantitative method can be used to quantify behaviours, attitudes, opinions, and other variables and generate general information from large populations. Quantitative research uses quantitative information to articulate the facts and reveal the form of research. The quantitative method involves using statistical and mathematical tools to derive results. For example, when trying to find out the number of problems, quantitative data will be summarized according to its objective and understand how dominant it is by looking for predictable results for a large population (Wong & Mullan, 2009; Gelo and Braakmann and Benetka, 2008; Kelly & Tovey, 2022).

Figure 3: A method of procedure is used in this study



Source: researcher

In conclusion, this research will take an exploratory sequential design with quantitative methodology because both the exploratory sequential design and the quantitative methodology is the dominant approach (Ting and Tan and John, 2017; Novak & Hoffman, 2023). To conduct this study, the researcher started to use the qualitative method followed by the quantitative method.

This research is based primarily on a positive perspective. However, as mentioned earlier, the research also included some characteristics of critical realism, such as the existence of social facts (Mhlophe, 2016; Jumani & Muhamad, 2022). This research will use the qualitative method because the influence of the food advertising content elements (Emotional appeal, Informativeness and Advertising creativity) and its relationship with product knowledge towards organic food purchase intention and the theory of planned behaviour (TPB) give little evidence of exploration in previous studies. The other reason this research will use the qualitative method is to understand this topic and improve research instruments such as the survey questions scale. Qualitative methods are also included. The researcher will also use the quantitative approach to increase the research's validity, reliability and general competence. The

other reason this research will use the quantitative method is to understand this topic and improve research instruments such as survey questions scale.

Also, the researcher is seen as different from the study and may barely prejudice respondents' responses (Mhlophe, 2016; Zartmann and Völcker and Hammann, 2022).

The combination of both methods (qualitative and quantitative methods) allowed for the creation of more applicable survey instruments, such as a questionnaire. It leads to the researcher having a better and broader understanding of the phenomenon (Creswell et al., 2003; Ting and Tan and John, 2017).

# 3.5. The research paradigm, ontology, epistemology and How the paradigm is operationalised?

The reason why this study uses a realistic ontology because there is one thing that follows the physical world in which the researchers can assume the existence of a world of cause and effect (Otoo, 2020; McBeath and Bager-Charleson, 2020). It can not be an ontology of mechanical causes entanglement of the cause-effect relationships. In the study, the researcher assume that there are some realities "For example, "the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB)". and "also, this research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge in relation to TPB", which exist in the world and might impact Thai consumers' purchase intention and actual purchase behavior toward organic foods.

Therefore, I believe that they follow a realistic ontology; moreover, I believe that they regard it as a causal reality. Pring(2004:62) and Maarouf, (2019) mentioned this notion saying "One objective of research wants to explain what is the case or what has happened (Mitchell, 2018; Mulisa, 2022). The reason for looking for an explanation may be to predict what will happen in due course or what would happen if there were to be some kind of intervention is required" (Khaldi, 2017; Thomasson, 2019). This is clearly revealed in the aim of the study that is targeted at investigating the impacts of different food advertising contents on evolving the Thai consumers' purchase intention

and actual purchase behavior toward organic foods (Antwi and Hamza, 2015; Khaldi, 2017).

This can mean that the researcher is looking up what will happen to the Thai consumers if the research use a certain type of food advertising content. The research assumes that any improvement in Thai consumers' purchase intention and actual purchase behavior toward organic foods might be attributed to the use of the food advertising contents and gender differences (Zhang et al., 2017; Shi et al., 2023).

On the other hand, realistic ontology presented that social representations are supported by an objective reality and, though there is an acceptance that such representations might not necessarily be true, the understanding remains that through positive exploration of such representations, based on the notion of the "mind as a mirror" (Rorty 2009; Manzoor et al., 2021; Kootbally et al., 2018) which precisely, reflects the world as it is (Gergen 1999; Leal and Guédria and Panetto, 2019), knowledge can still be obtained regarding reality. In addition, bias in sampling is still concerned in the research, bias unarguably has an important role to play in research grounded in a rationalist ontology; moreover, a lack of attention to bias can easily lead to a distinction between good and bad research (Benitez, 2023; William, 2017). The method in which biases can be controlled within any research study ought to be clearly explained. Furthermore, realistic ontology might be considered necessary (Baert, 1996; Thomasson, 2019); however, it is misnomer associated with the wide presence of poor ontological assumptions in quantitative research. Statistics and social surveys usually seem to categorise individuals too glibly, and are at the same time apparently realist. Their positivist stance is a naive form of realism that differs from critical realism (Bryman, 1998, 2001). (Matthews, 2023; El-Sappagh et al., 2018).

## 3.5.1. Epistemology

Epistemology is regarded as 'a method of understanding and explaining how we know what we know', (Crotty, 2003; Al-Ababneh, 2020). In addition, epistemology involves providing philosophical grounding for determining what types of knowledge are possible and how can we be sure that they are both sufficient and legitimate.' (Maynard, 1994) in Crotty, Ibid, 8). (Melnikovas, 2018; Moon et al., 2021).

The Epistemological stance used in this study is objectivism. The reasons that objectivism is the epistemological stance of the study are because objectivist epistemology depends on (Crotty, Ibid) that meaning, and hence meaningful reality,

exists as such aside from the operation of the any consciousness (Ugwu and Ekere and Onoh, 2021; Okesina, 2020). It can mean that the mind of the investigator is thought to be separate from the world of objects and of what is investigated. The researcher is separated from the objects the researcher is studying. It shows "the position that social entities can exist in reality external to actors in society". (Melnikovas, 2018; Moon et al., 2021).

The researcher is looking for "the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB)". and "also, this research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge in relation to TPB.

The researcher could conclude that the types of food advertising contents had different impact on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). In addition, the researcher found the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge in relation to TPB.

Here the researcher has found "the way things really are and the way things really work." (Pring, 2004) due to this research focusing more on an objectivist epistemology. Also, this research could use an objectivist view as epistemology, positivist philosophy as theoretical perspective, survey strategy as a research method and quantitative method of statistical analysis (Al-Ababneh, 2020; Moon et al., 2021). According to Crotty, (1998) and Hansen et al., (2023), the objectivist epistemology assumes that reality exist separate or outside of the individuals' mind. The objectivist epistemology exists, even if someone can be aware of its reality or existence. Objectivists believe that they can find an objective reality that is regarded as valid, free of social ideological conditions, empirically verifiable and generalized. In the same way, this research used an objectivist assumption (Clegg, 2017; Colombo, 2020). As a reason, this research ought to quote norms like only truth so that the researcher can explain why certain false, normative beliefs could not be proven (Oyeinkorikiye and Akpotu and Dickson, 2017; Raskin, 2020).

On the other hand, there is no simple case to be generated for either objectivist view; however, it seems to be most suitable for certain plausible claims about the type of obligations the researcher is under and with certain popular claims about the importance normative of evidence of the researcher (Cantley, 2023; Makel et al., 2021). Moreover, if the researcher drop objectivist assumption, the researcher lose the argument sketched in the research. Although the objectivist is correct about epistemic norms, there is nothing that the objectivist about justification that can be right. When talking about justification, it only matters whether the researcher adheres to subjectivist norms (Clayton, 2018; Haynes, 2023; Ylönen and Aven, 2023).

Siminilarly, the objectivist epistemology considers that any research that can not be rooted in deductive reasoning which could lead to fact-to-fact, hypotheses, objectivity, important data collection and analysis and test of the hypothesized statement that can confirm the reality of its existence is questionable and cannot be regarded as a valid knowledge which can be generalized (Morgan, 2007; Moon and Cocklin, 2011; Al-Ababneh, 2020).

Also, it seems useless to deal with the question of the association between explicit and tacit knowledge from the perspective objectivist thinking. Strictly speaking, due to the concept of inarticulate and fuzzy (tacit) knowledge being insensible within the objectivist theory of knowledge. Therefore, the theoretical framework of objectivism simply can not support such an idea (El-Sappagh et al., 2018; Mulligan, 2023).

## 3.5.2. How the paradigm is operationalized

At present, one of the most popular dialogues in various marketing events and conferences abound the world is how the food advertising contents (emotional appeal, informativeness and advertising creativity) has an influence on the purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB) and the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge in relation to TPB. Profoundly, these fast-changing trends as globalisation, digitalisation and the increase of organic food consumption needs have vividly challenged the current the understanding of the researchers about the food advertising contents and required the researchers to increase product knowledge toward the purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB) as well as indicating the moderating effects of gender on the various relationships

between the impacts of food advertising content and product knowledge in relation to TPB (Tan et al., 2011; Okesina, 2020).

From this perspective, research has played an important role in providing important insights about food advertising content that increase product knowledge toward the purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB) then considering the strategies and policies. Within the scope of this research, it is emphasised to major theoretical perspectives that can regarded as the foundation of research: positivism, interpretivism and critical inquiry, especially drawing a deeper perspective on the disadvantages and advantages of each of these paradigms.

Firstly, positivism paradigm which under objectivism epistemology is regarded as a methodological philosophy in quantitative research where the researcher will be able to apply the approaches of natural sciences to discover the study of social science (Crotty, 1998; Ugwu and Ekere and Onoh, 2021). On this point, understanding of phenomena in reality needs to be evaluated and supported by evidence (Hammersley, 2013; Melnikovas, 2018). To display, within the process of studying the phenomena, the association between an independent variable and one or more dependent variables can be discovered by causal inferences as the outcomes of experimental designs; moreover, it will be fully determined through the method of how the researcher maximize the impact of the independent variable on the dependent variable and events through this process (Cohen and Manion and Marison, 2011; Kivunja and Kuyini, 2017).

On the other hand, this paradigm can help positivist researchers clearly comprehend the objects by empirical tests and approaches as sampling, measurement and questionnaire. This indicates that insights obtained by positivist researchers might have high quality standard of validity and reliability (Maretha, 2023; Cohen and Manion and Marison, 2011) and be generalised to the large number of population (Johnson and Onwuegbuzie, 2004; Djafar et al., 2021). For better decision of applying this theoretical method in research, let discuss its disadvantages and advantages on its application in social research. Firstly, with the methodologies and approaches of collecting and analysing data based on evidence and statistic, the outcome of the same phenomena or event might be allowed to "replicate for distinct groups or subgroups of the population in social contexts. Therefore, the researcher can save money and time for employing the findings of specific research for future quantitative predictions (Johnson and Onwuegbuzie, 2004; Ryan, 2018).

Secondly, as being gathered under the perspective of objectivism epistemology, the findings of research will be able to be reliable and support the researcher to establish scientific assumptions (Karmillah, 2020; Djafar et al., 2021). In fact, Islami and Sauri, (2022) and Dörnyei (2007) found that reliability can be measured by statistical analysis via indicating the internal consistency or correlation among the variables, applying Cronbach's alpha reliability coefficient. Furthermore, it is worth concluding the validity of research results is regarded as one of the main strength of this method. In practice, by using main methodologies such as Survey Research and Experimental Research and then applying appropriate methods of sampling, statistical treatments, instrumentations of data, the quantitative findings will be able to help to give an intensive answer for any research question (Cohen and Manion and Morrison, 2011; Kivunja and Kuyini, 2017). With its advantages of helping the researcher to continuously evolve their understanding about humans and events in the areas of social research based on the clear evidence; however, this paradigm still has some limitations.

The first concerns of applying this paradigm in social research projects is that it might be impossible to estimate phenomena associate with intention, attitudes, thoughts of a human due to these concepts profoundly might not being obvious to be observed or estimated with sense experience or without evidence (Hammersley, 2013; Guraya 2023). On account of this, it clearly causes certain constraints in further exploring abstract conceptualisation generally developed around interpersonal relationship in educational contexts. The second disadvantage can be driven by its own fundamental theoretical perspective in doing research.

Actually, due to the objective of positivism aims to summarize the outcome of the research at the large degree, there ought to be a risk that persons whose interpretation and comprehension associated with any events, issues or phenomena can display many truths about reality might be ignored. In the same way, with the generic finding of research outcome, it will be regarded as a challenge for the researcher to directly apply for comprehending the phenomena in an especially local context (Johnson and Onwuegbuzie, 2004; Alharahsheh and Pius, 2020). Finally yet importantly, the inaccuracy of scientific data gathered within this paradigm ought to be carefully checked as in certain situations where the respondents might choose random responses rather than authentic responses or they may not be allowed to have the flexibility to provide their answer that more related to their personal matters.

Enter the next interpretivist paradigm, this paradigm is originally rooted in the fact that approaches used to understand knowledge that associate with human and social sciences may not be the same as its use in physical sciences due to the fact that a human can interpret their world and then acts based on such interpretation; however, the world does not (Hammersley, 2013; Alharahsheh and Pius, 2020). As a result, interpretivists can adapt a realistic ontology in which a single phenomenon might have various interpretations rather than a truth which is determined by a measurement process. According to the facts, with interpretivism perspective, the researcher is likely to obtain a deeper comprehension of the phenomenon and its complexity in its unique context rather than trying to summarize the base of comprehension for the whole population (Creswell, 2007; DEWI, 2021). Similarly, Hammersley (2013) and Rehman and Alharthi, (2016) emphasized that due to various interpretations that have evolved among humans' relationship, interpretivist researchers ought to try to comprehend "the multiple methods of seeing and experiencing the world through distinct contexts and cultures" and attempt to avoid the bias in studying the persons and events with their own interpretations.

From this perspective, it can focus on some advantages of this paradigm in upcoming discussion. The first advantage is that with various perspectives in looking at the phenomena, interpretivist researchers can not only explain objects, events or human; however, also deeply comprehend them in a social context. Furthermore, the researcher will also be able to conduct these kinds of research in natural setting via using main methodologies as ethnography, grounded theory, case study or life history to obtain the insider's insights of research's objects (Tuli, 2010; Pervin and Mokhtar, 2022) to give more authentic information associate with the object of research. Secondly, utilizing the key methods of interactive interview that "allows the researcher to examine and inform things that the researchers cannot observe, researchers can examine an interviewee's thoughts, values, biases, perceptions, views, perspectives and feelings" (Wellington and Szczerbinski, 2007; Ryan, 2018). Therefore, the valuable data collected will be able to provide the researcher with better insights to take further action later.

Although having its main strengths, this paradigam also still has some disadvantages. One of these limitations is that the interpretivist's aim to obtain the deeper comprehension and knowledge of phenomena within its complexity of the context rather than summarize these outcomes to other persons and other contexts (Cohen, Manion & Marison, 2011), Therefore, it is likely to reduce a gap in proving the validity

and usability of research outcomes with applying scientific procedures. The second criticism of interpretivism is that its ontological perspective is likely to be subjective rather than objective (Alharahsheh and Pius, 2020; Baškarada and Koronios, 2018). As this reason, research results are undoubtedly impacted by the researcher's own interpretation, the researcher's own belief system, methods of thinking or cultural preference that can cause a lot of bias.

The last limitation of interpretivism is due to its lack of handling the ideological and political effects on knowledge and social reality. This paradigm is aimed at comprehension of current phenomena instead of focusing on the problems that associate with the empowerment of persons and societies. Baškarada and Koronios, (2018) and Sprake and Palmer, (2022) cited that this theoretical perspective rejects implicitly the issues of agency and power, that are characteristics of our society. Interestingly, particular limitations may lead to critical examination in further increasing the practicability of research.

In summary, although each paradigm of paradigm has both advantages and disadvantages, it is also acknowledged that each paradigm has its own unique role supporting to provide the researcher with a holistic framework and many views to solve major social issues, especially in the food advertising context. Therefore, it can be strongly believed that an interrelated application of these paradigms in this research in today context is necessary to ensure the best quality of the research in providing its notion of reliability, relevancy, validity and oriented action.

## 3.6. Reduce the variables and hypotheses. Are all these variables necessary?

The study needs to use all these variables to investigate the moderating effects of gender on various relationships between the influence of the food advertising content and product knowledge concerning the Theory of Planned Behaviour (TPB). Also, this study examines what elements of food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge toward organic food products impact the purchase intentions based on Ajzen's (1991) TPB.

This study found that food advertising content (emotional appeal, informativeness and advertising creativity) is an important motivation that can increase the level of product knowledge toward the intention to purchase organic food (Mohamad and Rusdi and Hashim, 2014; Phuah et al., 2011; Lee & Yun, 2015; Abu Bakar et al., 2021; Krishna &

Balasubramanian, 2021; Oktaniar et al., 2020; Japutra et al., 2021; Hansmann and Baur and Binder, 2020). However, the relationship between the food advertising content and the level of product knowledge is impacted by consumer demographics (Kesse-Guyot et al., 2013; Dholakia & Shukul, 2012; Hansmann and Baur and Binder, 2020; Molinillo et al., 2020; Prentice and Chen and Wang, 2019). This study also found that food advertising content relates to the Theory of Planned Behaviour variables and product knowledge toward the intention to purchase organic food (Zhen & Mansori, 2012; Chekima et al., 2021; Atta and Abbas and Syed, 2021).

Moreover, previous studies on food advertising content have yet to investigate consumer demographics. The study found little evidence of how food advertising content influences product knowledge (Bullock et al., 2017; Abu Bakar et al., 2021). Furthermore, only a few studies have explored the impact of product knowledge on TPB (Aertsens et al., 2011; Fotopoulos & Krystallis, 2002; Feldmann & Hamm, 2015).

For these reasons, this study uses all these variables to investigate how product knowledge relates to organic food attributes, impacting their intentions and behavioural purchase intentions. Secondly, it can investigate how product knowledge of organic food attributes is associated with attitude, subjective norms, and perceived behavioural control. Thirdly, we can examine what food advertising content influences consumers' purchase intention and behaviour toward organic food products. Fourthly, it can investigate the influence of perceived behavioural control on the intention to purchase organic food products and purchase behaviour. Finally, we can determine whether product knowledge toward organic food products and intentions to purchase are impacted by different degrees of moderating effects of gender.

Therefore, this study regards all these variables as necessary.

#### 3.7 Generation of measurement items

Based on the first and second steps of this process were to create an item. The following suggestions by DeVillis (2003) and Hanbazazah and Reeve and Abuljadail (2022) were taken into account to develop scales: (i) avoiding certain length; (ii) the readability level of each item; (iii) avoiding double-barrelled items; (iv) avoiding vague pronoun reference; and (v) avoiding items that use the positive and negative words (Foroudi, 2012; Qin et al., 2022). To create items, a combination of items from both the

exploratory studies and literature was used. The previous literature on each study detected that researchers for each construct used many multi-scale items.

For example, it could be found that researchers on the influence of food advertisement content had often used three items. On the other hand, in some cases, the number of items was as high as five (Chen, 2007; Smith & Paladino, 2010; Asif et al., 2018; Singh & Verma, 2017; Shafiea & Rennieb, 2012; Lian, 2017; Kim et al., 2014; Sarstedt et al., 2022). In the same way, the researcher also studied the literature on the dimension of the food advertising content elements (Emotional appeal, Informativeness and Advertising creativity), presenting the natural content attribute, the nutritional content attribute and the sensory appeal (good taste) of organic food products. It leads the researcher to find items on the constructs. The items from the previous literature were combined with similar items on the food advertising content and items from the exploratory research. Items with similar meanings also were collected together under one item name. To do this, the researcher studied the literature again. The researcher used previous examples to combine items and used the thesaurus (Soh, 2009; Wang et al., 2021).

Table 3.1. shows the number of items used for each structure based on a qualitative study.

Table 3.1. Number of items for each construct

Constructs	Items
Emotional appeal creativity	3
Informativeness	3
Advertising creativity	4
Product knowledge	5
Attitude	7
Subjective norms	4
Perceived behavioural control	6
Intention to purchase organic food	4
Organic food purchase behaviour	6

Table 3.2 shows the items on the food advertising content elements (emotional appeal, informativeness and advertising creativity (natural content, health consciousness and the sensory appeal)) toward intention to purchase organic food products found in the previous literature (for example, combined with relevant literature, product knowledge,

attitude, subjective norms and perceived behavioural control), the actual purchase behaviour and items found from the exploratory study.

Table 3.2. Items on Emotional appeal, Informativeness and Advertising creativity

	EMO1 After seeing this ad, I had intense feelings.	
	EMO2 I was emotionally attracted by the key message of this ad	
	EMO3 The emotional aspect of this ad leads me to like the ad.	
Emotional appeal	INFO4 Information obtained from the ad would be useful.	
(EMO),	INFO5 I would learn a lot from using the ad.	Lee and Hong,
Informativeness	INFO6 I think the information obtained from the ad would be	
(INFO) and	helpful.	
Advertising creativity	CREA7 The ad is unique.	
(CREA)	CREA8 The ad is really out of ordinary.	
	CREA9 The ad is intriguing	
	CREA10 The ad is surprising.	

Table 3.3 shows the items on product knowledge toward intention to purchase organic food product found in the previous literature (for example, combined with relevant literature on the food advertising content elements (Emotional appeal, Informativeness and Advertising creativity), product knowledge, attitude, subjective norm and perceived behavioural control), the actual purchase behaviour and items found from the exploratory study.

Table 3.3 Items on product knowledge

	PK1 I know a lot about organic food product.	
Items on Product	PK2 I have great buying experience with an organic food product.	Zollo et al. (2021)
Knowledge (PK)	PK3 I am familiar with the organic food product.	
	PK4 I understand the features and benefits of organic food product.	
	PK5 My knowledge about organic food product is better relative to the	
	individuals that I know.	

Table 3.4 shows the items on attitude toward intention to purchase organic food products found in the previous literature (for example, combined with relevant literature on the food advertising content elements (emotional appeal, informativeness and advertising creativity), product knowledge, subjective norms and perceived behavioural control) and items found from the exploratory study.

Table 3.4 Items on attitude

Items on Attitude (Att)
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Table 3.5 shows the items on subjective norm toward intention to purchase organic food product found in the previous literature (for example, combined with relevant literature on the food advertising content elements (emotional appeal, informativeness and advertising creativity), product knowledge, attitude and perceived behavioural control), the actual purchase behaviour and iterns found from the exploratory study.

Table 3.5 Items on subjective norm

Items on Subjective Norm (SN)	organic food product.	Al-Swidi et al., (2014).
	SN 3 My close friends and family members would appreciate if I purchase organic food product.	
	SN4 I would obtain all the required support (time, money, information related) from family and friends to.	

Table 3.6 shows the items on perceived behavioural control toward intention to purchase organic food products found in the previous literature (for example, combined with relevant literature on the food advertising content elements (emotional appeal, informativeness and advertising creativity), product knowledge, attitude and subjective norm), the actual purchase behaviour and iterns found from the exploratory study.

Table 3.6 Items on perceived behavioural control

Items on Perceived Behavioural Control (PBC)		Al-Swidi et al., (2014).
	PBC4 I have complete information and awareness regarding where to purchase organic food product.	
	PBC5 Organic food product is readily available in the location where I reside.	
	PBC6 I can handle any (time, money, information related) difficulties related to my purchasing decision.	

Table 3.7 shows the items on intention to purchase organic food products found in the previous literature (for example, combined with relevant literature on the food advertising content elements (Emotional appeal, Informativeness and Advertising creativity), product knowledge, attitude, subjective norms and perceived behavioural control), the purchase behaviour and items found from the exploratory study.

Table 3.7 Items on intention to purchase organic food products

Items on	IP1 I would look for specialty shops to purchase organic food products.	Al-Swidi et al.,
Intention to	IDO I 111' 411	(2014).
purchase organic food	IP3 I am willing to purchase organic food products on a regular basis.	
(IP)	IP4 I would also recommend others to purchase organic food products.	

Table 3.8 shows the items on the actual purchase behaviour of organic food found in the previous literature (for example, combined with relevant literature on the food advertising content elements (Emotional appeal, Informativeness and Advertising creativity), product knowledge, attitude, subjective norms, and perceived behavioural control), intention to purchase) and items found from the exploratory study.

Table 3.8 Items on the actual purchase behaviour

Items on Organic food Actual Purchase Behavior (APB)	APB1 I often purchase organic food products.	
	APB2 I often purchase organic food products on regular basics.	
	APB3 I often purchase organic food products because they are more environmentally friendly.	Wee et al., (2014).
	APB4 I often purchase organic food products that against animal-testing.	
	APB5 I often purchase organic food products that are safety to consume.	
	APB6 I often purchase organic food products for my health.	

# 3.8. Condense the pilot study and explain how the pilot study informed your fieldwork and the questionnaire.

#### 3.8.1. The pilot study

After this study finished creating the questionnaire, the researcher will perform the pilot study. The purpose of the pilot study was to estimate the critical requirements during instrument purification, for example, not limited to, checking the statements and words of the used scales, improving the scales items, developing the research plan and scales items, and gathering a preliminary data were indeed some examples for performing a pilot study (Hazzi and Maldaon, 2015; Teleszko et al., 2023).

In addition, Blaise et al., 2021 and Billingham et al., (2013) found that a pilot study could examine the wording of sequence, questions, layout and form, the level of difficulty of the questions, familiarity with respondents, instructions, questionnaire completion time, questionnaire response rate and analysis process. On the other hand, the definition of the pilot study is a small-scale test of the procedures and methods that can be used on a big scale. The pilot study of this research was used to carry out various analyses (Sijtsma, 2009).

The reason that the research used the pilot study to purify the scales' measurement, perform any additional modification(s), to analyse the ease in which participates answered the questions. Above all the research used the pilot study to analyse the reliability and accuracy of the measurement scales (Holt et al., 2023; Molinillo et al., 2020). For the aim of the pilot study, 110 questionnaires were distributed to consumers who are living in Thailand (individuals from different age groups). One hundred and ten questionnaires were employed for the analysis. One hundred and ten respondents participated in the pilot study. They were not be invited to participate in the final study. Therefore, nor were any respondents from the previous survey study involved. On account of thier participation in the exploratory or survey study may have impacted their behaviours and may have produced biased results (Blaise et al., 2021; Beall and Boley, 2021)

For the aim of purifying the instrument, the researcher carried out a reliability test. Because this study would like to ensure that the measures were free from error and could generate consistent results. This study conducted a reliability test before it carried out the main survey. Sezgin, (2022) and Leon and Davis and Kraemer, (2011) found

that the definition of reliability is when the question or scale consistently measures a concept.

Bonett and Wright, (2015) suggested that reliability was related to instruments' ability to measure consistently. Therefore, this study used Cronbach's alpha to measure reliability. Hamilton and Hekmat, (2018) and Mohammed and Refae (2022) and Zikmund et al, (2010) indicated that pilot study indicated that a small-scale study in which the results were revealing the pilot study that could investigate whether the study was reliable enough to continuing the real situation of gathering the data for a study. Therefore, this study decided to distribute 110 sets of the questionnaire to the pilot-test respondents. Then, after gathering the data, this study could test the reliability of this questionnaire by using Cronbach's Alpha method to know the scores and inspect the value of the questionnaire reliability. This study believes that each variable for this research has to have the reliability's result at least 0.70.

The researcher examined the reliability of this questionnaire by using it with Cronbach's Alpha method to inspect the value of the questionnaire reliability. Therefore, this study needs to test reliability value in the questions of each variable appling Cronbach's Alpha test. If the outcomes of reliability value are equal or more than 0.60, it revealed that the questions are constant and reliable and can be used the instrument of research (Yamada et al., 2022; Farewell et al., 2020).

As a result of these tests, the results presented that the Cronbach's alpha for all the constructs was greater than 0.8. In accordance with Hazzi and Maldaon, (2015) and Özkan Pir and Derinözlü, (2020), if a coefficient alpha is higher than 0.70, the results of tests were highly suitable for research objectives and could be used for the study. Due to all the constructs having a Cronbach's alpha of larger than 0.70 (Holt et al., 2023; Wang et al., 2021). Therefore, it regards all the constructs as suitable for research purposes, as presented in Table 5.4. In addition, it was suggested that total correlation value ought to be more than 0.50.

Therefore, the results of reliability value for all variables in this study were more than 0.70 that showed that the results are good for strength of association. The results of pilot test are revealed in Table 5.4 as following; Table 5.4, reveals the values of reliability analysis for pilot test (N= 110). In this study the value of all variables was greater than 0.70 when tested using Cronbach's Alpha method. Therefore, all questions were

reliable and suitable to be used the research instrument (Löwe et al., 2010; Zollo et al., 2021).

In addition, the pilot study consisted of the Exploratory Factor Analysis (EFA) to eliminate variables with factor loading that are less than 0.3 (Hair, Black, Babin, Anderson, & Tatham, 2006). In accordance with Pallant (2007), the Bartlett's Test of Sphericity value ought to be significant at p< 0.05 and Kaiser-Meyer-Olkin (KMO) value ought to be 0.6 or above. In testing EFA using Maximum Likelihood extraction and Promax rotation, EFA yielded five dimensions (KMO score of 0.872, Bartlett's Test p = 0.000 (p < 0.05). The factor loading for all the 42 proposed items is more than 0.3. The EFA was carried out on the remaining 42 items; however, the results could confirm that all the remaining items were accepted with factor loading was greater than 0.3 with five dimensions extracted (Axenfeld et al., 2022; LiuHui, 2023).

Therefore, in this study the value of all variables are greater than 0.70 when tested using Cronbach's Alpha method. In addition, the factor loading for all the 42 proposed items is more than 0.3. Therefore, all questions are reliable and suitable to be used the research instrument. The results also could confirm that all the items were accepted with factor loading was greater than 0.3 with five dimensions extracted (Hamilton and Hekmat, 2018; Janssens et al., 2008).

#### 3.8.2. Fieldwork

The researcher used Google Forms (An online survey system for data collection) to create an online questionnaire. In addition, the questionnaire link was distributed through email, group emails and social media tools like Facebook messenger and Line application from 19 to 23 September 2021. The questionnaire was distributed via email, group emails and social media tools because the researcher wanted to ensure that the participants could access the survey form (Alahmar, 2016; Carfora and Bertolotti and Catellani, 2019).

In addition, the email, group emails and social media tools invited 110 Thai consumers to participate in the research and contained an questionnaire link to the online survey. Survey invitations were sent to 110 Thai consumers via email, group emails and social media tools like Facebook messenger and Line application, and informing them that "Individual participant data will be kept entirely confidential during the study" and "For statistical analysis, information will be anonymised so no individual could be identified".

The pilot study was performed in Thailand and was selected to distribute the questionnaire to 110 Thai customers to ensure respondents understood the questionnaires and received 110 responses with response rate of 100 percent out of which 110 responses were considered for analysis. Respondents who were 18 years or older in Thailand and who had purchased food for the study because adults were regarded with greater ability to compare and assess the available options and make a selection (Chan, 2001; Browne et al., 2023). The respondents for the data collection were mostly recruited via a snowball sampling technique, which was performed by sending the questionnaire link via email, group emails and social media tools (Baider, 2023; Paul et al., 2022).

The reason why this study used snowball sampling because snowball sampling was regarded as a non-probability sampling technique which relates to recruiting new units as sample members from among the existing units. It could be utilised to study individuals with particular traits who may be rare in other methods. The participation could spread like a snowball tumbling downhill across a network of connected individuals (Paul et al., 2022; Adeoye, 2023). This method can be very useful if the researcher is not familiar with the target demographic; moreover, the researcher has difficulty reaching out or accessing that information (Afifah and Mudzakir and Nandiyanto, 2022; Sevim, 2022). Snowball sampling also has got the benefit of being simple and quick to find subjects due to they originate from credible sources .This method was convenient and inexpensive as compared to other approaches. In addition, this method helped in situations where they could ask for a reference from individuals known to each other (Isaac, 2023; Browne et al., 2023; Paul et al., 2022). On the other hand, snowball sampling may only be able to access to a small group of individuals and might not be able to complete conclusive outcomes (Obilor, 2018; Kmetty and Stefkovics, 2022).

The survey instrument could measure constructs of the TPB (attitude, subjective norm, and perceived behavioral control) that relate to purchase intention and the actual purchase behaviour towards organic food products. Furthermore, the theoretical items mentioned, the survey measured emotional appeal, informativeness, advertising creativity and product knowledge.

The reason why this study chose online surveys because these tools were highly accurate; moreover, these tools allow respondents to sufficient time to think before completing the questionnaire. (Kinnear and Taylor, 1996; Sevim, 2022). These tools

helped to reduce the non-response rate (Kinnear and Taylor, 1996). This study could reach the largest number of respondents from all over Thailand in a cost-effective way (Zikmund, 1997; Noreen et al., 2023). In addition, the researcher could assure the participants of the data privacy and confidentiality of the information they could provide for the study (Albino and Albino, 2021; Carfora and Bertolotti and Catellani, 2019). After several questions were modified for reliability in the assessment, the final survey instrument consisted of 42 items (Bonett and Wright, 2015; Hanmontree andPrinyawiwatkul and Sae-Eaw, 2022) though there's no way of telling if those included can be representative of the overall population. Nevertheless, the researcher was still expected to provide a first overview of related issues and obtain insight into the knowledge of organic food by Thai consumers (Mohamad and Rusdi and Hashim, 2014; Kmetty and Stefkovics, 2022).

## 3.8.3. The questionnaire

The questionnaire was divided into ten sections; moreover, it contained straight forward questions. These self-administered questionnaires were based on a seven-point Likert-type scale ranging from "strongly agree" to "strongly disagree" and demographic variable with four items to measure the questions. The questionnaire of the research was adopted from prior studies, such as Al-Swidi et al., (2014) and Zollo et al. (2021) to ensure content validity of the scales used in the present study (Hair et al., 2006).

The first section of questionnaire provided personal information (such as the name of the researcher, organization that is carrying out the research and Email address (If participants face any issues or have questions). In addition, this section gave the purpose of research and addressed data privacy, data protection, and participant's consent. This second section of the questionnaire asked participants to look at the advertising below before completing the questionnaire.

The third section of the questionnaire talked about the statements of emotional appeal, informativeness and advertising creativity towards organic food advertising that was proposed by Lee and Hong, (2016). Michaelidou and Hassan (2008). Here, intention to purchase organic food products was measured by asking statements like "I was emotionally attracted by the key message of this ad.". The fourth section of the questionnaire talked about statements of product knowledge towards organic food products that was proposed by Zollo et al. (2021). Here, intention to purchase organic

food products was measured by asking statements like "I have great buying experience with an organic food product".

The fifth section of the questionnaire talked about statements of attitude towards the intention to purchase organic food products that was proposed by Teng and Wang et (2015). Here, intention to purchase organic food products was measured by asking statements like "Organic food products are safer to eat than ordinary foods". The sixth section of the questionnaire talked about statements of the subjective norm towards the intention to purchase organic food products that was proposed by Al-Swidi et al., (2014). Here, intention to purchase organic food products was measured by asking statements like "People around me generally believe that it is better for health to use organic food product".

The seventh section of the questionnaire talked about statements of perceived behavioral control towards the intention to purchase organic food products that was proposed by Al-Swidi et al., (2014). Here, intention to purchase organic food products was measured by asking statements like "I can handle any (time, money, information related) difficulties related to my purchasing". The eighth section of the questionnaire talked about statements of intention to purchase organic food products that was proposed by Al-Swidi et al., (2014). Here, intention to purchase organic food products was measured by asking statements like "I am willing to purchase organic food products in the future".

The ninth section of the questionnaire talked about statements of the actual purchase behaviour towards organic food products that was proposed by Wee et al., (2014). Here, intention to purchase organic food products was measured by asking statements like "I often purchase organic food products for my health. Finally, the final section asked about the socio-demographics information such as gender, age, level of education and employment status.

For this reason, the questionnaire contained questions that related to the influence of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge toward organic food purchase intention, the theory of planned behaviour (TPB), gender (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021). Also, some

questions explain the influence of food advertising content behind the intention to purchase organic food products. The questionnaire was designed in English. However, for a proper translation of the questionnaire that Thai respondents can fully understand, the original English questionnaire was translated into Thai to gather data from Thai consumers (Asif et al., 2018).

However, this study used a back translation method to translate the original English questionnaire into Thai. This study used the translation method because the sample groups are Thai consumers who must become more familiar with English. This study could be confident that respondents were asked the same question in that language (Khosravani & Dastjerdi, 2013; Chekima et al., 2021).

## 3.9. Justifying the 100% of response rate?

For this study, the reason that the online survey response rate is 100% is because this study improves response rates for online surveys. Although there are several ways to increase online survey response rates, four ways were used to increase survey response rates for online surveys.

Firstly, the researcher sent a gentle reminder (see Appendix F). The researcher provided frequent reminders. The researcher sent between one and three reminders, using refreshed language each time so the researcher is not simply repeating the original. In addition, the researcher had to strike the balance between a gentle nudge to respond and annoying spam. It led to the researcher being able to have an increase response rate. In addition, a common assumption, based on studies of postal surveys, is that utilizing of a (personalized) cover letter that can increase survey response rate. Sheehan and McMillan (1999) performed a meta-analysis on several methodological issues in three e-mail surveys. They could find evidence that the speed of response to email surveys is faster from persons who got prenotification of the survey than from respondents who approached without such notification. In accordance with Crawford et al. (2001) the email invitation plays a disproportionately important role that can stimulate responses to a Web survey. In postal surveys, potential respondents can track all questionnaire; moreover, they can make informed judgements regarding matters such as length, content and design. In Web surveys, the e-mail letter is regarded as the only piece of information about the nature of the questionnaires. Although this "many of the standard tools available to the postal survey researcher (such as kind of postage, kind of

envelope, personal signature, use of legitimizing letterheads, and inclusion of incentives), has no direct electronic equivalents" (Crawford et al., 2001).

In the email surveys as examined by Kay and Johnson (1999) participation of respondents were solicited in various ways. In some studies, respondents receive cover letters via email; moreover, they received the survey via email only if they agreed to participate. In other studies, the electronic questionnaire was sent unsolicited and without advance warning. It leads to critical and hostile responses that could force the researchers to modify their strategies.

This email explained how their answer would be anonymous that there were no correct answers. In addition, it would take approximately 25-30 minutes to fill out the survey (Kazmer and Xie, 2008). Three days later, the researcher a follow up email to remind them about this study.

The findings of previous studies indicated that study participants indicated that they pay more attention to the invitation to participate in the survey if they felt they had a relationship with the organization performing the survey or the brand under study.

The finding of pervious study found that the positive and significant coefficient of the constant identified that persons are more likely to accept invitations to complete surveys (Brosnan and Kemperman and Dolnicar, 2021). Because the participants preferred invitations containing a concise, clear description, and an explanation of the difficulty level of the survey (de Bruijne and Wignant, 2014; Samuermann and Roach, 2013). Reputation, to them, indicates a number of aspects. This includes their personal relationship with the organization; moreover, the confidence that the organization will uphold principles of confidentiality and privacy (Brosnan and Kemperman and Dolnicar, 2021; Joinson and Reips, 2007; Sanchez-Fernandez and Munoz-Leiva and Montoro-Rios, 2012; Samuermann and Roach, 2013; Fang and Shao and Lan, 2009). In addition, participants emphasized the importance of organizations being known as listening to consumer voices (Bruggen et al., 2011). When the survey invitations are not requested, or the respondents lack a relationship with the organization that conducted the survey, they usually ignore the request: "If I know who it came from, I will open it", "You meet the good people and the bad people in the survey game." (Brosnan and Kemperman and Dolnicar, 2021).

Zúñiga, (2004) suggested the researchers should provide frequent reminders (such as at least three reminders). In the context of surveying multiple lecturers in one course and

various courses in any one semester, respondents are likely to need to complete multiple surveys.

Experimental studies have continually proven the influences of pre-notification and reminders on response rates (Bosnjak et al., 2008; Trouteaud, 2004; Wygant et al., 2005). The size of effect ranges from modest (Crawford et al., 2001; Fosnacht et al., 2017) to doubling the response rate (Cook et al., 2000). Multiple meta-analyses of both mail and web surveys have consistently concluded that the number of contacts can be one of the most important factors in predicting response rates (Cook et al., 2000; Fox and Schwartz and Hart, 2006; Heberlein and Baumgartner, 1978; Manfreda et al., 2008; Yammarino et al., 1991; Moore and Varghese, 2021). The pre-notification to potential respondents can play a particularly important role due to potential respondents' decision regarding logging in to the web survey website is mostly based on the data provided by the initial contact persons. (Crawford et al., 2001). The initial reminder has a more positive influence when it is 2 days after the initial invitation than 5 days (Crawford et al., 2001). On the other hand, others identify the reducing return on this investment along with the possibility of irritating the survey population (Cook et al. 2000).

Secondly, push the survey, the researcher provided respondents with the survey URL in an email sent directly to them. According to Nulty, (2008), this method basically means making it easy for respondents to access the questionnaire by, for instance, providing them with the survey URL and Quick Response (QR) codes in an email that is sent directly to them.

Push the survey is now widely applied to gather responses as a cost-effective alternative (or supplement) to self-administered mail back questionnaires. This method direct respondents to a survey URL (either traditional or shortened) to access the online questionnaire. For this reason, This study provided the introduction message and reminder message, which include the URL (Dillman et al. 2014; Varghese and Moore and Earnhart, 2018). Moreover, the survey URL might decrease the perceived costs of participation by creating the questionnaire easier to access, which, in accord with social exchange theory might motivate more recipient participation (Dillman et al., 2014; Rogers and Milkman, 2016; Endres et al., 2023).

A survey URL can potentially facilitate easy access to the web survey for respondents with smartphones who can simply click the questionnaire link. Using the survey URL may be particularly effective at recruiting subgroups of the population who primarily

rely out their smartphone to can access the internet because a lack of home broadband access (Tourangeau et al., 2018; Struminskaya and Weyandt and Bosnjak, 2015). On the other hand, other scholars have disagreed that a survey URL might increase participation by signaling that the questionnaire is brief (Dillman et al. 2014; Sack et al., 2019), also affecting perceptions of time costs relate to participation.

Thirdly, this study gave away £3 cash (150 baths) to everyone who took their survey. The incentive is usually applied to increase response rates in both mail and online surveys. An extensive literature has documented various impacts of using incentives which vary in types, duration, and amount (e.g., Fox et al., 1988; Goritz, 2006; Heberlein and Baumgartner, 1978; Daikeler and Bo`snjak and Lozar Manfreda, 2020).

In addition, various incentives have been taken to get a higher response rate. This includes providing money, a prize draw, candy, a pen, and lottery. Some literature reveals higher response rates among respondents when applying monetary incentives (Poynton and DeFouw and Morizio, 2019; Sammut and Griscti and Norman, 2021). The response rates have been reported in the previous study in recent years, vary widely, ranging from 60 to 70%. If incentives are not provided, responses are usually 30%, while studies that report a 50% response rate generally have offered incentives of \$20 or more (Neal and Neal and Piteo, 2020; Wu and Zhao and Fils-Aime, 2022).

Online surveys can usually use incentives which can be easily transferred in the electronic environment such as a gift certificate, donations to charity, lotteries, redeemables, and provision of survey results (Goritz, 2006; Langenderfer-Magruder and Wilke, 2020). For security reasons, an electronic gift certificate was recommended due to giving out an electronic gift certificate does not need to require personal information of the respondent such as bank accounts or home addresses (Kraut et al., 2004; Neal and Neal and Piteo, 2020).

On the other hand, other literature reveals a limited benefit of monetary incentives. Incentives might not always be the choice of researchers, especially in large-scale research (Mokher and Pearson, 2017; Munoz et al., 2017). In addition, a previous study that investigated the impacts of \$5 Amazon gift certificates via a online survey, Amazon gift certificates led to significantly lower response rates than the cash condition (Birnholtz et al., 2004; Archer, 2019).

This study used respondent incentives. It is another way to possibly increase the response rate of the survey. On the other hand, respondent incentives might be more

complicated than for mail surveys. For most of these initiatives, it is uncertain whether they are effective and, if so, where the point of maximum benefit is — with a nominal lottery prize or with a financial remuneration commensurate with the amount of time required to answer the questionnaire. GVU has taken more drastic action; moreover, GVU offered cash stipends between \$100 and \$250 to participants in their user surveys (Kay and Johnson, 1999).

According to Bosjnak and Tuten (2003), they investigated whether prepaid monetary incentives have the same positive effects on response rate in online surveys as demonstrated in traditional postal surveys. The authors found no positive impact of prepaid incentives on intent to participate, share of incomplete response patterns and actual completion rates when compared to postpaid incentives. But they found that prize draws compared to no incentives greatly increased the intent to participate and tend to reduce the number of incomplete responses.

In addition, Brennan et al. (1999) suggest caution when using incentives due to those that are too attractive might well prompt multiple submissions from, for instance, persons wanting to increase their chances of winning the lottery drawing. However, 'Immaterial' incentives might be an alternative. Smith (1997) proposed two such incentives in a survey of Web providers. Firstly, it was chances to be listed on a special webpage to thank the survey participants that related to the executive summary of the research report. Secondly, it was an increased awareness of the survey topic through self-reflection during the completion of the questionnaire survey.

According to the finding of previous studies, it was identified that the monetary incentive represents a significant motivator that can stimulate participants to complete the survey. Because reinforcing survey completion behavior needs to require reciprocity. This can happen through tangible, extrinsic rewards. Though all rewards are non-monetary ("Appreciation when completed," "The feeling of achievement), incentive payments clearly play an important role ("Receiving money/vouchers," "Received compensation for my opinion"). Respondents explain the motivation related to incentives in one of two ways: "saving up" and "instant gratification." (Brosnan and Kemperman and Dolnicar, 2021).

Respondents who regularly become members of the survey because they want to save money use their rewards for Christmas gifts or annual candies ("Earning money for extra candies"), realizing that many small payments are accumulated for what you want.

Instant gratifiers need free cash or products soon after completing the survey and are more stimulated by a prize draw (Brosnan and Kemperman and Dolnicar, 2021). In accordance with Larose and Tsai, (2014) it's indicated that cash payments have a more positive impact on participation rates. On the other hand, incentives have little effect on participation rates (Bruggen et al., 2011). Similarly, Mavletova and Couper (2016) identified that incentive payments are more effective in increasing survey participation.

Finally, persuade respondents that their responses will be used. The issue here is whether respondents trust that the academics will take the feedback seriously (Kreuter et al., 2020). There are several ways to achieve this; however, all involve some active demonstration to respondents that feedback can be valued and acted upon (Revilla et al., 2016; Kreuter et al., 2020).

## **3.10. Summary**

This chapter describes the methodologies and approaches used in this study to investigate the hypotheses and operational model. Several approaches were used to verify the credibility of the findings. First, the quantitative method was used based on the study's purposes and aims.

A trust scale was evolved and could be divided into two parts. The first part is the questionnaire method. In this part, the questionnaire development stage, content validity, face validity and a pilot study were performed. For the second part, a survey with the help of 900 Thai consumers was conducted. Finally, for the findings, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modelling (SEM) was performed.

The next chapter is based on investigating the pilot study, constructs definitions and their relationships with each other were discussed in detail.

## **CHAPTER IV:Pilot study**

#### 4.1. Introduction

A pilot study is a way of testing feasibility and preparing for the main study. A pilot study also estimates the validity of a questionnaire as a whole and its individual questions. A pilot study is regarded as typical in social science research (Malmqvist et al., 2019; Pearson et al., 2020). According to Baker (1994) and Malmqvist et al. (2019), researchers can use a pilot test to pre-test or 'try out' a research instrument. A pilot study can be used as an early warning tool to indicate cases where the main study may fail, e.g. the researcher may not follow the correct research methodology, or the data collection, methos of the data collection method, or the methods of data collection or questionnaires (or any other research tool) may be too complicated or unsuitable for the study. Van Teijlingen and Hundley (2002) and Farewell et al. (2020) argue that if a researcher does not take a risk, the researcher should not perform a pilot test first because of the possibility of making incorrect assumptions or predictions based on pilot data and problems caused by contamination.

Therefore, in this chapter, the validity of the questionnaire related to the aims of research and research questions is estimated. The aim of the research is to examine the impacts of food advertising content (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Also, this research investigates the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

Also, the study could fill gaps that were found in the literature related to several questions, such as "Would the food advertising content (Emotional appeal, Informativeness and Advertising creativity) increase product knowledge of organic food products?, Is product knowledge be increased by TPB (attitude, subjective norms, and perceived behavioural control)?, Does TPB (attitude, subjective norms, and perceived behavioural control) have a positive impact on the intention to purchase?, Would intention to purchase have a positive impact on actual purchase behaviour?, Does gender moderate the relationship between food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge?'

Based on the aim, questions and these objectives of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of gender and food advertising content (emotional appeal, informativeness and advertising creativity) and other constructs; secondly by examining the impact of gender which appears to moderate the relationship between emotional appeal and product knowledge and the other constructs; and finally by examining the impacts of the other constructs on each other.

## 4.2. Defining constructs and measurement for the pilot

One of the critical problems inresearch is the measurement accuracy of the constructs under examination (Barrett, 1972; Hinkin, 1998; Ribas et al., 2017). When a researcher uses a questionnaire as the primary data collection method, the measurement shall adequately represent the constructs to be investigated (Hinkin, 1998; Stone, 1978; Zhou & Wu, 2023). In addition, (Fitzpatrick & Yen, 2010; Farewell et al., 2020) suggested that tresearch should focus on evolving measurement with desirable validity and reliability properties. In the same way, a construct ought to provide acceptable evidence of the extent to which the scales measure the construct that they are supposed to measure (Hinkin, 1998; LiuHui, 2023).

The first step of defining the structure and measurement scale is to generate a list to estimate the structure to be investigated. Researchers would like to provide guidelines on how to write items, there appeared to be a general agreement that items ought to be short and straightforward, and the language ought to be easy and familiar to understand, and the respondents should be able to complete the questionnaire fast (e.g. Peterson, 2000; Hinkin, 1998; Liu and Kwan and Kan, 2022). Regarding measurement scale items, an effective method of reducing response biases provoked by respondents' boredom is to keep the measurement short (Hinkin, 1998; Steyn, 2017). On the other hand, the researcher had better not give very little information regarding the respondents' perceptions (Steyn, 2017). The researcher can ensure the internal consistency mentioned above if at least three items are used to measure a construct (Mhlophe, 2016; Hinkin, 1998; Farewell et al., 2020). In addition, if a researcher continues to add items to the construct, it has little effect on the reliability (Chang & Krosnick, 2003; Hinkin, 1998). However, it is critical that the sample is big enough because a sample which is too small could lead to measurement errors if insufficient (Fitzpatrick & Yen, 2010; Uloza and Ulozaite-Staniene and Petrauskas, 2023).

Table 4.1: The definition of the constructs used in the study with the sources

Construct	Definition	Measuresment used for the	Definition reference	Construct source
		42 items	source	Source
Emotional appeal (EMO), Informativeness (INFO) and Advertising creativity (CREA)	Busse (2016) found that the definition of emotional appeal was a persuasion approach used to generate an emotional response to a message by using emotional content (such as pride, horror movie, love, sad story, joy, triumphant music, etc.).  Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, (2020) suggested that the definition of informativeness in advertising organic food products was the ability to explain the characteristics and benefits of such products in a way that tried to match consumer wants and desires by making the market more efficient.  Advertising creativity is defined as the extent to which advertising is unexpected and original. Relevance and Differentiation are understood to be the leading attributes of creativity in advertising; divergence is related to elements that are novel, unusual or different, whereas relevance is related to elements that are useful, meaningful, appropriate or valuable to the audience (Lee and Hong, 2016)	7-point Likert scale	Busse, (2016) and Cuesta- Valiño and Rodríguez and Núñez- Barriopedro, (2020) and Lee and Hong, (2016)	Lee and Hong (2016)
Product Knowledge (PK)	Product knowledge is a moderating variable that might influence the relationship between the influence of positive message framing (natural content, health consciousness, and sensory appeal) and intention to purchase (Singh, 2017).	7-point Likert scale	Singh, 2017	Zollo et al. (2021)
Attitude (Att)	The definition of attitude towards a behaviour is the degree to which an individual has an unfavourable or favourable evaluation of the conduct in question (Ajzen, 1991). Also, the definition of attitude includes deciding whether the behaviour is good or bad and whether the actor would like to exhibit the behaviour (Paul and Modi and Patel, 2016).	7-point Likert scale	Ajzen,1991. Paul and Modi, and Patel, 2016	Teng and Wang, (2015)
Subjective Norm (SN)	The definition of subjective norm is the perception of social pressure to perform or not perform a behaviour (Ajzen (1991), cited in Wang et al. (2019).	7-point Likert scale	Ajzen, (1991) and Wang, et al. (2019)	Al-Swidi et al., (2014).
Perceived	Perceived Behavioural Control	7-point Likert	Ajzen,(1991)	Al-Swidi et

Behavioural Control (PBC)	"means" perception of difficulty and ease in carrying out a behaviour (Ajzen,1991) and reflects the experience of the behaviour and the expected obstacle. Zhou et al. (2013)	scale	and Zhou et al. (2013)	al., (2014).
Intention to purchase organic food (IP)	The definition of purchase intention is the cognitive representation of an individual's readiness to execute a defined behaviour. Most researchers also consider intention to purchase as the immediate antecedent of the defined behaviour (Mohamad and Rusdi, and Hashim, 2014).	7-point Likert scale	Mohamad and Rusdi and Hashim, (2014)	Al-Swidi et al., (2014).
Organic food Actual Purchase Behavior (APB)	According to Smith and Paladino (2010), the definition of actual purchase behaviour is the study of related processes when persons or groups select, use, purchase or sell a product, idea, service, or experience to meet needs and demands. Before consumers perform the actual purchase behaviour, they will seek the relevant information associated with the product and then estimate the value of the product according to their expectations of the product.	7-point Likert scale	Smith and Paladino (2010)	Wee et al. (2014)

## 4.3 Questionnaire Design

Questionnaire design is crucial in research methodology (Roopa & Rani, 2012; Saunders et al., 2011; Alessandri-Bonetti et al., 2023). The researcher has to ensure that the questionnaire will gather accurate information that can answer the research questions and relate to the research objectives. In addition, the questionnaire must be clear on how the findings can be used (Roopa & Rani, 2012) because the researcher might not be able to return to individuals who remain anonymous and gather more information using another questionnaire. Roopa and Rani (2012), Sanders et al. (2011) and Ahmed et al.(2023) stated that questionnaire design impacts response rates and the validity and reliability of the data. The response rates, reliability, and validity can be increased if the researcher considers the following factors while evolving the questionnaire (Saunders et al., 2011).

- Careful design of each question.
- Engaging and clear layout of the questionnaire
- A clear description of the objective of the questionnaire.
- Pilot test
- Carefully planning and organizational management.

While the researcher was evolving the questionnaire for the present study, the items representing the constructs being studied were recreated, and multiple items were assigned to each construct (see Table 4.2). It is recommended that single items have considerable "uniqueness or specificity in that each item appears to have little relation with the attribute being assessed and is more likely to be associated with other attributes". Thus, multiple-item scales should be used to measure structures. However, employing single-item scales might have an inbuilt measurement error. In addition, the response caused by such scales may be unreliable (Churchill, 1979; Hanmontree and Prinyawiwatkul and Sae-Eaw, 2022).

The initial measurement was measured based on three components: emotional appeal (EMO), informativeness (INFO) and advertising creativity (CREA) based on Lee and Hong (2016), while use of product knowledge as a moderator was based on a study by Zollo et al. (2021). The measurement was carried out through a five-item construct. A seven-item measurement scale for attitude was adapted from Teng and Wang (2015), while a fourteen-item measurement scale for subjective norms, perceived behavioural control and intention to purchase organic food products was adapted from Al-Swidi et al. (2014). The six-item scale used for purchasing behaviour was based on Wee et al. (2014).

The researcher used a seven-point Likert to measure the responses.

The Likert scale is a measurement technique in which respondents are asked how much they agree or disagree with a statement or series of statements (Saunders et al., 2011; Kmetty and Stefkovics, 2022; Kushwah et al., 2019). In general, the researchers often use rating scales of four-, five-, six- or seven-point in their research studies. Use of a Likert scale (usually 5 points or 7 points) is the most common method. Because it can assess the strength of a particular belief or attitude, it may be used to calculate the mean scores for any given responses to commands (item scores) (Jenn, 2006; Wang et al., 2021; Axenfeld et al., 2022; LiuHui, 2023). In addition, there is little distinction between using a 7-point scale or the a 5-point scale regarding mean values and variance. On the other hand, more scale response options might generate lower skewness (Löwe et al., 2010; Zollo et al., 2021; and Farewell et al., 2020). Therefore, a 7-point scale was used in this study.

The questionnaire is shown in Appendix 2. The first section was the introduction of the questionnaire. In addition, the this section provided a consent question for the survey.

The second section provided questions about emotional appeal, informativeness and advertising creativity, product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase, and actual purchase behaviour towards organic food products. The final section comprised demographic questions that ask about gender, age, employment and education to create a demographic profile of respondents.

Table 4.2 Items used in the data collection

	EMO1 After seeing this ad, I had intense feelings.  EMO2 I was emotionally attracted by the key message of this ad  EMO3 The emotional aspect of this ad leads me to like the ad.  INFO4 Information obtained from the ad would be	
Emotional appeal (EMO), Informativeness (INFO) and Advertising creativity (CREA)	useful.  INFO5 I would learn a lot from using the ad.  INFO6 I think the information obtained from the ad would be helpful.	Lee and Hong, (2016)
	CREA7 The ad is unique.  CREA8 The ad is really out of ordinary.	
	CREA9 The ad is intriguing CREA10 The ad is surprising.	
	PK1 I know a lot about organic food product.  PK2 I have great buying experience with an organic food product.	-
Items on Product Knowledge (PK)	PK3 I am familiar with the organic food product.  PK4 I understand the features and benefits of organic food product.	Zollo et al. (2021)
	PK5 My knowledge about organic food product is better relative to the individuals that I know.	
	Att1 Organic food products have lower chemical residues than ordinary foods.  Att2 Organic food products are safer to eat than ordinary foods.  Att3 Organic food products are healthier to eat than	
Items on Attitude (Att)	ordinary foods.  Att4 Organic food products are tastes better than ordinary foods.  Att5 Organic food products have superior quality than ordinary	Teng and Wang, (2015)
	foods.  Att6 Organic food products are more expensive to eat than ordinary foods.  Att7 Organic food products are more attractive to eat than ordinary foods.	

Items on Subjective Norm (SN)	SN1 The trend of purchasing organic food product among people around me is increasing.  SN 2 People around me generally believe that it is better for health to use organic food product.  SN 3 My close friends and family members would appreciate if I purchase organic food product.  SN4 I would obtain all the required support (time, money, information related) from family and friends to.	Al-Swidi et al., (2014).
Items on Perceived Behavioural	PBC1 I can take the decision independently to purchase organic food product.  PBC2 I have the financial capability to purchase organic food product.  PBC3 I have the time to go for purchasing organic food product.	Al-Swidi et al., (2014).
Control (PBC)	PBC4 I have complete information and awareness regarding where to purchase organic food product.  PBC5 Organic food product is readily available in the location where I reside.  PBC6 I can handle any (time, money, information related) difficulties related to my purchasing decision.	-
Items on Intention to purchase organic food (IP)	IP1 I would look for specialty shops to purchase organic food products.  IP2 I am willing to purchase organic food products in the future.  IP3 I am willing to purchase organic food products on a regular basis.  IP4 I would also recommend others to purchase organic food products.	Al-Swidi et al., (2014).
Items on Organic food Actual Purchase Behavior (APB)	APB1 I often purchase organic food products.  APB2 I often purchase organic food products on regular basics.  APB3 I often purchase organic food products because they are more environmentally friendly.  APB4 I often purchase organic food products that against animal-testing.  APB5 I often purchase organic food products that are safety to consume.  APB6 I often purchase organic food products for my health.	Wee et al., (2014).

### 4.4 Measurement Purification: Pilot Test

Before the pilot test was performed, the items created in the qualitative study were assessed to estimate content and face validity. To ensure validity and reliability, testing of scale items is performed to assess whether the test "looks valid" to examinees who can take it (Hazzi and Maldaon, 2015; Blaise et al., 2021). Academic experts in marketing performed this assessment; moreover, it was required that both academic experts held a PhD degree to ensure that all phrases or words that did not completely capture the concepts intended by the original item were resolved (Pomasaman and Napompech and Suwanmaneepong, 2014; Beall and Boley, 2021; Pearson et al., 2020).

The experts also agreed that the items were acceptable for construct measurement. Though the researcher found that some items' wording might not be consistent, this was later improved to ensure a correct interpretation by respondents. Nevertheless, the wording of some items could still have been more consistent. Therefore, later changes were made to ensure respondents would interpret them appropriately, and based on the recommendations of Pomasaman and Napompech and Suwanmaneepong (2014) and Hinkin (1998) and Rokonuzzaman et al. (2021), a clear link between the items and the theoretical constructs being evaluated was provided. A lot of time and effort was invested in ensuring that such items were sufficiently understood.

At this stage, the researcher created the data collection instrument for the pilot test. After the researcher improved various questions to ensure reliability in measurement, the questionnaire contained 42 items taken from the existing literature. According to Hinkin (1998) and Sekoguchi et al. (2022), when validity assessment has been performed on the items, as explained above, it is essential that the sample is representative and the data must be free from common method bias. It is recommended that the researcher use more than one source to gather the data. Thus, the researcher selected respondents from varied backgrounds. Leon and Davis and Kraemer (2011) and Bozkurt et al. (2022) recommended that the background characteristics of the respondents in the pilot test should exhibit a close relationship with the those of the respondents in the key data collection. Similarly, participants in the pilot test and the primary data collection should be drawn from the same population (Malhotra, Nunan, and Birks, 2012; Kim, 2021).

In most cases, a sample size of 150 observations should suffice for correct resolution in exploratory factor analysis (Janssens et al., 2008; Jain et al., 2022), while a minimum sample size of 200 is recommended for confirmation factor analysis (Hinkin, 1998; Hoelter, 1983; Kim et al., 2021). In many instances, a sample size of 150 observations should suffice for a correct resolution in exploratory factor analysis (Hinkin, 1998; Hazzi & Maldaon, 2015; Zeng, 2022). In contrast, a pilot test's sample size is usually small, with 15 to 30 participants involved in initial testing. This depends on the heterogeneity (such as the wide array of pilot tests that can involve multiple waves or stages) (Naresh and David and Peter, 2012; Wang & Li, 2022). In addition, Hair et al. (2010) and Strovel et al. (2022) suggested that the sample size should be between 90 and 100 observations for factor analysis. On the other hand, Hazzi and Maldaon (2015) and Blaise et al. (2021) indicated that the response rate should be about 81.7 %.

Therefore, for this study, the researcher decided to distribute 110 questionnaires to the target participants (Thai consumers living in Thailand).

It could be seen that all respondents agreed to complete the online questionnaire because the researcher found that all respondents ticked the box 'I consent to participation in the study' box before completing the online questionnaire. Snowball techniques were used to accomplish the targeted response. The online questionnaires were distributed to respondents from various backgrounds regarding gender, age, employment and education backgrounds. Within two days, the researcher had distributed 110 questionnaires. In addition, all respondents returned their questionnaires within a week.

Regarding the scaling of the items, although several techniques are available for survey questionnaire research, the Likert scale is often used in survey questionnaire research. Thus, all respondents were asked to rate items on a seven-point scale from 'Strongly disagree' to 'Strongly agree'. The researcher used this scale because it could provide better reliability (Churchill, 1979; Hazzi & Maldaon, 2015; Beall & Boley, 2021). Symonds (1924) and Rokonuzzaman et al. (2021) suggested that the Seven-Points Likert Scale could optimise reliability.

The researcher wanted to avoid problems regarding ambiguity and wording, particularly relating to emotional appeal, informativeness and advertising creativity. Therefore, a professional Thai-to-English translator was used to seek equivalent words that respondents could easily comprehend. One week after the researcher distributed the questionnaires, the researcher could collect 110 questionnaires that had been completed. The response rate was 100%.

# 4.5 Sampling and sample profile

Sampling is the selection of a small number of elements from a larger defined target group of elements, where one can expect the data collected from the small group to allow judgements regarding the larger group (Malhotra, 2010; DePaula et al., 2022).

There are two basic sampling designs: probability sampling and nonprobability sampling. Firstly, in probability sampling, each sampling unit in the defined target population can be understood as one with a probability of being selected for the sample (Bradley, 2013; Hair et al., 2013; Benutić et al., 2022). Whether the probability of selection for each sampling unit might or might not be equal rests on the kind of probability sampling design used. Secondly, in nonprobability sampling the probability

of selecting each sampling unit is unknown. The sampling of units depends on the researcher's knowledge or intuitive judgment. The degree to which the sample can represent the defined target population rests on the sampling methods used and how well the researcher performs the selection activities (Wilson, 2012; Strovel et al., 2022).

Probability sampling comprises simple random sampling, systematic random sampling, stratified random sampling and cluster sampling. Nonprobability sampling comprises convenience, judgment, quota, and snowball sampling. Convenience sampling was used for the pilot study in this research (Kent, 2007; Blaise et al., 2021). The researcher used convenience sampling because it was regarded as a method by which a sample could be drawn based on convenience. Convenience sampling allows many respondents to be interviewed in a relatively short time. This method is often used in the first stage of research, which includes construct and scale measurement development as well as the pretesting of questionnaires (Hair et al., 2013; Sekoguchi et al., 2022). On the other hand, using convenient sampling to evolve scales and structures can be risky. Data produced from convenience sampling is regarded as data which is not generalisable to the defined target population. The sample's representativeness cannot be assessed because sampling error estimates cannot be calculated (Mcgivern, 2013 Hair et al., 2013; Rokonuzzaman et al., 2021).

In the pilot study of this research, the data were gathered from a sample of 110 participants living in Thailand. Table 4.3 shows that the overall sample was widely distributed to Thai consumers residing in Thailand.

After the pilot study in this research was performed, the researcher analysed the respondents' background information. In total, One hundred ten questionnaires were distributed to consumers who were living in Thailand. Table 4.9 summarises the personal information of the respondents. The pilot study sample size was 110 respondents (N=110) surveyed; moreover, the response rate was 100 per cent.

The results from the gender section indicated that just over half of the sample (63.6%, or 70 respondents) were female, while the remaining 36.4%, or 40 respondents, were males. The ages of the respondents were from under 18 to above 60 years old. When the respondents were categorised, it was found that those aged from 41 to 50 years old comprised the largest group (39.1%, or 43 respondents). The next largest group comprised those aged 31 to 40 years old (22.7 %, or 25 respondents), followed by those aged 51 to 60 years old, (15.5%, or 17 respondents), 18 to 30 years old (11.8%, or 13

respondents), and above 60 years old (6.4%, or seven respondents), respectively. The smallest group comprised those under 18 years old (4.5%, or five respondents).

The education level of the respondents could be categorised into six categories. The majority of respondents were educated and were in the categories of undergraduate (50% or 55 espondents), postgraduate or above (40% or 44 respondents), senior high school (3.6% or 4 respondents), and vocational Certificate (Voc. Cert.) (2.7% or 3 respondents). These groups of respondents were followed by the group of middle school graduates (2.7%, or three respondents), and the smallest group of respondents, which comprised primary school graduates (0.9%, or one respondent). The pilot study sample had a rich mix of distinct education levels, ranging from primary school to postgraduate or above.

In terms of occupation, the largest proportion of the respondents (24.5%, or 27 respondents) selected 'other' occupation (their job did not appear in the list), followed by office/clerical staff (16.4%, or 18 respondents, civil servant (12.7%, or 14 respondents), top executive or manager (11.8%, or 13 respondents), owner of a business (10.9%, or 12 respondents), retired (8.2%, or nine respondents), student (6.4%, or seven respondents), housewife (5.5%, or six respondents), lawyer, dentist or architect (2.7%, or three respondents) and worker (0.9%, or one respondent), respectively.

**Table 4.3: Frequency Tables of Research Participants Demographic** 

	N	Percentage
Gender		
Male	40	63.6
Female	70	36.4
Demographic characteristics		
The participant	110	100%
Age of participant		
under 18	5	4.5%
18 to 30 years old	13	11.8%
31 to 40 years old	25	22.7 %
41to 50 years old	43	39.1%
51 to 60 years old	17	15.5%
above 60 years old	7	6.4%
The education level of the respondents		
Primary school	1	0.9%
Middle primary school	3	2.7%
Senior High School	4	3.6%
Vocational Certificate (Voc. Cert.)	3	2.7%
Undergraduate	55	50%
Postgraduate or above	44	40%
Occupation		

Top executive or manager	13	11.8%
Owner of a business	12	10.9%
Lawyer, dentist or architect	3	2.7%
Office/clerical staffs	18	16.4%
Worker	1	0.9%
Civil servant	14	12.7%
Student	7	6.4%
House wife	6	5.5%
Retired	9	8.2%
Other	27	24.5%

# 4.6 Data Profile and Exploratory Factor Analysis

To further purify the measurement instrument, the researcher used reliability analysis and exploratory factor analysis (EFA) (Table 4.4). Factor analysis can reduce the set of observed variables to a smaller set. Therefore, it provides evidence of construct validity (Malhotra and Nunan and Birks, 2012 and Hinkin, 1998; Mano et al., 2023). The following part provides the details of the item purification process and pilot study, which were performed along the lines of the procedures of Churchill's (1979) and DePaula et al., (2022) procedure for developing measurement instruments.

**Table 4.4 Reliability test results** 

Construct	Cronbach's	Item	Scale mean	Scale	Corrected	Cronbach's
	alpha		if item	variance if	item-total	alpha if item
			deleted	item	correlation	deleted
				deleted		
Emotional appeal	0.888	Emotional appeal 1	10.99	10.963	0.791	0.837
		Emotional appeal 2	10.80	13.354	0.783	0.845
		Emotional appeal 3	10.79	12.075	0.783	0.838
Informativeness	0.935	Informativeness	10.83	6.907	0.870	0.902
		4				
		Informativeness	11.12	7.177	0.847	0.919
		5				
		Informativeness	10.83	7.325	0.880	0.895
		6				
Advertising	0.930	Advertising	14.14	16.482	0.878	0.895
creativity		creativity 7				
		Advertising creativity 8	14.56	16.267	0.879	0.894
		Advertising creativity 9	14.16	17.137	0.850	0.905
		Advertising	14.79	17.075	0.744	0.940

		creativity 10				
Product knowledge	0.920	Product knowledge 1	18.54	28.893	0.752	0.911
		Product knowledge 2	18.54	27.957	0.804	0.900
		Product knowledge 3	18.33	27.433	0.869	0.887
		Product knowledge 4	17.88	30.747	0.815	0.901
		Product knowledge 5	18.46	29.132	0.748	0.911
Attitude	0.909	Attitude 1	31.61	47.341	0.756	0.892
		Attitude 2	31.41	48.317	0.787	0.889
		Attitude 3	31.58	48.099	0.785	0.889
		Attitude 4	32.45	46.029	0.743	0.894
		Attitude 5	31.96	46.531	0.822	0.884
		Attitude 6	31.25	52.040	0.601	0.907
		Attitude 7	32.40	48.224	0.616	0.909
Subjective Norm	0.869	Subjective Norm 1	15.34	12.519	0.673	0.851
		Subjective Norm 2	14.84	12.634	0.685	0.847
		Subjective Norm 3	15.05	10.814	0.799	0.799
		Subjective Norm 4	15.38	11.853	0.732	0.828
Perceived Behavioural Control	0.925	Perceived Behavioural Control 1	24.88	35.867	0.707	0.922
		Perceived Behavioural Control 2	25.14	35.935	0.738	0.917
		Perceived Behavioural Control 3	25.58	35.512	0.808	0.908
		Perceived Behavioural Control 4	25.75	35.788	0.775	0.912
		Perceived Behavioural Control 5	25.70	34.542	0.793	0.910
		Perceived Behavioural Control 6	25.32	34.182	0.887	0.897
Intention to purchase	0.938	Intention to purchase 1	15.15	13.832	0.812	0.931
paremor		Intention to purchase 2	14.60	13.325	0.879	0.910
		Intention to purchase 3	15.02	13.449	0.881	0.909
		Intention to purchase 4	14.80	13.666	0.837	0.923
Actual Purchase Behavior	0.941	Actual Purchase Behavior 1	23.70	48.928	0.886	0.923
		Actual Purchase Behavior 2	23.85	48.480	0.877	0.924

Actual	23.41	47.235	0.900	0.921
Purchase				
Behavior 3				
Actual	23.86	51.642	0.659	0.951
Purchase				
Behavior 4				
Actual	22.93	48.894	0.824	0.930
Purchase				
Behavior 5				
Actual	22.98	50.128	0.808	0.932
Purchase				
Behavior 6				

Reliability analysis shows the correctness of a measurement instrument. In addition, it is regarded as an essential condition of validity (Hinkin, 1998; Naresh and David and Peter, 2012; Narsis, 2022). Malhotra (2020) and Anuar, Muhammad, and Awang, 2023) found that reliability cites the extent to which a scale generates consistent results, even if repeated measurements are carried out. Reliability can be calculated by several approaches, such as test-retest reliability or the commonly used Cronbach's alpha to measure internal consistency, or reliability (Naresh and David and Peter, 2012; Crick, 2023). In contrast to Cronbach's alpha, test-retest reliability has played a lesser role in contemporary research because of the "superficiality" or "sparseness" of test-retest reliability studies. The internal consistency, or reliability, which means the coherence of the scale components, is not based on the concept of test-retest reliability and is the most frequently used approach due to the convenience of Cronbach's alpha (Bradley, 2013; Graciano et al., 2022). Cronbach's alpha is the average of all possible split-half coefficients resulting from different methods of splitting the scale items (Hair et al., 2013; Attia et al., 2022) whenever a multi-item scale is handled. On the other hand, this does not mean it is merely a sufficient condition for validity (Bradley, 2013; Hinkin, 1998; Sakharkar & Ansari, 2022).

Cronbach's alpha can be calculated for each scale item in the construct. If the alpha value is higher than .70, the construct has a strong item covariance (Wilson, 2012; Jayshree & Bhowmick, 2022). Alpha values greater than .70 also indicate that the research sufficiently captured the sampling domain (Malhotra, 2020) and Carvache-Franco et al., (2022). In line with Wilson (2012), Cronbach's alpha statistics can be easily impacted by the number of items in a construct. It can be high even if there are low item intercorrelations and multidimensionality.

Thus, it can be disputed that an alpha value of .70 ought to be a minimum for newly developed measurement instruments (Hinkin, 1998; Kanabkaew & Monpanthong,

2022). A critical property of Cronbach's alpha is that its value will likely rise with the number of scale items (Malhotra, 2020; Sezgin, 2022). As defined by Hair et al. (2006) and Wilson (2012), and Nguyen (2022), the cut-off criteria for the EFA are item-total correlation values above .35, and Cronbach's alpha values of .70 or higher, which indicate the items can be reliable, even though a value of .50 shows a high correlation of the items selected. On the other hand, a Cronbach's alpha of 0.5 or 0.6 is satisfactory in the first stage of research (Bradley, 2013). In the next subsection, the reliability statistics of all constructs in the study are presented.

**Emotional appeal (EMO):** The study found that the value of Cronbach's alpha ( $\alpha$ ) of emotional appeal (EMO) was 0.888, which is higher than the minimum threshold of ( $\alpha$  > 0.60), as explained by Billingham et al. (2013) and Mohammed and Refae, (2022). Furthermore, the item-to-correlation values were higher than 0.35 or the acceptability level (0.783 to 0.791). Thus, the values indicate the internal consistency of the emotional appeal (EMO).

**Informativeness** (**INFO**): The Cronbach's alpha ( $\alpha$ ) value of informativeness (INFO) was found to be 0.935, which is higher than the minimum threshold of ( $\alpha > 0.60$ ) as explained by Billingham et al. (2013) and Mohammed and Refae (2022). Also, the item-to-total-correlation values of informativeness (INFO) (ranging from 0.847 to 0.880) were higher than 0.35. Thus, the values can indicate the internal consistency of the informativeness (INFO).

Advertising creativity (CREA): The study found that the value of Cronbach's alpha ( $\alpha$ ) value of advertising creativity (CREA) was 0.930, which is higher than the minimum threshold of ( $\alpha > 0.60$ ), as explained by Billingham et al. (2013) and Mohammed and Refae, (2022). Furthermore, the item-to-correlation values (0.850 to 0.879) were higher than 0.35, or the acceptability level. Thus, the values indicate the internal consistency advertising creativity (CREA).

**Product knowledge (PK):** For this variable, the Cronbach's alpha ( $\alpha$ ) value was 0.920, which is higher than the minimum threshold of  $\alpha > 0.60$ , as explained by Billingham et al. (2013) and Mohammed and Refae (2022), while the item to total-correlation values (0.752 to 0.869) were found above 0.35. Thus, the results can indicate the internal consistency of the construct.

**Attitude** (Att): The Cronbach's alpha ( $\alpha$ ) value of attitude (Att) was found to be 0.919, which is higher than the minimum threshold of  $\alpha > 0.60$ , as explained by Billingham et

al. (2013) and Mohammed and Refae (2022). Also, the item-to-total-correlation values of attitude (Att) (0.73 to 0.822) were greater than 0.35. Thus, the values indicate the internal consistency of the attitude (Att).

**Subjective Norm** (SN): The study found that the Cronbach's alpha ( $\alpha$ ) value of subjective norms (SN) was 0.926, which is higher than the minimum threshold of  $\alpha$  > 0.60, as explained by Billingham et al. (2013) and Mohammed and Refae (2022). Furthermore, the item-to-total-correlation values (0.673 to 0.779) were higher than 0.35. Therefore, the results reveal the internal consistency of the construct.

**Perceived Behavioural Control (PBC):** The Cronbach's alpha ( $\alpha$ ) value of perceived behavioural control (PBC) was found to be 0.925, which is greater than the minimum threshold of  $\alpha > 0.60$ , as explained by Billingham et al. (2013) and Mohammed and Refae (2022). In addition, the item-to-total-correlation values of perceived behavioural control (PBC) (0.707 to 0.738) were above 0.35. These results indicate the internal consistency of the construct.

Intention to purchase (IP): The study found that the Cronbach's alpha ( $\alpha$ ) value of intention to purchase (IP) was 0.938, which is higher than the minimum threshold of  $\alpha$  > 0.60, as explained by Billingham et al. (2013) and Mohammed and Refae (2022). The item-to-total-correlation values (0.812 to 0.881) were greater than 0.35, or the acceptability level. Therefore, the values indicate the internal consistency of the intention to purchase (IP) construct.

Actual purchase behaviour (APB): The Cronbach's alpha ( $\alpha$ ) value of actual purchase behaviour (APB) was 0.941, which is higher than the minimum threshold of  $\alpha > 0.60$ , and the item-to-total-correlation values (0.659 to 0.900) were higher than 0.35, indicating the internal consistency of actual purchase behaviour (Billingham et al., 2013; Mohammed and Refae, 2022).

# **4.7 Exploratory Factor Analysis (EFA)**

After the reliability scale assessment was carried out, the researcher performed the exploratory factor analysis (EFA) to investigate the factorial structure of the scales. Exploratory Factor Analysis (EFA) is considered a suitable tool without theory regarding the examined constructs or when new scales are being evolved (Rusuli et al., 2013; Gatignon, 2010; Shanmugam and Chandran, 2022). In addition, it is a multivariate statistical method, which can be a fundamental device in validating and

developing psychological theories and measurements (Watkins, 2018; Sit and Ballantyne and Gorst, 2022).

When the exploratory factor analysis (EFA) is performed, the objective is to: (i) understand and accomplish construct validity and (ii) to make sure that only variables with high factor loadings can be maintained (Gatignon, 2010 and Rusuli et al., 2013; Ehido et al., 2022).

In line with Hinkin (1998), and Nurnadia, Amin, and Ismail (2022), the number of factors to be maintained depends on the quantitative results and theory. Thus, sampling adequacy tests were assessed in this stage, employing EFA to ensure that the variables are adequately intercorrelated to generate representative factors (Rusuli et al., 2013; Wei & Kim, 2022). SPSS version 27 was used to carry out the EFA.

Kaiser-Meyer-Olkin investigates the sample adequacy. This is where the factorability of the correlation matrix can be tested if Bartlett's test of sphericity is statistically significant, having a p-value less than 5%, and the values ought to be more minimum of 0.50 (Hair et al., 2006; Rusuli et al., 2013). However, values smaller than 0.5 are generally unacceptable (Watkins, 2018; Hooper, 2012; Chib, 2022).

In addition, the correlations ought to be a manageable height (over 0.90) or below 0.30 (Field, 2009; Hair et al., 2010; Mitra et al., 2022). If correlations are not higher than 0.3, it may display factor analysis is inappropriate (Hooper, 2012; Mano et al., 2023). Acceptable values can be from 0.30 to 0.80 (Hair et al., 2010; Field, 2009; Narsis, 2022) to maintain as much variability as possible and gain the minimum number of factors. Thus, principal component analysis is needed (Jolliffe & Cadima, 2016; Anuar et al., 2023). These need strong theoretical justifications for imposing the number of factors to be maintained (Hinkin, 1998; Narsis, 2022). Therefore, in line with the Kaiser criterion, eigenvalues of more than one and a scree test of the percentage of variance (Hooper, 2012; Anuar et al., 2023) should be used to attain the criteria of the theoretical distinctions.

Both Kaiser and scree criteria indicate that the number of factors should equal the number of scales being evolved (Watkins, 2018; Hinkin, 1998; Crick, 2023). Thus it displays that the items have been carefully evolved. Subsequently, the researcher evaluates percentages of variance extracted, item loadings, etc. In the next section, the researcher summarises the scale purification process in which each construct is described.

Table 4.5 The results based on the item purification process

Construct	Remaine	Mea	Standard	Reliability to	est	EFA	
	d Items	n	Deviatio n	Corrected Item-Total Correlatio n	Cronbach' s Alpha () if Item Delected	Factor Loadin g	Measure of sampling adequac y
Emotional	EMO1	5.30	2.043	.791	.837	.826	.750
appeal (EMO)	EMO2	5.49	1.685	.783	.845	.818	
	EMO3	5.50	1.881	.783	.838	.818	
Informativenes	INFO4	5.59	1.403	.870	.902	.883	.764
s (INFO)	INFO5	5.30	1.378	.847	.919	.861	
	INFO6	5.59	1.308	.880	.895	.892	
Advertising	CREA7	5.11	1.442	.878	.895	.873	.832
creativity	CREA8	4.68	1.477	.879	.894	.873	
(CREA)	CREA9	5.08	1.389	.850	.905	.843	]
	CREA10	4.45	1.548	.744	.940	.709	
Product	PK1	4.40	1.581	.752	.911	.837	.799
Knowledge	PK2	4.40	1.604	.804	.900	.875	
( <b>PK</b> )	PK3	4.61	1.569	.869	.887	.925	
	PK4	5.05	1.298	.815	.901	.887	
	PK5	4.47	1.560	.748	.911	.842	
Attitude (ATT)	ATT1	5.50	1.445	.756	.892	.836	.842
	ATT2	5.70	1.317	.787	.889	.865	
	ATT3	5.53	1.339	.785	.889	.859	
	ATT4	4.66	1.581	.743	.894	.810	
	ATT5	5.15	1.420	.822	.884	.876	
	ATT6	5.86	1.252	.601	.907	.700	1
	ATT7	4.71	1.599	.616	.909	.701	1
Subjective	SN1	4.86	1.296	.673	.851	.813	.745
norm (SN)	SN2	5.36	1.261	.685	.847	.821	1
	SN3	5.15	1.428	.799	.799	.898	1
	SN4	4.82	1.335	.732	.828	.854	1
Perceived	PBC1	5.59	1.435	.707	.922	.793	.872
behavioral	PBC2	5.34	1.383	.738	.917	.816	1
control (PBC)	PBC3	4.89	1.330	.807	.908	.871	1
	PBC4	4.73	1.347	.775	.912	.849	1
	PBC5	4.77	1.444	.793	.910	.865	1
	PBC6	5.15	1.356	.887	.897	.927	1
Intention to	IP1	4.71	1.330	.812	.931	.893	.835
purchase (IP)	IP2	5.25	1.330	.879	.910	.934	1

	IP3	4.84	1.310	.881	.909	.936	
	IP4	5.05	1.326	.837	.923	.909	
Actual	APB1	4.45	1.518	.886	.923	.928	.870
purchase	APB2	4.30	1.565	.877	.924	.922	
behaviour	APB3	4.74	1.629	.900	.921	.936	
(APB)	APB4	4.28	1.654	.659	.951	.745	
	APB5	5.22	1.611	.824	.930	.881	
	APB6	5.16	1.536	.808	.932	.871	

Emotional appeal (EMO): For Emotional appeal (EMO, the results have displayed that the Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy was higher than the minimum threshold of 0.50 (Naresh and David and Peter, 2012; Graciano et al., 2022). Following Hair et al. (2006), Malhotra and Nunan and Birks (2012), Bradley (2013) and Sakharkar and Ansari (2022), the Measure of Sampling Adequacy must exceed 0.50. The result of 0.750 reveals a good partial correlation in the data. The p-values for Bartlett's test of Sphericity result were 0.000, which can mean very important. The small value reveals that there is enough correlation between variables, as stated by Hair et al. (2006) and Malhotra and Nunan and Birks (2012) and Jayshree and Bhowmick (2022).

For the correlation matrix, it was found that the values were within the acceptable correlation range (Kent, 2007). In addition, all items have a loading value of more than 0.50, as shown in Table 4.5. Hair et al. (2006) and Malhotra and Nunan, Birks (2012) and Attia et al. (2022) state that each variable has to have a value of 0.5 and above. Therefore, these results reveal that they are highly interrelated, generally in line with the abovementioned theory. The reliability test results displayed that the corrected item-to-total correlation statistics of the items were above the minimum acceptable criteria of 0.35. In addition to this, the value of alpha ( $\alpha$ ) of the (EMO) is higher than the threshold level ( $\alpha$  =0.888). On the other hand, the researcher did not find that the item-total correlation was less than 0.50 (as presented in Table 4.8). These statistics indicated that the measurement scales of the Emotional appeal (EMO) were consistent with each other.

**Informativeness** (**INFO**): The results for attitudes have revealed that the KMO measure of sampling adequacy was more than the acceptability level (0.764), whereas Bartlett's test of Sphericity was 0.000, which can be very significant and reveals sufficient correlations among variables (Hair et al. 2006; Malhotra and Nunan and

Birks, 2012; Carvache-Franco et al., 2022). The factor loadings for all the items were above 0.50. Finally, Cronbach's alpha and the corrected item-to-total correlation of each item were higher than an acceptable level of 0.60 (Wilson, 2012; Kanabkaew and Monpanthong, 2022) and 0.35, revealing the internal consistency of the items. In addition, Cronbach's alpha ( $\alpha$ ) of the INFO was higher than the acceptable level ( $\alpha$  = 0.935). Therefore, these results revealed that the measurement scales of the Informativeness (INFO) construct were consistent.

Advertising creativity (CREA): The results for Advertising creativity (CREA) were higher in the level of acceptability (0.50) for the KMO measure of sampling adequacy (0.832), though as not as high as the other constructs' values. Bartlett's test of Sphericity was p>0.000, meaning very important. Furthermore, all the Advertising creativity (CREA) items loaded clearly to one factor with an acceptable level (above 0.50). Finally, Cronbach's alpha ( $\alpha$ ) (0.930) and the corrected item-to-total correlation values exceeded the acceptability level indicating the internal consistency of the items in each factor (Attia et al., 2022; Sezgin, 2022).

**Product Knowledge (PK)**: The KMO measures of sampling adequacy for product knowledge were higher than the minimum threshold (0.50) (Naresh, David, and Peter, 2012). The result of 0.799 reveals a good partial correlation exhibited in the data, and the p-values for Bartlett's test of Sphericity result were 0.000, which means it is very important. The items of the Product Knowledge (PK) construct loaded clearly to one factor, in line with theoretical justification, with an acceptable level (above 0.50). In addition, the Cronbach's alpha ( $\alpha$ ) of the construct was 0.920, above an acceptable level of 0.60 (Wilson, 2012; Nguyen, 2022), and the corrected item-to-total correlation of each item was above the acceptable level of 0.35, identifying the internal consistency of the items in each factor. Therefore, these results reveal that they are highly interrelated, generally in line with the abovementioned theory. The reliability test results displayed that the corrected item-to-total correlation statistics of the items were above the minimum acceptable criteria of 0.35 (Kent, 2007; Hair et al., 2010; Mohammed and Refae, 2022).

**Attitude** (**ATT**): The results for perspectives have revealed that the KMO measure of sampling adequacy was more than the acceptability level (0.842), whereas Bartlett's test of Sphericity was 0.000, which can be very significant and reveals sufficient correlations among variables (Hair et al. 2006; Malhotra and Nunan and Birks, 2012; Shanmugam and Chandran, 2022). Furthermore, the factor loadings for all the items

were above 0.50. Finally, Cronbach's alpha and the corrected item-to-total correlation of each item were higher than an acceptable level of 0.60 (Wilson, 2012; Sit and Ballantyne and Gorst, 2022) and 0.35, revealing the internal consistency of the items. In addition, Cronbach's alpha ( $\alpha$ ) of the ATT was higher than the acceptable level ( $\alpha$  = 0.909). Therefore, these results revealed consistent Attitude (ATT) construct measurement scales.

Subjective norm (SN): In the same way, as with the previous constructs, the KMO measure of sampling adequacy was higher than the acceptability level (0.745), whereas Bartlett's test of Sphericity was 0.000, which can be very important and means there are sufficient correlations among variables (Hair et al., 2006; Malhotra and Nunan and Birks, 2012; Ehido et al., 2022). Moreover, the factor loadings for all the items were more than 0.50. The reliability test results showed that the corrected item-to-total correlation statistics of the remaining items exceeded the threshold of 0.35. In addition to this, Cronbach's alpha ( $\alpha$ ) of the Subjective norm (SN) was higher than the acceptable level ( $\alpha$  =0.869). Therefore, these results revealed that the Subjective norm (SN) construct's measurement scales were consistent.

**Perceived behavioural control (PBC)**: The results for Perceived behavioural control (PBC) were higher in the level of acceptability (0.50) for the KMO measure of sampling adequacy (0.872), though as not as high as the other constructs' values. Bartlett's test of Sphericity was p>0.000, meaning very important. All the items of the Perceived behavioural control (PBC) construct loaded clearly to one factor with an acceptable level (above 0.50). Finally, Cronbach's alpha  $(\alpha)$  and the corrected item-to-total-correlation values were more significant than the acceptability level. Therefore, indicating the internal consistency of the items in each factor (Wilson, 2012; Nguyen, 2022).

Intention to purchase (IP): The results for Intention to purchase have revealed that the KMO measure of sampling adequacy was 0.835 above the acceptability level, whereas Bartlett's test of Sphericity was 0.000, which can be very important and reveals sufficient correlations among variables (Hair et al. 2006; Malhotra and Nunan and Birks, 2012; Attia et al., 2022). The factor loadings for all the items were above 0.50. Finally, Cronbach's alpha and the corrected item-to-total correlation of each item were higher than an acceptable level of 0.60 (Nunnally, 1978; Sit and Ballantyne and Gorst, 2022) and 0.35, revealing the internal consistency of the items.

Actual purchase behaviour (APB): The results for Actual purchase behaviour (APB) were higher in the level of acceptability (0.50) for the KMO measure of sampling adequacy (0.870), though as not as high as the other constructs' values. Bartlett's test of Sphericity was p>0.000, meaning very significant. All the items of the Actual purchase behaviour (APB) construct loaded clearly to one factor with an acceptable level (above 0.50). Finally, Cronbach's alpha  $(\alpha)$  and the corrected item-to-total-correlation values were greater than the acceptability level, indicating the internal consistency of the items in each factor (Ehido et al., 2022; Sit and Ballantyne and Gorst, 2022).

When the analyses were completed, the results of the item purification process (see Table 5.6), through the use of exploratory factor analysis (EFA), revealed that KMO measures of sampling adequacy are within the required range and suitable for factor analysis (Hair et al., 2006; Ehido et al., 2022). The highest KMO value is 0.912 (Emotional appeal (EMO), Informativeness (INFO) and Advertising creativity (CREA)), whereas the lowest KMO value is 0.745 (Subjective norm (SN)).

Thus, all factors are included in the primary analysis. Furthermore, the p-values for Bartlett's tests of Sphericity revealed good results with less than 0.05, thus indicating significant relationships among variables (Hair et al., 2006; Malhotra and Nunan and Birks, (2012) and Bradley, (2013) and Nurnadia and Amin and Ismail, (2022). Finally, the value of loadings for all indicators is above 0.50 (good level), therefore ensuring that only variables with high factor loadings are retained in line with Malhotra and Nunan and Birks (2012) and Wei and Kim (2022).

# 4.8 Where did you distribute the survey questionnaire

The researcher used Google Forms (An online survey system for data collection) to create an online questionnaire. In addition, the questionnaire link was distributed through email, group emails and social media tools like Facebook messenger and Line application from 19 to 23 September 2021. The questionnaire was distributed via email, group emails and social media tools because the researcher wanted to ensure that the participants could access the survey form (Alahmar, 2016; Carfora and Bertolotti and Catellani, 2019). In addition, the researcher could assure the participants of the data privacy and confidentiality of the information they could provide for the study (Albino and Albino, 2021; Carfora and Bertolotti and Catellani, 2019).

# 4.9 The period of the pilot study

From September 19, 2021, through September 23, 2021. The pilot study was performed in Thailand and was selected to distribute the questionnaire to 110 Thai customers to ensure respondents understood the questionnaires. Most samples are convenience samples, i.e. Thai customers were approached randomly. After several questions were modified for reliability in the assessment, the final survey instrument consisted of 35 items (Bonett and Wright, 2015; Hanmontree andPrinyawiwatkul and Sae-Eaw, 2022) though there's no way of telling if those included can be representative of the overall population. Nevertheless, the researcher is still expected to provide a first overview of related issues and obtain insight into the knowledge of organic food by Thai consumers (Mohamad and Rusdi and Hashim, 2014; Kmetty and Stefkovics, 2022)).

## 4.10 Response rate

A pilot study was carried out on 110 respondents to ensure respondents' comprehension of the questionnaires. The pilot study population is Thai consumers who are living in Thailand. They are Thai consumers who purchase food products at supermarkets, hypermarkets or speciality retail outlets selling food products in Thailand (Lian, 2017; Farewell et al., 2020).

For this reason, all Thai consumers were aged from between 18 to above 60 years old. Therefore, they had a greater ability to compare and assess the available choices and make a selection. In addition, the researcher distributed the questionnaire via email, group emails and social media tools. These are highly accurate and allow participants enough time to consider before completing the questionnaire. Particularly, these tools can reduce the non-response rate. The reason why the researcher used the online survey is that this research covered a wide geographical area. Therefore, it allows the researcher to save money and reach a maximum number of respondents across Thailand. Thus, the researcher conducted the pilot study on 110 Thai consumers (Paul, Modi, and Patel, 2016; LiuHui, 2023).

This method could help the researcher to obtain insights into the association of the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity), product knowledge, gender, attitude, subjective norms, perceived behavioural control and intention to purchase organic food in Thailand

(Kothe & Mullan & Amaratunga, 2011; Shafiea & Rennieb, 2012; Uloza and Ulozaite-Staniene and Petrauskas, 2023).

To identify the response rate for the pilot study, the researcher sent the message and online questionnaire to this study's researchers' social media members (Thais only) or email members (Thais only) who forwarded the online questionnaire to their peers (Thais only). The participants were contacted by email or message (through Facebook messenger and Line application) to be invited to fill out the online questionnaire. They contained a link to the online questionnaire. Survey invitations were sent to 110 respondents, guaranteeing individual participant data would be kept confidential during the study. The survey invitations also inform them that data will be anonymised so that no individual can be identified.

Overall, 110 usable responses were obtained, yielding a 100% response rate which is in line with most online survey response rates (e.g. Deutskens et al., (2004) and Alessandri-Bonetti et al., (2023). Most respondents (72.73% or 80 respondents) returned the online questionnaire within 1 day of receipt. In addition, 15 respondents followed this or 13.64 %, returned the online questionnaire within 3 days of receipt; 10 respondents, or 9.09%, returned the online questionnaire within 2 days of receipt; 4 respondents or 3.63 %, returned the online questionnaire within 4 days of receipt, 1 respondent or 0.91% returned the online questionnaire within 5 days of receipt, respectively, (as presented in Table 4.6).

**Table 4.6: Frequency Tables of Response rate** 

	N	Percentage
Response rate		
The participant	110	100%
Returned the online questionnaire within		
1 day	80	72.73%
2 day	10	9.09%
3 day	15	13.64%
4 day	4	3.63%
5 day	1	0.91%

### 4.11 Main Study Approach

After the researcher developed the questionnaire for the main study, the survey was carried out. As a result, the data gathered from the main study was used to evaluate the statistics for the reliability and validity of the constructs understudy and test the hypotheses. This section also describes the data gathered, sampling procedure, and data analysis presented for the study.

# 4.12 Sampling Procedure and Data Collection

When it comes to data gathering, one of the key questions is whether to take a census or a sample. Sometimes, if a population is smaller, researchers do not have time or money constraints. The census can also be an option (Saunders et al., 2011; DePaula et al., 2022). However, due to time and money constraints, sampling is most likely to be a feasible option. Following Saunders et al. (2011) and Benutić et al. (2022), sampling is preferred over a census. This is because a researcher is challenged to survey the whole population due to studying the entire population might take longer and be more expensive.

When a researcher decides to use sampling, determination of the sampling technique and the sample size is necessary. This is because the sampling frame could not be available for the whole Thai population, and using probability sampling was impossible. Therefore, the study needed to use a sample of Thai retail consumers using snowball sampling, a non-probability-based sampling technique.

The researcher regards all Thai consumers as the sample population for the main study. In accordance with census data, Thailand has a population slightly higher than 60 million. Therefore, a sample of 900 Thai customers was drawn to perform the study. However, it is critical to determine whether this sample size is enough for this type of study. There are many methods to determine the correct sample size.

In collecting data, the researcher used Google Forms (An online survey system for data collection) to create an online questionnaire. In addition, the questionnaire link was distributed through email, group emails and social media tools like Facebook messenger and Line application. The respondents were asked to forward the link to their friends, and 900 responses were created. Some answers were not complete. After the data was cleaned, 900 responses were usable for further analysis.

# 4.13 Appropriate number of participants

Selecting the correct number of participants for a survey may be difficult, tricky and time-consuming. The primary technique should be based on the cost, data analysis techniques and time (Hair et al., 2006; Bryman, 2007; Zeng et al., 2022). Bryman (2007) and Borchers et al. (2022) proposed that sampling ought to be based on five key points as follows:

- (i) Size is one of the most basic considerations because the national probability sample size of 1000 people would have higher accuracy. However, the researchers must also decide how much sampling error they can ignore because the sampling error reduces as the sample size increases.
- (ii) Time and cost which tend to have a profound impact on the considerations of sampling size due to striving for smaller and smaller increments of precision can become an increasingly uneconomic subject.
- (iii) non-response which most sample survey experience, making it more likely that this will influence some of the samples selected for the study;
- (iv) population heterogeneity which influences the size of the sample. If the heterogeneity of the population is significant, it will be preferred to use a larger sample; and
- (v) kind of research if the topic of research is broad, the researcher ought to use a larger sample size than when the topic is narrow.

Roscoe (1975) and Bryman (2007), and Sasso et al. (2021) also provided simple rules of thumb for choosing an appropriate sample size. The simple rules of thumb are based on analysing acceptable confidence levels in behavioural research studies (Foroudi, 2012; Ciocodeică et al., 2022). Roscoe (1975) and Petrontino et al. (2022) which outlined four general points that need to be considered when the researcher selects a sample size as follows;

- (i) that sample size must be between 30 and 500, appropriate for most research studies.
- (ii) if the data comes from more than one group (such as each segment of gender or prior knowledge), it needs to have more than five respondents for each group;
- (iii) if the researcher uses multivariate analysis, the size of the sample ought to be ten times higher than the number of variables; and

(iv) if the researcher would like to make a simple experiment, the size of the sample ought to be between 10 and 20 respondents.

In the same way, Comrey and Lee (1992) and Sharma (2022) suggested that the sample size of 50 was very poor, 100 was poor, 200-299 was fair, 300-499 was good, more than 500 was very good, and nearby or above 1,000 was excellent.

Hair et al. (2006) and Comrey and Lee (1992), and Tzempelikos (2022) also suggested five points that may impact the sample size in SEM to produce reliable estimates. These five points are:

- (i) If there is non-normal data, the respondents' ratio to individual parameters should be high.
- (ii) If the researcher uses the maximum likelihood or SEM methods, the sample size ought to be 150-400 respondents;
- (iii) It depends on the complexity of the model. If the structural equation model (SEM) contains five or fewer constructs, the sample size should be 100-150. If each construct contains more than three items, the item communalities must be higher (higher than 0.6). It leads to the sample size ought to exceed 200. Finally, if the structural equation model (SEM) contains more than six constructs in the model, each construct is evaluated by more than three items and has low communalities. Therefore, the sample size ought to be more than 500:
- (iv) If it is anticipated that more than 10 per cent of the data will be missing, the sample size should be increased; and
- (v) When the sample size is less than 0.5, sample sizes will be larger.

These discussions indicate that previous researchers had not provided any fixed sample size. However, assumptions still advised the researcher in this study to choose a sample size of more than 550 (Zeng et al., 2022; Pearson et al., 2020). These assumptions were: Firstly: using structural equation 245 modelling. Secondly, five constructs were used in the study. Thirdly, each construct contains more than five items. Fourth, the communalities items were modest (for example, greater than 0.50). Fifth, there were multiple data groups (such as three moderators). Finally, according to the pilot study results, it was anticipated that more than 10 per cent of the data might be missing (Farewell et al., 2020; Ehido et al., 2022).

Due to these reasons, the researcher should use a sample size greater than 550. Therefore, based on the recommendations, a sample size of 900 respondents was used in this study. Also, 900 cases were used for analytical purposes.

## **4.14 Data Analysis Techniques**

The data received from the survey was analyzed using three methods. Firstly, exploratory factor analysis (EFA) was used. Secondly, the researcher used confirmatory factor analysis (CFA), and finally, structural equation modelling (SEM) was used. The use of each of these analysis techniques in this study is described in the following paragraphs.

### **4.14.1** Exploratory factor analysis (EFA)

The reason why the researcher uses exploratory factor analysis is to investigate the structure of the construct. This analysis technique can identify suitable items to assess the construct. It is regarded as a data-driven approach. It can be one of the most important and useful methods for reducing the number of variables in a less controllable set (Anderson and Gerbing, 1988; Hair et al., 1998; Nurnadia and Amin and Ismail, 2022). It can help find independent factors, enabling specific data structures to be understood (Hair et al., 1998; Foroudi, 2012; Sasso et al., 2021). It also helps to investigate the data and present the best possible factors to display it properly.

In this study, EFA was carried out in the principal survey to decrease the items and determine patterns in the data (De Vaus, 2002; Tzempelikos, 2022). In addition, EFA also investigated the factor structure of each variable in the conceptual model and proposed dimensions linked to the constructs (Churchill, 1979; Petrontino et al., 2022).

Eigenvalues, orthogonal (varimax) rotation method, and principal component analysis were used for the factor analysis. The principal component analysis (PCA) was applied to factor extraction and to anticipate the minimum number of factors to describe the maximum amount of variance (Narsis, 2022; Tzempelikos, 2022). The researcher uses the orthogonal rotation because the researcher regards the orthogonal rotation as appropriate in decreasing the number of the variable to a smaller group of non-correlated variables quality. Finally, eigenvalues, which show the total variance described by each factor (Foroudi, 2012; Sasso et al., 2021), were used to indicate the number of factors to be removed (Hair et al., 1998; Ciocodeică, 2022).

#### **4.14.2** Confirmatory factor analysis (CFA)

The results were found from the EFA. The results could be useful for the development of theory. It leads to a proposed measurement model examined using CFA (Foroudi, 2012; Sovey and Osman and Effendi, 2022). CFA could be performed to validate and verify the measurement characteristics of the existing scale (Hair et al., 1998). The researcher used the measurement model to indicate which variables determined each factor or construct. The researcher also used CFA to examine the hypotheses that the correlations between the observed variables and their underlying constructs existed (Foroudi, 2012; Nikoli, 2022). Also, EFA was used to examine the scale's unidimensionality (Steenkamp et al., 1991; Bajaj and Kaur, 2022).

This sub-section analyses the proposed data that could be used in this study. First, the data analysis is with descriptive statistics because the researcher wants to ensure that the sample is wide enough, has breadth and could be representative. Then, after the descriptive analysis, the researcher used structured equation modelling (SEM) (Sasso et al., 2021; Farooq and Vij, (2022) because the researcher would like to validate the questionnaire, assess the structural model, and test the hypotheses. In addition, CFA could be carried out to test the validity and reliability of the data-gathering instrument because an order measurement model was evolved to test the convergent and discriminant validity of the constructs. Finally, after confirming the model's validity, the researcher used SEM to test the hypotheses. (Petrontino et al., 2022; Fernandes et al., 2022)

In accordance with Bryman and Bell (2015) and Farooq and Vij (2022), the survey might have problems with the reliability and validity of the results. Therefore, it is critical to ensure the validity and reliability of the data.

The reliability cites the extent to which data collection techniques and analysis provide consistent results (Hair et al., 2010; Sahrir and Ponrahono and Sharaai, 2022), and that is why the researcher used Cronbach's alpha to confirm the internal consistency among the scale items assessing EMO, INFO, CREA, PK, Att, SN, PBC, IP and APB. Following Nunnally et al. (1967) and Aouatef and Imene, and Latifa (2023), the lower limit of Cronbach Alpha is 0.7. According to the criteria established by Hair et al. (2010) and Morales-Solana and Cotas and Esteban-Millat, 2020), a scale is regarded reliably if the alpha value is more significant than 0.7. On the other hand, 0.6 in exploratory research may be a reasonable compromise.

From the point of view of measurement, it is critical to ensure the construct's validity. Validity differs from reliability and is broader and more complex. In accordance with Saunders et al. (2011) and Farooq and Vij (2022), validity can mean findings are really about what the researchers seem to be about. It may be said that the researchers are assessing what the researchers intend to assess.

The reason why the researcher used SEM was to test the hypotheses. SEM is "a family of statistical models that seek to explain the relationships among multiple variables" (Hair et al., 2010; Fernandes et al., 2022). SEM is interpreted as a family of statistical models that attempt to describe the relationships among multiple variables" (Hair et al., 2010; Kitjaroenchai and Chaipoopiratana, 2022). Therefore, researchers regard SEM as the most appropriate statistical modelling technique. SEM can help verify the measurement and structural models to examine the hypothesis.

#### 4.15 Ethical Considerations

Ethical concerns that researchers may face. In accordance with Saunders et al. (2011) and Gregg et al. (2021), "ethics cite to the appropriateness of your behaviour, which relates with the rights of those who may become the subject of your work or are impacted by it". Ethics might also be cited as normative standards or behaviour that can guide moral choices to interact with others in society (Illes and Lawson, and McDonald, 2022; Bajaj and Kaur, 2022). Research ethics might associate with issues about how the research topic communicated or defined to stakeholders, particularly respondents, how to reach respondents is gotten, how data is gathered, tabulated or analysed data, and how to write research findings according to a moral and responsible way. According to such guidelines, a researcher must design research ethically and responsibly (Ningxin, 2023; Tzempelikos, 2022).

Ethical Considerations are the researcher's responsibility to ensure that responses can be kept confidential and anonymous. Respondents should voluntarily participate in the study without pressure (Smith et al., 2023; Gregg et al., 2021).

The study was carried out in an online environment with little potential for physical harm. At the beginning of the questionnaire, an introduction of the questionnaire was written. Then, the participants were briefed about the study; informed consent was also asked to participate in the research study. The questionnaire does not contain questions

that require respondents to disclose their identity. Due to no physical contact, the data was gathered anonymously; moreover, the participants' privacy was guaranteed (Illes and Lawson and McDonald, 2022; Ningxin, 2023).

## **4.16 Summary**

The chapter addresses the methodological aspects of the study. This research used positivist philosophy with a deductive method. The study includes an quantitative methodology to develop the questionnaire, followed by a pilot study, the set-up and the results of which were explained. Subsequently, an quantitative survey was presented to examine the hypotheses. In this way, the present study can ensure the post-positivist method in the research design. A pilot study was carried out to improve the methodology and a sample of 110 respondents was drawn. The sample could help the researcher to comprehend the entire process and the constructs.

As for the reasons for using a 7-point Likert scale. Later, the sampling was considered based on the sampling technique and the appropriate sample size. The researcher used the sampling technique to show how the accuracy of the approach was explained by the outcomes of their application. This was followed by an explanation of the data collection technique and an online survey was used, as well as how SEM could be used to analyse the data. Finally, ethical issues associated with the research were explained.

# **CHAPTER V: Data Analysis**

#### 5.1. Introduction

The chapter provides the analysis of the respondent data. The first section covers the descriptive analysis of the demographic variables, the scale items, and tests for normailty. The second and third sections provide the data's reliability and validity. In the fourth section goodness of fit measures is assessed. The fifth section provides measurement of bias. The fifth section describes how the structural model could be run to test the hypotheses. The sixth section describes how mediation analysis could be conducted to determine the mediation effect. The results of hypotheses are summarized in the seventh section. The last section summarizes the chapter.

Therefore, this chapter provided the analysis of the data that related to the research's aim which is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge, attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). This research also investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge. This chapter could provide the data that answers research question, The aim and objective of research could fill gaps that were found in the literature related to several questions, such as "Would the food advertising content (Emotional appeal, Informativeness and Advertising creativity) increase product knowledge of organic food products?", "Is product knowledge positively related to TPB (attitude, subjective norms, and perceived behavioural control)?", "Do attitude, subjective norms, and perceived behavioural control have a positive impact on the intention to purchase?", "Would intention to purchase have a positive impact on actual purchase behaviour?", "Does gender positively moderate the relationships between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge?"

### 5.2 Main Study

### 5.2.1 where did the research distribute the survey questionnaire

The researcher used Google Forms (an online survey system for data collection) to create an online questionnaire. In addition, the questionnaire link was distributed through email, group emails and social media tools like Facebook messenger and Line application from 15 November 2021 to 15 April 2022. The questionnaire was distributed via email, group emails and social media tools because the researcher wanted to ensure that the participants could access the survey form (Alahmar, 2016; Kmetty & Stefkovics, 2022). In addition, the researcher could assure the participants of the data privacy and confidentiality of the information they could provide for the study (Albino & Albino, 2021; Carfora and Bertolotti and Catellani, 2019).

### 5.2.2 The period of data collection

From November 15, 2021, through April 15, 2022. The data collection was performed in Thailand and was selected to distribute the questionnaire to 900 Thai customers to ensure respondents understood the questionnaires. Most samples were convenience samples, i.e. Thai customers were approached randomly. After several questions were modified for reliability in the assessment, the final survey instrument consisted of 42 items (Bonett & Wright, 2015; Axenfeld and Blom and Bruch and Wolf, 2022). However, there needs to be a way of telling if those included could be represent of the overall population. Therefore, the researcher is still expected to provide a first overview of related issues and obtain insight into the knowledge of organic food by Thai consumers (Mohamad and Rusdi and Hashim, 2014; Hanmontree and Prinyawiwatkul and Sae-Eaw, 2022).

### 5.2.3 Descriptive Analysis of Demographic Variables

The section of the research provides the details of demographic variables, percentages and frequencies of various demographic variables like gender, demographic characteristics, age of participants, the education level of the respondents and occupation are given. The data are shown in Table 5.1.

Table 5.1 Demographic characteristics of the sample in the study

	N	Percentage
Response rate		
The participant	100	100%
A nonresponse rate		
The participant	0	0%
Gender		
Male	246	27.3%
Female	654	72.7%
Demographic characteristics		
The participant	100	100%
Age of participant		
18 to 30 years old	517	57.4 %
31 to 40 years old	112	12.4 %
41to 50 years old	99	11.0 %
51 to 60 years old	79	8.8 %
above 60 years old	93	10.3%
The education level of the respondents		
Primary school	7	0.8%
Middle primary school	11	1.2 %
Senior High School	62	6.9%
Vocational Certificate (Voc. Cert.)	20	2.2%
Diploma/High Vocational Certificate	104	11.6%
Undergraduate	478	53.1%
Postgraduate or above	218	24.2%
Occupation		
Top executive or manager	55	6.1%
Owner of a business	45	5.0%
Lawyer, dentist or architect	3	0.3%
Office/clerical staffs	90	10.0%
Worker	28	3.1%
Civil servant	133	14.8%
Crafsman	3	0.3%
Student	210	23.3%
House wife	18	2.0%
Retired	65	7.2%
Other	250	27.8%
Returned the online questionnaire within		
17 day	51	5.67%
9 day	79	8.78 %
5 day	218	24.22%
1 day	122	13.55%
5 day	40	4.44%
7 day	41	4.55%
11 day	123	13.67%
12 day	60	6.67%

7 day	75	8.33%
16 day	39	4.33%
60 day	52	5.7%

In the gender section, the sample revealed that just over half the sample (72.7%) of the respondents were female or 654 respondents, while the remaining 27.3% were male, or 246 respondents.

After 900 questionnaires were distributed to Thai consumers living in Thailand, the researcher showed the respondents' background information. Table 5.1 summarises the personal information of the respondent. The study sample size was 900 respondents (N=100) surveyed; the response rate is 100 per cent. The study found a nonresponse rate for the questionnaire 0 %. Therefore, they finally used 900 usable responses for the analysis.

When this study investigated and categorised the age of the respondents in the sample, the study found that the respondents were between 18 to above 60 years old. Also, the study found that the age group between 18 and 30 years of age were the largest group. That is 57.4% or 517 respondents. The large group of 31 to 40-years-old is 12.4 % or 112 respondents, and the large group of 41 to 50 is 11.0% or 99 respondents. The relatively small group above 60 is 10.3% or 93 respondents. Finally, the small group is 51 to 60 years old, with 8.8% or 79 respondents.

The study investigated the respondents' education level, which can be categorized into seven categories. The respondents come from the highly educated category of an undergraduate degree (53.1%) or 478 respondents, followed by postgraduate or above (24.2%) or 218 respondents. This was followed by Diploma/High Vocational Certificate (11.6%) or 104 respondents, Senior High School (6.9) or 62 respondents, Vocational Certificate (Voc. Cert.) (2.2%) or 20 respondents, Middle primary school (1.1%) or 11, Primary school (0.8%) or 7 respondents, respectively.

The study also examined respondents' occupations. The study found that (27.8%) of the 250 selected other occupations (the job does not appear in the list) were followed by Students (23.3%) or 210 respondents and Civil servants (14.8%) or 133 respondents. The above study was followed by Office/clerical staff (10.0%) or 90 respondents, Retired (7.2%) or 65 respondents, Top executive or manager (6.1%) or 55 respondents, Owner of a business (5.0%) or 45 respondents, Worker (3.1%) or 28 respondents,

Housewife (2.0%) or 18 respondents, Craftsman, and Lawyer, dentist or architect (0.3%) or 3 respondents, respectively.

Overall, 900 usable responses were obtained, yielding a 100% response rate that aligns with most online survey response rates (e.g. Deutskens et al., 2004). The majority of respondents (24.22% or 218 respondents) returned the online questionnaire within 5 day of receipt, followed by 123 respondents or 13.67 % returned the online questionnaire within 11 day of receipt, 122 respondents or 13.55 % returned the online questionnaire within 1 day of receipt, 79 respondents or 9.78 % returned the online questionnaire within 9 day of receipt, 75 respondents or 8.33 % returned the online questionnaire within 7 day of receipt, 60 respondents or 6.67 % returned the online questionnaire within 12 day of receipt, 52 respondents or 5.7 % returned the online questionnaire within 150 day of receipt, 51 respondents or 5.67% returned the online questionnaire within 17 day of receipt, 41 respondents or 4.55% returned the online questionnaire within 7 day of receipt, 40 respondents or 4.44% returned the online questionnaire within 5 day of receipt, 39 respondents or 4.33% returned the online questionnaire within 16 day of receipt, respectively, (as presented in Table 5.1).

### **5.2.4 Descriptive Statistics of Scale Items**

This section shows the descriptive statistics of the measurement scales items applied in this study. In addition, the tables provide item means, standard deviations, and the number of respondents, which can help to understand the degree of dispersion of the items in the sample.

**Table 5.2: Descriptive statistics for EMO** 

Items	Mean	Std. Deviation	N
EMO1	5.30	1.502	900
EMO2	4.82	1.568	900
EMO3	4.82	1.546	900

Note: N=Number of responses, EMO= Emotional appeal

Table 5.2 displays the descriptive statistics of each item of Emotional appeal. Item 2 and 3 is has the lowest mean compared to all other items of Emotional appeal; however, Item 2 has the largest standard deviation.

The Cronbach's alpha reliability results are acceptable reliability (coefficient alpha > 0.80); therefore, the reliability of the EMO measurement scale is supported due to Cronbach's alpha value being more significant than the threshold value (0.8).

**Table 5.3: Descriptive statistics for INFO** 

Items	Mean	Std. Deviation	N
INFO4	5.12	1.679	900
INFO5	4.76	1.649	900
INFO6	4.96	1.704	900

Note: N=Number of responses, INFO=Informativeness

Table 5.3 displays the descriptive statistics of each item of Informativeness. They have very similar means and standard deviations.

Table 5.4: Descriptive statistics for CREA

Items	Mean	Std. Deviation	N
CREA7	4.65	1.813	900
CREA8	4.40	1.764	900
CREA9	4.60	1.788	900
CREA10	4.04	1.794	900

Note: N=Number of responses, CREA= Advertising creativity

Table 5.4 displays the descriptive statistics of each item of advertising creativity. Item 4 Item 4 has the lowest mean compared to all other items but has the second-largest standard deviation.

The Cronbach's alpha reliability results are acceptable reliability (coefficient alpha > 0.80); therefore, the reliability of the CREA measurement scale is supported because Cronbach's alpha value is more significant than the threshold value (0.8).

Table 5.5: Descriptive statistics for PK

Items	Mean	Std. Deviation	N
PK1	4.12	1.690	900
PK2	4.12	1.767	900
PK3	4.14	1.733	900
PK4	4.44	1.765	900
PK5	4.17	1.742	900

Note: N=Number of responses, PK= product knowledge

Table 5.5 displays the descriptive statistics of each item of product knowledge. Item 1 and 2 have the lowest mean compared to all other items of Product Knowledge; however, item 2 has the significant standard deviation.

The Cronbach's alpha reliability results are acceptable reliability (coefficient alpha > 0.80); therefore, the reliability of the PK measurement scale is supported due to Cronbach's alpha value is more significant than the threshold value (0.8).

Table 5.6: Descriptive statistics for Att

Items	Mean	Std. Deviation	N
Att1	4.54	1.920	900
Att2	4.94	1.759	900
Att3	4.88	1.761	900
Att4	4.23	1.695	900
Att5	4.69	1.743	900
Att6	5.09	1.846	900
Att7	4.43	1.686	900

Note: N=Number of responses, Att= attitude

Table 5.6 displays the descriptive statistics for attitude. They have similar means and standard deviations.

Table 5.7: Descriptive statistics for SN

Items	Mean	Std. Deviation	N
SN1	4.67	1.684	900
SN2	4.54	1.699	900
SN3	4.42	1.677	900
SN4	4.24	1.643	900

Note: N=Number of responses, SN= subjective norm

Table 5.7 displays the descriptive statistics for subjective norm. Again, they have very similar means and standard deviations.

**Table 5.8: Descriptive statistics for PBC** 

Items	Mean	Std. Deviation	N
PBC1	5.06	1.815	900
PBC2	4.71	1.794	900
PBC3	4.54	1.758	900
PBC4	4.39	1.706	900
PBC5	4.51	1.791	900
PBC6	4.69	1.767	900

Note: N=Number of responses, PBC= perceived behavioral control

Table 5.8 displays the descriptive statistics for perceived behavioral control. They have very similar means and standard deviations.

Table 5.9: Descriptive statistics for IP

Items	Mean	Std. Deviation	N
IP1	4.24	1.718	900
IP2	4.59	1.757	900
IP3	4.34	1.747	900
IP4	4.50	1.751	900

Note: N=Number of responses, IP= intention to purchase

Table 5.9 displays the descriptive statistics of each item of intention to purchase. Item 1 is has the lowest mean compared to all other items of intention to purchase; however, it has the third largest standard deviation.

Table 5.10: Descriptive statistics for APB

Items	Mean	Std. Deviation	N
APB1	3.94	1.780	900
APB2	3.86	1.782	900
APB3	4.12	1.861	900
APB4	4.10	1.849	900
APB5	4.43	1.931	900
APB6	4.44	1.916	900

Note: N=Number of responses, APB= actual purchase behaviour

Table 5.10 displays the descriptive statistics for actual purchase behaviour. They have very similar means and standard deviations.

### 5.2.5 How to increase the response rate from elderly respondents?

The researcher sent a message inviting older Thai customers to complete the online questionnaire. The researcher reported that detailed information about the purpose and benefits of the study would facilitate trust and lend legitimacy to the research. The message said that most questions of the online questionnaire consisted of a short question with five parts. Therefore, completing the questionnaire would take little time (Tabachnick & Fidell, 2007; Schanze, 2021). The used the lead letter to explain the benefit of the research to the participants. The survey topic thoroughly explained how this questionnaire could help the participants increase product knowledge about organic food products when buying food. It leads a person to understand more about the nutritional value of organic food products (Tabachnick & Fidell, 2007; DePaula et al., 2022).

The letter informs that "your participation and information collected from this research will be kept anonymous and will not adopt for any other objective, apart from the publications. This study will not collect any information about respondents' IP addresses. Individual participant data will be kept entirely confidential during the study. Only the researcher and his supervisor can access participant data during the study. For statistical analysis, information will be in an anonymised format so that no individual can be identified.

Most participants are concerned about the survey approach, physical safety, and fear of "scams" or other misuse of personal information. Therefore, the study's purpose should be expressed. While answering the questions, a person can withdraw from the survey at

any time (Schanze, 2021; Benutić et al., 2022). However, when people have finished and submitted their answers, their information will be combined with the information of other participants and will no longer be identifiable (Rolstad and Adler and Rydén, 2013; Mano et al., 2023). Therefore, when information has been submitted, no one can withdraw their participation".

Suppose the participants consider the brief introduction with the name of the survey as clear information. In that case, the information will increase their likelihood of participation because many participants may be impressed research benefits of the study. When the survey topic was fully explained to the participants, most participants may regard the topic as likely to be an essential topic for research. Most participants reported that detailed information about the study's purpose and benefits could facilitate trust and lend legitimacy to the researcher. Therefore, the lead letter is helpful (Tabachnick and Fidell, 2007 Schanze, 2021; Rolstad and Adler and Rydén, 2013; Anuar et al., 2023).

### **5.2.6. Data Preparation**

Some previous researchers (Tabachnick & Fidell, 2007; Malhotra, 2010; Anuar et al., 2023; Crick, 2023; Sakharkar & Ansari, 2022; Sakharkar & Ansari, 2022) said that it is imperative to code and edit the data that has been collected before the researchers start any interpretation or analysis. Coding is the process of assigning numerals or other symbols to categories. It can act as a method that labels the data, further assisting in data interpretation, analysis and report writing. In this study, numerical codes were determined for each building and item. A few of these codes could be assigned to nominal data; however, others could be assigned to interval ordinal data. When the researchers completed the data coding, they could edit data to ensure no omissions. After data editing, this study could ensure that the data coding process was accomplished. In addition, they could modify any error appropriately.

## 5.2.7. Data screening

After data coding and editing, a pre-analysis data screening was carried out. Some researchers (Malhotra, 1999; Tabachnick & Fidell, 2007; Belliveau & Yakovenko, 2022) said that data screening is essential for accurate data analysis and should be carried out before the multivariate analysis to ensure that the primary analysis will be

credible and will result in accurate outcomes (Tabachnick & Fidell, 2007; Liu & Zhou, 2022).

Tabachnick & Fidell (2007) and Belliveau, Soucy, and Yakovenko (2022) indicated four significant procedures that should be followed before the multivariate analysis, as shown in Figure 5.1. These four steps are: (i) The dataset ought to be found for missing values and poor-quality responses; (ii) the descriptive statistics for all the variables ought to be calculated; (iii) the normality of the data distribution of the variables ought to be studied; and (iv) outliers ought to be informed at the univariate and multivariate levels (Foroudi, 2012; Horng et al., 2022). All these tests were performed in this study using SPSS 27.00. The results from each of the tests are shown below.

Plots + Summary statistics (Mean, Median, Standard deviation, Standard, Confidence intervals, Skewness, and Kurtosis)

EXPLORATORY

Data non-normally distributed and with heterogeneous variances

Data transformation

Outlier identification / removal

CONFIRMATORY DATA ANALYSIS

Parametric statistical test

Figure 5.1: Suggested routine for parametric data analysis

Source: As outlined by Tabachnick and Fidell (2007) and Foroudi (2012)

#### 5.2.7.1. Missing data analysis

They first investigated the data gathered from the core survey for missing data. It is crucial to indicate missing data during the early step to eliminate potential bias (Hair et al., 2006; Faruk et al., 2022). Hung et al. (2022) and Hair et al. (2006) indicated ways to assess missing data. The first method involves ignorable missing data, such as the missing data process operating at random. This type may be part of the research. On the other hand, the second type of missing data must be addressed for many reasons (Foroudi, 2012; Yang et al., 2022).

The "known" missing data process occurs when the measurement equipment fails, subjects do not complete all the questions, or errors occur during data entry that creates invalid codes (Foroudi, 2012; Yang et al., 2022). Kontsevaya et al. (2023) and Hair et al. (2006) suggested further categorised this type into two classes "unknown" and "known" processes. Crick (2023) and Malhotra (2010) called it non-response bias. The

"known" missing data process can occur if the measuring instrument fails. It leads to subjects not completing all the questions, or errors can occur during data entry, generating invalid codes (Mirzaei et al., 2022; Foroudi, 2012). In these cases, the researchers have less control over the missing data process. However, some solutions can be used if the missing data is random (Foroudi, 2012; Sarstedt et al., 2022). The "unknown" missing data process can be less easily identified. Because it can occur if respondents refuse to answer, hesitates or has no opinion on some questions. These problems are avoided by minimising them in the research design and the stages of data collection (Faruk et al., 2022; Hung et al., 2022). On the other hand, the missing data issue in this scenario should only be resolved if the missing data occurred in a random pattern (Yang et al., 2022).

Hair et al. (2006) and, Tabachnick and Fidell (2007), Zargar and Yao and Tu (2022) suggested two ways of assessing missing data. The first approach involves accessing missing data, called Missing Completely At Random (MCAR), missing at random or "ignorable". The second approach consists of accessing missing data, called Missing Not At Random (MNAR) or "not ignorable". The first approach to estimating missing data creates less severe problems and can be identified more easily than the second approach, which can impact the generalisability of the data (Tabachnick & Fidell, 2007; Paetz and Steiner and Hruschka, 2022).

Malhotra (2010) and Wilson and Stephens, 2023) provide two options for treating missing responses, which, per him, should be used if 10 per cent of responses are missing. His first choice is to replace the missing data with a mean value. His second choice is to insert missing data with an appropriate response based on available data. Based on available data, this can be performed statistically by defining the association of the variable in question to other variables (Malhotra, 2010; Sarstedt et al., 2022). For instance, the use of products could be associated with household size for respondents who can provide data on both variables (Malhotra, 2010). However, per Malhotra (2010) and Crick (2023), both methods can be problematic. For instance, the first approach can be questionable if the respondents have provided high ratings; however, the respondent has been marked by the average rating. In the same way, the second approach takes much effort and can cause serious bias.

In this study, the researcher used both approaches to strengthen the procedure wherever required. They handled the missing data according to the two methods. There were 20 cases, 10 of which were rejected due to more than 10 per cent of the missing data. However, in the other 10 cases (with fewer than 10 per cent of the data missing), the

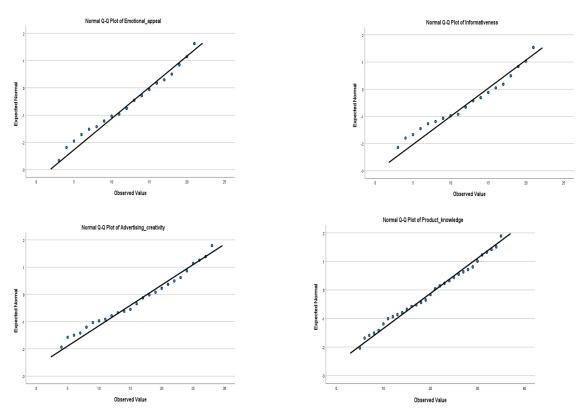
researcher used both approaches identified by Malhotra (2010) and Zargar and Yao and Tu (2022).

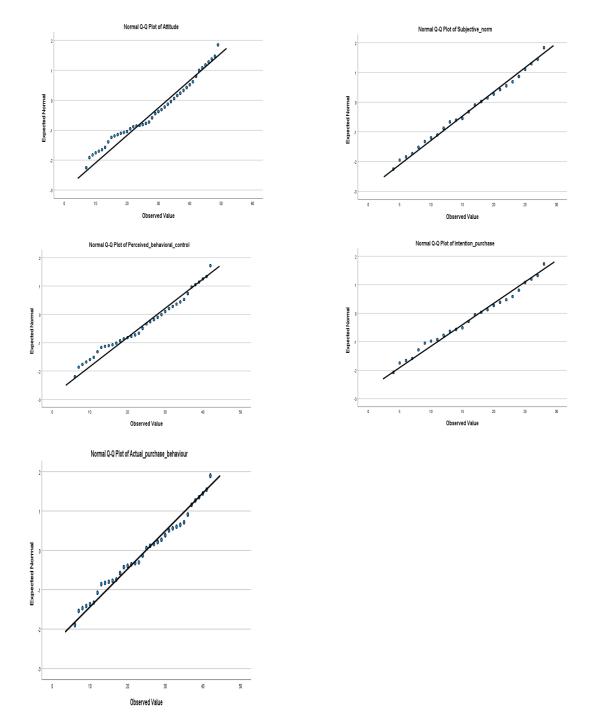
### 5.2.7.2. Assessment of normality, outliers, linearity and multi-collinearity

Next, a normality test was performed to ensure the data had filled the normality criteria, which is one of the main criteria in multivariate analysis, particularly in structural equation modelling (SEM). It can be used in calculate the sample size and serve as the basis for classical statistical inference (Malhotra, 2010; Arum et al., 2022).

A normality test is bell-shaped; moreover, it is symmetrical in appearance. Therefore, its calculation of the central tendency (mean, median and mode) can be similar. In addition, its associated random variable can have an infinite range (Malhotra, 2010; Danlami, 2022). This study used graphical and statistical methods to consider the normality of variables (Foroudi, 2012; Pulka, 2022). They plotted it on the standard probability plot as grouped data, such as a histogram plot, or as individual data points, such as straight lines. According to the graphical assessment, nearly all the items (listed in Appendix E) and overall constructs (displayed in Figure 5.2) were collected around a straight line; therefore, observation of the sample did not require any adjustments (or transformation) of the data.

Figure 5. 2: Normal Q-Q Plot for all nine constructs





In addition, a non-parametric Kolmogorov-Smirnov and Shapiro-Walk (K-S) test was performed. K-S is another method of looking at the problem to examine if the distribution as a whole deviates from a comparable normal distribution (Fied, 2009; Foroudi, 2012; Kurniasari and Adam and Hamdan, 2023). It can explain whether the two distributions are different or the same (Malhotra, 2010; Surangi & Bandara, 2022). It considers any distribution distinction, including dispersion, skewness and median (Malhotra, 2010; Rucha, 2022). If the examination is significant (P <0.05), the distribution in question is significantly distinct from a normal distribution (Foroudi, 2012; Roy & Bandopadhyay, 2022). The results of this study, at both the constructs

level (shown in Table 5.11) and items level (see Appendix D), displayed that K-S needed to be tenable. It happens due to the relatively large sample data (Pallant, 2007; Danışman & Akkartal, 2022).

Table 5.11: Kolmogorov-Smirnov and Shapiro-Wilk test constructs value

Tests of Normality											
-	Kolmo	ogorov-Sm	irnov <sup>a</sup>	Shapiro-Wilk							
	Statistic	df	Sig.	Statistic	df	Sig.					
Emotional_appeal	0.122	900	0.000	0.948	900	0.000					
Informativeness	0.142	900	0.000	0.923	900	0.000					
Advertising_creativity	0.097	900	0.000	0.954	900	0.000					
Product_knowledge	0.070	900	0.000	0.970	900	0.000					
Attitude	0.088	900	0.000	0.948	900	0.000					
Subjective_norm	0.079	900	0.000	0.971	900	0.000					
Perceived_behavioral_c	0.083	900	0.000	0.950	900	0.000					
ontrol											
Intention_purchase	0.092	900	0.000	0.959	900	0.000					
Actual_purchase_behav	0.083	900	0.000	0.957	900	0.000					
iour											

The other approach used to investigate normality is Jarque-Bera, which can use skewness and kurtosis. Skewness is the tendency of the deviations from the mean to be more significant in one direction rather than another (Malhotra, 2010). It is considered the trend for one tail of the distribution to be heavier than the other side (Malhotra, 2010). A skewed variable can be a variable whose mean is not in the middle of the distribution (Tabachnick & Fidell, 2007; Foroudi, 2012; Kurniasari and Adam and Hamdan, 2023).

A negative value is less than -1 (i.e. -1.5 or -2), and a positive value is more than 1 (i.e. 1.5 or 2), meaning there is skewed data. Anything between -1 and 1 indicates an acceptable value. Another measure to examine for skewness can be multiplying the standard error by 3. Suppose the value is smaller than three times the standard error. In that case, it can indicate a problem with the skewness and the normality assumptions, according to the results obtained from the constructs (Table 5.12) and items (see Appendix B). On the other hand, several variables and constructs were within the satisfactory criteria with the criteria of skewness (Roy & Bandopadhyay, 2022; Pulka, 2022).

This study used kurtosis because this is a measure of the relative peakedness or flatness of the curve determined by the frequency distribution (Tabachnick & Fidell, 2007;

Malhotra, 2010; Roy & Bandopadhyay, 2022; Pulka, 2022). The kurtosis of a normal distribution is found as zero. If the kurtosis is positive, the distribution can peak more than normal. On the other hand, if the kurtosis is negative, the distribution is flatter than normal (Malhotra, 2010; Foroudi, 2012; Surangi & Bandara, 2022). This study displayed that several constructs and variables are within the satisfactory range.

Table 5.12: Skewness and kurtosis constructs value

Construct	Skewness	Standard error	Kurtosis	Standard error
		of skewness		of kurtosis
Emotional_appeal	-0.573	0.082	-0.295	0.163
Informativeness	-0.728	0.082	-0.249	0.163
Advertising_creativity	-0.385	0.082	-0.724	0.163
Product_knowledge	-0.139	0.082	-0.799	0.163
Attitude	-0.605	0.082	-0.376	0.163
Subjective_norm	-0.214	0.082	-0.703	0.163
Perceived_behavioral_control	-0.508	0.082	-0.557	0.163
Intention_purchase	-0.248	0.082	-0.854	0.163
Actual_purchase_behaviour	-0.136	0.082	-1.009	0.163

### 5.2.7.2.1. Outliers: univariate and multivariate techniques examination

An outlier is regarded as an observation that can deviate from other significant observations to stimulate suspicion, which can be evoked by different mechanisms (Malhotra, 2010; Foroudi, 2012; Sarstedt et al., 2022). It can recognise observations, which are inappropriate representations of the population that are subtracted from the analysis. Statisticians suggested that outliers should be run regularly because they can help provide useful information about data (Tabachnick & Fidell, 2007; Pulka, 2022).

After examining the construct, the researcher could identify univariate and multivariate outliers in the dataset (Hair et al., 2006; Malhotra, 2010; Dang et al., 2022). Univariate outliers can be appropriate when there is a single assessment of each element in the sample or several assessments of each element; however, each element must be analysed in isolation. On the other hand, multivariate outliers can be suitable for data analysis if there may be two or more measurements of each element. In addition, the variables must be analysed simultaneously (Malhotra, 2010; Geum-Ok & Lee, 2022). Later outliers are different from previous outliers because they change the focus away from the levels and distributions of the phenomena: however, they focus on the associations between these phenomena (Malhotra, 2010; Konstantinos and Ntasis and Dimitropoulos, 2022).

To determine univariate outliers, the researcher had to convert all the scores for a variable to standard scores. A case is an outlier if the standard score for a sample size equivalent to 80 or less is  $\pm 2.5$  because the rule of thumb recommends that within univariate outliers. In contrast, for a larger sample size, such as higher than 332, a case is an outlier if its standard score is  $\pm 3.0$  or greater (Hair et al., 2006; Tabachnick & Fidell, 2007; Foroudi, 2012; Mudalige, 2022). The approach of the univariate technique can be only used based on metric data rather than non-metric data.

To identify the univariate outliers in this study, items had to be grouped to display a single construct (Foroudi, 2012; Justin & Barari, 2022). The dataset provided in Table 5.13 shows that the results contain a few univariate outliers. For example, there were five negative outliers (over 2.5) in emotional appeal, five negative outliers in informativeness, five negative outliers in advertising creativity, five negative outliers in attitude, five negative outliers in the subjective norm, five negative outliers in perceived behavioural control, five negative outliers in intention purchase and five negative outliers in actual purchase behaviour.

**Table 5.13: Univariate outliers** 

	Cases of outliers	Standard value i.e. Z-scores <
		± 2.5
Zscore(Total_EMO)	202	1.39022
	229	1.39022
	233	1.39022
	236	1.39022
	242	1.39022a
	417	-2.73009
	411	-2.73009
	409	-2.73009
	406	-2.73009
	235	-2.73009b
Zscore(Total_INFO)	22	1.27308
	30	1.27308
	41	1.27308
	45	1.27308
	46	1.27308°
	868	-2.44628
	867	-2.44628
	797	-2.44628
	796	-2.44628

	781	-2.44628 <sup>d</sup>
Zscore(Total_CREA)	107	1.54008
	109	1.54008
	111	1.54008
	117	1.54008
	174	1.54008 <sup>e</sup>
	867	-2.04381
	797	-2.04381
	796	-2.04381
	781	-2.04381
	776	-2.04381 <sup>f</sup>
Zscore(Total_PK)	22	1.72348
	30	1.72348
	94	1.72348
	135	1.72348
	151	1.72348 <sup>g</sup>
	867	-1.96443
	810	-1.96443
	797	-1.96443
	781	-1.96443
	776	-1.96443 <sup>h</sup>
Zscore(Total_Att)	9	1.48405
	19	1.48405
	22	1.48405
	30	1.48405
	74	1.48405 <sup>i</sup>
	880	-2.36296
	867	-2.36296
	797	-2.36296
	781	-2.36296
	776	-2.36296 <sup>j</sup>
Zscore(Total_SN)	233	1.65411
	236	1.65411
	255	1.65411
	294	1.65411
	298	1.65411 <sup>k</sup>
	880	-2.26567
	867	-2.26567
	797	-2.26567
	781	-2.26567
	660	-2.26567 <sup>l</sup>
Zscore(Total_PBC)	22	1.45046
	30	1.45046

<u>_</u>	38	1.45046
	41	1.45046
	52	1.45046 <sup>m</sup>
	880	-2.25371
	867	-2.25371
	797	-2.25371
	781	-2.25371
	763	-2.25371 <sup>n</sup>
Zscore(Total_IP)	109	1.55300
	117	1.55300
	130	1.55300
	143	1.55300
	184	1.55300°
	880	-2.05668
	867	-2.05668
	797	-2.05668
	781	-2.05668
	771	-2.05668 <sup>p</sup>
Zscore(Total_APB)	233	1.64863
	236	1.64863
	255	1.64863
	317	1.64863
	323	1.64863 <sup>q</sup>
	880	-1.82149
	867	-1.82149
	833	-1.82149
	823	-1.82149
	822	-1.82149 <sup>r</sup>

The Mahalanobis D2 measurement is used to indicate the multivariate outliers. It is a multidimensional version of a z-score (Hair et al., 2006; Bagus, 2022). In addition, this method is based on a generalised assessment of the distance between the two closest groups (Malhotra, 2010). Therefore, it can calculate the distance of a case from the mean of the centre of all observations and present a single value (Hair et al., 2006; Foroudi, 2012; Setyawan, 2023) if the value of D2 surpasses 2.5 in a small sample, 3 or 4 in a large sample. Therefore, it can be called a potential outlier. Tabachnick and Fidell (2007) recommended using a statistical significance test with the Mahalanobis D2 measurement, where the larger D2 value for a case tends to be regarded as an outlier (Malhotra, 2010; Foroudi, 2012; Mallika, 2022).

This study used the linear regression method to calculate Mahalanobis D2. A function of SPSS 27.0 "1-CDF.CHISQ (quant, pd)" was employed, that quant = D2 and df = 9 (9 is the number of constructs). The results showed only 27 cases (Table 6.14: Multivariate outliers determined using Mahalanobis D2) of observations with extreme outliers in the sample of 900. In addition, a box plot was employed to identify multivariate outliers (see Figure 5.3: Outliers) (Hair et al., 2006; Sarstedt et al., 2022; Pulka, 2022). According to the results found in this stage, the researcher deleted the extreme outlier; however, the researcher collected other values for the next stage.

Figure 5. 3: Multivariate outliers

Figure 5.3.1: Emotional\_appeal outliers

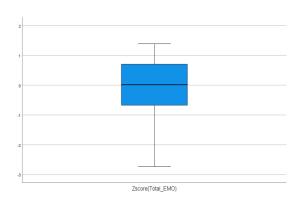


Figure 5.3.2: Informativeness outliers

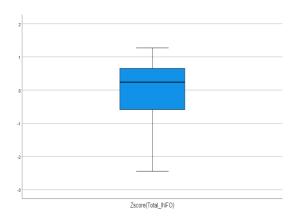


Figure 5.3.3: Advertising\_creativity outliers

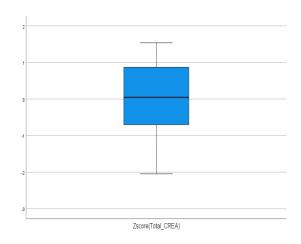


Figure 5.3.4: Product\_knowledge outliers

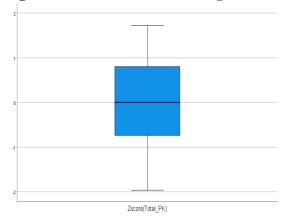


Figure 5.3.5: Attitude outliers outliers

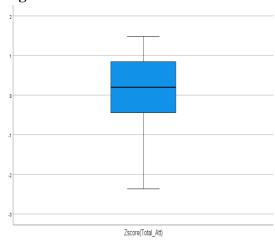


Figure 5.3.6: Subjective\_norm outliers

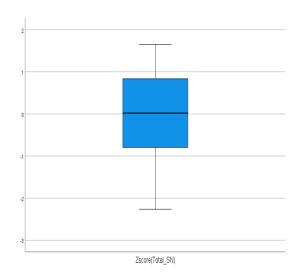


Figure 5.3.7: Perceived\_behavioral\_control outliers

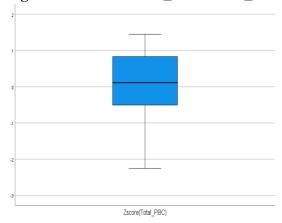


Figure 5.3.8: Intention\_purchase outliers

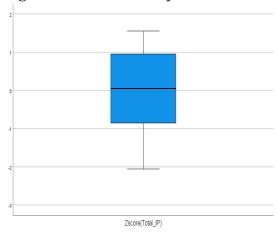


Figure 5.3.9: Actual\_purchase\_behaviour outliers

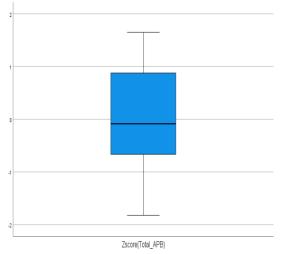


Table 5.14: Multivariate outliers identified using Mahalanobis D2

Outlier Number	Mahalanobis D2	Significance level
20	24.95791	0.00158
22	38.73713	0.00001
41	41.46915	0.00000
50	27.36340	0.00061
51	30.99639	0.00014
57	30.57441	0.00017
60	29.00437	0.00032
95	28.46529	0.00039
117	31.73709	0.00010
135	26.50157	0.00086
195	28.13504	0.00045
278	26.64059	0.00082
294	26.24851	0.00095
309	37.47747	0.00001
317	45.08760	0.00000
348	29.11685	0.00030
373	27.54485	0.00057
417	30.77248	0.00015
504	42.39397	0.00000
505	42.39397	0.00000
513	29.60070	0.00025

592	27.61220	0.00055
679	29.62079	0.00025
711	41.16117	0.00000
739	33.18427	0.00006
868	26.91107	0.00073
880	58.60490	0.00000

### 5.2.7.2.2. Linearity and multi-collinearity

Linearity is regarded as the attribute of a mathematical association or function, meaning Linearity can be graphically displayed as a straight line. In addition, Linearity can be an index used to define whether a straight-line or linear association exists between two variables because it can identify the degree to which the variation in one variable is associated with the variation in another variable (Malhotra, 2010; Foroudi, 2012; Ersoy et al., 2022). Linearity among latent variables is difficult to assess. However, Linearity among pairs of measured variables is estimated through scatter plots (Tabachnick & Fidell, 2007; Foroudi, 2012; Abebe et al., 2022).

Karl Pearson initially presented it; therefore, it can be called the Pearson correlation coefficient or Pearson's r. This study wanted to use Pearson's correlation at the 0.01 significance level (i.e. 2-tailed) to define the Linearity and multi-collinearity between the dependent and independent variables. Results showed that variables could be linear (displayed in Figure 5.4: Constructs scatter plot matrix) (Gachigo et al., 2023; Unyime and Aniekan and Aniefiok, 2022; Putriningtyas and Natsir and Supriadi, 2022).

Then, the outcomes from the bivariate correlation were estimated to examine the multi-collinearity between the variables. Following previous researchers, they recommended that if the values between the constructs are 0.90 or higher, it can mean a high level of multi-collinearity (Hair et al., 2006; Tabachnick & Fidell, 2007; Foroudi, 2012; Lasloom & Grigorieva, 2022). Table 5.15 displays that none of the bivariate correlations could be highly related (0.90 or higher) to each other. Therefore, it indicated that there was multi-collinearity between the variables.

Figure 5.4: Constructs scatter plot matrix

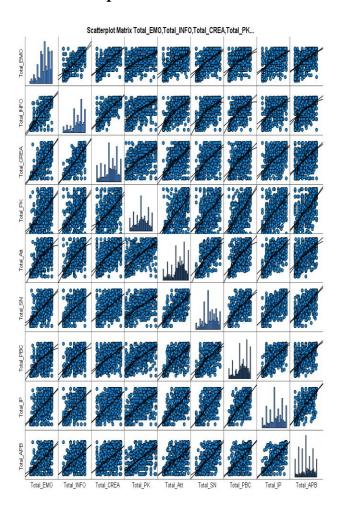


Table 5.15. Descriptive statistics and correlation matrix for the constructs

				(	Correlation	ns				
				Adve				Perceiv		
				rtisin	Product		Subje	ed_beh	Intenti	Actual_
		Emotion	Inform	g_	_		ctive	avioral	on_	purchase
		al_	ativene	creati	knowled		_nor	_contr	purcha	_behavi
		appeal	SS	vity	ge	Attitude	m	ol	se	our
Emotiona	Pears	1	.785**	.738**	.550**	.607**	.609**	.550**	.591**	.576**
1_	on									
appeal	Correl									
	ation									
	Sig.		.000	.000	.000	.000	.000	.000	.000	.000
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Informati	Pears	.785**	1	.798**	.608**	.690**	.620**	.641**	.615**	.568**
veness	on									
	Correl									
	ation									
	Sig.	.000		.000	.000	.000	.000	.000	.000	.000
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Advertisi	Pears	.738**	.798**	1	.606**	.663**	.616**	.601**	.638**	.596**
ng_	on									
creativity	Correl									
	ation									
	Sig.	.000	.000		.000	.000	.000	.000	.000	.000
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Product_	Pears	.550**	.608**	.606**	1	.670**	.593**	.700**	.672**	.673**
knowled	on									
ge	Correl									
	ation	0.00							0.00	
	Sig.	.000	.000	.000		.000	.000	.000	.000	.000
	(2-									
	tailed)	000	000	000	000	000	000	000	000	000
A ++i++1-	N	900 .607**	.690**	.663**	.670**	900	900	.720**	900	900
Attitude	Pears	.007	.090	.003	.070	1	.726**	.720	.723**	.624**
	on Correl									
	ation									
	auon	İ								<u> </u>

	Sig.	.000	.000	.000	.000		.000	.000	.000	.000
	(2-	.000	.000	.000	.000		.000	.000	.000	.000
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Subjectiv	Pears	.609**	.620**	.616**	.593**	.726**	1	.678**	.765**	.736**
e_norm	on									
_	Correl									
	ation									
	Sig.	.000	.000	.000	.000	.000		.000	.000	.000
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Perceive	Pears	.550**	.641**	.601**	.700**	.720**	.678**	1	.773**	.687**
d_behavi	on									
oral_cont	Correl									
rol	ation									
	Sig.	.000	.000	.000	.000	.000	.000		.000	.000
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Intention	Pears	.591**	.615**	.638**	.672**	.723**	.765**	.773**	1	.797**
_	on									
purchase	Correl									
	ation									
	Sig.	.000	.000	.000	.000	.000	.000	.000		.000
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
Actual_p	Pears	.576**	.568**	.596**	.673**	.624**	.736**	.687**	.797**	1
urchase_	on									
behaviou	Correl									
r	ation									
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	
	(2-									
	tailed)									
	N	900	900	900	900	900	900	900	900	900
**. Correl	ation is s	significant a	t the 0.01	level (2	-tailed).					

The researcher also checked the variance inflation factor (VIF) and tolerance effect (Hair et al., 2006; Dini et al., 2022). A larger VIF, such as above and a lower tolerance, such as less than 0.1, indicates no multi-collinearity between the variables (Pallant, 2007; Kojongian and Soepeno and Jan, A.B.H., 2023). Therefore, the researcher did not

remove any variables at this stage and maintained all of them to verify collinearities further.

Table 5.16: Regression for observing VIF

			Co	efficients <sup>a</sup>				
				Standardi				
				zed				
		Unstar	ndardized	Coefficie			Colline	arity
		Coef	ficients	nts			Statis	tics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-1.683	0.726		-2.318	0.021		
	Emotional_appeal	0.200	0.075	0.084	2.684	0.007	0.334	2.990
	Informativene ss	137	0.078	-0.064	-1.748	0.081	0.247	4.048
	Advertising_ creativity	0.070	0.051	0.045	1.356	0.176	0.301	3.324
	Product_ knowledge	0.277	0.036	0.217	7.746	0.000	0.420	2.381
	Attitude	-0.116	0.031	-0.122	-3.778	0.000	0.314	3.182
	Subjective_no rm	0.473	0.053	0.279	8.905	0.000	0.336	2.980
	Perceived_beh avioral_contro	0.067	0.035	0.063	1.915	0.056	0.307	3.253
	Intention_ purchase	0.683	0.054	0.438	12.546	0.000	0.271	3.695
a. Dep	endent Variable:	Actual_pt	ırchase_beha	viour				

### **5.2.7.3.** Homoscedasticity/ homogeneity

Homoscedasticity is associated with the assumption of normality when the assumption of multivariate normality is matched. (Tabachnick and Fidel, 2007; Foroudi, 2012; Haliullin, 2022). Homoscedasticity can mean that variance around the regression curve can be the same for all predictor variable values. To put it differently, variables are homoscedastic if the variability in scores for one continuous variable is the same at all values of other continuous variables. However, the failure of homoscedasticity is generated by the abnormality of one of the variables or by the fact that variables are linked to a certain transformation of the other (Hair et al., 2006; Foroudi, 2012; Khalil, 2022).

In this study, Levene's test was performed to estimate whether the variances of metric variables could be equal across the non-metric variables, such as gender (Pallant, 2007; Ammari & Terzi, 2022). Levene's test is regarded as an assessment of homogeneity of variance; moreover, it is significant at  $p \le 0.05$  (Foroudi, 2012; Serban and Mihaiu and Tichindelean, 2022).

In this study, Levene's test could be significant and not significant (according to the values, P was discovered to be lower and higher). In the same way, variances were found to be divergent and not divergent, as displayed in Table 5.17.1.

Table 5. 17: Levene's test of homogeneity of variances

Table 5.17.1: Test of homogeneity of variances (based on gender)

	Levene statistic	df1	df2	Sig.
Emotional_appeal	1.638	1	898	0.201
Informativeness	2.452	1	898	0.118
Advertising_creativity	2.833	1	898	0.093
Product_knowledge	6.800	1	898	0.009
Attitude	7.089	1	898	0.008
Subjective_norm	0.419	1	898	0.517
Perceived_behavioral_control	5.651	1	898	0.018
Intention_purchase	0.036	1	898	0.850
Actual_purchase_behaviour	2.783	1	898	0.096

### **5.2.7.4.** Non-response bias

Non-response bias occurs when a respondent refuses to participate in the research or is unwillingness to participate in a survey. Convince respondents that data will be employed with the utmost confidentiality, while anonymity will remain unchanged throughout the research can minimize the non-response rate to a minimum. (Kocar, 2022; Kusuma, and David, 2022).

The researcher performed the Mann-Whitney U-test to determine if this study has any potential non-response bias. It is a statistical examination of a variable estimated on an ordinal scale. It compared the distinction in the location of two populations and established observations from two independent samples (Malhotra, 2010; Daikeler and Silber and Bošnjak, 2022). The first 450 observations were performed as early respondents to conduct this test. In addition, the last 451 were considered late responders.

As shown in Table 5.18, no significant value was displayed in any of these variables, such as smaller than or equal to 0.05, which recommended that there was no main distinction in the early and late respondents' responses (Malhotra, 2010; Plante and LeSage and Kay, 2022). Therefore, in this study, there was no concern about non-response bias.

Table 5.18: Mann-Whitney U-test observing non-response bias

			7	Test Stati	stics <sup>a</sup>				
							Perceiv		Actual
			Advert				ed_beh		_purch
	Emotio	Inform	ising_c	Produc		Subject	avioral	Intenti	ase_be
	nal_ap	ativene	reativit	t_know	Attitud	ive_no	_contr	on_pur	haviou
	peal	SS	y	ledge	e	rm	ol	chase	r
Mann-	75469.	76531.	74739.	79918.	75395.	75089.	76795.	75901.	77340.
Whitney U	500	000	000	500	000	000	000	500	000
Wilcoxon	105850	106912	105120	294103	105776	105470	107176	106282	107721
W	.500	.000	.000	.500	.000	.000	.000	.500	.000
Z	-1.437	-1.132	-1.645	-0.151	-1.454	-1.566	-1.051	-1.311	-0.895
Asymp.	0.151	0.258	0.100	0.880	0.146	0.117	0.293	0.190	0.371
Sig. (2-									
tailed)									

# 5.3. Factor analysis

Factor analysis is a generic name representing a class of processes primarily employed to diminish data (Malhotra, 2010; Nikolić et al., 2022). In marketing research, there can be many variables, most of which can be associated and that need to be diminished to a manageable level (Malhotra, 2010; Steenkamp & Maydeu-Olivares, 2022). Association between variables is observed and represented in terms of some fundamental factors. In multiple regression, variance and discriminant analysis, one variable is regarded as dependent; the others are independent. However, no such difference can be made in factor analysis (Hair et al., 2006; Malhotra, 2010; Fuentes-Moraleda et al., 2022). Factor analysis is also an interdependence technique in which a group of overall interdependence associations is examined (Hair et al., 2006; Malhotra, 2010). Field (2009) and Malhotra (2010) recommended three distinct methods by which factor analysis could be employed.

- (i) To indicate basic dimensions or factors that can explain the relationship among a set of variables;
- (ii) To indicate a new, smaller set of unrelated variables to substitute the original set of related variables in the consecutive multivariate analysis; and
- (iii) To indicate a smaller set of salient variables from a more extensive set for application in the consecutive multivariate analysis.

This study employed two kinds of factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA can indicate basic dimensions or factors that explain the relationship between variables (Malhotra, 2010; Malhotra et al., 2012; Anuar et al., 2023). In addition, it seeks the nature of the constructs that impact a set of responses (Hair et al., 2006; Farooq & Vij, 2022). It can explain the basic structure of the data and can be employed in evolving theories. It can be called an exploratory analysis because no preliminary restrictions are placed on the form of the associations between the observed measures and the latent variables (Hair et al., 2006; Narsis, 2022).

Contrary to EFA, The definition of CFA is a technique used to evaluate the measurement model. It attempts to confirm if the loadings of observed variables and the number of factors on them are consistent with what is expected on the foundation of theory (Malhotra, 2010). In addition, it allows evaluation of the hypothesis that a correlation between observed variables and underlying latent constructs can exist (Malhotra, 2010; Sahrir and Ponrahono and Sharaai, 2022).

### **5.3.1.** Exploratory factor analysis

Exploratory factor analysis (EFA) was carried out in this study. It is regarded as a statistical procedure employed to analyse the correlation between large numbers of variables. In addition, it can describe these variables in terms of their common underlying factors (Hair et al., 2006; Foroudi, 2012; Mano et al., 2023). It is specified as a multivariate method for fitting measurement models, which explains the covariance among a set of observed variables in terms of a set of latent variables (EasterbySmith et al., 2002; Foroudi, 2012; Narsis, 2022). It can identify the basic dimensions or factors which describe the inter-relationships among a set of variables (Malhotra, 2010; Anuar and Muhammad and Awang, 2023). Every variable is loaded on every factor extracted; these loadings are contained in the factor matrix (Malhotra, 2010; Crick, 2023). It can explore the underlying structure of the data; moreover, it can help to evolve a theory that can lead to a proposed measurement model which can be investigated using

confirmatory factor analysis (Malhotra, 2010; EasterbySmith et al., 2002; Graciano et al., 2022).

Numerous procedures can be available for factor extraction and rotation in SPSS 27.0, among them principle component analysis (PCA), KMO, scree plot, and finally, sorted-by-size, that were selected in SPSS 27.0 for the study. First, PCA is employed to create the initial solutions for EFA (Tabachnick & Fidell, 2007). Then, PCA is applied for factor extraction to consider the total variance in the data. Following Tabachnick and Fidell (2007) and Malhotra (2010), and Wu and Chen (2022), PCA should be suggested: (i) to indicate and diminish the large set of variables into a small number of components by transforming correlated variables into new unassociated linear composite variables; and (ii) to help in the extraction of the maximum variance from the dataset. The first component can extract the highest variance, and the last can extract the least (Foroudi, 2012; Zhang et al., 2022).

The 'Kaiser-Meyer-Olkin (KMO) measurement of sampling adequacy and Barlett's test of sphericity' has been recommended to accomplish appropriate factor analysis outcomes (Norusis, 1992) because they can investigate the suitability of the factor analysis (Malhotra, 2010; Malhotra et al., 2012; Muangpan, 2022). Following this, if the values are high (such as between 0.50 and 1.0), it recommends that the factor analysis is regarded as appropriate. On the other hand, if the values are low (such as below 0.50), the factor analysis might not be appropriate. In this research, all the values were more than 0.70, as displayed in Table 6.19. Therefore, the results indicate that factor analysis was highly suitable for the study.

Table 5.19: KMO and Bartlett's test

Table 5.19.1: KMO and Bartlett's test for Emotional\_appeal

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure	.733		
Bartlett's Test of Sphericity Approx. Chi-Square		2615.467	
	df	3	
	Sig.	.000	

Table 5.19.2: KMO and Bartlett's test for Informativeness

### **KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.756
Bartlett's Test of Sphericity Approx. Chi-Square		3102.215
	df	3
	Sig.	.000

Table 5.19.3: KMO and Bartlett's test for Advertising\_creativity

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			
Bartlett's Test of Sphericity Approx. Chi-Square		4287.412	
df		6	
	Sig.	.000	

Table 5.19.4: KMO and Bartlett's test for Product\_knowledge

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure	.904		
Bartlett's Test of Sphericity	5537.257		
df		10	
	Sig.	.000	

Table 5.19.5: KMO and Bartlett's test for Attitude

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.917
Bartlett's Test of Sphericity		6612.110
	df	21
	Sig.	.000

Table 5.19.6: KMO and Bartlett's test for Subjective\_norm

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure	.836		
Bartlett's Test of Sphericity Approx. Chi-Square		3314.629	
df		6	
	Sig.	.000	

Table 5.19.7: KMO and Bartlett's test for Perceived\_behavioral\_control

KMO and Bartlett's Test				
Kaiser-Meyer-Olkin Measure	.919			
Bartlett's Test of Sphericity Approx. Chi-Square		6265.583		
	df	15		
	Sig.	.000		

Table 5.19.8: KMO and Bartlett's test for Intention\_purchase

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure	.877		
Bartlett's Test of Sphericity Approx. Chi-Square		4638.679	
	df	6	
	Sig.	.000	

Table 5.19.9: KMO and Bartlett's test for Actual\_purchase\_behaviour

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			
Bartlett's Test of Sphericity	8133.526		
	df	15	
	Sig.	.000	

After KMO was performed, researchers suggested that it analyze communalities and eigenvalues (Tabachnick & Fidell, 2007; Aragón Mladosich et al., 2022). The communality is the number of variances a variable can share with all the other variables being considered (Malhotra, 2010; Coskun, 2022; Virglerova et al., 2022).

Barquero Cabrero et al. (2022) and Field (2009) emphasized that a variable with a random variance has a community equal to one. On the other hand, if a variable is not shared with another variable, it will have a community equal to zero.

Many researchers recommend that communality exceed 0.5. Otherwise, the study will need a large sample size of 300 cases or more (Hair et al., 2006; Pallant, 2007; Malhotra, 2010; Malhotra et al., 2012; Faeq et al., 2022). According to this analysis result, as shown in Table 5.20, the researcher did not remove any items based on their communality value.

**Table 5.20: Communalities** 

Communalities			
	Initial	Extraction	
EMO1	0.711	0.733	
EMO2	0.859	0.963	
EMO3	0.815	0.843	
INFO4	0.813	0.839	
INFO5	0.836	0.864	
INFO6	0.886	0.961	
CREA7	0.843	0.856	
CREA8	0.891	0.944	
CREA9	0.883	0.928	
CREA10	0.628	0.633	
PK1	0.778	0.804	
PK2	0.870	0.889	
PK3	0.869	0.893	
PK4	0.793	0.821	
PK5	0.787	0.811	
ATT1	0.575	0.575	
ATT2	0.846	0.858	
ATT3	0.849	0.854	
ATT4	0.750	0.703	
ATT5	0.831	0.865	
ATT6	0.653	0.636	
ATT7	0.738	0.710	
SN1	0.583	0.611	
SN2	0.790	0.841	
SN3	0.848	0.925	
SN4	0.744	0.763	
PCB1	0.756	0.732	
PCB2	0.831	0.844	
PCB3	0.842	0.876	
PCB4	0.809	0.810	
PCB5	0.748	0.739	

PCB6	0.792	0.824
IP1	0.784	0.809
IP2	0.853	0.886
IP3	0.876	0.919
IP4	0.868	0.903
APB1	0.914	0.854
APB2	0.915	0.840
APB3	0.893	0.923
APB4	0.781	0.780
APB5	0.893	0.854
APB6	0.874	0.821

Then, the eigenvalue is computed as the next stage of factor analysis. The eigenvalues represent how many factors are extracted in the overall factor analysis. They indicate the variances caused by each factor (Malhotra, 2010; Liu, 2022). When the component analysis variance of each variable, which adds to the principle factor extraction, is one or higher, it is considered significant. However, if a factor with an eigenvalue is less than one, it is considered insignificant. In addition, it is disregarded from the research (Hair et al., 2006; Tabachnick & Fidell, 2007; Iacobucci et al., 2022). The results of this study displayed that emotional appeal, informativeness, advertising creativity, product knowledge, attitude, subjective norm, perceived behavioural control, intention purchase and actual purchase behaviour all had one factor, as displayed in Appendix C.

The scree plot was another measurement used in this study to encounter several factors. A scree plot is a plot of the eigenvalues versus the number of factors in order of extraction (Malhotra, 2010; Tena & Asuero, 2022). The shape of the scree plot can define several factors. The plot differs between the hilly slope of factors, with large eigenvalues and a gradual trailing-off correlated to the remaining factors (Malhotra, 2010; Sharma & Vohra, 2022). The scree plot is always larger for the first factor, moderate for the medium factors and smaller for the final factor (Tabachnick & Fidell, 2007; Tena & Asuero, 2022). The gradual trailing can be called scree. Anecdotal evidence identifies that there may be one or a few more factors than are determined by the eigenvalue criterion (Malhotra, 2010; Malhotra et al., 2012; Salaheldeen et al., 2022). On the other hand, such results are defined in Figure 5.5. It recommended no distinction between the eigenvalues and the scree plot.

# Figure 5.5: Scree plots

Figure 5.5.1: Scree plot for Emotional\_appeal

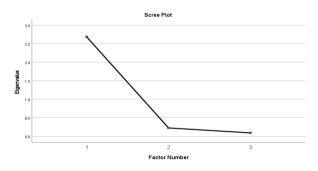


Figure 5.5.2: Scree plot for Informativeness

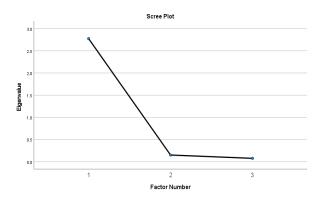


Figure 5.5.3: Scree plot for Advertising\_creativity

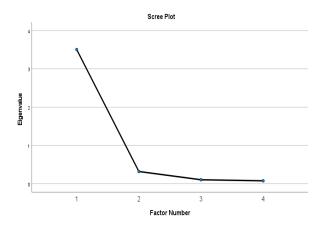


Figure 5.5.4: Scree plot for Product\_knowledge

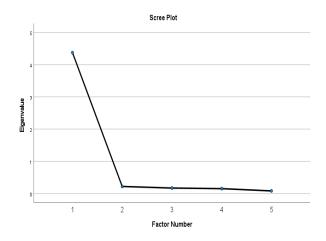


Figure 5.5.5: Scree plot for Attitude

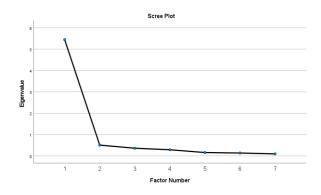


Figure 5.5.6: Scree plot for Subjective\_norm

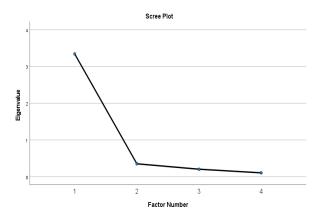


Figure 5.5.7: Scree plot for Perceived\_behavioral\_control

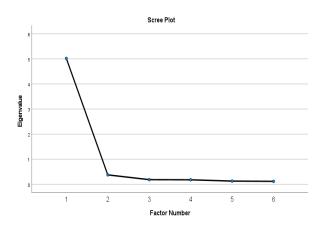


Figure 5.5.8: Scree plot for Intention\_purchase

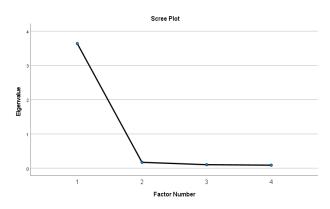
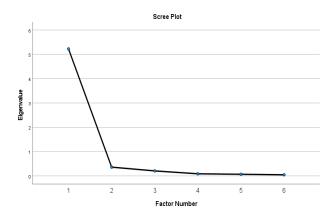


Figure 5.5.9: Scree plot for Actual\_purchase\_behaviour



After the factors were extracted, a rotated loading matrix was employed in this study to determine the number of variables which could load on each factor. The rotated loading consists of a factor matrix comprising the coefficients used to display the standardised variables in terms of the factors (Malhotra, 2010; Bruno and Melnyk and Murray, 2022). These coefficients display the interrelationships between the variables and the factors. For example, a factor with a high value shows that the factors and variables are strongly associated, while a low value presents a weak relationship (Hair et al., 2006; Malhotra, 2010; Majumdar & Pujari, 2022). Therefore, previous researchers have

recommended removing low-value variables (Hair et al., 2006; Malhotra, 2010; Malhotra et al., 2012; Alakkas et al., 2022).

Awang, (2012) and Zheng and Huang (2022) recommended that 0.50 was a sophisticated value, often used and suggested by several social science researchers. A rotated factor matrix for the other constructs was not employed because there was only one factor (Awang, 2012; Ghosh, 2022). The analysis recommended that celebrity trust was a higher-order construct. A higher-order construct is regarded as one in which two or more levels can explain the covariances between the observed variables or layers of the latent construct (Malhotra, 2010; Li and Yan and Liu, 2023). The most common higher-order construct model is a second-order construct with two levels or layers (Malhotra, 2010; Meng et al., 2023). In this study, celebrity trust was regarded as a higher-order construct with two second-order constructs, affective and cognitive dimensions. In addition, CFA analysis was carried out according to the higher-order construct's requirements (Awang, 2012; Lima et al., 2023).

In addition to additional aspects of the rotation matrix, some researchers (Hair et al., 2006; Tabachnick & Fidell, 2007; Malhotra, 2010; Frank et al., 2022) have also recommended removing variables highly associated with multiple factors. These situations can make it challenging to interpret the factors. On the other hand, none of the variables in this study could be found with high loadings on two factors. In addition, many researchers have defined different rotation approaches, which might lead to identifying various factors (Hair et al., 2006; Field, 2009; Malhotra, 2010; Liu, 2022). The two fundamental types of rotation approaches are orthogonal and oblique. The orthogonal rotation approach is employed when all factors are independent of the other factors. However, the oblique rotation approach is used when the factors in the population are associated with each other (Tabachnick & Fidell, 2007; Bruno and Melnyk and Murray, 2022).

In this study, the researchers employed the most common orthogonal rotation approach, which is called the varimax procedure, which is an orthogonal approach of rotation that reduces the number of variables with high loadings on a factor, that increasing the interpretability of the factors (Tabachnick & Fidell, 2007; Malhotra, 2010; Majumdar & Pujari, 2022).

In conclusion, the researcher must still remove items from this study based on exploratory factor analysis.

**Table 5.21: Rotated factor matrices** 

	Component				
	1	2	3	4	5
EMO1		0.740			
EMO2		0.781			
EMO3		0.775			
INFO4		0.753			
INFO5		0.763			
INFO6		0.774			
CREA7		0.798			
CREA8		0.778			
CREA9		0.798			
CREA10		0.630			
PK1					0.741
PK2					0.801
PK3					0.789
PK4					0.707
PK5					0.752
ATT1			0.693		
ATT2			0.758		
ATT3			0.734		
ATT4			0.563		
ATT5			0.718		
ATT6			0.765		
ATT7			0.624		
SN1	0.609		0.408		
SN2	0.581		0.517		
SN3	0.624		0.466		
SN4	0.571		0.431		
PBC1			0.404	0.709	
PBC2				0.769	
PBC3				0.747	
PBC4				0.684	
PBC5				0.684	
PBC6				0.738	
IP1	0.617			0.438	
IP2	0.609			0.418	
IP3	0.627			0.412	
IP4	0.609				
APB1	0.777				
APB2	0.760				
APB3	0.797				
APB4	0.759				

APB5	0.807		
APB6	0.790		

# **5.4** The measurement model results

The measurement model's goodness of fit was assessed by confirming all multi-items' convergent validity, discriminant validity, and reliability.

**Table 5.22. Factor loading** 

			Estimate
PK1	<	Product_knowledge	0.912
PK2	<	Product_knowledge	0.931
PK3	<	Product_knowledge	0.918
PK4	<	Product_knowledge	0.902
PK5	<	Product_knowledge	0.886
Att1	<	Attitude	0.745
Att2	<	Attitude	0.902
Att3	<	Attitude	0.902
Att4	<	Attitude	0.870
Att5	<	Attitude	0.924
Att6	<	Attitude	0.806
PBC1	<	Perceived_behavioral_control	0.887
PBC2	<	Perceived_behavioral_control	0.924
PBC3	<	Perceived_behavioral_control	0.915
PBC4	<	Perceived_behavioral_control	0.945
PBC5	<	Perceived_behavioral_control	0.877
PBC6	<	Perceived_behavioral_control	0.909
SN1	<	Subjective_norm	0.780
SN2	<	Subjective_norm	0.922
SN3	<	Subjective_norm	0.949
SN4	<	Subjective_norm	0.908
IP1	<	Intention_purchase	0.928
IP2	<	Intention_purchase	0.919

1			
			Estimate
IP3	<	Intention_purchase	0.915
IP4	<	Intention_purchase	0.917
APB1	<	Actual_purchase_behaviour	0.927
APB2	<	Actual_purchase_behaviour	0.901
APB3	<	Actual_purchase_behaviour	0.961
APB4	<	Actual_purchase_behaviour	0.891
APB5	<	Actual_purchase_behaviour	0.911
APB6	<	Actual_purchase_behaviour	0.893
Att7	<	Attitude	0.849
EMO1	<	Emotional_appeal	0.833
EMO2	<	Emotional_appeal	0.946
INFO4	<	Informativeness	0.935
INFO5	<	Informativeness	0.947
INFO6	<	Informativeness	0.961
CREA7	<	Advertising_creativity	0.957
CREA8	<	Advertising_creativity	0.945
CREA9	<	Advertising_creativity	0.979
CREA10	<	Advertising_creativity	0.775
EMO3	<	Emotional_appeal	0.952

In Table 5.22 and Figure 5.7, standardized estimates can allow us to assess the relative contributions of each predictor variable to each outcome variable. For example, a 1-unit raise in the predictor variable raises the outcome variable by the value given in the column estimate.

When PK can increase by 1, PK1 will rise by 0.912, PK2 by 0.931, PK3 by 0.918, PK4 by 0.902, and PK5 by 0.886.

When Att increases by 1, Att1 increases by 0.745, Att2 by 0.902, Att3 by 0.902, Att4 by 0.870, Att5 by 0.924, Att 6 by 0.806 and Att7 by 0.849.

When PBC increases by 1, PBC1 increases by 0.887, PBC2 by 0.924, PBC3 by 0.915, PBC4 by 0.945, PBC5 by 0.877 and PBC6 by 0.909.

When SN increases by 1, SN1 increases by 0.780, SN2 by 0.922, SN3 by 0.949 and SN4 by 0.908.

When IP increases by 1, IP1 increases by 0.928, IP2 by 0.919, IP3 by 0.915 and IP4 by 0.917.

When APB increases by 1, APB1 increases by 0.927, APB2 by 0.901, APB3 by 0.961, APB4 by 0.891, APB5 increases by 0.911 and APB 6 increases by 0.893.

When EMO increases by 1, EMO2 increases by 0.833, EMO2 increases by 0.946 and EMO3 by 0.952.

When INFO increases by 1, INFO4 increases by 0.935, INFO5 by 0.947 and INFO6 by 0.961.

When CREA increases by 1, CREA7 increases by 0.957, CREA8 by 0.945, CREA9 by 0.979 and CREA10 by 0.775.

The variable composite means from factor score were determined by maintaining the Common Latent Factor to resolve the issue of common method bias.

# 5.5 Reliability analysis

Reliability, convergent validity and discriminant validity were tested using the following metrics; Cronbach's alpha; Composite reliability and average variance extracted.

### 5.5.1 Reliability

Reliability (it can also be called consistency and reproducibility) is regarded as the degree to which the measurement scale produces consistency. Reliability is the level at which "a procedure, measure or instrument produces the same result on repeated trials" (Carmines & Zeller, 1979; Malhotra, 2010; Panwar et al., 2022). If the researchers repeated the study, they would obtain the same results (Al-Dhaafri & Alosani, 2023; Bradley, 2013; Miguel and Marques and Duarte, 2022). Therefore, reliability tests the degrees of consistency among multiple variable measurements (Hair and Anderson and Tathman and Black, 2013; de Rezende & Medeiros, 2022; Oveisi et al., 2023). The

reliability of all samples in the final study could be examined using the same procedures as in the pilot study.

Composite reliability (CR) can examine the overall reliability of a set of scale items loaded on a latent variable. Also, the researchers compute composite reliability (CR), defined as the total amount of actual score variance associated with the full score variance (Nunan and Birks and Malhotra, 2020; Herrada-Lores and Iniesta-Bonillo and Estrella-Ramón, 2022). Its value ranges between zero and one; moreover, if CR is more than 0.80, it can reflect the excellent reliability of the construct (Bradley, 2013; Chen et al., 2022).

$$CR = \frac{(\sum_{n=1}^{n} \lambda)^2}{(\sum_{n=1}^{n} \lambda)^2 + \sum_{i=1}^{n} \delta_i'}$$

The measures' reliability was tested by estimating corrected item-to-total values and coefficients of Cronbach alpha and by investigating the composite reliability (CR) values. In Table 5.23 to 5.24, the corrected item-to-total ranged from 0.742 to 0.941, and therefore, all of them were higher than the recommended threshold of 0.5 (Nunnally, 1978). Moreover, Cronbach alpha coefficients ranged from 0.934 to 0.967, exceeding the recommended threshold of 0.6 (Bagozzi and Yi, 1988; Byrne, 2001; Hair et al., 2014; Nunnally; 1978). In addition, composite reliability values ranged from 0.937 to 0.968; therefore, all of them were higher than the recommended threshold of 0.7 (Nunnally, 1978).

Results indicated adequate reliability estimated on the following conditions (Hair and Black, 2010). All measurement item loadings and Cronbach's alpha were higher than 0.70 and the CR of each variable was more significant than 0.80. For internal consistency among measurement items, Cronbach's alpha was ranged from 0.934 to 0.970, and CR for all construct was more significant than 0.7 as recommended. Fronell and Larcker's method was used to estimate discriminant validity (Fornell and Larcker, 1981). The average variance extract (AVE) reveals how much variance the latent variable captures among other variables in the dimension. The higher AVE's values are, the observed variables are able to respond to more latent trait common factor between dimensions.

All these results showed evidence for satisfactory levels of the reliability of the research scales. In addition, reliability significantly braced the hypothesized model.

Table 5.23: Cronbach's alpha

Construct	Cronbach's	Item	Scale mean	Scale	Corrected	Cronbach's
	alpha		if item	variance if	item-total	alpha if item
			deleted	item deleted	correlation	deleted
Emotional appeal	0.942	Emotional appeal 1	9.63	9.219	0.834	0.948
		Emotional appeal 2	10.11	8.292	0.922	0.879
		Emotional appeal 3	10.11	8.680	0.880	0.913
Informativeness	0.959	Informativeness 4	9.72	10.746	0.895	0.954
		Informativeness	10.08	10.867	0.904	0.947
		5 Informativeness	9.88	10.251	0.941	0.919
		6				
Advertising creativity	0.952	Advertising creativity 7	13.04	25.263	0.894	0.934
		Advertising creativity 8	13.29	25.174	0.936	0.922
		Advertising creativity 9	13.09	25.036	0.928	0.924
		Advertising creativity 10	13.65	27.031	0.782	0.968
Product knowledge	0.964	Product knowledge 1	16.86	43.698	0.878	0.959
		Product knowledge 2	16.86	41.993	0.919	0.952
		Product knowledge 3	16.84	42.374	0.922	0.952
		Product knowledge 4	16.54	42.605	0.887	0.957
		Product knowledge 5	16.81	42.986	0.882	0.958
Attitude	0.951	Attitude 1	28.25	88.684	0.742	0.952
		Attitude 2	27.86	86.620	0.900	0.937
		Attitude 3	27.92	86.745	0.894	0.938
		Attitude 4	28.57	90.186	0.812	0.945
		Attitude 5	28.11	86.933	0.899	0.938
		Attitude 6 Attitude 7	27.71	88.703 90.144	0.779	0.948
Subjective Norm	0.934	Subjective	13.20	22.526	0.818	0.944
Subjective North	0.234	Norm 1				
		Subjective Norm 2	13.33	20.982	0.875	0.903
		Subjective Norm 3	13.46	20.780	0.909	0.892
		Subjective Norm 4	13.63	21.924	0.836	0.916
Perceived Behavioural	0.961	Perceived Behavioural	22.85	66.410	0.837	0.957

Control		Control 1				
		Perceived Behavioural Control 2	23.19	65.252	0.897	0.951
		Perceived Behavioural Control 3	23.36	65.423	0.912	0.949
		Perceived Behavioural Control 4	23.51	67.013	0.878	0.953
		Perceived Behavioural Control 5	23.40	66.680	0.840	0.957
		Perceived Behavioural Control 6	23.21	65.884	0.887	0.952
Intention to purchase	0.967	Intention to purchase 1	13.43	25.825	0.884	0.965
-		Intention to purchase 2	13.08	24.961	0.920	0.955
		Intention to purchase 3	13.33	24.859	0.935	0.951
		Intention to purchase 4	13.17	24.922	0.928	0.953
Actual Purchase Behavior	0.970	Actual Purchase Behavior 1	20.95	76.308	0.905	0.964
		Actual Purchase Behavior 2	21.03	76.472	0.898	0.965
		Actual Purchase Behavior 3	20.78	74.033	0.941	0.960
		Actual Purchase Behavior 4	20.80	76.139	0.870	0.968
		Actual Purchase Behavior 5	20.46	73.726	0.910	0.964
		Actual Purchase Behavior 6	20.46	74.446	0.893	0.965

#### **5.5.2** Convergent validity

Further, the reliability was tested. Another measure used to evaluate convergent validity in this study was average variance extracted (AVE). AVE is the variance in the indicators or observed variables described by the latent construct (Malhotra, 2010; Ezeh & Nkamnebe, 2022). AVE of 0.50 or more indicates adequate convergent validity. However, if AVE is lower than 0.50, then the validity of the indicators and constructs may be doubtful. The results from this study showed that AVE for each construct was more than 0.5, as shown in Table 5.24. (Febriani and Sholahuddin and Kuswati, 2022; Shahid et al., 2022).).

Table 5.24 lists all the constructs' composite reliabilities (CR) values during the study. All of the CR values are more than 0.8, which can indicate adequate internal consistency. In addition, it can mean that all indicators assess the same concepts for which they are created (Chakraborty & Biswal, 2023; Hartoyo and Handayani and DP, 2023).

In Table 5.22, the factor loadings for all items were significant and exceeded the recommended cut-off level of 0.60 (Chin et al., 1997; Le et al., 2023). In addition, the results of internal reliability using Cronbach's a values ranged from 0.934 to 0.967, more than 0.70 as suggested by Nunnally and Bernstein (1994) and Machado and Goswami (2023). Composite reliability values of all latent constructs ranged from 0.937 to 0.968, higher than the acceptable level of 0.70 (Hair et al., 2010; Fanaee & Bokaee, 2022). In the same way, the average variances extracted could reflect the overall amount of shared variance among the indicators assessing particular latent construct was in the range of 0.50 to 0.70, exceeding the acceptable threshold level of 0.50 (Bagozzi & Yi, 1988; Hair et al., 2010; Odondo, 2023).

In addition, the square root of (AVE) between a construct and its measures must be higher than the relationships between the construct and any other construct in the research model; moreover, AVE was found greater than inter-correlations with another construct. All values of AVE were greater than 0.5 displaying that measurement items onverged on the same construct (Table 5.24). Therefore, convergent validity significantly braced the hypothesized model.

As vealed in Table 5.24, The CR and AVE could reach the standard and correspond to the recommendations of Fornell and Larcker (1981) and Hair et al. (2009), CR should be higher than 0.7, All values of AVE are more significant than 0.5. In addition, the correlation between consistency and convergent validity has proven to be exist in all dimensions. Therefore, the nine dimensions of the model have verified the good convergent validity. According to the significant importance of items in assessing their constructs, all latent constructs have a composite reliability of at least 0.80 and AVE of at least 0.70.

Therefore, these results indicate that the measurement model has a sufficient convergent validity level. (Ziko and Asfour, 2023; Alkhawaldeh et al., 2023).

In addition, the test results as displayed in Table 5.23 revealed Hypothesis 1 to Hypothesis 10; The emotional appeals will strengthen product knowledge;

Informativeness will strengthen product knowledge; Advertising creativity will strengthen product knowledge; Product knowledge will strengthen attitude; Product knowledge will strengthen subjective norm; Product knowledge will strengthen perceived behavioral control; Attitude will strengthen intention to purchase; Subjective norm will strengthen intention to purchase; Perceived behavioral control will strengthen intention to purchase; Intention to purchase will strengthen actual purchase behavior. Therefore, these ten hypotheses are supported.

## **5.6 Validity Measurement**

	GP.		May	MaxR	Infor ma tive	Pro duct _ Know	Atti	Per Ceiv ed Beha vioral	Sub jec tive - norm	In ten tion — Pur Ch	Actua l_ purch ase_ behav iour	Em o tion al - ap	Adver tising _creat ivity
Info	CR	AVE	MSV	(H)	ness	ledge	tude	trol		ase		peal	
rma tive ness	0.964	0.898	0.702	0.965	0.948								
Pro duct													
kno wle													
dge	0.960	0.828	0.533	0.961	0.631	0.910							
Atti tude	0.951	0.738	0.590	0.959	0.720	0.708	0.859						
Perc eive d													
Beh avio ral													
cont rol	0.966	0.828	0.661	0.969	0.651	0.730	0.740	0.910					
Sub jecti ve													
nor m	0.939	0.796	0.666	0.955	0.665	0.625	0.764	0.703	0.892				
Inte ntio n													
pur chas e	0.956	0.846	0.697	0.957	0.650	0.709	0.768	0.813	0.816	0.920			
Act ual_ Pur chas e_ beh avio	0.050	0.026	0.005	0.073	0.505	0.500	0.650	0.505	0.554	0.005			
ur Em	0.968	0.836	0.697	0.972	0.585	0.700	0.670	0.707	0.754	0.835	0.914		
otio nal													
- app eal	0.937	0.832	0.679	0.953	0.824	0.587	0.649	0.578	0.639	0.633	0.600	0.912	
Adv ertis ing _cre													
ativi	0.955	0.842	0.702	0.978	0.838	0.610		0.608		0.674		0.787	

#### Table 5.24: Validity and reliability statistics

Validity is "the extent to which data collection approaches can accurately assess what they were intended to" (Saunders & Thornhill, 2003; Khan et al., 2022). In addition, validity is the extent to which a measurement displays characteristics which exist in the phenomenon under examination (Nunan and Birks and Malhotra, 2020; Imtiyaz and Soni and Yukongdi, 2022).

By Fornell and Larcker (1981), the average variance extracted (AVE) should be larger than 0.5. The AVE for each of the factors can be manually calculated for all the constructs using the formula recommended by Heir et al. (1995) and Kraus et al. (2022):

$$AVE = \frac{\sum_{i=1}^{n} \lambda_i^2}{\sum_{i=1}^{n} \lambda_i^2 + \sum_{i=1}^{n} \delta_i'},$$

Where  $\lambda$  is the standardized factor loadings, and  $\delta$  is the indicator measurement error.

#### 5.6.2 Discriminant validity

Discriminant validity is the extent to which a set of variables of a particular construct is distinct from other constructs in the model. This means that the variance shared between the items assessing a construct and its construction is more than that shared with other constructs in the model (Compeau et al., 1999; Saputra and Setyoko and Kurniasih, 2022).

The discriminant validity of all the constructs was assessed by comparing the square root value of AVE for each of them with the correlation values displayed in Table 5.24. Because the square root of the value of AVE is more than the highest correlation of the construct with any other constructs, it can indicate that the discriminant validity of the construct is created. Therefore, it can be regarded as the results obtained from the hypothesis testing are considered valid and reliable (Fornell & Larcker, 1981; Khan et al., 2022; Muhammad & Bin Ngah, 2023).

Discriminant validity assesses whether the variable in the study is entirely different from other variables. For example, whether Discriminant validity is not theoretically associated with other variables (Churchill, 1979; Hair et al., 2013; Nunan and Birks and Malhotra, 2020; Siedler et al., 2022). Therefore, discriminant validity can be measured for all the constructs under study.

Nguyen-Viet, (2023) and Oveisi et al. (2023) indicated that the coefficients of Cronbach's alpha reliability were calculated as a measure of the reliability of the measurement scales. A smaller alpha indicates that the sample performs poorly in capturing the structure. The results of Cronbach's alpha reliability can be acceptable reliability (coefficient alpha > 0.964); therefore, the reliability of the PK construct measurement scale is supported due to Cronbach's alpha value being greater than the threshold value (0.8) that is displayed in Table 5.23.

The discriminant validity can be defined as the extent to which a set of variables of a specific construct diverges from other constructs in the model. This means that the variance shared among a set of items that estimate a construct and their own construct is greater than the variance can shared with other constructs in the model (Compeau et al., 1999). In addition, this study uses AVE to discriminate the discriminant validity of all dimensions. AVE's square roots are greater than the highest correlation of the construct with any other constructs, which can prove that discriminant validity exists among dimensions (Fornell and Larcker, 1981), as shown in Table 5.24. Discriminant validity could determine construct validity. According to the criterion recommended by Fornell and Larcker (1981), the discriminant validity can be determined by comparing the square root of the AVE values with the correlations between the constructs.

As revealed in Table 5.24, indicated that the square root of AVE as shown in the diagonal, is greater that other values in its rows and columns. Therefore, these results can confirm that the model has adequate discriminant validity.

Another statistic, maximum shared variance (MSV), can assess how far a variable is described for other variables for measuring discriminant validity MSV < AVE. MSV values are shown in Table 5.24, which indicates that all MSV values are less than AVE. Therefore, discriminant validity is determined. The combination of these indicators can confirm that the measurement model has fitted the data. In addition, it can efficiently recreate the covariance matrix (Alkhawaldeh et al., 2023; Zheng et al., 2022).

These results can confirm that the model has sufficient discriminant validity. In summary, the measurement model can confirm adequate reliability, convergent validity and discriminant validity.

## 5.7 Measurement model testing by CFA

Firstly, CFA was performed to investigate the fit of the tested four-factor models composed of three food advertising contents and product knowledge. Following CFA results, convergent validity, discriminant validity and reliability of all of the multi-items were assessed (Fornell & Larcker, 1981; Sovey and Osman and Effendi, 2022). Table 5.25 and Figure 5.6 indicate that the internal consistency can be acceptable with a higher Cronbach's alpha (0.872 to 0.964) than the recommended 0.70 (Nunnally, 1978; Nikoli et al., 2022).

The first section of measuring the model was the assessment model. The CFA technique can be used to assess reliability and validity. Generally, CFA specifies which variables define the construct. It can confirm if the number of factors and the loadings of variables on them can match what can be expected on the foundation of the theory (Malhotra, 2010; Bajaj & Kaur, 2022). In addition, it can allow the researcher to test an association between variables and their latent constructs (Malhotra, 2010; Sahrir and Ponrahono and Sharaai, 2022). Finally, it can help to delete items that cannot cluster with other items.

Reliability was regarded as the first estimation of the measurement model. Evaluation of reliability at the constructs level and items level were both employed (Hair et al., 2006). Reliability at the items level estimated the internal consistency of the measuring of observed items to display a latent construct and neglect additional dimensions arose by factor analysis as a result of the refuse items (Churchill, 1979; Hair et al., 2006; Foroudi, 2012; Aouatef and Imene and Latifa, 2023). The definition of internal consistency is an approach that can evaluate the internal consistency of the set of items after several items are concluded to generate a total score for the scale (Malhotra, 2010; Malhotra et al., 2012; Morales-Solana and Cotas and Esteban-Millat, 2020).

Each item assesses some aspect of the construct estimated by all the scales in this kind of scale. In addition, the items should be consistent in what they stated about the characteristic (Malhotra, 2010; Farooq & Vij, 2022). This reliability assessment is based on the internal consistency of the items generating a scale. The internal consistency of the items was estimated using Cronbach's alpha, which is an assessment of internal consistency reliability, which is the average of all possible split-half coefficients coming from the divergent splitting of the scale items (Malhotra, 2010; Malhotra et al., 2012; Fernandes et al., 2022). This research used a minimum threshold criterion of more than

0.6 (DeVellis, 2003; Hair et al., 2006; Tabachnick & Fidell, 2007; Fernandes et al., 2022). Results display that all the scales had an internal consistency value higher than 0.7, as shown in Table 5.25.

Table 5.25: Internal consistency reliability, composite reliability and AVE

Table 5.25.1: Internal consistency reliability, composite reliability and AVE for Emotional\_appeal

Items	Loadings	Errors	SE	CR	P	Squared Loadings	(SUM (Loadings))	AVE
EMO1	0.827	0.843	0.023	36.419	***	0.684	^2 84.636	0.842
EMO2	0.944	1.003	0.019	53.823	***	0.891		
Internal	Internal consistency reliability: 0.942					Composite reliability: 0.955		

Table 5.25.2: Internal consistency reliability, composite reliability and AVE for Informativeness

Items	Loadings	Errors	SE	CR	P	Squared	(SUM	AVE
						Loadings	(Loadings))	
							^2	
INFO4	0.93	0.946	0.017	56.822	***	0.865	88.810	0.828
INFO5	0.945	0.956	0.016	61.24	***	0.892		
Internal consistency reliability: 0.959				Composite reliability: 0.935				

Table 5.25.3: Internal consistency reliability, composite reliability and AVE for Advertising\_creativity

Items	Loadings	Errors	SE	CR	P	Squared	(SUM	AVE
						Loadings	(Loadings))	
							^2	
CREA7	0.954	0.986	0.016	61.409	***	0.911	84.030	0.896
CREA8	0.944	0.953	0.015	64.639	***	0.891		
CREA10	0.777	0.798	0.023	34.529	***	0.603		
Internal consistency reliability: 0.952					Comp	osite reliab	ility: 0.963	

Table 5.25.4: Internal consistency reliability, composite reliability and AVE for Product knowledge

Items	Loadings	Errors	SE	CR	P	Squared Loadings	(SUM (Loadings)) ^2	AVE
PK1	0.911	0.926	0.019	47.488	***	0.83	84.356	0.843
PK2	0.947	1.006	0.016	63.123	***	0.898		
PK4	0.889	0.948	0.019	49.328	***	0.79		
PK5	0.88	0.92	0.019	47.328	***	0.775		
Internal consistency reliability: 0.964				Composite reliability: 0.964				

In addition to Cronbach's Alpha, composite reliability was also employed to estimate the reliability of the construct. Composite reliability is the total number of actual score variances in relation to the total score variance (Malhotra, 2010). It accords with the conventional notion of reliability in classical test theory (Malhotra, 2010; Malhotra et al., 2012; Nuseir et al., 2023). Previous researchers have suggested using composite reliability of 0.7 or higher (Nunnally, 1978; Hair et al., 2006; Fanaee & Nazem Bokaee, 2022), but evaluate between 0.6 and 0.7 which is regarded as acceptable if the assessment of model validity were good. The results of this study indicated that composite reliability for each construct was higher than 0.7.

In addition, this study also adopts the three types of validity tests: convergent validity, discriminant validity and nomological validity. The definition of convergent validity is the homogeneity of the constructs. It can assess the extent to which the scale is positively correlated with other measures of the same scale (Hair et al., 2006; Malhotra, 2010; Lianu et al., 2022). High factor loading can indicate that the observed variables converge on the same construct (Malhotra, 2010; Malhotra et al., 2012; Kabir and Abdullahi and Naqshbandi, 2022). A good rule of thumb indicates that all the factor loadings should be significant, more than 0.5 and ideally have values higher than 0.70 (Hair et al., 2006; Fanaee & Nazem Bokaee, 2022).

A factor loading greater than 0.70 indicates the construct explains 50 per cent or higher of the variation in the observed variable (Malhotra, 2010; Brakhas and Seif Panahi Shabani and Zia, 2022).

As indicated in table 6.25 and Figure 55.5, all standardized factor loadings were significant and higher than the threshold value of 0.70 (p < 0.001). However, the rest of

the values of the questions are over 0.7. All standardized factor loadings proved good convergent validity. In addition, factor loadings for the latent constructs ranged from 0.777 to 0.981, displaying strong support for construct validity (Hair and Anderson and Tatham and Black, 1998 (Milicevic et al., 2022).

Another assessment to estimate convergent validity applied in this study was average variance extracted (AVE). The average variance extracted (AVE) is the variance in the indicators or observed variables, which the latent construct can explain (Hair et al., 2006; Malhotra, 2010; Ezeh and Ezeh and Nkamnebe, 2022). It is defined as the variance in the indicators or observed variables that are explained by the latent construct (Febriani and Sholahuddin and Kuswati, 2022; Hair et al., 2006; Malhotra, 2010), AVE of 0.50 or greater indicates adequate convergent validity, whereas if AVE is smaller than 0.50. Therefore, it indicates that the validity of the indicators and constructs is still being determined. The results of this study showed that AVE for each construct was significant than 0.5, as shown in Table 5.25 and Table 5.26.

As shown in Table 5.25, all average variance extracted (AVE) levels (0.828 to 0.896) were more than the threshold value of 0.50 (Fornell & Larcker, 1981; Ezeh & Nkamnebe, 2022).

Table 5.26: Constructs correlation matrix and AVE

	CR	AVE	MSV	Max R(H)	Adve rtisin g_cre ativit y	Emoti onal_ appea l	Infor mativ eness	Produc t_know ledge
Advertising								
_ creativity	0.955	0.842	0.684	0.978	0.918			
<b>Emotional</b> _								
appeal	0.935	0.828	0.681	0.953	0.785	0.910		
Informativ								
e						0.825		
ness	0.963	0.896	0.684	0.965	0.827		0.946	
Product_			· · · · · · · · · · · · · · · · · · ·					
knowledge	0.964	0.843	0.377	0.970	0.591	0.571	0.614	0.918

The following validity method used in this study was that of discriminant validity:

Discriminant validity cites to the extent to which measures do not associate with other constructs, such as each construct is entirely distinct and divergent from other constructs

in the study (Steenkamp & Van Trijp, 1991; Hair et al., 2006; Malhotra, 2010; Saputra and Setyoko and Kurniasih, 2022). Khan et al. (2022) and Malhotra (2010) recommended that it was an initial criterion to investigate the individual observed variables that have a load only on one latent construct. Cross-loadings display potential problems and ought to be deleted in earlier stages. Previous results from the EFA had already recommended that there was no cross-loading between the constructs.

Another test to investigate discriminant validity is calculating AVE for each construct and comparing AVE with their square correlation, as displayed in Table 5.26.

The score for the AVE must be greater than the latent variables (LV) to support discriminant validity (Fornell & Larcker, 1981; Malhotra, 2010; Malh5tra et al., 2012; Saputra and Setyoko and Kurniasih, 2022; Khan et al., 2022). The result of this study displayed that AVEs were more significant than the threshold values of acceptance.

These results could support the convergent validity of the measure, and the four factors were different and unidimensional (Anderson & Gerbing, 1988; Ezeh & Nkamnebe, 2022).

**Table 5.27: Inter-construct correlation** 

		Advertising	Emotiona	Informa	Product_k
	AVE	_creativity	l_appeal	tiveness	nowledge
Advertising					
creativity	0.842	1			
Emotional_					
appeal	0.828	0.785	1		
Informativ					
e					
ness	0.896	0.738	0.798	1	
Product_					
knowledge	0.843	0.550	0.608	0.606	1

The last validity test applied to the measurement model was nomological validity. This study uses Nomological validity to assess the associations between theoretical constructs. It tries to confirm the important relationship between the constructs as predicted by the theory (Malhotra, 2010; Ali et al., 2023). The appropriate measures are often used as sufficient conditions to evaluate nomological validity (Steenkamp & Van Trijp, 1991; Foroudi, 2012; Hatipoglu & Koc, 2023). They can assess the overall goodness-of-fit index or badness-of-fit index for the measurement model (and the

structural model used later on). Goodness-of-fit indices can identify how well the specified model fits the observed or sample data, so higher values of these measures are preferred. However, the badness of fit indices estimates errors or deviations in some form. Therefore, lower values on these indices would be desirable (Malhotra, 2010; Malhotra et al., 2012; Satriani and Komariah and Wadud, 2023; Oe and Amaoka and Ochiai, 2023).

The result of this study is shown in Table 5.28. Larger values for the goodness of fit and smaller values for the badness of fit recommended that the model have a good fit (Malhotra, 2010; Malhotra et al., 2012; Agustina, 2023).

Table 5.28: Goodness-of-fit measures Description

	Acceptable fit	Acceptable fit						
Absolute fit measures	•							
Chi-square (χ2)	A badness-of-fit measure. The minimum discrepancy value is applied to test the null hypothesis, in which the assessed variance-covariance matrix deviates from the sample. It is regarded as sample sensitive. The more significant the difference between implied and sampled moments, the larger the chisquare statistic and the stronger the evidence against the null hypothesis.	$p > 0.05$ (at $\alpha$ equal to 0.05).						
Goodness-of-fit index (GFI)	Show the overall level of fit by comparing the squared residuals from predictions with the actual data. In addition, it comares the comparison of the square residual for the level of freedom gained through ML (maximum likelihood) and ULS (unweighted least squares).	Value >0.95 is a good fit; value 0.90-0.95 is an adequate fit.						
Normed fit Chi-square CMIN/DF (χ2 /df)	The minimum discrepancy is divided by its degree of freedom. A value close to one shows a good fit, but less than one.	Close to 1 is good, but it should not exceed 3.						
Adjusted goodness-of-fit index (AGFI)	An enlargement of the GFI index. Tailor by the df ratio for the proposed model and the null model.	Value >0.95 is a good fit; value 0.90-0.95 is an adequate fit.						
Root means a square error of approximation residual (RMSEA)	The population discrepancy function describes how well the fitted model approximates per degree of freedom.	Value <0.05 is a good fit; value 0.08-0.05 is an adequate fit.						

Incremental fit measures		
Normed fit index (NFI)	Compares the proposed model with the null model without examining the levels of freedom (not adjusted for df). The impact of sample size is powerful.	Value >0.95 is a good fit; values more than 0.08 and can close to 0.90 identifies as an acceptable fit.
Normed comparative fit index (CFI)	A variation of the NFI, NNFI and identical to the relative noncentrality index (RNI) shows the comparative index between the proposed and baseline model improved for df. Therefore, it can be a highly suggested index for the model's fitness.	Value >0.95 is a good fit; values more than 0.08 and close to 0.90 identifies as an acceptable fit.
Tucker-Lewis Index (TLI) or Non-normed fit index (NNFI)	Opposite of NFI and called non-NFI or NNFI. It shows the comparative index between the proposed and baseline model that improved for df.	Value >0.95 is a good fit; values more than 0.08 and close to 0.90 displays an acceptable fit.
Parsimonious fit measures		
Parsimony goodness of fit index (PGFI)	The degree of freedom can be used to improve the GFI value by employing the parsimony ratio.	A higher value compared to the other model is better.
Parsimony normed fit index (PNFI)	The degree of freedom adjusts the NFI value based on the parsimony ratio.	A higher value compared to the other model is better.

Source: Hair et al. (1998, 2006), and Foroudi (2012)

In the study, all three of the model fitness indicators (incremental fit indices, parsimony fit indices and absolute fit indices) were used for the measurement model. Absolute fit indices introduce the degree to which the hypothesised model generates the sample data. Incremental fit indices can compute how fit the specific model relates to alternative baseline models; moreover, parsimony fit indices can estimate fit concerning model complexity and are useful in estimating competing models (Hair et al., 2006; Malhotra, 2010; Malhotra et al., 2012; Nuseir et al., 2023).

This study first used the absolute fit indices, including goodness-of-fit and badness-of-fit models. For the goodness of fit, it included the adjusted goodness-of-fit index (AGFI) and the goodness-of-fit index (GFI). However, the badness of fit included the root mean square residual (RMSR), the chi-square ( $\chi$ 2), the standardised root mean square residual (SRMR) and the root mean square of approximation (RMSEA) (Malhotra, 2010; Byon et al., 2023). GFI is interpreted as a measure of absolute fit, although AGFI accounts for the level of freedom in the model. In addition, it can help compare models with distinct complexities (Malhotra, 2007; Kassem et al., 2023). GFI

produces the relative variance and covariance in the sample covariance matrix (Foroudi, 2012; Aliasgharzadeh and Abbasalizad Farhangi and Barzegari, 2023). GFI generates the relative variance and covariance in the sample covariance matrix (Foroudi, 2012; Mei et al., 2023). AGFI can adjust GFI for the degree of freedom, which results in lower values for models with more parameters; AGFI correlates to GFI in replacing the sum of all squares with the mean sum of squares (Foroudi, 2012; Zhou et al., 2023)—the values of GFI and AGFI range between zero and one. If the index is more than one, it can be placed at one, indicating a good fit. Any values between 0.80 and 0.89 are regarded as indicative of a proper fit. However, any value lower than 0.8 has to be discarded (Foroudi, 2012; Bagozzi & Yi, 1988; Abdul-Mumuni et al., 2023). The GFI and AGFI values for this study are displayed in Table 5.29. Both these values were more than 0.8.

In Table 5.29, the goodness-of-fit index of this model displayed satisfactory statistics. The X2 fit statistic was 192.054 with 70 df (p < 0.001; X2/df = 2.744, which is 3.0 less, as recommended by Bagozzi and Yi (1988). The root mean square error approximation (RMSEA = 0.044) was smaller than the 0.08 threshold (Bagozzi & Yi, 1988; Muntean and Sorcaru and Manea, 2023).

In addition, the normed fit index (NFI = 0.99), the goodness-of-fit index (GFI=0.972) and the adjusted goodness-of-fit index (AGFI=0.952), the values of the Tucker – Lewis index (TLI = 0.99), comparative fit index (CFI = 0.993) and incremental fit index (IFI = 0.993) were more significant than the recommended 0.90 (Bagozzi & Yi, 1988; Shi et al., 2023).

Table 5.29 Model fit – measurement model

$X^2$	Df	RMSEA	GFI	NFI	CFI	AGFI	IFI	TLI
192.054	70	0.044	0.972	0.99	0.993	0.952	0.993	0.99

Overall, In Table 5.29, the research model is a good fit. The chi-Square value was 2065.685 in accordance with Barrett (2007) and Nikolić et al., 2022). The Chi-square probability value is more than 0.05, which indicates an acceptable model fit. The ratio of  $x^2$ /df was 2.744: however, the ratio of  $x^2$ /df should be lower than the value of 3.0 according to Byrne (2001) and Marsh and Hocevar (1985) and Sureshchandar (2023). Incremental fit values were more than 0.9, with an IFI of 0.993, CFI of 0.993 and TLI of 0.99. As for the absolute index, RMSEA of 0.044, which was lower than 0.8

according to Browne and Cudeck (1993) and Sudarsono and Tentama and Ghozali 2022), the values for GFI were more than 0.8. When the fitness indices have been achieved, the normality assessment was investigated to evaluate the distribution for every variable in the dataset before modelling the structural model. The study uses SEM with a Maximum Likelihood Estimator. The results indicated that the data is usually distributed with a skewness value between -1.0 and 1.0 and a kurtosis between -3.0 and 3.0.

The research uses  $\chi 2$ , RMSR, SRMR and RMSEA to calculate the badness of fit. RMSR, SRMR and RMSEA.  $\chi 2$  is the most common method to evaluate the goodness of fit. It is also used to evaluate actual and predicted measures. Suppose the value of  $\chi 2$  is lower (i.e. p-value is less or low than 0.05). It displays no significance and interprets that two covariance matrices are equal. RMSR is regarded as the square root of the mean of squared residuals. RMSR is an average residual covariance, a function of the units used to evaluate the observed variable (Malhotra, 2007; Malhotra, 2010; Ruan and Xu and Lee, (2022). SRMR can help in comparing fit across models. RMSEA displays the variation between the actual and predicted variance. The lower values RMSR, SRMR and RMSEA indicate a better model fit (such as the values of 0.08 or lower are advantageous; however, any values more than 0.08 that is regarded as poor.) The values of  $\chi 2$  and RMSEA were found in this study, that is displayed in Table 5.29.

In addition, the value for the GFI range is more than 8, which indicates a good fit (Byrne, 2001; Tabachnick and Fidell, 2007; Hair et al., 1998 and 2006; Nuseir and El Refae, 2022). The study analyses incremental fit for the measurement model. The definition of incremental fit indices is how well a specified model fits compared to other baseline models. A baseline model is considered a null model in which all the observed variables are unrelated (Malhotra, 2007; Malhotra, 2010; Alakkas et al., 2022). In this research, the reason why the study used normed fit index (NFI), comparative fit index (CFI), Tucker Lewis index (TLI) to analyse incremental fit, Non-normed fit index (NNFI) and relative non-centrality index (RNI). NFI is the ratio of the variance in the  $\chi$ 2 value for the proposed model and the null model divided by the  $\chi$ 2 value for the null model. Because the  $\chi$ 2 value for the proposed model will reach zero, NFI is likely to be 1 (Malhotra, 2007; Ruan and Xu and Lee, 2022).

On the other hand, NFI cannot control for the level of freedom and underestimates the fit in small samples. Moreover, it cannot reflect parsimony if the parameters are broader and the NFI gets larger. Therefore, researchers prefer NNFI and CFI (Foroudi, 2012;

Hair et al., 2006; Malhotra, 2007; Tabachnick & Fidell, 2007; Foroudi, 2012; Nuseir & El Refae, 2022). CFI is an enhanced version of NFI. CFI is based on the non-centrality measure. If the values of CFI are close to 1 (or above 0.90), CFI is highly preferable and is related to a good model fit. TLI is regarded as similar to CFI but is not normed. Therefore, the values may fall outside 0 and 1 (Gerbing & Anderson, 1988; Hair et al., 1998; Malhotra, 2007; Alakkas et al., 2022). For RNI, another incremental fit index, values above 0.90 are highly preferred and indicate a good fit. The results from this study are presented in Table 5.29.

For the measurement model, the study analyses parsimony fit indices. The parsimony ratio is calculated due to the ratio of degrees of freedom used by the model to the total degrees of freedom available (Malhotra, 2007; Malhota, 2010; Foroudi, 2012; Carrión Bósquez and Arias-Bolzmann and Martinez Quiroz, 202). Parsimony fit indices may not help assess a single model; however, comparing the models of distinct complexity is useful.

They consist of parsimony normed fit index (PNFI) and parsimony goodness-of-fit indices (PGFI) (Foroudi, 2012; Campoverde-Aguirre et al., 2022). PGFI can adjust the goodness-of-fit index using the parsimony ratio, which was determined earlier (Malhotra, 2007; Carvache-Franco and Carrascosa-López and Carvache-Franco, 2022). PNFI can adjust the normed fit index by multiplication with the parsimony ratio (Malhotra, 2007; Idris et al., 2022). As with most of the other goodness-of-fit models, values of PGFI and PNFI between 0 and 1 are highly desirable. Especially when these values are high, i.e. close to 1 (Hair et al., 2006; Malhotra, 2010; Kang & Namkung, 2022). The results found in this study are shown in Table 5.29.

In addition, the test results as displayed in Table 5.29 revealed Hypothesis 1 to Hypothesis 10; The emotional appeals will strengthen product knowledge; Informativeness will strengthen product knowledge; Advertising creativity will strengthen product knowledge; Product knowledge will strengthen attitude; Product knowledge will strengthen subjective norm; Product knowledge will strengthen perceived behavioral control; Attitude will strengthen intention to purchase; Subjective norm will strengthen intention to purchase; Perceived behavioral control will strengthen intention to purchase; Intention to purchase will strengthen Actual Purchase Behavior. Therefore, these ten hypotheses are supported.

Table 5.25.1 to 5.25.4, 5.26, and 5.27 displays the standard deviations, means and correlation coefficients between constructs. Per Fornell and Larcker's (1981) and Chiang and Chen's (2023) suggestion, discriminant validity can be acceptable if the value of all AVEs is greater than that of all squared correlations for each pair of constructs. In this study, all AVEs (0.828 to 0.896) exceeded all squared correlations of each pair of constructs.

CFA was used to examine the fit of the tested nine-factor model composed of three food advertising contents (emotional appeal, informativeness and advertising creativity) and product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). The adequacy of the four-factor measurement model was tested by examining its goodness-of-fit indices, its reliability, and the convergent and discriminant validity of the construct. According to the CFA results, all the multi-items' convergent validity, discriminant validity and reliability were assessed (Fornell and Larcker, 1981). In accordance with the guidelines offered by Anderson and Gerbing (1988), a confirmatory factor analysis (CFA) was carried out, and a structural model was evaluated. Four items were eliminated from the model in the CFA process because of low standardized factor loadings, low squared multiple correlations, and high standardized residuals (Malhotra, 2010; Kang and Namkung, 2022).

As revealed in Table 5.23, the internal consistency was acceptable with a higher Cronbach's alpha (0.942 - 0.964) was greater than the recommended value of 0.70 (Nunnally, 1978). Composite construct reliability was acceptable. Its range (0.955 to 0.963) exceeded the minimum requirement of 0.60 (Fornell and Larcker, 1981; Alakkas et al., 2022). As revealed in Table 5.25.1 to 5.25.4 and 5.26, all average variance extracted (AVE) levels (0.828 to 0.896) was above the threshold value of 0.50 (Fornell and Larcker, 1981). As revealed in Table 5.25.1 to 5.25.4, all standardized factor loadings were higher than the threshold value of 0.70 (except for EMO3, INFO6, CREA9 and PK3, and were significant (p < 0.001). These results could support the convergent validity of the measure, and the eleven factors were different and unidimensional (Anderson and Gerbing, 1988; Aliasgharzadeh et al., 2023). Therfore, all estimated factor loadings in the measurement model displayed high factor loading coefficients and significant t-values. In addition, the results of composite reliability and the average variance extracted (AVE) value of each multiitem scale revealed that high

reliabilities could be achieved for all scales (Malhotra, 2007; Alakkas et al., 2022). Therefore, convergent validity was generated.

As revealed in Table 5.19, the goodness-of-fit index of this model displayed satisfactory statistics. The  $X^2$  fit statistic was 190.054 with 70 df (p < 0.001;  $X^2/df = 2.744$ ). The root mean square error approximation (RMSEA = 0.044) was below the 0.08 threshold. Moreover, for the normed fit index (NFI = 0.99), the values of the Tucker – Lewis index (TLI = 0.99), comparative fit index (CFI = 0.993) and incremental fit index (IFI = 0.993) were more than the recommended 0.90 (Alakkas et al., 2022; Chiang and Chen's, 2023). As shown in all the statistics, the quality of this measurement was assured (Ritmak and Rattanawong and Vongmanee, 2023; Aliasgharzadeh et al., 2023). Means, standard deviations, and correlation coefficients between constructs are shown in Table 5.25.1 to 5.25.4, 5.26, and 5.27.

All dimensions of food advertising contents (emotional appeal, informativeness and advertising creativity) and product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB) were valid and reliable for further inferential analyses. In accordance with Kang and Namkung, (2022) and Fornell and Larcker's (1981) suggestion, the discriminant validity is acceptable when the values of all AVEs are more than those of all squared correlations for each pair of constructs. For the study, as all AVEs (0.828 to 0.896) exceeded all squared correlations of each pair of constructs, the discriminant validity was evident, as shown in Table 5.26. All values presented satisfactory model fit indices. Furthermore, all the factor loadings were statistically significant (Hair et al., 1998 and 2006; Nuseir and El Refae, 2022).

Therefore, the discriminant validity was apparent. The model fit values could provide validity assurance for the items.

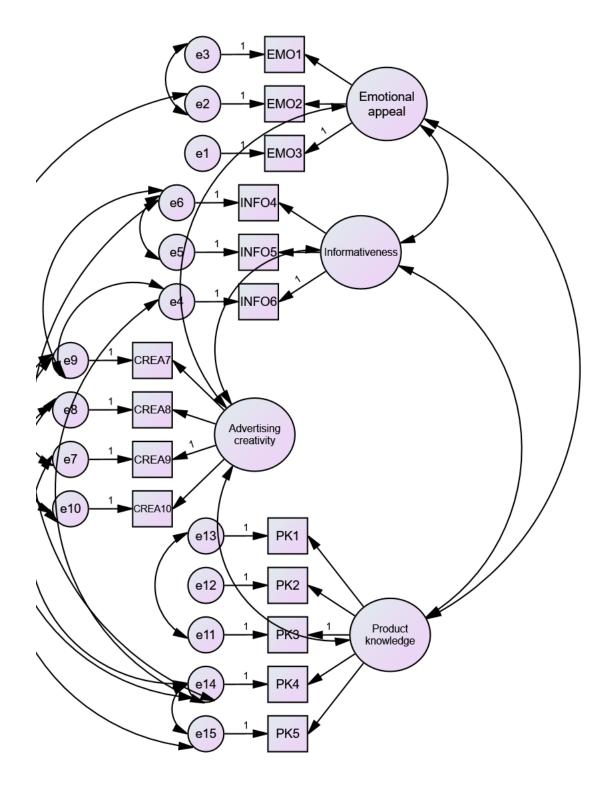


Figure 5.6: CFA results for the measurement model

## 5.8 Structural model results

Next step, this study tested the hypotheses by running the structural model.

#### 5.8.1 Structural evaluation of the model

#### 5.8.1.1 Basic concepts of structural equation modelling (SEM)

Structural equation modelling (SEM) was also performed in this study. SEM is a set of statistical techniques which can help bring the data and basic theory together (Tabachnick & Fidell, 2006; Foroudi, 2012; Nuseir et al., 2023). It can help in estimating the measurement properties. In addition, it can test the proposed theoretical relationships by applying a single technique (Malhotra, 2010; Kassem et al., 2023). It helps the researcher to establish model multiple-layer relationships between the dependent variables and multiple independent (Hair et al., 2006; Foroudi, 2012; Aliasgharzadeh et al., 2023). The variable in SEM might appear as a predictor; moreover, it also shows as an outcome.

SEM has got inter-related models. Firstly, the measurement model and secondly, the structural model. Both types were applied in this study (Hair et al., 2006; Mei et al., 2023). The measurement model shows the theory that indicates the observed variables for each construct; moreover, it allows the assessment of construct validity (Malhotra, 2010; Ritmak and Rattanawong and Vongmanee, 2023). It can be applied in the advanced stage of the research procedure to test a theory about the association between a collection of measurement items and their representative factors. In addition, it is often called confirmatory factor analysis (CFA) (Gupta et al., 2011; Foroudi, 2012; Kang & Namkung, 2022). The structural model can show the theory that indicates how the constructs are associated with each other, often with diversified dependence relationships (Malhotra, 2010; Malhotra et al., 2012; Zhou et al., 2023). In this research, both SEM approaches were employed.

This study followed a two-step process to study SEM. Former researchers have suggested applying this method due to its advantage over the single-step method in which assessment structural sub-models are evaluated simultaneously; moreover, this approach also can bear from interpretational confounding (Anderson & Gerbing, 1988; Abdul-Mumuni et al., 2023). Interpretational confounding arises from assigning empirical meaning to an unobserved variable, which can be other than the meaning determined by an individual before evaluating an unknown parameter (Anderson & Gerbing, 1988; Abdul-Mumuni et al., 2023). Furthermore, this empirically defined

meaning could change dramatically. Based on the requirement of constrained and free parameters for the sub-model of the structure (Anderson & Gerbing, 1988; Muntean and Sorcaru and Manea, 2023).

Interpretational confounding can be reflected by significant revisions in assessing the pattern coefficients while alternate structural models are evaluated (Anderson & Gerbing, 1988; Shi et al., 2023).

The problems can occur due to interpretational confounding, which a separate assessment of the measurement model can reduce. In addition, the issue can also occur because no constraints are identified on the structural parameters which associate the estimated constructs with one another (Anderson & Gerbing, 1988; Al-Barakat et al., (2023). In addition, the pattern coefficients obtain from the measurement model in the one-step method alter insignificantly. This is because it does not detect the existence of interpretational confounding, which can lead to the fit being maximised at the existence of meaningful interpretability of the constructs (Anderson & Gerbing, 1988; Rasouli et al., 2023). When a two-step approach is compared to a one-step approach, it is based on strong theoretical justifications, and measurement items have been tightly estimated in previous research; moreover, it has a good model fit (Anderson & Gerbing, 1988; Chiang & Chen, 2023).

Before moving to structural equation modelling, another critical issue is defining and recommending the measurement model was applied in this study. There are two kinds of measurement models: reflective and formative. In a reflective model, the latent construct can exist independently of the measures (Borsboom et al., 2003; Coltman et al., 2008; Dang and Bao and Cho, 2023). The latent variable of the indicators causes the causality. Therefore, a change in the construct results in changes in the indicators (Coltman et al., 2008; Yoo and Lee and Atamja, 2023). In reflective models, the indicators can share a common theme and are interchangeable, which helps them have high intercorrelation. The indicator interchangeability can help researchers to evaluate the construct by sampling a few relevant indicators underlying the domain of the construct (Nunnally & Bernstein, 1994; Coltman et al., 2008; Tobias-Mamina & Maziriri, 2023). In addition, since the reflective indicators can share similar themes, they all have a similar relationship with the antecedents and consequences of the construct. They all, therefore, have a similar association with the consequences and antecedents of the construct.

On the other hand, in a formative model, the latent construct is based on measurements. (Borsboom et al., 2003; Coltman et al., 2008; Cheah and Amaro and Roldán, 2023). The causality moves from the indicators to the construct (Coltman et al., 2008), and a change in indicators (such as deleting or adding) leads to a change in the conceptual domain of the construct (Coltman et al., 2008; Kiziloglu et al., 2023). Indicators in a formative model possess low or no interrelation, which does not necessarily have a similar association with other constructs as the latent construct.

In almost all business studies, latent factors are evaluated by applied reflective indicators (Chau & Hu, 2001; Coltman et al., 2008; Chiang & Chen, 2023). In the same way, the researcher also applied a reflective model in this study. Some considerations are presented in more detail in Table 5.30, displaying that the measurement model of this study is used the reflective model.

SEM was conducted to assess the suggested model's validity and hypotheses. Figure 5.7 displays the causal linkages and fit statistics for the structural model.

**Table 5.30: Reflective model consideration** 

Consid	leration	Reflective model
1.	Nature of construct	There is latent construct.
		Latent construct exists independent of
		the measures taken
2.	Direction of causality between items	Rationality from construct to items
	and	Alteration in the construct generates
latent o	construct	variation in the item measures
		Alteration in item measures cannot
		generate Alteration in the construct
3.	Characteristics of items used to	The construct can manifest items.
	measure the construct	Items experience a common theme.
		Items can be used interchangeably.
		Adding or putting an item cannot
		alter the conceptual domain of the
		construct.
4.	Item intercorrelation	Items ought to have a high positive
		intercorrelations
		Empirical test: internal consistency
		and reliability are estimated via
		Cronbach's alpha, average variance
		extracted, and factor loadings (such
		as from common or confirmatory
		factor analysis).
5.	Item associations with construct	Items have the same sign and significance of

	-	
consequences and antecedents.	associations with the	
	consequences/antecedents as the construct.	
	Empirical test: content validity has	
	created the basis of theoretical	
	considerations, and is assessed	
	empirically via convergent and	
	discriminant validity.	
6. Measurement error and collinearity	Error term in items can be specified	
	Empirical test: common factor	
	analysis can be applied to specify	
	and extract out measurement error.	

Source: Coltman et al. (2008), and Rageh (2010)

#### **5.8.2 Model Fit Indices**

In AMOS, with many statistics, model fit measures can be reported for the model identified by the researcher. Two additional models are the "independence model" and "saturated model". The independence model fits any data set perfectly and can assume that the observed variables are not correlated. The saturated model has no constraints on the population moments and guarantees to fit any data.

Table 5.31: Model fit

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	222	2041.969	681	.000	2.998
Saturated model	903	.000	0		
Independence model	42	54857.623	861	.000	63.714

In Table 5.31, the non-parametric statistical test (NPAR) shows that 222 distinct parameters were assessed for the default model, 903 for the saturated model and 42 for the independence model. There are 689 degrees of freedom for estimating the default model and 681 degrees for the independence model.

The CMIN (Chained Multilateral Index Number) measure could use the maximum likelihood Chi-squared test to estimate the fit of a model in CFA and modelling. However, CMIN/DF is a test to estimate the fit of a model in CFA, and the value of the CFA model should be close to 1.

In Table 5.31, the discrepancy divided by degrees of freedom (CMIN/DF) is = 2.998, which is less than 3.0, as recommended by Bagozzi and Yi (1988) and Gao et al. (2023). If the default model is correct; therefore, the probability of getting this discrepancy of as much as 2041.969 is extremely low. Figure 5.7 displays the causal linkages and fit statistics for the structural model.

## 5.8.3. Baseline Comparisons

**Table 5.32: Baseline comparisons** 

Model	NFI Delta1	RFI rho1	IFI Delta 2	TLI rho2	CFI
Default model	0.963	0.953	0.975	0.968	0.975
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

The Incremental Fit Index (IFI) must be reported only when the CMIN measure has a Chi-square distribution; assuming the fitted model is correct, CMIN equals its expected value (degrees of freedom), IFI = 1. It can be seen that IFI is close to 1; this means that the fitted model is correct (Chau & Hu, 2001; Chen and Chen and Chen, 2023).

The Relative Fit Index (RFI) and The Normed Fit Index (NFI) are also reported in the AMOS 'Output only when the saturated and baseline models can be successfully fitted. The NFI shows where the fitted model lies on the interval expanding from the perfectly fitting saturated model to the flawed fitting baseline model. The value of NFI is more than 0.8 or 0.9 that as suggested by Bagozzi and Yi (1988) and Mahmud et al. (2023), and Farzin et al. (2023). The value also is recommended for claims of the model fit. In addition, 1.0 can indicate a perfect fit of the model to the data. In Table 5.32, the NFI = 0.963 is considered as our fitted model is almost the perfectly fitted model for the data. An RFI value is between zero to 1 and a value close to 1. It can indicate a good fit. For example, RFI=0.953 shows a good model fit (Bagozzi & Yi, 1988; Kusmana & Masnita, 2023; Mahmud et al., 2023).

The Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) of the specified model to the absolute fit of the independence model. The higher the discrepancy between the overall fit of the two models, the greater the values of these descriptive statistics (Chau & Hu, 2001; Khan & Fatma, 2023).

Hu and Bentler (1999) and Khan and Fatma (2023) recommend a value of 0.95 or greater. Due to the value of TLI, our fitted model is greater than the recommended 0.95, and the model fits effectively. The value of CFI is close to 1. This value can indicate an excellent fit for the model under study. CFI is 0.975, meaning a good fit for the model.

### **5.8.4 Parsimony-Adjusted Measures**

Table 5.33: Parsimony-adjusted measures

Model	PRATIO	PNFI	PCFI
Default model	0.791	0.761	0.771
Saturated model	0.000	0.000	0.000
Independence model	1.000	0.000	0.000

The parsimony ratio (PRATIO), displayed in Table 5.33, is regarded as the number of constraints in the model assessed as a fraction of the number of constraints in the independence model. PRATIO is used to calculate PNFI and PCFI. The PRATIO for default model is 0.791 (Chau and Hu, 2001; Vărzaru, 2022).

5.8.5 NCP

**Table 5.34: NCP** 

Model	NCP	LO 90	HI 90
Default model	1360.969	1229.026	1500.498
Saturated model	0.000	0.000	0.000
Independence model	53996.623	53232.305	54767.250

In AMOS output, NCP is reported only if CMIN has a chi-square distribution, assuming the fitted model is correct. It is regarded as a measure of population discrepancy of model adequacy. It is regarded as a measure of population discrepancy of model adequacy. The NCP statistic is displayed in Table 5.34. The NCP value for the default model is approximately 1360.969. The value of population NCP for the default model ranges between 1229.026 and 1500.498 (Bagozzi and Yi, 1988; Henseler and Schuberth, 2022).

Table 5.35: RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.047	0.045	0.050	0.977
Independence model	0.264	0.262	0.266	0.000

Browne and Cudeck (1993) and Ren et al. (2022) proposed that the RMSEA value <0.08. Due to the RMSEA value of our fitted mode being lower than 0.08, the model fits well and is consistent with the descriptive measure of RMSEA. In Table 5.35, the higher and lower boundary of a 2-sided 90% CI for the population RMSEA ranges between 0.045 and 0.050. For the default model PCLOSE is 0.977, and the probability of getting a sample RMSEA as much as 0.047 is approximately 0.977.

5.8.6. GFI
Table 5.36: GFI

Model	RMR	GFI	AGF I	PGFI
Default model	0.134	0.893	0.858	0.673
Saturated model	0.000	1.000		
Independence model	1.800	0.063	0.017	0.060

The reason that the researcher uses absolute fit indices is to include both goodness-of-fit and badness-of-fit models. For the goodness of fit, it can include the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI). However, the badness of fit included the chi-square ( $\chi 2$ ), root mean square residual (RMSR), standardized root mean square residual (SRMR) and the root mean square of approximation (RMSEA) (Malhotra, 2010; Ren et al., 2022). GFI is explained as a measure of absolute fit. However, AGFI accounts for the degree of freedom in the model and can be useful for comparing models with different complexities (Malhotra, 2007; Rukhiran and Phaokla and Netinant, 2022).

GFI generates the relative variance and covariance in the sample covariance matrix (Foroudi, 2012; Kusumawardani and Widyanto and Tambunan, 2023). AGFI can adjust GFI for the degree of freedom. It results in lower values for models with more parameters. AGFI corresponds to GFI for replacing the total sum of the average squares (Foroudi, 2012; Wang and Chen, 2022). The values for GFI and AGFI range between zero and one. If the index is more than one, the index is placed at one, which indicates a good fit. Any values between 0.80 and 0.89 indicate a reasonable fit, while any value less than 0.8 needs to be discarded (Chau and Hu, 2001; Koo et al., 2022). The GFI and AGFI values for this study are displayed in Table 5.36. Both these values were more than 0.8, as suggested in the SEM literature (Figure 5.7) (Chau and Hu, 2001; Daryanto and Lukas, 2022).

SEM was carried out to test the validity of the model and the hypotheses. In fact, the goodness of SEM is regarded as the adequacy of the estimated coefficients for the hypothesized relationships in the model that recommended two alternatives between constructs which appear to agree good fit or not (Byrne, 2001). This study considered a good fit of the model to the data (Byrne, 2001; Hair et al., 2010; Fox, 2006).

As shown in Table 5.31 to 5.36, the  $X^2$  statistic indicated that the recommended model fit the data very well ( $X^2 = 2041.969$ ; df = 2.98; p = 0.000) due to the radio between the  $X^2$  value and the degree of freedom, which is recommended to be below 3.00 to obtain satisfactory absolute fits. In addition, considering the sensitivity of  $X^2$  statistics to sample size and model complexity (Bentler and Bonett, 1980), other goodness-of-fit indexes were tested. Other fit indexes showed that this model fit the data appropriately and well. The results reveal outstanding structural model fit indices (GFI = 0.893; NFI = 0.963; CFI = 0.975; RMSEA = 0.047). The absolute fit indexes were lower than 0.08 which is recommended to be below the 0.08, as confirmed in the literature. Granted these indexes, it can be confirmed that the model was properly fit. Therefore, it could provide a good basis on which to test the hypothesized relationships. The parameter estimates revealed the direct effects between constructs. A significant coefficient shows a significant causal relationship between latent constructs.

Therefore, the model has a good fit considering the threshold values recommended by Bagozzi and Yi (1988); Chau and Hu (2001; Rampedi & Ifegbesan, 2022). In addition, the model could provide a sound basis for testing the hypothesized relationships. The parameter estimates displayed the direct impact between constructs. A significant coefficient can indicate a significant causal relationship between latent constructs (De Canio, Martinelli, and Viglia, 2023; Kusumawardani and Widyanto and Tambunan, 2023).

In addition, the test results as displayed in Table 5.31 to 5.36 revealed Hypothesis 1 to Hypothesis 10; The emotional appeals will strengthen product knowledge; Informativeness will strengthen product knowledge; Advertising creativity will strengthen product knowledge; Product knowledge will strengthen attitude; Product knowledge will strengthen subjective norm; Product knowledge will strengthen perceived behavioral control; Attitude will strengthen intention to purchase; Subjective norm will strengthen intention to purchase; Perceived behavioral control will strengthen intention to purchase; Intention to purchase will strengthen actual Purchase Behavior. Therefore, these ten hypotheses are supported.

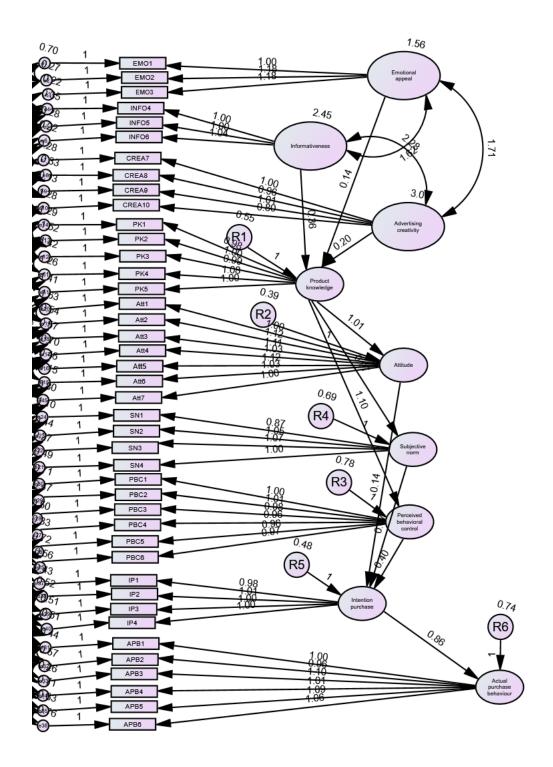


Figure 5.7: Structural model

### 5.9 Measurement of common method bias

Common method bias is regarded as a measurement error that can threaten the validity of a conclusion based on statistical results (Podsakoff et al., 2003, 2012; Mombeuil and Diunugala and Saint Fleur, 2023). It has been widely assumed that common method bias can expand relationships between variables measured by self-reports (Conway & Lance, 2010; Howard & Henderson, 2023). When self-report measures are received from the same sample, they can generate a concern of general method variance (Conway & Lance, 2010; Ziko & Asfour, 2023). Therefore, it is recommended that studies that can use attitudinal and dispositional variables can invite common method bias (Organ and Ryan, 1995; Mohamed et al., 2023).

If the sources of the common method are identified, it can allow for their impact on the data to be better controlled (Roni, 2014; Phan Tan & Le, 2023). Therefore, statistical and procedural measures are usually used (Roni, 2014; Mombeuil and Diunugala and Saint Fleur, 2023). The procedural measures include: (i) obtaining measures of the criterion and predictor variables from distinct sources; (ii) the use of proximal, temporal, methodological or psychological separation of measurement; (iii) protecting respondent anonymity and reducing evaluation apprehension; (iv) counterbalancing question order, and (v) revising scale items (Abbas et al., 2022; Dang, 2022).

Besides procedural measures, statistical procedures can play a role in controlling the impact of common method bias. These statistical procedures include: (i) the use of Harman's single factor test; (ii) the use of partial correlation procedures, controlling the impacts of a directly measured latent method factor, (iv) controlling the impacts of an unmeasured latent method factor, and (v) the use of multiple methods factors (Roni, 2014; Phan Tan & Le, 2023).

Harman's (1967) and Ziko and Asfour's (2023) single-factor test to identify the common method bias.

All the items were fed into a principle component analysis with varimax rotation. According to Harman's single-factor analysis, if a single factor appears with less than 50 per cent of covariance, the results show no common method bias (Podsakoff et al., 1984; Dang, 2022). This study's results indicated a 49 per cent variance, less than the common method bias value (Podsakoff et al., 1984; Yazdanparast & Kukar and Kinney, 2023).

Therefore, this study did not display any appearance of common method bias.

## 5.10 Structural Equational Modelling and Hypothesis Testing

In Table 6.37, when emotional appeal increases by 1, product knowledge rises by 0.140. The regression weights estimate 0.140 with a standard error (SE) close to 0.047. It was found that the regression weight is 3.027 SE, above zero. In contrast, the regression weight for emotional appeal, the predictor of product knowledge, is significantly distinct from zero at the 0.0001 significance level.

**Table 5.37: Regression weights: (Group number 1 - Default model)** 

			Estimate	S.E.	C.R.	P	Label
Product_knowledge	<	Emotional_app eal	0.140	0.047	3.027	0.002	
Product_knowledge	<	Informativeness	0.440	0.043	8.246	***	
Product_knowledge	<	Advertising_cre ativity	0.279	0.034	6.052	***	
Attitude	<	Product_knowl edge	0.899	0.044	23.119	***	
Perceived_behavior al_control	<	Product_knowl edge	0.844	0.049	22.604	***	
Subjective_norm	<	Product_knowl edge	0.829	0.043	22.678	***	
Intention_purchase	<	Subjective_nor m	0.441	0.033	14.294	***	
Intention_purchase	<	Perceived_beha vioral_control	0.418	0.030	13.524	***	
Intention_purchase	<	Attitude	0.129	0.037	3.948	***	
Actual_purchase_be haviour	<	Intention_purch ase	0.848	0.026	32.953	***	

P<0.001\*\*\*, P<0.01\*\*, P<0.05\*

As product knowledge rises by 1, informativeness will increase by 0.440. The regressive weight of about 0.440 has an SE of about 0.043. The regression weight is 8.246, and the SE is more significant than zero. In contrast, the regression weight for

product knowledge, the antecedent of informativeness, is statistically distinct from zero at a 0.001 significance level.

As product knowledge rise, one advertising creativity increases by 0.279. The regression weights of about 0.279 that has an SE close to 0.034. The regression weight is 6.052 SE, more significant than zero. In contrast, the regression weight for product knowledge, the antecedent of advertising creativity, is statistically distinct from zero at a significance level of 0.001.

When product knowledge rises by 1, attitude will increase by 0.899. The regression weight of about 0.899 has an SE approximately closer to 0.044. The regression weight is 23.119 SE, more significant than zero, while the regression weight for product knowledge, the antecedent of attitude, is statistically distinct from zero at a significance level of 0.001.

As product knowledge rises by 1, perceived behavioural control will increase by 0.844. The regressive weight of about 0.844 has an SE of about 0.049. The regression weight is 22.604, and the SE is more significant than zero. In contrast, the regression weight for product knowledge, the antecedent of perceived behavioural control, is statistically distinct from zero at a 0.001 level of significance.

When product knowledge increases by 1, the subjective norm rises by 0.829. The regression weights estimate 0.829, with a standard error (SE) close to 0.043. It found that the regression weight is 22.678 SE, above zero. In contrast, the regression weight for product knowledge, the predictor of the subjective norm, is significantly distinct from zero at a 0.0001 significance level.

When the subjective norm rises by 1, the intention to purchase will increase by 0.441. Therefore, the regression weights are approximately 0.441 has an SE of approximately 0.033. Therefore, the regression weight estimate is 14.294, and the SE is more than zero. In contrast, the regression weight for subjective norm, the antecedent of intention to purchase, is statistically distinct from zero at a 0.001 level of significance.

When perceived behavioural control increases by 1, intention purchase raises by 0.418. The regression weights estimate 0.418, with a standard error (SE) close to 0.030. It was found that the regression weight is 13.524 SE above zero. In contrast, the regression

weight for perceived behavioural control, the predictor of intention purchase, is significantly distinct from zero at a 0.0001 significance level.

When attitude rises by 1, the intention to purchase will increase by 0.129. The regression weights are approximately 0.129 has an SE of approximately 0.037. The regression weight estimate is 3.948, and the SE is more than zero. In contrast, the regression weight for attitude, the antecedent of the intention to purchase, is statistically distinct from zero at a 0.001 significance level.

When the intention to purchase increases by 1, actual purchase behaviour rises by 0.848. The regression weights estimate 0.848, with a standard error (SE) close to 0.026. It was found that the regression weight is 32.953 SE above zero. In contrast, the regression weight for the intention to purchase and the predictor of actual purchase behaviour is significantly distinct from zero at a 0.0001 significance level.

In addition, the test results as displayed in Table 5.37 revealed Hypothesis 1 to Hypothesis 10; The emotional appeals will strengthen product knowledge; Informativeness will strengthen product knowledge; Advertising creativity will strengthen product knowledge; Product knowledge will strengthen attitude; Product knowledge will strengthen subjective norm; Product knowledge will strengthen perceived behavioral control; Attitude will strengthen intention to purchase; Subjective norm will strengthen intention to purchase; Perceived behavioral control will strengthen intention to purchase; Intention to purchase will strengthen actual Purchase Behavior. Therefore, these ten hypotheses are supported.

## 5.11 The moderating effect of gender

Moderation analysis based on hypotheses 11-13; H11: Gender will moderate the relationship between emotional appeals and product knowledge, H12: Gender will moderate the relationship between informativeness and product knowledge and H13: Gender will moderate the relationship between advertising creativity and product knowledge, which is a multiple group analysis. Wulf et al. (2001) and Abbas et al. (2022) and Dang (2022), and Phan Tan and Le (2023) suggested the multiple group analysis. A moderator variable is divided into two groups: males and females. The model is divided into two models: The equal model (Constrained model) and the Free Model (Unconstrained Model). Then, the Chi-square values of each model were compared. The x2 differences between the two models (constrained and unconstrained) are greater than 3.14 at a df value of 1, indicating that the equal and free models differ.

Therefore, it can be concluded that the Gender variable is not the moderator variable in each path. The results of the analysis are presented as follows:

## 5.11.1 The moderating effect of gender in the relationship between emotional appeals and product knowledge

Table 5.38: Comparative model result (equal model vs free model) emotional appeals

Comparative model	Statistics
Equal model (Constrained Model)	$X^2 = 3914.630$ , df = 1592
Free Model (Unconstrained Model)	$X^2 = 3914.346$ , df = 1591
Comparative result	$^{\Delta}$ X <sup>2</sup> = 0.284, df=1, p=0.594

The findings in 5.38 displayed that the chi-square of df equals one between the equal and free models, which is less than 3.14. Moreover, it indicates no differences between the equal and free models. Therefore, gender does not moderate the relationship between emotional appeals and product knowledge. As a result, H11 that proposed gender will moderate the relationship between emotional appeals and product knowledge that is not supported (Wulf et al., 2001; Al-Barakat et al., 2023). Therefore, the results of this study are displayed in Table 6.38. these results do not support Hypotheses 11.

# 5.11.2 The moderating effect of gender in the relationship between informativeness and product knowledge

Table 5.39: Comparative model result (equal model vs free model) Informativeness

Comparative model	Statistics
Equal model (Constrained Model)	$X^2 = 3914.630$ , df = 1592
Free Model (Unconstrained Model)	$X^2 = 3914.629$ , df = 1591
Comparative result	$^{\Delta}$ X <sup>2</sup> = 0.001, df=1, p=0.972

The findings are indicated in 5.39, displayed that the chi-square of df equals one between the equal and free models, which is less than 3.14. Therefore, it indicates that there are no differences between the equal model and the free model. Therefore, gender does not moderate the relationship between informativeness and product knowledge. As a result, H12 that proposed gender will moderate the relationship between Informativeness and product knowledge that is not supported (Wulf et al., 2001; Rasouli

et al., 2023). Therefore, the results of this study are displayed in Table 6.39. These results do not support Hypotheses 12.

## 5.11.3 The moderating effect of gender in the relationship between advertising creativity and product knowledge

Table 5.40: Comparative model result (equal model vs free model) Advertising creativity

Comparative model	Statistics
Equal model (Constrained Model)	$X^2 = 3914.630$ , df = 1592
Free Model (Unconstrained Model)	$X^2 = 3914.517$ , df = 1591
Comparative result	$^{\Delta}$ X <sup>2</sup> = 0.113, df=1, p=0.737

The findings are indicated in 5.40, displayed that the chi-square of df equals one between the equal and free models, which is less than 3.14. Therefore, it indicates no differences between the equal and free models. Therefore, gender does not moderate the relationship between advertising creativity and product knowledge. As a result, H13 that proposed gender will moderate the relationship between advertising creativity and product knowledge that is not supported (Wulf et al., 2001; Chiang and Chen, 2023; Irada et al., 2023). Therefore, the results of this study are displayed in Table 6.40. these results do not support Hypotheses 13.

## 5.12. Configural and metric invariances

Because the multi-group data was used in this study, the researcher assessed metric invariance and configural invariance tests. To carry out the configural invariance for each gender, the researcher investigated the model fit – Table. 5.41. The results discovered from each of the model fit displayed adequate goodness of fit (apart from GFI, AGFI and RMR), indicating there was good configural invariance (when analysing a freely evaluated model across two groups) for each of the genders (Henseler & Schuberth, 2022; Vărzaru, 2022).

In addition, the researcher also inspected the metric invariance test. A metric invariance test was performed to observe whether forcing two or more groups together differed considerably from evaluating them freely. Therefore, a chi-square difference test between the unconstrained and fully constrained models was carried out for each gender – Table 5.41.( Zahoor et al., 2023; Hua et al., 2023).

The results showed that the models were significantly distinct, which needs further analysis. The researcher carried out a distinct test between the assessments found for each of the genders and discovered where the biggest difference lay. On the other hand, the differences appeared in several items, although the distinctions were minor. Thus, the researcher did not remove the items or adjust the existing model (Khan & Fatma, 2023; Mahmud et al., 2023 Zahoor et al., 2023).

Table 5.41: Configural invariance for multi-group factors

Table 5.41.1: Confirgural invariance for gender

$X^2$	Df	RMSEA	GFI	NFI	CFI	AGFI	IFI	TLI	RMR
3914.63	1592	0.04	0.817	0.931	0.958	0.792	0.958	0.954	0.209

In addition, the researchers also investigated the metric invariance test. The metric invariance test was performed to observe if enforcing two or more groups differed considerably from evaluating them freely. Therefore, a chi-square difference test was carried out between the unconstrained and fully constrained models for each gender (shown in Table 5.42). The results indicated that the models had significant differences that needed further analysis. Therefore, the researcher carried out a distinct test between the assessment indicated for each gender to seek where the biggest distinction lay. On the other hand, due to distinctions occurring in different items, although the distinctions were not huge, the researcher did not remove the items or modify the existing model.

Table 5.42: Metric invariance test for multi-group factors

Table 5.42.1: Metric invariance test for gender

Unconstrained	3914.346	215	
Fully constrained	3914.63	214	
Number of groups		2	
Difference	0.284	1	0.000

Therefore, the results of this study are displayed in Table 5.41.1 to 5.42.1. These results do not support Hypotheses 11, Hypotheses 12 and Hypotheses 13.

## 5.13 Mediation Analysis

The definition of mediation analysis involves three variables and explains several possible forms of interrelationship. First, mediation analysis relates to a set of causal hypotheses. For example, an initial causal variable X (the independent variable) might impact an outcome variable Y (the dependent variable) through a mediating variable M (the mediator) (Preacher & Hayes, 2008; Zhao et al., 2019; Low & Molzahn & Schopflocher, 2013; Blunch, 2013; Laghaie & Otter, 2023).

Baron and Kennys' (1986) and Chung and Pan (2023) was regarded as one of the basic frameworks for how to test mediation. However, researchers have improved their initial work on testing mediation over the years. First, Baron and Kenny's approach was based on finding the unstandardized coefficients for each relationship. Then, the significance of the test was determined using a Sobel test.

When research has progressed, this approach to testing mediation has altered. Moreover, Sobel testing has been rejected as a valid means of testing mediation. The revised approach is now concerned with estimating the indirect by investigating the product of the A path and the B path while controlling for the direct effect of the C path. Because the Sobel test has defects in this type of test, the more accepted method in mediation testing is to use a bootstrap technique to determine significance (Preacher & Hayes, 2008; Zhao et al., 2019; Low & Molzahn & Schopflocher, 2013; Blunch, 2013; Fakhreddine et al., 2023).

A bootstrap technique treats the data sample like a pseudo-population. Then, a random sample with replacement can be taken to determine if the indirect effect falls within a confidence interval. The researcher can request the number of bootstrap samples to increase the prediction accuracy (the higher, the better). A bootstrap sample of 5,000 is large enough. In addition, any more significant number of samples will make very little difference. According to Blunch (2013) and González-Mansilla and Serra-Cantallops and Berenguer-Contrí, 2023), bootstrapping is an estimation procedure which makes no distributional demand at all. Bootstrapping means that a person can consider their sample to be their population. In the same words, the researcher uses 500 samples with replacements from this population. From each sample, the researcher then calculates the required sample statistic. In the same way, the main advantage of bootstrapping is that it can allow the researcher to estimate the stability of parameter estimates and thereby display their values with a greater degree of accuracy. In the more specific context of

SEM, the bootstrap method gives a mechanism for dealing with situations where the ponderous statistical assumptions of large sample size (Blunch, 2013; Byrne, 2010; Espasandín-Bustelo and Rufino-Rus and Rodríguez-Serrano, (2023).

This data gives the researcher an empirical sampling distribution. In addition, by averaging the various sample statistics, the researcher obtains an assessment of the parameter and empirical standard error of the assessment. Finally, bootstrapping is used to get empirical standard errors of whatever statistic the researcher might want, including squared correlation coefficients and various fit indices (Preacher & Hayes, 2008; Zhao et al., 2019; Low & Molzahn & Schopflocher, 2013; Suwandana, 2023).

In these circumstances, the third variable can intervene with the impact of the two constructs.

To test if mediation or the presence of a mediator in a model, the researcher has to understand some of the terminologies used, such as indirect effect, direct effect, and total effect (Byrne, 2010; Abbasi et al., (2023).

The total effect is c in the association between X and Y (Preacher & Hayes, 2008; Zhao et al., 2019; Low & Molzahn & Schopflocher, 2013; Blunch, 2013; Zhao et al., 2010; Nitzl et al., 2016; Abbasi et al., 2023).

## 5.13.1 Determining the type of effect and mediation

#### **5.13.1.1.** Direct effect

A direct effect is only a direct relationship between a dependent variable and an independent variable in the presence of the Mediator (C') (Zhao et al., 2010;
 Nitzl et al., 2016; Shehadeh et al., 2023).

#### **5.13.1.2.** Indirect-only mediation

• A mediated effect (a # b) exists; however, there is no direct effect (Zhao et al., 2010; Pozharliev et al., 2023).

#### 5.13.1.3. Full mediation

A full mediation can be identified where the direct effect c' is insignificant;
 however, the indirect effect a × b is significant, meaning only the indirect effect is through the mediator. Particularly, full mediations mean that the impact of the variable X to Y is transmitted completely with the help of another variable M. In

addition, it means that condition Y can completely absorb the negative or positive impact of X. Thus, it can also completely pass an impact or completely prevent the impact in terms of another impact. It is important to consider the sample size in mediation. "The smaller the sample, the more likely mediation (when present) is to be identified as opposed to c' being carried out more easily nonsignificant" (Nitzl et al., 2016; Wang and Tong and Yang, (2023).

#### 5.13.1.4. Partial Mediation

• Zhao et al. (2010) and Nitzl et al. (2016), and Purnamasari and Suryandari, 2023) suggested that all other situations can, under the condition which both the direct effect c' and the indirect effect a × b can be significant display partial mediation. Partial mediation can be divided into two types:

#### **5.13.1.4.1.** Complementary Mediation

• In a complementary mediation, the direct effect c' and indirect effect a × b can point in the same (negative or positive) direction (Zhao et al., 2010; Nitzl et al., 2016; Nikolova, 2023). It is usually observed that results with a × b and c' are significant. A × b × c' is positive, which identifies that a portion of the impact of X on Y is mediated through M. In contrast, X still explains a portion of Y which is independent of M. This complementary mediation hypothesis recommended that the intermediate variable explain, which can confuse or distort the associations between the independent and dependent variables. Complementary mediation is often referred to as 'positive confounding' or a 'consistent' model (Zhao et al., 2010; Shehadeh et al., 2023). For instance, 30% of a superior's trust management (X) is mediated through the organizational setting (M). Therefore, supervisors with higher credibility (X) understand the organizational context (M) to be more positive, which in turn positively impacts whether a subordinate will be seen as trustworthy (Y).

## **5.13.1.4.2.** Competitive Partial Mediation

• In a competitive mediation, the direct effect c' and indirect effect a × b can point in different directions. A negative a × b × c' value displays the presence of competitive mediation in Step 2. As mentioned above, this displays that a portion of the impact of X on Y is mediated through M, while X still describes a portion of Y that is independent of M. In the past, researchers only emphasised

complementary mediation (Zhao et al., 2010; Nitzl et al., 2016; Chi and Wang and Ahmad, 2023). In the competitive mediation hypothesis, the intermediate variable is believed to decrease the association size between the independent and dependent variables. On the other hand, the intermediate variable could likely expand the size of the association between the independent and dependent variables. Competitive mediation is usually called a 'negative confounding' or an 'inconsistent' model. For instance, intelligence (X) positively impacts individual performance (Y). However, this impact could be quelled by the task boredom variable (M) due to intelligence (X) generating greater task boredom (M). In addition, this variable has a negative impact on individual performance (Y) (Zhao et al., 2010; Nitzl et al., 2016; Gu, 2023). In this respect, complementary and competitive mediation may also occur; moreover, each has the potential to present theoretically interesting findings (Zhao et al., 2010; Nitzl et al., 2016; Gu, 2023).

#### **5.13.1.5.** No effect

- It has no effect if neither the indirect impact a × b nor the direct impact c' is significant. However, the total effect remains significant. In the beginning, in such a case, the researcher should define whether the sample size can have enough power to display a result when there is an impact (Zhao et al., 2010; Nitzl et al., 2016; Khoirunnisa & Albari, 2023). Combining the last two cases the indirect effect a × b is insignificant; moreover, the direct path c' is or is not significant often identifies a defective or problematic theoretical framework (Zhao et al., 2010; Shi et al., 2023; Zhao et al., 2023; Awan et al., 2022).
- In this respect, the researcher ought to thoroughly investigate the hypothesized model. When, for instance, the total effect c is significant, it can identify that the mediation variable ought to be removed because it cannot cause further explanation. If the mediation variable M has no actual effect, it will only dilute the impact of the direct variable X and should be removed (Zhao et al., 2010; Nitzl et al., 2016; Zhao et al., 2023).

## 5.13.1.6. Direct-only nonmediation

 A direct effect (c) exists; however, no indirect effect exists (Zhao et al. 2010; Awan et al. 2022).

#### **5.13.1.7.** No-effect nonmediation

• There is neither a direct nor indirect effect exists (Zhao et al., 2010; Shehadeh et al., 2023).

The bootstrap confidence interval (CI) for population-specific indirect impacts through Mi was obtained by arranging the aibi\* k-value from low to high. Values determining the lower and upper  $100(\alpha/2)\%$  of the distribution of aibi\* are found and gotten as the lower and upper limits of the  $100(1-\alpha)\%$  CI for the indirect population effect, where  $\alpha$  is the desirous nominal Type I error rate (Preacher & Hayes, 2008; Abbasi et al., 2023).

In particular, the lower and upper bounds of a  $100(1-\alpha)\%$  CI can be defined, respectively, that is, the  $(.5\alpha)$ kth and  $1 + (1 - .5\alpha)$  kth values of aibi\* in this sorted distribution. For example,  $\alpha = .05$  produces a 95% CI. With k = 1,000, the lower and upper bounds of the interval can be the 25th and 976th values of aibi\* in the sorted distribution of aibi\*. This procedure produces a percentile bootstrap CI. This same method can be applied to calculate a percentile bootstrap CI for the total indirect effect, subrogating aibi \* in the above conversation with  $\Sigma$ i (aibi\*) (Preacher & Hayes, 2008; Shehadeh et al., 2023).

Unlike ordinary CIs, percentile bootstrap CIs may be asymmetrical because they can be based on an empirical assessment of the sampling distribution of the indirect impact rather than on the assumption that the sampling distribution is normal. For example, the sampling distribution of aibi\* can be skewed compared with a normal distribution (except a = b = 0). Therefore, the confidence limits should not be equidistant from the point estimate (Preacher & Hayes, 2008; Pozharliev et al., 2023).

When applied in hypothesis testing, the forced symmetry of ordinary CIs leads to estimation inaccuracies and problems with Type I errors and power. Percentile bootstrap CIs are improved by adjusting the percentile values of the sorted distribution of bootstrap estimates applied for defining the bounds of the interval. This is being done for a detailed and technical treatment demonstrating the bias-corrected (BC) and accelerated (BCa) intervals (Preacher & Hayes, 2008; Wang and Tong and Yang, (2023).

There are only two empirical tests of the performance of bootstrapping in a multiple-mediator context. First, Preacher and Hayes (2008) and Purnamasari and Suryandari (2023) tested the validity of percentile, BC, and BCa CIs for assessing total and specific indirect effects in a two-mediator model, comparing their performance to the product-

of-coefficients strategy, both in parts of coverage of the known impact and in hypothesis testing while sampling from 16 diverse populations showing various levels of mediation.

They found bootstrapping could commonly be superior to the multivariate product-of-coefficients strategy in small to moderate samples, with BC and BCa performing the best regarding both power and Type I error rates (Preacher & Hayes, 2008; Nikolova, 2023).

Preacher and Hayes (2008) and Nikolova (2023) could compare the product-of-coefficients strategy to percentile and BC approaches, testing both powers in a three-mediator model and Type I error rates with two results. First, bootstrapping could be superior to the product-of-coefficients strategy.

There were distinctions between the percentile and bias-corrected approaches. It depends on the size of the paths in the model, with the percentile approach generally displaying a slight superiority in conditions wherever the bias-corrected approach was slightly liberal (Preacher & Hayes, 2008; Nikolova, (2023).

Therefore, a bootstrap technique is used to test mediation analysis. In addition, the two kinds of confidence intervals are bias-corrected (BC) and bias-corrected and accelerated (BCa). Both kinds were used for mediation analysis. The confidence level is 95 per cent (Preacher & Hayes, 2008; Pozharliev et al., 2023).

This study bootstrapped the indirect effects of emotional appeal, Informativeness and advertising creativity on purchase behaviour. The estimates and 95% CIs (The biascorrected (BC) and the bias-corrected and accelerated (BCa) intervals) are in Table 6.43. According to the results of the product-of-coefficients strategy, this study found that subjective norm is the significant mediator of the emotional appeal, Informativeness and advertising creativity on the actual purchase behaviour relationship. It briefly explains how a pairwise contrast of two indirect effects might be conducted. Consider five indirect effects investigated in the running example: product knowledge, attitude, subjective norm, perceived behavioural control, and intention to purchase. It could be found earlier that the indirect effect through subjective norm is more than the indirect effect through product knowledge, attitude, perceived behavioural control and intention to purchase (Preacher & Hayes, 2008; Fakhreddine et al., 2023; Espasandín-Bustelo and Rufino-Rus and Rodríguez-Serrano, 2023; Suwandana, 2023).

**Table 5.43: Mediation analysis** 

Relationship				P-	Con				
	Effects	Effect	t	The	bias-	The	The bias-		clusi
			Effect	correcte	ed (BC)	correct	ted and	lue	on
						accel	erated		
						(BCa) i	ntervals		
				Lower	Upper	Lower	Upper		
				Boun	Boun	Boun	Boun		
				d	d	d	d		
Emotional_app	0.068	0.857	0.144		0.306	0.025	0.27	*	Parti
eal → Product_knowl	(0.01)	(0.000)		0.020					al
edge <del>&gt;</del>				0.028					Med
Attitude									iatio
									n
Informativenes	0.055	0.533	0.362	0.249	0.466	0.272	0.512	***	Parti
$s \rightarrow$	(0.000	(0.000)							al
Product_knowl edge →	)								Med
Attitude									iatio
									n
Advertising_cr	0.041	0.662	0.207	0.125	0.289	0.153	0.345	***	Parti
eativity ->	(0.001	(0.000)							al
Product_knowl edge →	'								Med
Attitude									iatio
									n
Emotional_app	0.067	0.568	0.139	0.028	0.299	0.023	0.25	*	Parti
eal <del>&gt;</del>	(0.01)	(0.000)							al
Product_knowl edge →									Med
Subjective_nor									iatio
m									n
Informativenes	0.053	0.522	0.348	0.240	0.448	0.25	0.47	***	Parti
S ->	(0.000	(0.000)							al
Product_knowl edge →	)								Med
Subjective_nor m									iatio

									n
Advertising_cr	0.04	0.371	0.199	0.121	0.277	0.142	0.317	***	Parti
eativity → Product_knowl	(0.001	(0.000)							al
edge <del>&gt;</del>	)								Med
Subjective_nor									iatio
m									n
Emotional_app	0.075	0.526	0.157	0.031	0.335	0.025	0.252	*	Parti
eal → Product knowl	(0.01)	(0.000)							al
edge →									Med
Perceived_beh avioral_control									iatio
avioral_control									n
Informativenes	0.061	0.684	0.392	0.268	0.508	0.255	0.48	***	Parti
s → Product_knowl	(0.000	(0.000)							al
edge →	)								Med
Perceived_beh avioral_control									iatio
									n
Advertising_cr eativity ->	0.045 (0.000	0.406	0.224	0.138	0.313	0.145	0.326	***	Parti
Product_knowl	)	(0.000)							al
edge ->	,								Med
Perceived_beh avioral_control									iatio
D 1 1 1	0.026	0.275	0.450	0.266	0.556	0.007	0.061		n
Product_knowl edge →	0.036 (0.000	0.275	0.459	0.366	0.556	0.807	0.861	***	Parti
Subjective_nor	)	(0.000)							al
m → Intention_purc									Med
hase									iatio
Product_knowl	0.057	0.278	0.146	0.051	0.245	0.253	0.474	**	n Parti
edge →	(0.000)	(0.000)	0.140	0.031	0.243	0.233	0.474	**	al
Attitude →	)	(0.000)							Med
Intention_purc hase									iatio
									n
Product_knowl	0.043	0.209	0.442	0.351	0.541	0.144	0.322	***	Parti
edge →	(0.000	(0.000)	0.172	0.551	0.5 11	0.1 (7	0.322		al
Perceived_beh avioral_control	)	(0.000)							Med
aviorai_control →									

Intention_purc									iatio
hase									n
Attitude →	0.041	0.097	0.125	0.044	0.205	0.039	0.181	**	Parti
Intention_purc hase →	(0.004	(0.000)							al
Actual_purcha	)								Med
se_behaviour									iatio
									n
Subjective_nor	0.043	0.517	0.408	0.324	0.494	0.299	0.427	***	Parti
m →	(0.000								al
Intention_purc hase →	)	(0.000)							Med
Actual_purcha									iatio
se_behaviour									n
Perceived_beh	0.038	0.189	0.348	0.277	0.426	0.285	0.448	***	Parti
avioral_control →	(0.000	(0.000)							al
Intention_purc	)								Med
hase >									iatio
Actual_purcha									n
se_behaviour									

<sup>\*\*\*</sup>P<0.001, \*\*P<0.01, \*P<0.05, ns=not significant

As shown in Table 5.43, the bootstrap estimates provided here are based on 5,000 bootstrap samples. These results explain that, as a set, product knowledge mediates the effect of emotional appeal, informativeness and advertising creativity on attitude, subjective norm and perceived behavioural control—the direct and indirect effects of emotional appeal, informativeness and advertising creativity on attitude, subjective norm and perceived behavioural control.

Total and direct effects of emotional appeal, informativeness and advertising creativity on attitude, subjective norm and perceived behavioural control are 0.068, p < 0.01, 0.055, p < 0.000, 0.041, p = 0.001, 0.067, p = 0.01, 0.053, p = 0.000, 0.04, p = 0.001, 0.075, p = 0.01, 0.061, p = 0.000 and 0.045, p = 0.000, and 0.144, p < 0.011, 0.362, p < 0.000, 0.207, p < 0.000, 0.139, p < 0.010, 0.348, p < 0.000, 0.199, p < 0.000, 0.157, p < 0.010, 0.392, p < 0.000 and 0.224, p < 0.000, and, respectively (Preacher & Hayes, 2008; Suwandana, 2023).

Attitude, subjective norm and perceived behavioural control mediate product knowledge's effect on purchase intention. The total and direct effects of product knowledge on intention to purchase are 0.036, p = 0.000, 0.057, p = 0.000 and 0.043, p = 0.000, and 0.459, p < 0.000, 0.146, p < 0.005 and 0.442, p < 0.000, respectively (Preacher & Hayes, 2008; Nikolova, 2023).

In addition, intention purchase does mediate the effect of attitude, subjective norm and perceived behavioural control on actual purchase behaviour. The total and direct effects of attitude, subjective norm and perceived behavioural control on actual purchase behaviour are 0.041, p = 0.004, 0.043, p = 0.000 and 0.038, p = 0.000, and 0.125, p < 0.004, 0.408, p < 0.005 and 0.348, p < 0.000, respectively (Preacher & Hayes, 2008; Suwandana, 2023).

It leads to the study found that the distinction between the total and direct effects is the indirect effect through the mediators, with a point estimate of 0.075 and a 95% BCa bootstrap CI of 0.025 to 0.252 such as we can claim that the distinction between the total and the direct effect of attitude, subjective norm and perceived behavioural control on actual purchase behaviour. Therefore, the direct and indirect effects of attitude, subjective norm and perceived behavioural control on actual purchase behaviour are distinct from zero. Therefore, the directions of the a and b paths are consistent with the explanation that greater emotional appeal, informativeness and advertising creativity lead to greater mastery of the product knowledge, subjective norm, attitude, perceived behavioural control and intention to purchase dimensions. This will lead to greater actual purchase behaviour (Preacher & Hayes, 2008; Abbasi et al., 2023).

Examining the indirect effects identifies that only the subjective norm is a mediator because 95% CI does not contain zero. Neither product knowledge nor attitude contributes to the indirect effect above and beyond the subjective norm. Investigation of the pairwise contrasts of the indirect effects displays that the indirect effect through subjective norm is more than the indirect effect through intention to purchase, with a BCa 95% CI of 0.807 to 0.861 (Preacher & Hayes, 2008; Aditama & Haryono, 2022).

Therefore, this study found that all mediations are Complementary Mediation because the direct effect (c') and indirect effect ( $a \times b$ ) can point in the same (positive) direction (Zhao et al., 2010; Nitzl et al., 2016; Espasandín-Bustelo and Rufino-Rus and Rodríguez-Serrano, 2023).

## 5.14 The specific advert.

The reason why were chosen social media advertising because emotional appeal, informativeness and advertising creativity are the main drivers of favorable behavioral responses to print advertising and that the willingness to participate in favorable user responses is positively related to the purchase intention.

In accordance with the findings of previous studies, three significant predictors of attitude toward intention purchase: emotional appeal, informativeness and advertising creativity. Emotional appeal is very effective in print advertisement. It can persuade consumers to pay attention to or purchase such products or services. The emotional appeal contributes to convincing customers to the promoted brand, which can affect their purchase intention (Casais and Pereira, 2021; Vrtana and Krizanova, 2023). Because emotional appeals presented in print advertisement, After consumers exposed to print advertisement, they can acknowledge the love and happiness from the images and therefore the meanings were transferred. Also, emotional appeal is an attempt to convey negative or beneficial feelings that can encourage intention to purchase. (Wang, 2022; Lindauer, 2020).

Furthermore, the role of informativeness can be comprehended from the instrumental, or utilitarian, perspective. Trivedi and Teichert and Hardeck, (2019) and Chen et al., (2023) indicated that the beneficial value of advertising on print advertising increase product knowledge. In our study, information about beneficial aspects of products or service can greatly support consumers' intention to purchase (Trivedi and Teichert and Hardeck, 2019); Arora and Rana and Prashar, 2023). The quality information presented in print advertising, such as the benefits of products; therefore, it can help consumers make the most reasonable purchase decisions because consumers' perceptions of print ads are impacted by the information they have access to (Santikary and Johar, 2023). On other hard, informativeness does not have a significant impact on purchase intention, this is inconsistent with Trivedi and Teichert and Hardeck, (2019). Although they are interested in the product's information, they might not generate the intention to purchase product until they have a positive attitude toward advertisements; when consumers feel a positive attitude toward advertisements, they ought to form a intention to purchase products (Santikary and Johar, 2023).

At the same time, the importance of advertising creativity is related to the fundamental human need to consume something new, original, out of the unusual, and full of imagination (Myers and Jung, 2019; Wang, 2022). A creative social media advertising

will attract consumers' attention, encourage them to express their positive affective evaluation of the advertising because it can produce greater recall and morethoughts. On other hand, advertising creativity cannot increase motivation to process the print advertising; moreover, it cannot improve the attitude toward print advertisement (Zhang and Hong, 2022). It leads to advertising creativity has no positive impact on customers' purchase intentions because advertising creativity has no impact on environmental advertising effectiveness, where consumers often are in a state of distraction (Myers and Jung, 2019; Khanna, 2016).

The reason why print advertising is most favourable in organic food in Thailand because by 2029, the number of readers in the print advertising market in Thailand is expected to reach 25.2 million users. Thai consumers can learn about organic food products via print advertising because consumers aim to seek healthy and nutritious food as part of their decision-making process (Statista. 2022; He and Lopez and Liu, 2017). In addition, the previous studies revealed that participants can focus on organic food products; moreover, the participants can say that, for this kind of product. This is particularly true when the benefits of organic foods are emphasized, and when consumers are compared with other foods (Karels and de la Hera, 2021; Zeugner-Rotha and Bartsch, 2020).

Furthermore, print advertising also provide a lot of information about organic food products (Nath and Varghese, 2020; Ahmed and Alam, 2017). As a result, the more information that is provided by the publicity for organic food products, and the more credible it is on the value of such advertisement (Karels and de la Hera, 2021; van Niekerk, 2018). Print advertising helps consumers visualize dishes (organic food products) and menus and enhance consumers' experiences. In addition, QR codes are added to the print advertising to introduce producers and farmers and take consumers on a virtual tour of farms, vineyard, or even factories (Trivedi and Teichert and Hardeck, 2019). Consumers want to receive reliable information about the benefits of organic food products because the consumers in question need to decide to consume organic food products that are important for their health (Ahmed and Alam, 2017; Kang and Choi, 2019). Therefore, they can learn about the benefits of organic food products via social media ads. The previous studies after consumers exposed to social media ads, they will found to appreciate the value of a healthy diet (both hedonic and utilitarian). (Phillips and Sedgewick and Slobodzian, 2019; Mishra, 2017)).

The reason video ads is not chosen because video ads often take a long time before they are ready to go live. This is a tough task that can be divided into several stages. There is the hard planning process, the careful filming/production process, and the creative editing process (Phillips and Sedgewick and Slobodzian, 2019; Mishra, 2017). In addition, it may be time-consuming, may take several days or even weeks at a stretch to finally reach the target group. Moreover, It's common for people to switch channels while the adverts are being played on television or skip the same channel if the people watch them on platforms such as YouTube (Addo et al., 2022; Gu et al., 2022).

It is sometimes very annoying, especially it is an automatically played video, an advertisement that cannot be skipped or the video is too long (Choi and Chung and Young, 2019). This is because there are too many video advertisements today; moreover, the attention span of the audience is much less. This has led to people losing interest in advertisings altogether; moreover, it makes them more likely to skip the same within seconds (Wanga et al., 2018; McAlister et al., 2016).

## 5.15. The strength of demographics as predictors in this study.

This research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge toward organic food products. Furthermore, the findings of this studies identifies that gender did not moderate the relationship between emotional appeal and product knowledge, the relationship between informativeness and product knowledge, and the relationship between advertising creativity and product knowledge.

The findings of previous studies indicate that gender does not moderate the relationship between the food advertising content (emotional appeal) and product knowledge (Chekima et al., 2021, AlAmer et al., 2020). Although both females and males know more about the benefit of organic food products after they are exposed to the food advertising content (emotional appeal), they will not purchase organic food products (Akbar et al., 2019; Daniel and Kalu, (2017) because the food advertising content (emotional appeal) may not cover more organic food product information and why such organic food product may be better than their rivals (Kalu & Daniel, 2017; Chekima et al., 2021). This leads both females and males to not respond positively to the food advertising content (emotional appeal). The message female and male consumers receive can not influence their behaviour and purchase intentions.

On the other hand, the previous studies suggested that gender moderated the relationship between emotional appeal and product knowledge. It also found that females purchase organic food products more than males after exposure to food advertising content (emotional appeal). This is because they know more about the benefit of organic food products and their effects on their health. They had a positive attitude toward organic food products when exposed to the food advertising content (emotional appeal) (Wei, 2015; Kushwah et al., 2019). Females have more positive attitudes toward food advertising content (emotional appeal) than males. The food advertising content (emotional appeal) encourages females to consume more organic food products. This makes them increasingly purchase organic food products (Wang et al., 2021; Shin & Mattila, 2019).

Furthermore, the findings of previous studies indicated that gender does not moderate the relationship between the food advertising content (informativeness) and product knowledge (Padilla., 2023; Gross and Roosen, 2021). It also indicated that males and females will purchase organic food products after exposure to food advertising content (Informativeness) because they know more about the beneficial attributes of organic food products (Alotaibi et al., 2023; AlAmer et al., 2020). In addition, they trust the beneficial attributes of organic food products that are explained by the food advertising content (Taufique et al., 2019). Both genders intend to purchase and pay more for the organic food products (Martínez-Padilla., 2023; Świda et al., 2019). Horská et al. (2011) and Gajdoš Kljusurić et al., (2015) emphasized that price and quality are critical aspects in the consumers' food choice; however, lower purchase intention does not mean that consumers do not care about the quality of the food product. On the contrary, Chandra and Cassandra, (2019) and Gross and Roosen, 2021) suggested that gender moderate the relationship between the food advertising content (informativeness) and product knowledge. The previous study indicated that organic product buyers tend to be females (Lagerkvist and Hess, 2011; Kehlbacher et al., 2012; Grimsrud et al., 2013; Gross and Roosen, 2021). Compared to men, most females known more about the beneficial attributes of organic food products (such as good nutrients) that keep them healthy after they are exposed to the food advertising content because females are often the primary food shoppers of a household (Veljković and Stojanović and Filipović, 2015; Chandra and Cassandra, 2019).

In addition, the moderating role of gender does not affect the relationship between food advertising content (advertising creativity) and product knowledge (Mkhize and Ellis, 2020; Chekima, et al., 2021). The finding of previous studies indicate that both males and females will increasingly purchase organic food products. In addition, they know more about the beneficial attributes of organic food products after they exposed to food advertising content (advertising creativity) because they have a high level of education (Shen, et al., 2021 Simola, et al., 2020).

On the other hand, the previous studies suggested that gender moderated the relationship between advertising creativity and product knowledge. Female respondents tend to purchase organic food products even when they are more expensive than ordinary food (Heru, 2015; Haider and Ahmad and Ghani, 2019). This is because females are positively aware of the intention to purchase organic food products, not only because they consider their personal health but because they are also concerned about communal goals as well (such as caring for others and social relationships). Females are also more likely to go beyond social causes associated with their in-group (Kilgour, 2006; Chekima, et al., 2021). Therefore, females show a positive awareness towards organic food products and are aware of the intake of organic food products to be a healthy food option, as found by a previous study.

## 5.16. R squares

Table 5.44: R squares

	Estimate
Product_knowledge	0.662
Subjective_norm	0.687
Perceived_behavioral_control	0.713
Attitude	0.809
Intention_purchase	0.811
Actual_purchase_behaviour	0.719

The results in Table 5.44 showed that six of the direct hypotheses were supported. The results also displayed that three multi-group variables were rejected. The multiple square correlations for the structural equations index could indicate that R2 was used to assess the goodness of fit of the structural model (Hair et al., 2011; Henseleret al., 2009; Kassem et al., 2023). This study found that R<sup>2</sup> was 0.662 or 66.20 per cent (0.662x100), 0.687 or 68.70 per cent (0.687x100), 0.713 or 71.30 per cent (0.713x100), 0.809 or 80.90 per cent (0.809x100), 0.811 or 81.10 per cent (0.811x100) and 0.719 or 71.90 per cent (0.798x100) that indicated that emotional appeal, informativeness,

advertising creativity, product knowledge, attitude, subjective norm, perceived behavioural control and intention to purchase taken together, which can explain 66.20 per cent of the variance in product knowledge. Also, 68.70 per cent of the variance in the subjective norm, 71.30 per cent in perceived behavioural control, 80.90 per cent in attitude, 81.10 per cent in intention to purchase and 71.90 per cent in actual purchase behaviour. The predictive relevance was also acceptable because all R<sup>2</sup> ranged from 68.5 to 85.3 per cent, more than the recommended 40 per cent (Saris & Strenkhorst, 1984; Nuseir et al., 2023; Aliasgharzadeh et al., 2023).

Therefore, the model can predict actual purchase behaviour, which is acceptable.

## 5.17. Summary of the Hypotheses Testing

Table 5.45 shows a brief summary of the hypotheses tested in the study. It talso provides the estimates, hypotheses and the p-value created from the data and the verdict on whether the data could support the hypotheses. The data displays that thirteen hypotheses were supported; however, three were rejected

Table 5.45: Summary of hypotheses testing

No	Hypothesis	Estimates	p value	Verdict
H1	The Emotional appeals will strengthen Product knowledge.	0.140	0.002	Supported
H2	Informativeness will strengthen Product knowledge	0.440	0.000	Supported
НЗ	Advertising creativity will strengthen Product knowledge	0.279	0.000	Supported
H4	Product knowledge will strengthen attitude.	0.899	0.000	Supported
Н5	Product knowledge will strengthen subjective norm.	0.829	0.000	Supported
Н6	Product knowledge will strengthen Perceived behavioral control.	0.844	0.000	Supported
Н7	Attitude will strengthen intention to purchase.	0.129	0.000	Supported
Н8	Subjective norm will strengthen intention to purchase.	0.441	0.000	Supported
H9	Perceived behavioral control will	0.418	0.000	Supported

	strengthen intention to purchase.			
H10	Intention to purchase will	0.848	0.000	Supported
	strengthen Actual Purchase Behavior.			
H11	Gender will moderate the	$^{\Delta}\mathbf{X}^{2}=0.284$	0.594	Not
	relationship between Emotional			Support
	appeals and product knowledge			
H12	Gender will moderate the	$\Delta X^2 = 0.001$	0.972	Not
	relationship between			Support
	Informativeness and product			
	knowledge			
H13	Gender will moderate the	$^{\Delta}\mathbf{X}^{2}=0.113$	0.737	Not
	relationship between Advertising			Support
	creativity and product knowledge			

The findings found about causal paths (standardised path coefficients ( $\beta$ ), standard error, p-value and hypotheses results), parameter estimates corresponding to the hypothesised SEM paths and the results of regression weights also are displayed in Table 5.45 and Figure 5.6. First, the researcher tested the direct effects. The standardised regression path between emotional appeals and product knowledge was statistically significant (i.e.  $\gamma = 0.140$ , p-value = 0.002 ), which meant that H1 was supported.

In the same way, H2 and H3, i.e.informativeness and advertising creativity's effects on product knowledge were statistically significant (i.e.  $\gamma=0.440$ , p-value = 0.000;  $\gamma=0.279$ , p-value = 0.000, respectively), that meant that H2 and H3 were supported. Similarly, H4, H5 and H6 (i.e. product knowledge's effects on attitude, product knowledge's effects on subjective norm and product knowledge's effects on perceived behavioural control, respectively) were fully supported (i.e.  $\gamma=0.899$ , p-value = 0.000;  $\gamma=0.844$ , p-value = 0.000, respectively). In addition, results on the direct relationships also suggested that attitude's effects on intention to purchase (H7), subjective norm's effects on intention\_to purchase (H8), perceived behavioural control's effects on intention to purchase (H9), and intention to purchase's effects on actual purchase behaviour (H10) were all found statistically significant (i.e.  $\gamma=0.129$ , t-value = 0.000;  $\gamma=0.441$ , p-value = 0.000;  $\gamma=0.418$ , p-value = 0.000,  $\gamma=0.848$ , p-value = 0.000 respectively).

The researcher investigated the moderating role of gender in emotional appeal, informativeness, and advertising creativity's influences on product knowledge. In each

of these hypotheses (H11, H12 and H13), the researcher investigated whether emotional appeal, informativeness, and advertising creativity's influences on product knowledge, were stronger among women than men. The results of the chi-square difference comparison provided

- Evidence that indicates there was no significant difference between Thai consumers of different gender in the influences of emotional appeal on product knowledge ( $\Delta X^2 = 0.284$ , t-value = 0.594, not supported),
- The influences of informativeness on product knowledge ( $\Delta X^2 = 0.001$  t-value = 0.972, not supported), and
- The influences of advertising creativity on product knowledge ( $\Delta X^2 = 0.113$ , t-value = 0.737, not supported).

# 5.18 Summary

The reason why this chapter presents the analysis of the data is that the chapter would like to test the hypotheses. Therefore, the chapter also provides a descriptive analysis of the scale items and demographic variables. The descriptive analysis covers how the reliability and validity of the data were investigated and how the goodness of fitness measures was assessed using SEM. In addition, how the measurement model could be run to study if the proposed model could fit for testing the hypotheses. This displayed that the model was fit for further analysis. Then, the structural model was run for the mediation analysis, and the hypotheses were carried out to seek the mediation effect. Then, the hypotheses testing were summarised.

## **Chapter VI: Discussion**

## 6.1. Introduction

This chapter gives a detailed account of the discussion that relates to the results gained from the data analysis. Each hypothesis's outcomes are also compared with the evidence in the literature. The first section provides a comprehensive insight into the results of the data analysis. The second section also discusses the hypotheses test. Finally, the third section discusses the influence of emotional appeals that will strengthen product knowledge toward the intention to purchase organic food products.

The fourth section explains that the influence of informativeness will strengthen product knowledge toward the intention to purchase organic food products. The fifth section discusses the influence of Advertising creativity that will enhance product knowledge toward the intention to purchase organic food products. The sixth section explains that the impact of product knowledge will strengthen attitudes toward the intention to purchase organic food products. Finally, the seventh section discusses product knowledge that will support the subjective norm toward the intention to purchase organic food products.

The eighth section explains that the influence of product knowledge will strengthen perceived behavioural control toward the intention to purchase organic food products. The ninth section explains the influence of attitude that will strengthen the choice to purchase organic food products. Finally, the tenth section includes the influence of the subjective norm that will strengthen the intention to purchase organic food products.

The eleventh section discusses how the role of gender will moderate the relationship between emotional appeals and product knowledge. The twelfth section explains that the role of gender will moderate the relationship between Informativeness and product knowledge. Finally, the thirteenth section covers how the influence of gender will moderate the relationship between advertising creativity and product knowledge.

The final section provides a summary of the chapter.

## 6.2. Chapter Overview

This thesis examines the concept of food advertising content (Emotional appeal (EMO), Informativeness (INFO) and Advertising creativity (CREA)), its dimensions and the impacts on product knowledge, attitude, subjective norm, perceived behavioural control,

intention to purchase and actual purchase behaviour. It also could investigate the role of consumer demographic (gender) in these impacts. Finally, it explored the impacts of other constructs on each other, such as the impacts of Emotional appeal, Informativeness and Advertising creativity on product knowledge; the impact of product knowledge on attitude, subjective norm, and perceived behavioural control; the impact of attitude, subjective norm, perceived behavioural control on intention to purchase; and the intention to purchase on actual purchase behaviour.

This study was necessary because the survey had found and could close several gaps in the literature. Firstly, most prior researchers (Mayer et al., 1995; McAllister, 1995; Soh, 2009; Terres et al., 2015; Ha et al., 2016) who had investigated food advertising content have emphasised the influence of studying its Emotional appeal, Informativeness and Advertising creativity dimensions.

Secondly, there was a massive gap in the literature on the impact of Emotional appeal, Informativeness and Advertising creativity on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour (Lafferty, 2004; Spry et al., 2011; Dwivedi et al., 2015; Nisar et al., 2016; Wang et al., 2021; Kushwah et al., 2019).

Thirdly, there was little evidence of the impact of food advertising content (Emotional appeal, Informativeness and Advertising creativity) on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour based on the consumer demographic (gender) (Yurdakul-Sahin & Atik, 2013; Bhutada & Rollins, 2015; Appiah & Missedja, 2016; McCormick, 2016; Teichert et al., 2018). Furthermore, prior studies (Choudhury & Mukherjee, 2014; Alhaddad, 2015; Ababio & Yamoah, 2016; Wang et al., 2021; Kushwah et al., 2019) also displayed little evidence of the impacts of Emotional appeal, Informativeness and Advertising creativity on product knowledge. Also, there was little evidence of product knowledge's impact on attitude, subjective norms, and perceived behavioural control (Koh et al., 2009; Homburg et al., 2010; Steenkamp, 2014). In the same way, there was little evidence of the impact of attitude, subjective norm, and perceived behavioural control on the intention to purchase (Koh et al., 2009; Homburg et al., 2010; Steenkamp, 2014; Feldmann & Hamm, 2015). Finally, there was also little evidence of the intention to purchase's impact on actual purchase behaviour (Lafferty et al., 1999; Nguyen & Leblanc, 2001; Foroudi et al., 2014; Suciu et al., 2019; Xue, 2015).

## 6.3. Discussing the hypotheses test basted on the objective of research

This chapter could discuss the hypotheses test basted on the objective of research that is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of Planned Behavior (TPB). Also, this research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

First objective of the study is to investigate the effect of Emotional appeal, Informativeness and Advertising creativity on product knowledge of organic food products. Furthermore, first objective of the study are dictated by the hypotheses (Hypothesis 1: The Emotional appeals will strengthen Product knowledge, Hypothesis 2: Informativeness will strengthen Product knowledge and Hypothesis 3: Advertising creativity will strengthen Product knowledge).

The finding of this study indicated that food advertising contect (emotional appeal, informativeness and advertising creativity) can increase the knowledge of consumers about organic food products.

The finding of this research is consistent with previous studies. Prentice and, Chen and Wang (2019) and Molinillo et al. (2020) studied the influence of emotional appeals on health cognitions pointed out the relationship between emotional appeals and knowledge. Advertising message presents the attributes of organic food products (such as organic food being safer than ordinary food). The message can increase the knowledge of consumers about organic food products. It leads consumers to purchase organic food products increasingly because they want to have their health. On the other hand, many other consumers might internally enjoy organic food products because they are organic, tasty and healthy. Provided that is the case, consumers internally want an organic food product because they know it is organic and healthy (Kotler & Armstrong, 2018; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021).

In addition, the previous study found that food advertising content (informativeness) can increase product knowledge of organic food products after exposure to the food advertising content (informativeness). After consumers are exposed to the advertising message that provides the benefits of reliable facts about organic food products, the consumers have more knowledge about the attribute of organic food products. As a

result, consumers will intend to purchase organic food products. (Stanton & Cook, 2019; Cai et al., 2016; Naser & Ismail, 2020). However, the previous study found that the food advertising content (informativeness) needs to explain the benefit of organic food products clearly. As a result, the level of consumers' product knowledge of organic food products remains the same. As a result, they will not purchase organic food products (Sun et al., 2017; Zhang et al., 2016; Hansmann and Baur and Binder, 2020). However, ingenious ideas and unusual characteristics may also generate creative advertisements that are difficult to understand (Stone and Besser and Lewies, 2000; Yang & Smith, 2009; Choi et al., 2018; Wang et al., 2021).

In addition, Altsech (1995) and Shen et al. (2020) identified that the consumers' intention to purchase organic food products has relations to product knowledge (organic food knowledge) and advertising creativity because advertising creativity is an advertising message that can increase product knowledge (organic food products). Consumers will perceive the product's attribute (the attribute or benefit of organic food products) after exposure to the advertising message. Therefore, consumers will purchase organic food products increasingly. For this reason, the consumers will know and understand more health benefits of the product (organic food product) (Bublitz & Peracchio, 2015). The consumers can also evaluate the benefit of the product (organic food product) they will encounter. Therefore, consumers will likely purchase organic food products (Chen and Wang and Liang, 2019; Rosengren and Dahlen and Modig, 2013; Anupama and Suresh, (2018). According to Rothenberg and Hausman (1976) and Shen et al. (2020), adverting messages communicate the product's benefit, which is regarded as an aspect of defining advertising creativity.

On the other hand, advertising creativity often impresses the audience due to the advertisement's design or the novelty of the presented concept. However, ingenious ideas and unusual characteristics may also generate creative advertisements that are difficult to understand (Stone and Besser and Lewies, 2000; Yang & Smith, 2009; Choi et al., 2018; Wang et al., 2021). In addition, few studies investigate the relationship between advertising creativity and product knowledge (organic food knowledge) on intention to purchase organic food products (Shen et al., 2020; Wilaso & Casper, 2016). Therefore, Hypothesis 1, Hypothesis 2 and Hypothesis 3 are supported.

Second objective of the study is to investigate how product knowledge of organic food attributes is related to attitude, subjective norms, and perceived behavioural control. Furthermore, second objective of the study are dictated by the hypotheses (Hypothesis

4: Product knowledge will strengthen attitude, Hypothesis 5: Product knowledge will strengthen subjective norm and Hypothesis 6: Product knowledge will strengthen Perceived behavioral control).

The finding of this research indicated that attitude, subjective norms and perceived behavioural control significantly influence product knowledge toward the intention to purchase organic food products in Thailand.

In addition, the previous study found that the influence of food advertising content could increase consumers' positive attitude toward the intention to purchase organic food products (Demirtas, 2018; Solomon, 2021; Xie et al., 2020). This is because consumers know more about the beneficial attribute of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients). Most consumers consider the benefits of organic food products when purchasing organic food. Therefore, these attributes of organic food products positively influence consumers' attitudes toward purchasing organic food products (Hansen and Sørensen and Eriksen, 2018; Spence et al., 2018). Therefore, the influence of food advertising content is an important factor that can make positive attitudes towards purchasing organic food products (Mehra & Ratna, 2014; Wang et al., 2019; Voon et al., 2011). Although the influence of food advertising content, which can stimulate consumers know more about organic food product to be a healthier than ordinary foods and have a positive attitude toward organic food product, there is only a small proportion of consumers that intend to purchase organic food product. That is because most consumers are aware of organic food product as a fashion product (Zakowska-Biemans, 2011; Sankar, 2015).

Also, Han et al. (2010) and Abu Bakar et al., (2021) indicated that the findings of studies indicated subjective norms could increase knowledge about an organic food product among consumers that can lead to an increase in the level of product knowledge toward intention to purchase organic food as a social norm. These findings are consistent with the Al-Swidi, Mohammed Rafiul Huque that mean that the level of product knowledge tends to be impacted by the perception of other persons. Furthermore, subjective norms are essential in positively impacting the intention to purchase organic food products. Therefore, subjective norms are also regarded as a critical determinant stimulating product knowledge about purchasing organic food products. If consumers are highly worried about subjective norms, they will be concerned about their social and cultural norms and their reference group (Zhen &

Mansori, 2012; Krishna & Balasubramanian, 2021; Basha & Lal, 2019; Teichert et al., 2018).

On the other hand, after important consumers are exposed to food advertising content, they will know that organic food products are healthier and safer than ordinary foods (Chen, 2007; Akbar et al., 2019). However, important people of consumers cannot increase product knowledge towards the intention to purchase organic food products. Because each person's intentions to purchase organic food are not likely to be strengthened if the individuals do not trust that their loved ones expect them to do so or they do not wish to be identified with other individuals who intend to purchase organic food products (Wong & Aini, 2015; Chekima et al., 2021).

Furthermore, the finding of previous studies have revealed that after consumers were exposed to food advertising content to indicate that organic food products are health foods, they will know organic food product is an increasingly healthier food product increasingly. They know more about organic food products that are easily better than ordinary foods (Voon et al 2011; Chekima, et al., 2021). Food advertising content increases the level of product knowledge of organic food products. This means the consumer's product knowledge toward more behavioral control perception significantly increases the consumer's intention to purchase organic food products. For this reason, consumers perceive the health and beneficial attribute of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients) after they are exposed to food advertising content. As a result, consumers increasingly know about the beneficial attributes of organic food products.

On the some way, Yazdanpanah & Forouzani (2015) and Souza, (2022) and Zhanga et al. (2017) suggested that the influence of food advertising content, which could not increase the level of product knowledge of organic food products. Perceived behavioural control does not influence product knowledge about purchasing organic food products because consumers have already known the beneficial attribute of these products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients). Consumers also regard organic food products as good for health. Therefore, perceived behavioural control cannot motivate consumers to purchase organic food products (Pomsanam and Napompech and Suwanmaneepong, 2014).

Therefore, Hypothesis 4, Hypothesis 5 and Hypothesis 6 are supported.

Third objective of the study is to examine the effects of attitude, subjective norms, and perceived behavioural control on intention to purchase. In addition, third objective of the study are dictated by the hypotheses (Hypothesis 7: Attitude will strengthen intention to purchase, Hypothesis 8: Subjective norm will strengthen intention to purchase and Hypothesis 9: Perceived behavioral control will strengthen intention to purchase).

The finding of this research indicated that attitude, subjective norms and perceived behavioural control significantly have a positive impact on the intention to purchase organic food products.

According to the previous study suggested that attitude positively influences the intention to purchase organic food products. Due to the food advertising content communicates the beneficial attribute of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, good taste, and good nutrients). After consumers are exposed to the food advertising content, they will know the attributes of organic food products that can keep them healthy. They may be expected to rely on the food advertising content and other observable characteristics of organic food products as quality and measures of trustworthiness (Hilverda et al., 2018; Voon et al., 2011; Chen, 2007; Atta and Abbas and Syed, 2021). It leads to the beneficial attribute of organic food products that can increasingly motivate consumers to buy them. Furthermore, if the consumers are concerned about their health, the beneficial attribute of organic food products generates a positive attitude towards organic food products (Honkanen et al., 2006; Xie et al., 2020; Solomon, 2021). In contrast, the research of Tung and Shih and Wei and Chen (2012) and Solomon (2021) discovered that there were attitudinal inconsistencies once consumers wanted to purchase organic food products. This might mean that consumers might have a positive attitude towards purchasing organic food products, but they might be confused simultaneously, leading to indecision. There is a probability that is not a positive intention to purchase.

In addition, Lee and Bonnand and Cho, (2015) suggested that subjective norms have a strong relation with the intention to purchase organic food. Chen (2007) discovered that after the subjective norms of consumers were positive influence, their intention to purchase to organic food increase significantly. Findings suggested that when consumers trust that individuals who are important to them think organic food as a fresher, healthier, more reliable, and produced through an environmentally friendly way after the important persons exposed to the food advertising content (emotional appeal,

informativeness and advertising creativity) explains the beneficial attribute of organic food products. They will have better intention to purchase organic food. According to the finding of Lee and Bonnand and Cho, (2015) and Brumă, (2020) have found that the construct of the subjective norm has been discovered to be a strong prediction of the intention to purchase organic food. Due to most studies of TPB have adopted single-item measures for subjective norm.

On the other hand, the findings of previous study had already identified subjective norms as the weakest links in models for intention to purchase organic food products. Consumers consider that the approval of "important others" cannot be the main factor towards intention to purchase organic food. Their family members/peer groups/friends/fail to give any positive push regarding a reason for purchasing organic food product (Demirtas, 2018; Hilverda et al., 2018).

Moreover, the finding of previous study also found that the perceived behavioral control positively influenced the intention to purchase organic food product (Souza, 2022). The findings found that the perception of product quality positively impacted the intention to purchase organic food product. Perception is a significant indirect impact (such as full mediation) against actual purchasing behavior. (Gassler et al., 2018; Souza, 2022). After respondents are exposed to the food advertising content, the respondents will perceive the beneficial attributes of organic food products (such as natural ingredients, no chemical, no artificial ingredients, a good taste, and good nutrient) that are advantageous to health (Brumă, 2020). Moreover, the respondents will thus focus on the beneficial attributes of organic food products when they want to purchase organic food product. Food advertising content can increasingly motivate the respondents who intend to purchase organic food products due to the respondents regarding the beneficial attributes of organic food products as worth to spending money and time on it (Cornford and Pupat, 2019; Atta and Abbas and Syed, 2021; Spence et al., 2018). Because of PBC, its impact on choices and intentions to purchase is important, if consumers believe their actions can lead to the a positive outcome (Souza, 2022; Asifa et al., 2018).

On the other hand, Al-Swidi, (2013) and Hilverda et al., (2018) suggested that there is not a positive relationship between perceived behavioural control and intention to purchase organic food product. For this reason, affordability can be a problem for consumers who purchase organic food products occasionally or who may yet be convinced of the beneficial attributes of organic food products. Although the consumers

perceive the beneficial attributes of organic food products, they will not purchase them because they do not have enough income to purchase organic food products.

Therefore, both Hypothesis 7, Hypothesis 8 and Hypothesis 9 are supported.

Fourth objective of the study is to examine the effect of the purchase intention on to actual purchase behaviour. In addition, fourth objective of the study are dictated by the hypothese (Hypothesis 10: Intention to purchase will strengthen Actual Purchase Behavior).

The findings of this research have supported that the routes from intention to purchase organic food to actual purchase behaviour is positive and important. Because the intention to buy organic food products is regarded as a prerequisite to generate the purchase behaviour.

According to the finding of previous study also found that the intention to purchase positively impacts the actual purchase behaviour of organic food products. Because respondents are exposed to the food advertising content, the respondents will perceive the beneficial attributes of organic food products (such as natural ingredients, no chemical, no artificial ingredients, a good taste, and good nutrients) that are beneficial to health (Singh and Verma, 2017; Fleseriu and Cosma and Bocanet, 2020). Afterwards, the respondents will know the beneficial attributes of organic food products that can be beneficial to the body. Product knowledge can determine consumers' intention to purchase organic food products. Such knowledge will then lead to the actual purchase behaviour of organic food products. Product knowledge is also critical in the purchase decision of organic food products. The highest impact on the intention to purchase is the perceived beneficial attributes of organic food products.

In contrast, Smith and Paladino, (2010) and Brumă, (2020) and Testa et al., (2019) did not find that a positive relationship between the intention to purchase organic food product and consumer purchase behaviour of organic food products. Although the majority of respondents exposed to the food advertising content could communicate the beneficial attributes of organic food products, they did not want to purchase organic food products because they were not concerned about their health. This leads to the majority of respondents who do not have an organic food purchase intention still displaying the buying behaviour of purchasing the organic food products.

Therefore, Hypothesis 10 is supported.

Final objective of the study is to determine the moderating role of gender on the relationship between food advertising content elements (Emotional appeal, Informativeness and Advertising creativity) and product knowledge in the intention to purchase organic food. In addition, final objective of the study are dictated by the Hypotheses (Hypothesis 11: Gender will moderate the relationship between Emotional appeals and product knowledge, Hypothesis 12: Gender will moderate the relationship between Informativeness and product knowledge and Hypothesis 13: Gender will moderate the relationship between Advertising creativity and product knowledge.

The finding of this research indicated that consumers' gender did not affect the influence of Emotional appeal, Informativeness and Advertising creativity on the other constructs. Therefore, gender does not moderate the relationship between the food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge.

The finding of this research is consistent with many previous studies. Although both females and males know more about the benefit of organic food products after they are exposed to the food advertising content (emotional appeal, informativeness and advertising creativity), they will not purchase organic food products (Akbar et al., 2019; Daniel and Kalu, (2017) because the food advertising content (emotional appeal) may not cover more organic food product information and why such organic food product may be better than their rivals (Kalu & Daniel, 2017; Chekima et al., 2021). It lead to both females and males do not respond positively to the food advertising content (emotional appeal). The message female and male consumers receive can not influence their behaviour and purchase intentions. On the other hand, Lea and Worsley (2005) and Wang et al. (2021) suggested that gender moderate the relationship between the food advertising content (emotional appeal) and product knowledge. Females known more about the beneficial attributes of organic food products (such as natural ingredients, no chemicals, and no artificial ingredients) because the women were motivated by a food advertising content (emotional appeal). Females are more likely to be concerned about the long-term health effects of residues, chemicals and preservatives. When the females doubt an ordinary food may contain chemical or artificial ingredients, they will avoid consuming ordinary food. It increasingly leads to women's intention to purchase organic food products (Kushwah et al., 2019; Wei, 2015).

Furthermore, the previous studies indicated that both males and females will purchase organic food products increasingly after they exposed to food advertising content

(Informativeness) because they know more about the beneficial attributes of organic food products. In addition, they trust for the beneficial attributes of organic food products that are explained by the food advertising content. Both genders intend to purchase and pay more for the organic food products. Horská et al. (2011) and Gajdoš Kljusurić et al. (2015) emphasized that price and quality are critical aspects in the consumers' food choice; however, lower purchase intention does not mean that consumers do not care about the quality of the food product. Similarly, the finding of previous studies indicated that food advertising content (Informativeness) and product knowledge did not significantly differ according to gender (Affram and Darkwa, 2015) and Chen et al., 2023). On the contrary, Chandra and Cassandra, (2019) and Gross and Roosen, 2021) suggested that gender moderate the relationship between the food advertising content (informativeness) and product knowledge. The previous study's findings indicated that organic product buyers tend to be females (Lagerkvist and Hess, 2011; Kehlbacher et al., 2012; Grimsrud et al., 2013; Gross and Roosen, 2021). Compared to men, most females known more about the beneficial attributes of organic food products (such as good nutrients) that keep them healthy after they are exposed to the food advertising content because females are often the primary food shoppers of a household (Veljković and Stojanović and Filipović, 2015; Chandra and Cassandra, 2019).

Moreover, the moderating role of gender does not affect the relationship between food advertising content (Advertising creativity) and product knowledge (Mkhize and Ellis, 2020; Chekima, et al., 2021). According to the finding of previous studies indicated that both males and females will purchase organic food products increasingly. In addition, they know more about the beneficial attributes of organic food products after they exposed to food advertising content (Advertising creativity) because they have a high level of education (Shen, et al., 2021 Simola, et al., 2020).

Similarlly, the finding of previous studies found that both male and female with higher education are more willing to pay a higher price for organic food products and more likely to purchase these products after they exposed to food advertising content (Advertising creativity) (Rosengren, et al., 2020; Modig and Dahlen, 2019). Because food advertising content (Advertising creativity) contains unexpected details (such as the benefit of organic food product) that make a person healthy (Bellman, et al., 2017; Kong, et al., 2019). When consumers know more about unexpected details (the benefit of organic food product), the consumers will purchase organic food products increasingly. Both gender like food advertising content (Advertising creativity) that fit

their expectations. In addition, food advertising content (Advertising creativity) was perceived as unexpected, creative or persuasive by viewers (both female and male) (Brady and Gantman and Van Bavel, 2020; Choi, et al., 2018).). According to Fulgoni and Pettit and Lipsman, (2017) and Tantawi and Negm, (2018), indicated that both males and females will purchase organic food products increasingly after they exposed to food advertising content (Advertising creativity) due to they know more about the needed and new information of organic food products. It leads to food advertising content can motivates both male and femage purchase organic food products increasingly. It will both male and females' attention and make them pay attention to food advertising content. Food advertising content (Advertising creativity) are to exert an influence on both male and female's opinions, product knowledge or beliefs toward to organic food products. The content can increase perceived product quality among consumer (both gender) (Sanchez and Alley, 2016; Kong, et al., 2019). Similarly, the finding of previous studies indicated that food advertising content (Advertising creativity) and product knowledge did not significantly differ according to gender (Shen, et al., 2021; Rosengren, et al., 2020).

On the other hand, the finding of previous research indicated that consumers' gender affect the influence of Advertising creativity on the other constructs. Female respondents tend to purchase organic food products even when they are more expensive than ordinary food (Heru, 2015; Haider and Ahmad and Ghani, 2019). This is because females have positive awareness towards the intention to purchase organic food products, not only due to them considering their personal health, they are concerned about communal goals as well (such as caring for others and social relationships).

Therefore, Hypothesis 11, Hypothesis 12 and Hypothesis 13 are not supported.

To address these research questions, this study used a research method (quantitative approach) (Desphande, 1983; Creswell, 2003). This study would start investigating the concept in the current literature.

A quantitative approach based on the previous literature and findings was applied in the next phase of the study. The study used the quantitative approach to examine the associations between the various constructs and improve the research's reliability, validity and generalizability (Deshpande, 1983; Zinkhan & Hirschheim, 1992). A self-management survey could be developed and distributed to 900 Thai consumers so that the researcher can examine food advertising content (Emotional appeal, Informativeness

and Advertising creativity) and its influence on the other constructs applied in this study.

The quantitative data was analyzed by applying EFA, CFA and SEM. According to EFA, CFA and SEM research results, the researcher deleted any items. Based on the outcomes of the measurement model, it could be identified that each construct had an acceptable Cronbach's alpha, AVE, composite reliability and discriminant validity. It was also displayed that the measurement model had an adequate model fit.

Finally, the structural model was examined by the researcher.

The first step was to evaluate the model fit. The outcomes displayed an adequate model fit. The second step was to evaluate the direct and multi-group hypotheses. The outcomes displayed that all direct hypotheses were supported; however, all multi-group hypotheses were rejected. Of the thirteen hypotheses, ten were supported, and three were rejected. H1, H2, H3, H4, H5, H6, H7, H8, H9 and H10. On the other hand, H11, H12 and H13 were rejected. Therefore, it was more than 50 per cent that were supported.

# **6.4.** Empirical findings and Discussion of the Hypotheses Tests

This part explains the main findings and links them to the research questions;

- Would the food advertising content (emotional appeal, informativeness and advertising creativity) increase product knowledge of organic food products?-Emotional appeals will strengthen product knowledge, informativeness will strengthen Product knowledge, and advertising creativity will strengthen Product knowledge
- Is product knowledge positively related to TPB (attitude, subjective norms, and perceived behavioural control)?- Product knowledge will strengthen attitude -Product knowledge will strengthen subjective norms, and - Product knowledge will strengthen Perceived behavioural control.
- 3. Do attitude, subjective norms, and perceived behavioural control have a positive impact on the intention to purchase?- Attitude will strengthen the intention to purchase Subjective norm will strengthen the intention to purchase, and -Perceived behavioural control will strengthen the intention to purchase.

- 4. Would intention to purchase have a positive impact on actual purchase behaviour?Intention to purchase will strengthen purchase behaviour.
- 5. Does gender positively moderate the relationships between food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge?- Gender will moderate the relationship between emotional appeal and product knowledge, - Gender will moderate the relationship between informativeness and product knowledge, and - Gender will moderate the relationship between advertising creativity and Product knowledge and gender.

This section could answer these questions using the quantitative research carried out for this study. This section also combines these findings with the previous literature and describes the results of this study together with the literature. The researcher also divided the research questions into five parts for discussion. The first part discussed food advertising content (Emotional appeal, Informativeness and Advertising creativity) and its influences. In the second part, product knowledge and its influences were discussed. In the third part, the researcher explained TPB (attitude, subjective norms, and perceived behavioural control) and its influences were discussed. In the fourth part, the researcher explained the intention to purchase and its influences were discussed. Finally, the researcher described food advertising content (Emotional appeal, Informativeness and Advertising creativity) based on the consumer demographics (gender) that were discussed.

In addition, this part also indicated the purpose of the study. The study was divided into thirteen hypotheses, investigating the relationship between nine variables, including Emotional appeal (EMO), Informativeness (INFO), Advertising creativity (CREA), product knowledge (PK), attitude (Att), subjective norms (SN), perceived behavioural control (PBC), intention to purchase (IP), Actual Purchase Behavior (APB) and gender. The study's primary purpose was to investigate moderating effects of gender on various relationships between the influence of food advertising content and product knowledge in relation to the Theory of Planned Behaviour (TPB). Previous studies have also presented that three other factors, EMO, INFO and CREA, influence PK.

## 6.4.1. Emotional appeal (focal construct) and its effects

One of the primary purposes of this study was to investigate what elements of the food advertising content (Emotional appeal, Informativeness and Advertising creativity)

increase product knowledge toward organic food products, which in turn impact purchase intentions and actual purchase behaviour.

Although there is a high importance of actual purchase behaviour in the context of food advertising content (emotional appeal, informativeness and advertising creativity) (Dao et al., 2014; Carfora and Caso and Conner, 2016; Shen et al., 2013; Teichert et al., 2017; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Jati & Wahyono, 2017), previous literature shows that this topic has not been given sufficient importance (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020); Wang et al., 2021; Teichert et al., 2017).

As mentioned, a similar construct to food advertising content has been explored. However, researchers in sociology and business placed greater emphasis on studying food advertising content on its Emotional appeal, Informativeness and Advertising creativity. This study overcomes this gap by exploring food advertising content in more detail. For this reason, the researcher examined the literature on food advertising content. They then performed a quantitative study to understand the topic in more detail. Finally, the quantitative research results were done to verify the findings of this study. The findings could confirm the conceptualisation and measurement of the scale.

The outcomes suggested that food advertising content was based on three dimensions: Emotional appeal, Informativeness and Advertising creativity. Emotional appeal illustrates the persuasion approach to generate an emotional response to a message using emotional content (Busse, 2016). It suggested how emotional appeal can stimulate consumers' emotional and affective reactions by using a message communicating product attributes (such as organic food) (Teichert et al., 2017; Bublitz & Peracchio, 2015; Japutra et al., 2021). The outcomes of this study pointed out that the emotional appeal dimension was based on three items or aspects.

The emotional appeal dimension is that "the emotional aspect of this ad leads me to like the ad", which is highly accepted by Thai consumers (factor loading of 0.952). This item could be found in the previous literature (Johnson-George & Swap, 1982; Doney et al., 1997; Terres et al., 2015; Japutra et al., 2021); moreover, subsequently confirmed by the quantitative study. The participants in this study recommended that the emotional appeal aspect of this ad was an essential part of the emotional appeal dimension of food advertising content. The participants confirmed that when exposed to the advertisement, they used messages and imagery that connected an organic food product to the idea of

being healthy and communicating a "healthier and safer food". Therefore, the advertisement could stimulate them to purchase organic food products increasingly.

The other emotional appeal dimension items, "After seeing this as I had intense feelings" (factor loading of 0.833) and "I was emotionally attracted by the key message of this ad" (factor loading of 0.946), were mentioned in the previous literature (Teichert et al., 2017 and Bublitz and Peracchio, 2015; Molinillo et al., 2020), and were demonstrated by the quantitative study.

## 6.4.1.1. Hypotheses testing: The emotional appeals' effect on product knowledge.

According to past literature, the constructs of EMO, INFO, and CREA were investigated as antecedents of the PK. Furthermore, to ensure the discriminant validity, the uni-dimensionality (convergent validity), confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) also were performed. As a result, the data presented that all constructs were valid and consistent with the theoretical suggestion.

H1 in hypothesis, the emotional appeal significantly impacts product knowledge in Thai organic food products. It is measured by the intention to purchase organic food products. There is significant evidence that food advertising content (Emotional appeal) can increase the knowledge of consumers toward organic food products. It leads to consumers increasingly purchasing organic food products (Suki, 2016; Japutra et al., 2020). The beta estimate for this association is 0.140, and the p-value is smaller than 0.005.

Therefore, after consumers are exposed to the food advertising content (Emotional appeal) that communicates the benefit of organic food products, they will be receptive to organic food products. Due to the food advertising content (emotional appeal) helping to enrich their knowledge that they will have good health or that organic food products are safer and healthier than ordinary food (Lin & Huang, 2012; Belch & Belch, 2012).

This study provides empirical evidence consistent with the existing evidence. The previous studies have focused on the relationship between food advertising content (Emotional appeal) and product knowledge.

Lin and Huang, (2012) found that after consumers are exposed to an advertising message that communicates the benefit of organic food products, they will become receptive to organic food products. The message helps to enrich their knowledge that

they will have good health or that organic food products are safer and healthier than ordinary food. Therefore, consumers will increasingly purchase organic food products increasingly. Another factor might be the increased knowledge of consumers of organic food products. They know that organic food makes them healthy after being exposed to advertising messages about the attributes of organic food products.

Lu and Bock, and Joseph (2013) and Kotler and Armstrong (2018) argued that the finding of previous studies found that knowledge about organic food could not impact consumers' moods or the way the consumers did not intend to purchase organic food products increasingly. However, they know about the value of organic food products because the consumers were concerned about the price.

## **6.4.2.** Informativeness (focal construct) and its effects

Alongside the emotional appeal dimension, the Informativeness dimension was also a critical element of the food advertising content. With informative advertising, consumers get messages that explain the performance and quality of the organic food product. It leads the consumers to gain a natural feel of the performance and quality of organic food products (Olsena & Tuu, 2017; Hansmann and Baur and Binder, 2020). The information offered by advertising is regarded as helpful and valuable for consumers' decision-making to purchase. Similarly, if consumers receive more information on organic food products, they will increasingly intend to purchase them (Choe et al., 2009; Núñez-Barriopedro, 2020).

The outcomes of this study recommended that Informativeness was based on three items or aspects. Of these three aspects, INFO 6, the Informativeness dimension "is highly accepted by Thai consumers" (Twing-Kwong et al., 2013; Lilja, 2019), got the highest factor loading (0.961). This item was found in the previous literature (Olsena & Tuu, 2017; Buaprommee & Polyorat, 2016) and later demonstrated by the quantitative study. Participants in this study recommended that the message could explain the performance and quality of the organic food product, an essential part of advertising creativity. The participants confirmed that information offered by advertising is regarded as helpful and valuable for consumers' decision-making to purchase. Similarly, if consumers receive more information on organic food products, they will increasingly intend to purchase them (Choe et al., 2009; Vainio et al., (2018).

The other Informativeness dimension items, "Information obtained from the ad would be useful" (factor loading of 0.935) and "I think the information obtained from the ad

would be helpful" (factor loading of 0.947), was mentioned in the previous literature (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Vainio et al., 2018), and were demonstrated by the quantitative study.

### 6.4.2.1. Hypotheses testing: The informativeness appeals' effect on product knowledge.

Hypothesis H2 proposes that informativeness will strengthen product knowledge about purchasing organic food products. For example, after consumers are exposed to the advertising message and provided the benefits of reliable facts about organic food products, the consumers have more knowledge about the attribute of organic food products. As a result, consumers will intend to purchase organic food products. The evidence suggests that informativeness significantly impact product knowledge towards the intention to purchase organic food product.

The beta estimate for this relationship is 0.440, and the p-value is smaller than 0.005. Therefore, it can be inferred that when the advertisements provide more information, it can motivate consumer's intention to purchase organic food products (Arora & Agarwal, 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020).

The results are consistent with the existing evidence available in the literature. Informativeness was an essential factor influencing the intention to purchase organic food products (Krishna & Balasubramanian, 2021; Rora & Agarwal, 2020). On the other hand, over time, informativeness becomes less relevant because the consumers compare different advertising messages and weigh the information's reliability, strengthening the framing effect (Nelson and Clawson and Oxley, 1997; Vainio et al., 2018).

#### 6.4.3. Advertising creativity (focal construct) and its effects.

Finally, advertising creativity was also critical to the food advertising content. Advertising creativity is creative messages that can attract more attention and lead to positive attitudes regarding the featured products (such as the feature of organic food products) (Ahmad & Mahmood, 2011; Oktaniar et al., 2020). Therefore, it can increase motivation to process advertising and develop attitudes towards advertising and the positive impact of organic food products. In addition, advertising creativity can increase the intention to purchase organic food products (Rosengren, Dahle and Modig, 2013; Oktaniar et al. (2020).

The outcomes of this study recommended that the advertising creativity dimension was based on four items or aspects. Of these four aspects, CREA 9, "The ad is intriguing." is highly accepted by Thai consumers (Twing-Kwong et al., 2013) and got the highest factor loading (0.979). This item was found in the previous literature (Maniua & Zaharie, 2014; Kim and Han and Yoon, 2010; Oktaniar et al., 2020) and later demonstrated by the quantitative study. Participants in this study recommended that the message could show the attribute and the surprising benefits of organic food products, which was an essential part of advertising creativity. The participants confirmed that after seeing the ad message, they might increasingly intend to organic food products (Kim and Han and Yoon, 2010; Wang et al., 2021).

The other advertising creativity dimension items, "The ad is unique." (factor loading of 0.957), "The ad is really out of the ordinary" (factor loading of 0.945) and "The ad is surprising" (factor loading of 0.775) were mentioned in the previous literature (Rosengren and Dahle and Modig, 2013 and Shen et al., 2013; Suciu et al., (2019), and were demonstrated by the quantitative study.

### 6.4.3.1. Hypotheses testing: The advertising creativity's effect on product knowledge.

It was hypothesised (H3) that advertising creativity will strengthen Product knowledge toward the intention to purchase organic food products. There was evidence that advertising creativity has a significant positive product knowledge on the intention to purchase organic food products. However, the beta estimate for this association is 0.279, and the p-value is smaller than 0.001.

The consumers will know and understand more new health benefits of the product (organic food product) (Bublitz & Peracchio, 2015; Abu Bakar et al., 2021). The consumers can evaluate the benefit of the product (organic food product) to which they will be exposed. It leads consumers to purchase organic food products (Chen and Wang, and Liang, 2019; Rosengren, Dahlen and Modig, 2013; Chekima et al., 2021).

On the other hand, advertising creativity often impresses the audience due to the advertisement's design or the novelty of the presented concept. However, ingenious ideas and unusual characteristics may also generate creative advertisements that are difficult to understand (Stone and Besser and Lewies, 2000; Yang & Smith, 2009; Krishna & Balasubramanian, 2021; Abu Bakar et al., 2021).

#### 6.4.4. Product knowledge (focal construct) and its effects.

The second target of this section is to investigate the causal impact of product knowledge on the other constructs. The previous literature (Buil et al., 2013; Feiz et al., 2013; Ababio & Yamoah, 2016; Feldmann & Hamm, 2015; Ahmad et al., 2019; Demirtas, 2018) provided very little evidence on the impacts of the influences of product knowledge on attitude, subjective norms and perceived behavioural control. This section can be one of the first studies to cover this topic using quantitative methods.

The quantitative study's findings confirmed that product knowledge is essential in decision-making (Van Loo et al., 2013; Tan al et, 2015; Jin, 2014). In addition, the findings suggested that product knowledge is an essential factor that will impact purchase intentions and consumer behaviour in which prior experience is information caused by self-learning and stored in the person's memory. Therefore, the intent to purchase the consumer will be different if the consumers have different product knowledge (Abu Bakar et al., 2021; Singh & Verma, 2017; Wang et al., 2019; Asif et al., 2018).

The quantitative study recommended that "I have great buying experience with an organic food product" was another critical aspect (factor loading of 0.931) that the qualitative study could also confirm. Participants suggested that product knowledge is an essential factor that will impact intentions of purchase and consumer behaviour in which prior experience is information caused by self-learning and stored in the person's memory. Therefore, the intent to purchase by the consumer will be different if the consumers have different product knowledge (Abu Bakar et al., 2021; Singh & Verma, 2017).

These findings align with food advertising content (Emotional appeal, Informativeness and Advertising creativity). It increases information to the existing knowledge about the food advertising content influences on organic food. The interaction might be caused by the impact of product knowledge on consumer information processing, leading to different purchase intentions. In particular, food advertising content communicates about the context of healthier and safer, which influences individuals who have much knowledge (Logan and Bright and Gangadharbatla, 2012; Hsu and Chang and Lin, 2016; Wang et al., 2019; Purwanto, (2020); Arora and Agarwal (2020); Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021).

The other product knowledge dimension items, "I know a lot about organic food products." (factor loading of 0.912), "I am familiar with the organic food product." (factor loading of 0.918), "I understand the features and benefits of organic food "(factor loading of 0.902) and "My knowledge about organic food products is better related to the individuals that I know." (factor loading of 0.886) were mentioned in the previous literature (Logan and Bright, and Gangadharbatla, 2012; Hsu and Chang and Lin, 2016; Wang et al., 2019; Hansmann and Baur and Binder, 2020), and were demonstrated by the quantitative study.

#### 6.4.4.1. Hypotheses testing: The impact of product knowledge on attitude.

Hypothesis H4 proposes that product knowledge will strengthen attitudes toward the intention to purchase organic food products. Therefore, organic food companies should provide food advertising content (Emotional appeal, Informativeness and Advertising creativity) that communicates the benefit attributes of organic food products to create organic food product knowledge toward consumers (Solomon, 2021; Hansmann and Baur and Binder, 2020; Shen et al., 2020).

The previous study found that the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) could increase the positive attitude of consumers toward the intention to purchase organic food products (Demirtas, 2018; Shen et al., 2021; Stanton and Cook, 2019; Shen et al., 2021). Furthermore, because consumers were aware of the beneficial attribute of organic food products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients), the beta estimate for this relationship is 0.899, and the p-value is smaller than 0.001. Therefore, product knowledge will strengthen the attitude toward purchasing organic food products.

### 6.4.4.2. Hypotheses testing: The effect of product knowledge on the subjective norm.

It was hypothesised (H5) that product knowledge will strengthen subjective norms toward the intention to purchase organic food products in Thailand. There was significant evidence that product knowledge could strengthen subjective norms toward the intention to purchase organic food products in Thailand. The beta estimate for this association is 0.829, and the p-value is smaller than 0.001. Therefore, product knowledge will strengthen attitudes toward purchasing organic food products. The evidence suggests that after important consumers are exposed to food advertising

content (Emotional appeal, Informativeness and Advertising creativity), people will be aware that organic food products are healthier than ordinary foods. Suppose the consumer trusts that those important people to consumers consider organic food products to be good. In that case, consumers will have more intention to buy organic food products because they know more about the beneficial aspects of organic food. (Abrams, Meyers, and Irani, 2010; Souza, 2022; Atta, Abbas, and Syed, 2021).

However, the important people of consumers cannot increase consumer awareness towards intention to purchase organic food products. Furthermore, each person's choice to buy organic food is not likely to be strengthened if they do not trust that their loved ones expect them to do so or if they do not wish to be identified with other individuals who intend to purchase organic food products (Wong & Aini, 2015; Melnyk et al., 2019; Daniel & Kalu, 2017).

### 6.4.4.3. Hypotheses testing: The effect of product knowledge on perceived behavioural control.

Hypothesis H6 proposes that product knowledge will strengthen perceived behavioural control toward the intention to purchase organic food products. If consumers are aware of increased behaviour control of buying organic food products, the intention to purchase organic food products will be higher (Voon et al., 2011; Wang et al., 2019; Asif et al., 2018).

The evidence suggests that perceived behavioural control significantly influences product knowledge toward the intention to purchase organic food products in Thailand. The beta estimate for this association is 0.844, and the p-value is smaller than 0.001. Therefore, product knowledge will strengthen perceived behavioural control toward the intention to purchase organic food products.

The results are consistent with the existing evidence available in the literature. For example, after consumers are exposed to food advertising content (Emotional appeal, Informativeness and Advertising creativity) to indicate that organic food products are healthy, they will be aware that organic food is an increasingly more nutritious food product. They know organic food products that are easily better than ordinary foods (Voon et al., 2011; Demirtas, 2018; Abbas & Syed, 2021). Food advertising content increases the level of product knowledge of organic food products. This means the consumer's positive awareness toward more behavioural control perception significantly increases the consumer's intention to purchase organic food products. Perceived

Behavioral Control (PBC) positively impacts consumers' intention to purchase organic food products such as organic meat (Wong & Aini, 2015; Atta and Abbas and Syed, 2021; Cornford & Pupat, 2019).

#### 6.4.5. Intention to purchase (focal construct) and its effects

This section discussed the quantitative results on attitude and its effects on the intention to purchase. After estimating their impacts on the other constructs, the researcher explained the findings on intention to purchase items or aspects. These findings were also explained in the sense of previous literature.

The quantitative study recommended, "Organic food products have superior quality than ordinary foods." Another critical aspect (factor loading of 0.924) was also confirmed in the quantitative study. Participants suggested that organic food products that have superior quality to ordinary foods were necessary. Perspective is viewed as psychological emotions transmitted through the assessment of consumers and, if positive, intentional behaviour tends to be more positive (Lee and Bonnand and Cho, 2015; Brumă, 2020). Moon and Mohel, Farooq (2021) and Paul and Modi, and Patel (2016) noted that consumers prefer food advertising content within the context of emotional appeal, informativeness and advertising creativity on organic food products if they have a positive attitude towards better health.

Finally, the quantitative study found six other valuable aspects, "Organic food products have lower chemical residues than ordinary foods.", "Organic food products are safer to eat than ordinary foods.", "Organic food products are healthier to eat than ordinary foods.", "Organic food products taste better than ordinary foods.", "Organic food products have superior quality than ordinary foods." and "Organic food products are more attractive to eat than ordinary foods." (factor loadings of 0.745, 0.902, 0.902, 0.870, 0.806 and 0.849, respectively). All aspects were confirmed by the qualitative study and were in line with the previous literature (Hanzae & Taghipourian, 2012; Sheeraz et al., 2012; David et al., 2017; Hilverda et al., 2018).

#### 6.4.5.1. Hypotheses testing: The effects of attitude on intention to purchase.

Hypothesis H7 recommended that attitude will strengthen the intention to purchase organic food products in Thailand. Evidence shows that attitude significantly impacts the intention to purchase organic food products.

The beta estimate for this association is 0.844, and the p-value is smaller than 0.001. So, it can be concluded that the finding message framing and the desirability of organic food attributes generate consumers' positive attitudes towards the intention to purchase organic food (Mkhize & Ellis, 2020; Daniel & Kalu, 2017; Atta and Abbas and Syed, 2021).

The evidence is in line with the existing literature; the studies have found that food advertising content within the context of emotional appeal, informativeness and advertising creativity can establish a positive attitude toward the intention to purchase organic food products (Mhlophe, 2016; Bakar, 2021). In the same way, in another study, Ahmad et al. (2019) and Teng and Wang (2015) found that the context of emotional appeal, informativeness and advertising creativity stimulate consumers' intention to purchase organic food products.

#### **6.4.6.** The effects of subjective norms on intention to purchase.

This part can define the quantitative results on the subjective norm and its effects on the intention to purchase organic food products. For example, it could explain the findings on corporate subjective norms' items or aspects before the part discusses the impact of subjective criteria on the intention to purchase. The results also were confirmed by the previous literature.

The current study emphasized the influence of other people who are significantly close to the individual or actor, such as a co-worker, close friends, relatives, or business partners (Paul and Modi and Patel, 2016; Souza, 2022; Melnyk et al., 2019). As a result, four items or aspects were selected for the final analysis of the quantitative study.

The items with the highest factor loading were "My close friends and family members would appreciate it if I purchase organic food product." (factor loading of 0.949). This finding was in line with previous qualitative studies. Participants recommended that they believe the approval of "important others" is crucial for purchasing organic food products. Their family members and peers can give a positive impetus regarding a reason for buying organic products (Demirtas, 2018; Lee and Bonnand and Cho, 2015). They were exposed to food advertising content (Emotional appeal, Informativeness and Advertising creativity) to indicate the benefit of organic food products. Moreover, they trust that those important persons to consumers consider organic food products to be good, and they intend to increasingly purchase organic food products increasingly (Dean et al., 2012; Abu Bakar et al., 2021).

The quantitative findings also recommended three more aspects, "People around me generally believe that health should use organic food products.", "I would obtain all the required support (time, money, information related) from family and friends too." and "The trend of purchasing organic food products among people around me is increasing." (factor loadings of 0.922, 0.908 and 0.780, respectively).

These findings were also in line with those of the qualitative study.

Participants recommended that organic food companies use food advertising content (emotional appeal, informativeness and advertising creativity) that indicates the benefit of organic food products. In addition, the company should use food advertising that presents a person's opinion regarding what significant others trust about the beneficial aspects of organic food (Tarkiainen & Singhal, 2017; Singh & Verma, 2017).

### 6.4.6.1. Hypotheses testing: The effects of subjective norms on intention to purchase.

Hypothesis H8 recommended that the subjective norm will strengthen the intention to purchase organic food products in Thailand. Evidence shows that the subjective norm significantly impacts the intention to purchase organic food products.

The beta estimate for this association is 0.441, and the p-value is smaller than 0.001. Therefore, after consumers are exposed to food advertising content (emotional appeal, informativeness and advertising creativity), the consumers will increasingly purchase organic food increasingly. This is because "important others" may be fully aware of the benefits of organic food consumption (Paul and Modi, and Patel, 2016; Lee and Bonnand and Cho, 2015).

The evidence is consistent with the existing literature. Studies have found that the food advertising content (emotional appeal, informativeness and advertising creativity) can motivate consumers to increasingly purchase organic food products increasingly because consumers trust that individuals who are important to them think of organic food as a fresher, healthier, more reliable, and being produced in an environmentally friendly way (Boizot-Szantai and Hamza and Soler, 2017; Demirtas, 2018).

## 6.4.7. The effects of perceived behavioural control on intention to purchase.

This section could explain the quantitative results on perceived behavioural control and its effects on the intention to purchase organic food products. The researcher reviewed the quantitative findings before presenting these findings in conjunction with the previous literature.

The definition of control behaviour recognition "means" perception of difficulty and ease in carrying out the behaviour (Ajzen,1991) and reflects the experience and the expected obstacle. Zhanga et al. (2017) and Souza (2022), and Abu Bakar et al. (2021) indicated that behaviour control, such as ability and motivation, are determinants of behaviour.

Six aspects or items were selected for the analysis of the quantitative study. The item with the highest factor loading was "I have complete information and awareness regarding where to purchase organic food products." (factor loading of 0.945). This finding was in line with the quantitative study. Participants suggested organic food products should use food advertising content (Emotional appeal, Informativeness and Advertising creativity) to indicate the benefit of organic food products. After exposure to food advertising content, they increasingly intend to purchase organic food products. Due to that, they are exposed to the influence of positive message framing, and the levels of perceived behavioural control of consumers will be increased (Zhanga et al., 2017; Abu Bakar et al., 2021).

The final aspects of perceived behavioural control selected for the final quantitative study were "I have the financial capability to purchase organic food product.", "I have the time to go for purchasing organic food products.", "I can handle any (time, money, information related) difficulties related to my purchasing decision.", "I can take the decision independently to purchase organic food product." and "Organic food product is readily available in the location where I reside." (factor loadings of 0.924, 0.915, 0.909, 0.887 and 0.877, respectively).

These findings were also taken into account in previous quantitative studies. Therefore, following the participants, if they do not have the financial ability or time to buy organic food products, they do not have complete information and awareness regarding where to purchase organic food products. In addition, they cannot decide independently

to purchase organic food products, or organic food is not readily available in their location. Therefore, they will not purchase organic food products although they were exposed to food advertising content, will not purchase organic food product (Paul and Modi and Patel, 2016; Asifa et al., 2018; Zhang et al., 2017; Cornford and Pupat, 2019; Dean et al., 2012).

### 6.4.7.1. Hypotheses testing: The effects of perceived behavioural control on intention to purchase.

Hypothesis H9 recommended that perceived behavioural control will strengthen the intention to purchase organic food products in Thailand. There is significant evidence that perceived behavioural control positively impacts the intention to purchase organic food products.

The beta estimate for this association is 0.418, and the p-value is smaller than 0.001. Therefore, food advertising content can increasingly motivate the respondents to purchase organic food products. Furthermore, the respondents regard the beneficial attributes of organic food products as worth spending money and time on (Paul and Modi and Patel, 2016; Asifa et al., 2018).

The evidence found in the data can confirm previous studies (Zhang et al., 2017; Abu Bakar et al., 2021). The previous studies found that Thai and Cambodian consumers perceived the benefit of organic food after exposure to the food advertising content (emotional appeal, informativeness and advertising creativity). Therefore, Thai leads them to increasingly purchase organic food increasingly, although the price of organic food is higher than regular food.

### **6.4.8.** The effects of intention to purchase on actual Purchase Behavior.

This section discussed the quantitative results on the intention to purchase and its effects on actual purchase behaviour. First, after estimating their impacts on the other constructs, the researcher explained the findings on intention to purchase items or aspects. These findings were also explained in the sense of previous literature.

The quantitative study recommended, "I am willing to purchase organic food products regularly." Another critical aspect (factor loading of 0.915) was also confirmed in the quantitative study. Participants suggested that after exposure to food advertising content (Emotional appeal, Informativeness and Advertising creativity) to indicate that organic food products are healthy foods, they will be aware that organic food is an increasingly

more nutritious food product. In addition, they will purchase organic food products with more regularity (Moon and Mohel and Farooq, 2021; Norton et al., 2017; Yadav & Pathak, 2016; Woo & Kim, 2019; Yazdanpanah & Forouzani, 2015).

Finally, the quantitative study found three other valuable aspects, "I would look for speciality shops to purchase organic food products.", "I am willing to purchase organic food products in the future. ", and "I would also recommend others to purchase organic food products." (factor loadings of 0.928, 0.919, and 0.917, respectively). All aspects were confirmed by the qualitative study and were in line with the previous literature (Paul and Modi, and Patel, 2016; Demirtas, 2018).

### **6.4.8.1.** Hypotheses testing: The effects of intention to purchase on actual Purchase Behavior.

Hypothesis H10 recommended that intention to purchase will strengthen actual purchase behaviour toward the intention to purchase organic food products in Thailand. Evidence shows that the intention to purchase significantly impacts purchase behaviour towards organic food products. The beta estimate for this association is 0.848, and the p-value is smaller than 0.001.

Therefore, the intention to purchase organic food products will increase after Thai consumers are exposed to food advertising content (emotional appeal, informativeness and advertising creativity). The intention to purchase will positively impact the actual purchase behaviour toward organic food products. Therefore, it can be inferred that if the intention to purchase increases, it will positively influence the actual Purchase Behavior. The results align with the existing evidence (Singhal, 2017; Taufique & Vaithianathan, 2018; Akbar et al., 2019; Moon and Mohel and Farooq, 2021).

For example, more is needed for organic food companies than just having good organic food products. In Thailand, organic food companies should use food advertising content (Emotional appeal, Informativeness and Advertising creativity) to indicate the benefit of organic food products. When Thai consumers are exposed to food advertising content, the consumers will perceive the beneficial attributes of organic food products (Testa et al., 2019; Akbar et al., 2019). After Thai consumers know the beneficial attributes of organic food products, product knowledge will determine consumers' intention to purchase organic food products. Afterwards, the knowledge will lead to the purchase behaviour of organic food products (Lian, 2017; Demirtas, 2018).

#### 6.4.9. Actual Purchase Behaviour

This section discussed the quantitative results on actual Purchase Behavior. First, the researcher reviewed the quantitative findings before explaining these findings in conjunction with the previous literature.

The definition of actual purchase behaviour is the study of related processes when people or groups select, use, purchase or sell a product, ideas, services, or experiences to meet their needs and demands (Gustavsen & Hegnes, 2020; Woo & Kim, 2019).

Six aspects or items were selected for the final analysis of the quantitative study. First, the quantitative study recommended that "I can handle any (time, money, information related) difficulties related to my purchasing decision." this was another critical aspect (factor loading of 0.893) that was also confirmed by the quantitative study. Participants recommended that the company mainly cover organic food products. The company should apply the influence of food advertising content within the context of emotional appeal, informativeness and advertising creativity. Participants also choose to use organic food products due to their positive impact on health. Therefore, most participants buy organic food products because of concern for their health after exposure to the food advertising content (Paladino & Smith, 2010; Smith & Paladino, 2010; Fleseriu and Cosma and Bocanet, 2020).

The following aspects of actual purchase behaviour chosen for the final quantitative study were "I often purchase organic food products because they are more environmentally friendly.", "I often purchase organic food products.", "I often purchase organic food products that are safe to consume.", "I often purchase organic food products on regular basics." and "I often purchase organic food products that against animal testing" (factor loadings of 0.961, 0.927, 0.911, 0.901 and 0.891, respectively).

The prior quantitative study also confirmed these findings. Following the participants after the participants are exposed to food advertising content, they can learn more about the beneficial aspects of organic food products. They will purchase organic food products because their purchase behaviour is impacted by 'product knowledge'. Consumers with higher product knowledge have a more positive idea of buying organic food products. Therefore, they will intend to purchase organic food products on a frequent basis. These findings aligned with the previous literature (Fleseriu, Cosma, and Bocanet, 2020; Gustavsen & Hegnes, 2020; Woo & Kim, 2019).

# 6.4.10. The impact of Emotional appeal, Informativeness and Advertising creativity based on product knowledge and consumers' gender.

The final question of this section is to examine the impacts of emotional appeal, informativeness and advertising creativity on product knowledge, attitude, subjective norm, perceived behavioural control, intention purchase and actual purchase behaviour based on consumer demographic (gender). The quantitative findings of this study recommended that consumers' gender did not affect the influence of Emotional appeal, Informativeness and Advertising creativity on the other constructs.

These findings were in line with those in the previous literature (Akbar et al., 2019; Daniel & Kalu, 2017; Hemmerling and Hamm and Spiller, 2015; Świda et al., 2019; Wei and Rickard and Brown, 2015; Akbar et al., 2019; Kalu & Daniel, 2017).

On the other hand, the three findings based on the results of the quantitative study were proved. Therefore, H11 ( $\Delta X^2 / \Delta DF = 0.284$ , ns), H12 ( $\Delta X^2 / \Delta DF = 0.001$ , ns), and H13 ( $\Delta X^2 / \Delta DF = 0.113$ , ns) were not supported in this study.

**Table 6.1: Findings and Aim and Objectives** 

Aim	Objectives	Findings
The aim of this research is to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB).	To investigate the effect of Emotional appeal, Informativeness and Advertising creativity on product knowledge of organic food products.	The finding of this research indicated that the emotional appeal, informativeness and advertising creativity strengthened product knowledge in Thai organic food products.  • According to the previous finding found that emotional appeal in advertising messages can increase the consumers' knowledge about the benefit of organic food products. The food advertising content (emotional appeal) motivates consumers to purchase organic food products because they want safe and healthy food. In addition, they are concerned about the quality of ordinary food and their health. (Rex and Baumann, 2007; Lin and Huang, 2012; Molinillo et al., 2020).  On the other hand, many other consumers might internally enjoy organic food products because they are organic, tasty and healthy. Provided that is the

- case, consumers internally want an organic food product because they know it is organic and healthy (Kotler & Armstrong, 2018; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021).
- In addition, Kotler and Keller (2008) and Stanton and Cook (2019) found that the efficiency of information in advertisement can depend on how advertising message presented in advertising. In advertising, it is important to create and deliver information regarding the product's attributes (such as the attribute of organic food products) to the audience. target consumers are exposed to the advertising message that provides the benefits of reliable about organic food products, the consumers have more knowledge about the food attribute of organic products. As a result, consumers will intend to purchase organic food products.

On the other hand, the previous study found that consumers have a lower knowledge of foods after organic consumers are exposed to the food advertising content (informativeness) that explains the benefit of organic food products. Therefore, they will be less likely to purchase organic food products because they agree with the benefit of organic food products (Stanton & Cook, 2019; Hansmann and Baur and Binder, 2020).

Moreover, Altsech (1995) and Shen et al. (2020) identified advertising creativity being an advertising message that can increase product knowledge (organic food products). Consumers will perceive the product's attribute (the attribute or benefit of organic food products) after exposure to the advertising message. Therefore, consumers will purchase organic food products on an increased basis. For this reason, the consumers will know and understand more health benefits of the product (organic food

product) (Bublitz & Peracchio, 2015). The consumers can also evaluate the benefit of the product (organic food product) they will encounter.

However, ingenious ideas and unusual characteristics may also generate creative advertisements that are difficult to understand (Stone and Besser and Lewies, 2000; Yang & Smith, 2009; Choi et al., 2018; Wang et al., 2021). Therefore, both this aim and objective were achieved.

Therefore, baed on the reseach aim and research objectives, the findings indicated that the food advertising content (emotional appeal, informativeness and advertising creativity) increase product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Furthermore, the findings indicated that the advertising food content (emotional appeal, informativeness and advertising creativity) increase product knowledge.

The aim of this research is to examine the impacts of the food advertising (emotional contents informativeness appeal, and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase and intention actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB).

To investigate how product knowledge of organic food attributes is positively related to attitude, subjective norms, and perceived behavioural control.

The finding of this research indicated that product knowledge strengthened attitude, subjective norms and perceived behavioural control toward the intention to purchase organic food products in Thailand.

Because after consumers are exposed to the food advertising content (emotional appeal, informativeness and advertising creativity), they know more about the health benefits. Accordingly, the finding of previous studies reveal product knowledge toward organic food product and the influence of food advertising content (emotional appeal, informativeness and advertising creativity) have been the most persuasive factors on consumers' attitude towards organic food products (Bryła, 2016; Xie et al., 2020). The results also indicated consumers displayed positive attitude toward organic food. They also know more about organic food as a healthy food product. They are eager to get product

information and compare the influence of food advertising content (emotional appeal, informativeness and advertising creativity). This leads to the knowledge of organic food product as a healthy choice. They are satisfied with a good taste, and want to pay a higher for organic price food (Zakowska-Biemans, 2011; Solomon, 2021).

On the contrary, Rana and Paul (2017) and Wang et al. (2019) found that most respondents showed neutral attitudes toward an organic food product after they were exposed to food advertising content. The findings suggested that the influence of food advertising content might not increase product knowledge toward organic food products because the respondents needed more convincing of the benefits of organic food products. They acknowledged that slightly "there are no chemical ingredients in organic food products" and "organic production does not use fertilizers".

Furthermore, previous research findings showed that important consumers will know the beneficial attributes of organic food products (such as no chemicals, good taste, and good nutrients) (Ahmad et al., 2019; Teichert et al., 2018). Due to the persons exposed to the food advertising content (emotional appeal, informativeness and advertising creativity). persons will also be aware of organic food products being healthier than ordinary foods. It leads to the important persons of consumers who can motivate consumers to be aware that organic food products are more nutritious than everyday foods. Therefore, consumers increasingly purchase organic products increasingly food (Zhen & Mansori, 2012: Krishna & Balasubramanian, 2021). Conversely, Dowd and Burke

(2013) and Abu Bakar et al. (2021) argued that if consumers

- believe that those important people consider organic food products as bad, consumers know more about organic food products being harmful. Therefore, consumers will not intend to purchase organic food products.
- In addition, consumers know organic food products are an increasingly healthier food product on a more frequent basis. They know more about organic food products that are easily better than ordinary foods (Voon et al 2011; Chekima, et al., 2021). Because advertising content (emotional appeal, informativeness and advertising creativity) increases the level of product knowledge of organic food products. This means the consumer's positive awareness toward behavioral control perception significantly increases the consumer's intention to purchase organic food products. Perceived Behavioral Control positively (PBC) impacts consumers' intention purchase organic food products (Atta and Abbas and Syed, 2021; Brumă, 2020).
  - perceived In contrast, behavioural control does not influence product knowledge about purchasing organic food products because consumers already known have the beneficial attribute of these products (such as natural ingredients, no chemicals, no artificial ingredients, hormone residues, no additives, a good taste, and good nutrients). Consumers also regard organic food products as good for health.
- Therefore, baed on the reseach aim and research objectives, the findings indicated that product knowledge affected attitude, subjective norm and perceived behavioral control on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Furthermore, the findings indicated that product knowledge positively related to attitude, subjective

norms, and perceived behavioural control. The aim of this research is To examine the effects of The finding of this research indicated attitude, subjective norms, that attitude, subjective norms and to examine the impacts of and perceived behavioural perceived the food advertising behavioural control contents (emotional control on intention to strengthened intention to purchase. purchase. appeal, informativeness According to the previous study and advertising creativity), suggested that attitude attitude, subjective norm, positively influences the perceived behavioral intention to purchase organic control, product food products. Due to the food knowledge on purchase advertising content intention and actual communicating the beneficial purchase behavior toward attribute of organic food organic foods, based on products (such as natural the Theory of planned ingredients, no chemicals, no behavior (TPB). artificial ingredients, good taste, and good nutrients). After consumers are exposed to the food advertising content, they will know the attributes of organic food products that can keep them healthy. They may be expected to rely on the food advertising content and other observable characteristics of organic food products as quality and measures of trustworthiness (Hilverda et al., 2018; Voon et al., 2011; Chen, 2007; Atta and Abbas and Syed, 2021). It leads to the beneficial attribute of organic food products that can increasingly motivate consumers to buy them. In contrast, the research of Tung and Shih and Wei and Chen (2012) and Solomon (2021) discovered that there were attitudinal inconsistencies once consumers wanted to purchase organic food products. This might mean that consumers might have a positive attitude toward purchasing organic food products, but they might be simultaneously confused, leading to indecision. There is a probability that is not a positive intention to purchase. Furthermore, Lee and Bonnand and Cho, (2015) suggested that subjective norms have a strong relation with the intention to purchase organic food. Chen (2007) discovered that after the subjective norms of consumers were a positive influence, their intention to purchase to organic food increased significantly. Findings suggested that when

consumers trust that individuals who are important to them thinking of organic food as a fresher, healthier, more reliable, and produced through an environmentally friendly way after the important persons exposed to the food advertising content (emotional appeal, informativeness and advertising explains creativity) beneficial attribute of organic food products. They will have better intention to purchase organic food. On the other hand, Paul and Modi and Patel, (2016) and Brumă, (2020) suggested that subjective norms were not positively related to the intention to purchase organic food products, like Tarkiainen and Singhal, (2017) found similar results, but not the same as Chen and Tung (2014), Chen and Peng (2012), Han et al. (2010). The findings of previous studies had already identified subjective norms as the weakest links in models for intention to purchase organic food products. Consumers consider that the approval of "important others" cannot be the main factor toward intention to purchase organic food. Their members/peer groups/friends/ fail to give any positive push regarding a reason for purchasing organic food product (Demirtas, 2018: Hilverda et al., 2018).

According to the findings previously revealed perceived behavioral control has a significant impact on Thai and Cambodian consumers' purchase intention (Kumar and Smith, 2017; Thogersen, 2007). Both Thai and Cambodian consumers perceived the benefit of the organic food after they were exposed to the food advertising content (emotional appeal, informativeness and advertising creativity). That leads to them intending to increasingly purchase organic food increasingly although the price of the organic food is more expensive than regular food (Hilverda et al., 2018; Cornford and Pupat, 2019).

There are other reasons why both Thai and Cambodian consumers' organic food purchase intention have impacted significantly by perceived behavioral control. Both organic food companies and the Thai and Cambodian governments have used the food advertising content on the context of healthier and safer to present the healthy benefits of organic food.

In contrast, the finding of the previous study, above, noted that food advertising content in the context of environmental protection affected the intention to purchase organic coffee. The findings of this study suggested that food advertising content did not increase the intention to purchase organic food products. More consumers regard the food advertising content in the environmental context of protection. The food advertising content could be a critical motivation when consumers purchase organic coffee, thus influencing their behavioural control more (Paul and Modi and Patel, 2016; Asifa et al., 2018; Moon and Mohel and Farooq, 2021).

Therefore, baed on the reseach aim and research objectives, the findings indicated that attitude, subjective norm and perceived behavioral control affected the intention to purchase. Furthermore, the findings indicated that attitude, subjective norms, and perceived behavioural control have a positive impact on intention to purchase.

The aim of this research is to examine the impacts of the food advertising contents (emotional informativeness appeal, and advertising creativity), attitude, subjective norm, perceived behavioral product control. knowledge on purchase and intention actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB).

To examine the effect of the purchase intention on to actual purchase behaviour.

The findings of this research indicated that intention to purchase strengthened actual purchase behaviour.

Moreover, the finding of previous studies also found that the intention to purchase positively impacts the actual purchase behaviour of organic food products. Because respondents are exposed to the food advertising the respondents content, perceive the beneficial attributes of organic food products (such as natural ingredients, no chemical, no artificial ingredients, a good taste, and good nutrients) that

- beneficial to health (Singh and Verma, 2017; Fleseriu and Cosma and Bocanet, 2020). Afterwards, the respondents will know the beneficial attributes of organic food products that can be beneficial to the body.
- In another way, Smith and Paladino, (2010) and Brumă, (2020) and Testa et al., (2019) did not find that a positive relationship between the intention to purchase organic food product and consumer purchase behaviour of organic food products. Although the majority respondents exposed to the food advertising content could communicate the beneficial attributes of organic food products, they did not want to purchase organic food products because they were not concerned about their health. This leads to the majority of respondents who do not have an organic food purchase intention still displaying the buying behaviour of the organic purchasing products. The food advertising content communicates the beneficial attributes of organic food products, but may still not positively impact the intention to purchase organic and consumer food products purchase behaviour of organic food products (Shafi and Madhavaiah, 2013; Moon and Mohel and Faroog, 2021).
- Therefore, baed on the reseach aim and research objectives, the findings indicated that intention to purchase affected actual purchase behaviour. Furthermore, the findings indicated that intention to purchase have a positive impact on actual purchase behaviour.

This research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

determine the moderating role of gender on the relationship between food advertising content elements (Emotional appeal, Informativeness and Advertising creativity) and product knowledge in the intention purchase to organic food.

The finding of this research indicated that consumers' gender did not affect the of influence Emotional appeal, Informativeness and Advertising creativity on the other constructs. Therefore, gender does not moderate the relationship between the food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge.

• Although both females and males know more about the benefit of organic food products after they are exposed to the food advertising content (emotional appeal, informativeness and advertising creativity), they will not purchase organic food products (Akbar et al.,

2019; Daniel and Kalu, (2017) because both females and males respond positively to rational appeals.

On the other hand, Lea and Worsley (2005) and Wang et al. (2021) suggested that gender moderate the relationship between the food advertising content (emotional appeal) and product knowledge. Females known more about the beneficial attributes of organic food products (such as natural ingredients, no chemicals, and no artificial ingredients) because the women were motivated by food advertising content (emotional appeal). Females are more likely to be concerned about the long-term health effects of residues, chemicals and preservatives. When the females doubt an ordinary food may contain chemical or artificial ingredients, they will avoid consuming ordinary food. It increasingly leads to women's intention to purchase organic food products (Kushwah et al., 2019; Wei, 2015).

Furthermore, the previous studies indicated that both males and females will increasingly purchase organic food products increasingly after they exposed to food advertising content (informativeness) because they know more about the beneficial attributes of organic food products. In addition, they trust for the beneficial attributes of organic food products that are explained by the food advertising content. Both genders intend to purchase and pay more for the organic food products. Horská et al. (2011) and Gajdoš Kljusurić et al. (2015) emphasized that price and quality are critical aspects in the consumers' food choice; however, lower purchase intention does not mean that consumers do not care about the quality of the food product. Similarly, the findings of previous studies indicated that food advertising content (informativeness) and product knowledge did not significantly differ according to gender (Affram and Darkwa, 2015 and Chen et al., 2023).

On the contrary, Chandra and Cassandra, (2019) and Gross and Roosen, 2021) suggested that gender

moderate the relationship between the food advertising content (informativeness) and product knowledge.

The previous studies' findings indicated that organic product buyers tend to be females (Lagerkvist and Hess. 2011: Kehlbacher et al., 2012; Grimsrud et al., 2013; Gross and Roosen, 2021). Compared to men, most females know more about the beneficial attributes of organic food products (such as good nutrients) that keep them healthy after they are exposed to the food advertising content because females are often the primary food shoppers of a household (Veliković and Stojanović and Filipović, 2015; Chandra and Cassandra, 2019).

- Moreover, the moderating role of gender does not affect the relationship between food advertising content (Advertising creativity) and product knowledge (Mkhize and Ellis, 2020; Chekima, et al., 2021). According to the previous findings of studies indicating that both males and females will purchase organic food products on a increased basis. In addition, they know more about the beneficial attributes of organic food products after they exposed to food advertising content (Advertising creativity) because they have a high level of education (Shen, et al., 2021 Simola, et al., 2020).
- Similarlly, the finding of previous studies showed that both male and female with higher education are more willing to pay a higher price for organic food products and more likely to purchase these products after they exposed to food advertising content (Advertising creativity) (Rosengren, et al., 2020; Modig and Dahlen, 2019). Because food advertising content (advertising creativity) contains unexpected details (such as the benefit of organic food product) that make a person healthy (Bellman, et al., 2017; Kong, et al., 2019). When know more about consumers unexpected details (the benefit of organic food product), the will consumers increasingly purchase organic food products increasingly. Both gender like food

advertising content (advertising creativity) that fit their expectations. In addition, food advertising content (Advertising creativity) perceived as unexpected, creative or persuasive by viewers (both female and male) (Brady and Gantman and Van Bavel, 2020; Choi, et al., 2018).). According to Fulgoni and Pettit and Lipsman, (2017) and Tantawi and Negm, (2018), it is indicated that both males and females will purchase organic food products increasingly after they exposed to food advertising content (advertising creativity) due to them knowing more about the needed and new information of organic food products. It leads to food advertising content being able to motivate both male and femage to increasingly purchase organic food products increasingly. It will capture male and females' attention and make them pay attention to food advertising content. Food advertising content (advertising creativity) is to exert an influence on both male and female's opinions, product knowledge or beliefs toward organic food products. The content can increase perceived product quality among consumers (both gender) (Sanchez and Alley, 2016; Kong, et al., 2019). Similarly, the findings of previous studies that food advertising indicated content (advertising creativity) and product knowledge did significantly differ according to gender (Shen, et al., 2021; Rosengren, et al., 2020).

- On the other hand, the finding of previous research indicated that consumers' gender affects the influence of Advertising creativity on the other constructs. Female respondents tend to purchase organic food products even when they are more expensive than ordinary food (Heru, 2015; Haider and Ahmad and Ghani, 2019). This is because females have positive awareness toward the intention to purchase organic food products, not only due to them considering their personal health, but they are concerned about communal goals as well (such as caring for others and social relationships).
- Therefore, baed on the reseach aim and research objectives, the findings

indicated that gender does not
moderate the relationship between
the food advertising content
(informativeness) and product
knowledge. Furthermore, the
findings indicated that gender
negatively moderate the
relationships between food
advertising content (Emotional
appeal, Informativeness and
Advertising creativity) and product
knowledge.

### 6.5. Summary

This chapter discussed and investigated the research findings of the quantitative studies. In addition, it can explain in association with the existing literature. Insights from the quantitative studies contributed to a deeper comprehension of the phenomenon. The outcomes could find that it had a few inconsistencies from the findings of the results of the two studies, especially with the hypotheses.

In addition The aim, questions and objective of research have achieved a milestone by identifying that the findings of the quantitative study could support the direct impacts of food advertising content (Emotional appeal, informativeness and advertising creativity) on product knowledge. In addition, this study also supported the direct impact of product knowledge on attitude, subjective norm, perceived behavioural control and intention to purchase. In the same way, this study further confirms the immediate impacts of intention to purchase on actual purchase behaviour.

The next chapter discusses the conclusions, theoretical and managerial implications, limitations, and study suggestions for future studies.

In addition the aim, questions and objective of research have achieved a milestone by identifying a numerous gaps in the literature. Firstly, the concept of perceived behavioral control was not very clear. Previous researchers (Souza, 2022; Cornford and Pupat, 2019; Gassler et al., 2018) were focused on perceived behavioral control; however, there was little evidence on perceived behavioral control. From previous studies, it is evident that perceived behavioral control was an outcome of the intention to purchase or the intention to purchase becoming incomplete (Kumar and Smith, 2017; Moon and Mohel and Farooq, 2021; Brumă, 2020). This study contributed to the

existing literature by studying perceived behavioral control which could strengthen the intention to purchase.

### **Chapter VII: Conclusions And Implications**

### 7.1. Chapter Introduction

This study wanted to examine the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), product knowledge attitude, subjective norm, perceived behavioral control on purchase intention and actual purchase behavior toward organic foods in Thailand, based on the Theory of planned behavior (TPB). Also, this research investigates moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

The results showed that after consumers are exposed to food advertising content that communicates the benefit of organic food products, the consumers will know more about the benefits of the food, therefore, leading to consumers purchasing organic food products increasingly. In particular, product knowledge is also crucial in creating the intention to purchase organic food products after the consumers are exposed to the food advertising content.

The present study has contributed to the study of food advertising content's influence on product knowledge toward the intention to purchase organic food products. Also, it provided alternative theoretical and empirical evidence. Therefore, it can fill the research gap for Thai organic food products in terms of intention to purchase organic food products, especially those related to the moderated impacts of the demographic factor.

Although this study was not conducted in the Western context, it can increase the external validity of the constructs used in all situations where cultural-specific factors strongly impact the actual purchase behaviour. The study used a quantitative method (which is online survey) to test the hypotheses.

Following the findings in Chapters six and seven, the results indicated that the overall data support the proposed model. It was also found that food advertising content (informativeness and advertising creativity) play a crucial role in product knowledge toward the intention to purchase organic food product. The moderating effects of gender on various relationships between the influence of food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge concerning the Theory of Planned Behaviour (TPB). In addition, food advertising content (Informativeness and Advertising creativity) could increase product knowledge toward

the intention of purchasing organic food products. As a result, an increase in organic food product purchases is expected. At the same time, the knowledge of organic food attributes is associated with attitude, subjective norms, and perceived behavioural control.

This chapter can summarizes the discussion of the data analysis and findings from the quantitative research, and presents the research findings, limitations, and possible directions for further research.

### 7.2. Overall conclusion of the study

This chapter provides important contributions to the knowledge regarding the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge on purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB), and moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge.

This study could make critical contributions to the knowledge. The chapter could be based on filling gaps that were found in the literature related to several questions, such as "Would the food advertising content (emotional appeal, informativeness and advertising creativity) increase product knowledge of organic food products?, Is product knowledge be increased by TPB (attitude, subjective norms, and perceived behavioural control)?, Does TPB (attitude, subjective norms, and perceived behavioural control) have a positive impact on the intention to purchase?, Would intention to purchase have a positive impact on actual purchase behaviour?, Does gender moderate the relationship between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge?"

The researcher established several objectives to answer the research questions, as defined in Section 1.8.

Based on these problems and purposes set forth by this study, it could contribute to the current literature in many ways: firstly, by exploring the meanings of food advertising content (emotional appeal, informativeness and advertising creativity) and the other constructs; secondly, by investigating the impacts of food advertising content (emotional appeal, informativeness and advertising creativity) on the other constructs; and finally by investigating the impacts of the different constructs on each other. The

researcher used a quantitative method to achieve these targets. A sequential research method was applied. The research could be divided into two sections, wherein the first section of the research employed an exploratory approach and the second section a quantitative approach. The quantitative approach of the study could provide new insights in the following forms: (i) it could improve the comprehension of the overall phenomena associated with the research topic; (ii) it could help in the comprehension of the fundamental explanations of social phenomena and human behaviour; (iii) it could help in the identification of new measure; and (iv) it could help to raise the validity, reliability and generalisability of the study (Churchill, 1979; Desphande, 1983; Creswell, 2003; Gupta et al., 2008; Foroudi et al., 2014).

The findings from the quatitative research showed that food advertising content (emotional appeal, informativeness and advertising creativity) was based on product knowledge. The findings also demonstrated that product knowledge positively impacted attitude, subjective norm, and perceived behavioural control. In addition, attitude, subjective norm, and perceived behavioural control positively impacted the intention to purchase; and intention to purchase positively impacted actual purchase behaviour.

The quantitative findings did not support three hypotheses. For example, they did not support the impact of emotional appeal, informativeness and advertising creativity on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour based on age.

The current study reinforces views of previous scholars (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna and Balasubramanian, 2021) regarding emotional appeal, informativeness and advertising creativity dimensions of food advertising content. It also supported the previous research by investigating the impacts of emotional appeal, informativeness and advertising creativity on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour.

This study could be one of the first studies to empirically investigate emotional appeal, informativeness and advertising creativity dimensions based on three dimensions, as well as the impacts of emotional appeal, informativeness and advertising creativity on product knowledge, attitude, subjective norm, perceived behavioural control, intention

to purchase and actual purchase behaviour, including by investigating the role of consumer demographics (gender). In addition, it might be one of the first studies to have investigated the impacts of Emotional appeal, Informativeness and Advertising creativity on product knowledge on product knowledge; of product knowledge on attitude, subjective norm, perceived behavioural control; of attitude, subjective norm perceived behavioural control on intention to purchase; and finally of intention to purchase and actual purchase behaviour. This study provided the research contributions. It was the most critical element of this doctoral dissertation that provided little evidence for exploration in the past. The contributions of this study range from theoretical to methodological and managerial. Its theoretical contributions included expanding the literature by investigating the phenomenon of emotional appeal, informativeness and advertising creativity and its impacts on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour, including based on consumer demographic (gender).

In terms of managerial contributions, this section's importance is foremost because it could provide insights for advertisers and managers regarding the impact of emotional appeal, informativeness and advertising creativity. Investigating its implications on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour. Secondly, it provides suggedtions on how the impact of the demographics (gender) of consumer groups influence the impacts of emotional appeal, informativeness and advertising creativity, and by investigating its implications on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour.

Thirdly, this study suggests the impacts of other constructs in the conceptual model, for example, the impact of emotional appeal, informativeness and advertising creativity on product knowledge, product knowledge on attitude, subjective norm and perceived behavioural control, and the impact of attitude, subjective norm, and perceived behavioural control on intention to purchase. Finally, it suggests, the impact of intention to purchase on actual purchase behaviour. Therefore, it can be stated that these contributions will help advertisers and managers comprehend the topic in greater details and apply these findings in practical situations.

# 7.3. Theoretical contributions, managerial contributions, methodological contribution and policy Implications

This sub-section offers insights associated with the contributions of the study. Initially, it accounts for the academic and theoretical contributions, and enriches the theory of planned behaviour (TPB) and academic literature on this issue. Secondly, this sub-theme discusses how to use this study for developing food advertising content strategies. Finally, it presents policy implications for Thai organic food companies.

### 7.3.1. Theoretical contributions of this study

This study peovides essential contributions from a theoretical perspective by answering two main research questions: The researcher evolved several objectives to answer research questions, as defined in Section 1.8.

The objectives of the research and research questions can be accomplished a milestone by identifying several gaps in the literature. Firstly, the concept of food advertising content within emotional appeal, Informativeness and Advertising creativity were unclear. Previous researchers (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021) had emphasized on food advertising content (Emotional appeal, Informativeness and Advertising creativity); however, there was little evidence of food advertising content (Emotional appeal, Informativeness and Advertising creativity)

It could be seen from previous studies that food advertising content was a result of both emotional appeal, informativeness and advertising creativity dimensions; moreover, excluding one or the other made trust incomplete (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021). Furthermore, it was evident from the previous studies that trust was an outcome of both the emotional appeal, informativeness and advertising creativity dimensions and excluding one or the other that could not make food advertising content completely (Oktaniar et al., 2020; Chen & Lobo Rajendran, 2014; Lee & Yun, 2015; Xue, 2015; Lilja, 2019). Therefore, this study could contribute to the existing literature by studying food advertising content based on emotional appeal, informativeness and advertising creativity. Secondly, this study could develop a multi-disciplinary paradigm for the focal construct, food advertising content. Therefore, this study could make an important theoretical contribution. This multi-disciplinary paradigm could help develop the conceptualisation and implementation of

the focal construct. Previous researchers (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021) had applied similar multi-disciplinaries paradigms on food advertising content, such as paradigm based on studies in sociology (Ahmed, 2017; Aertsens et al., 2011), marketing (Xue, 2015), social psychology (Lee and Bonnand and Cho, 2015; Fotopoulos and Krystallis, 2002 and Aertsens et al., 2011; Ahmad and Ghani, 2019) and business (Singh and Verma, 2017; Lee and Bonnand and Cho, 2015). On the other hand, this study might contradict the previous paradigm by citing the food advertising content construct on theories similar to those applied in social psychology, such as an association between two or more things. Therefore, a new multi-disciplinary paradigm was used.

Thirdly, the multi-disciplinary paradigm on food advertising content helped develop a new scale of emotional appeal, informativeness and advertising creativity. Though several scales similar to food advertising content existed in the literature (Mamtani and Singh, 2018; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021), none of them were based on emotional appeal, informativeness and advertising creativity. The scale on food advertising content was developed based on emotional appeal, informativeness and advertising creativity, which was a valid and reliable scale. In the same way, the other scales in this study (such as product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour) were purified by previous scales, which were valid and reliable.

Fourthly, this research investigated the impact of food advertising content (emotional appeal, informativeness and advertising creativity) on (product knowledge, Theory of Planned Behaviour (attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour)), leading to the contribution to the existing literature. Previous research (Widya, P.R. 2019; Kalu and Nigeria, 2017; Bakar et al., 2021; Gracia and Magistris, 2007; Yeo et al., 2021; Rosengren, S., & Dahle'n and Modig, 2013; Krishna and Balasubramanian, 2021) proved the effects of Emotional appeal, Emotional appeal, Effort expectancy, Perceived usefulness, Perceived risk, Social influence, Trust, Informativeness, Advertising appeal and Advertising creativity Informativeness and Advertising creativity on intention to purchase on product knowledge, TPB, Actual creativity and gender. However, little is evidence suggesting the impact of food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge and TPB.

This study can also contribute to the existing knowledge of the literature by investigating the impacts of product knowledge on attitude, subjective norm, and perceived behavioural control (Krishna & Balasubramanian, 2021; Chen & Lobo & Rajendran, 2014; Lee & Yun, 2015; Bakar et al., 2021). In the same way, as the other associations in this study, little evidence investigated the impacts of product knowledge on attitude, subjective norm, and perceived behavioural control are backed by minimal evidence. This research has taken a critical step forward by investigating these impacts.

Fifthly, this study extends the food advertising content literature by increasing our understanding of food advertising content (emotional appeal, informativeness and advertising creativity) of intention to purchase organic products. As a result, organic food product sales growth continues and the growth of organic food products reflects consumers' increasing interest in health (Wong & Aini, 2015; Krishna & Balasubramanian, 2021). Howeve, the sales of Thai organic food products are still comparatively small (Economic Intelligence Center 2017; Aungatichart, 2020).

Sriyakul, Sutduean and Sirivanh (2020) and Sitthisuntikul (2018) found that Thai organic food products seldom present offer reliable attributes such as the beneficial attributes of organic food products, as a result. Thai consumers might not be inclined purchase organic food because they need to know the reliable attributes of organic food products.

Previous research on organic food products did not on food advertising content (Emotional appeal, informativeness and advertising creativity), which increases product knowledge about organic food products (Wang et al., 2019; Bakar,2021). The findings of this study demonstrated that after consumers are exposed to the advertising messages that provide the benefits of reliable facts about organic food products, the consumers have more knowledge about the attribute of organic food products and develop the intention to purchase organic food products as a result (Xie et al., 2015; Abbas & Syed, 2021). Furthermore, Thai consumers are emotionally attracted by the key message of organic food advertising content. As a result, thay consumers learned much from using organic food advertising content, and finally, they regarded it as intriguing.

Previous studies related to food advertising content which has not been investigated based on consumer demographics (gender) (Oktaniar and Listyaningsih, and Purwanto, 2020; Chen and Lobo and Rajendran, 2014). In addition, there are only a few studies on

the impact of product knowledge concerning the Theory of Planned Behaviour (TPB) (Hsu, 2016; Atta and Abbas and Syed, 2021).

Although organic food is the world's most popular food, combined with data displaying organic food product sales growth of 30 per cent annually (Mathur, 2015; Srisathan et al., 2023), previous "organic food product" research has been limited and least understandable when compared with the vast amount of published research regarding organic food products (Singh and Verma, 2017; Stanton and Cook, 2019).

The findings of this study demonstrate that food advertising content (Emotional appeal, informativeness and advertising creativity) can increase product knowledge toward organic food products, which in turn impacts purchase intentions based on Ajzen's (1991) TPB.

This study is the first attempt to determine essential elements of food advertising content (Emotional appeal, informativeness and advertising creativity) to increase product knowledge toward organic food products, which impacts purchase intentions based on Ajzen's (1991) TPB.

In Shukor et al. (2016) study on organic food products, only the relationship between food advertising content (Emotional appeal, informativeness and advertising creativity) and product knowledge was only investigated. In addition, product knowledge was more predictive of their intention to purchase organic food products (Krishna & Balasubramanian, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021)

On the other hand, this study examined all the associations between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge and the entire TPB and found that the food advertising contents predicted antecedents of intention (emotional appeal, informativeness and advertising creativity to product knowledge; product knowledge to attitude, subjective norm, perceived behaviour control; intention to purchase to actual purchase behaviour) regarding the intention to buy organic food products.

It is also found that while informativeness and advertising creativity are strong predictors; however, the emotional appeal construct is a relatively weak predictor of the intention to purchase organic food products. In addition, attitude construct and also perceived behavioural control are strong predictors. At the same time, the subjective

norm is a relatively weak predictor of product knowledge regarding the intention to purchase organic food products. Moreover, the subjective norm construct and perceived behavioural control are strong predictors. However, the attitude construct is a relatively weak predictor of the intention to purchase organic food products.

These findings support Ajzen's (1991) suggestion that the relative significance of TPB antecedents in predicting actual purchase behaviour varies depending on behaviours and situations. In addition, this study contributes to prior findings associated with the impact of food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge and intention to purchase organic food products (Krishna & Balasubramanian, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Wang et al., 2021; Bakar, 2021).

Therefore, this study can contribute to areas of research possibilities that can promote further development of the rapidly growing Thai organic food business. These findings support Ajzen's (1991) suggestion that the relative significance of TPB antecedents in predicting actual purchase behaviour varied depending on behaviours and situations. This study contributes to prior findings associated with the impact of food advertising content (Emotional appeal, informativeness and advertising creativity) on product knowledge and intention to purchase organic food products (Gifford & Bernard, 2011; Cucchiara et al., 2014; Bakar,2021). Therefore, this study can contribute to areas of research possibilities that can assist in further evolving the rapidly growing Thai organic food business.

In addition, to provide unique and specific contributions to the existing content of literature, this study's research framework was intentionally developed to one moderating variable (gender) to examine its impact upon the association between food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge in relation to the Theory of Planned Behaviour (TPB). Gender could not impact food advertising content (Emotional appeal, informativeness and advertising creativity) and intention to purchase organic food products related to product knowledge (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021).

Therefore, the approach that combines both the traditional organic food product and our new approach that specifically mention "gender" regarding the organic food product perspective helps this study to gain a new, more analytical understanding of how these essential factors impact product knowledge and intentions to purchase when specifically applied to organic food products. Furthermore, there is littled research connecting product knowledge to attitude, subjective norms and perceived behavioural control (Panpluem et al., 2019; Atta and Abbas and Syed, 2021; Solomon, 2021; Souza, 2022; Bakar,2021). Prior studies did not focus on the relationship between product knowledge and attitude, subjective norms and perceived behavioural control toward the intention to purchase organic food products (Abu Bakar et al., 2021; Singh & Verma, 2017; Abbas & Syed, 2021). The findings of this study bridge this gap by indicating a positive relationship between product knowledge and attitude, subjective norm and perceived behavioural control toward the intention to purchase organic food products.

Finally, the findings of this study contributes to the gender identity literature. Although there is much literature on gender and food advertising content (emotional appeal, informativeness and advertising creativity), the effect of gender on various relationships between the influence of food advertising content and product knowledge about the Theory of Planned Behaviour (TPB), which has garnered little scholarly attention (Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021). The findings of this study provide insight into gender in food advertising content (emotional appeal, informativeness and advertising creativity) and product knowledge in relation to the Theory of Planned Behaviour (TPB). The findings indicate that males and females will increasingly purchase organic food products after exposure to food advertising content (emotional appeal, informativeness and advertising creativity) because they know more about the organic food product.

While an emerging study stream has begun investigating food advertising content related to gender identity (Enrique Murillo, 2016; Akbar et al., 2019), it mainly explored single-stage decisions. This study demonstrates that gender did not impact Thai consumers' intention to purchase organic food products related to product knowledge about the Theory of Planned Behaviour (TPB) after exposure to food advertising content (emotional appeal, informativeness and advertising creativity). This

finding suggests that marketers should use food advertising content (emotional appeal, informativeness and advertising creativity) to explain how organic food characteristics can make Thai consumers healthy. As both Thai males and females are concerned about their health, after exposure to the food advertising content, they will know organic food products can make them healthy leading to increase in purchase.

Sixthly, this research could contributes to the existing erudition by investigating the impact of food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge and attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour based on consumer demographics. Previous researchers (Akbar et al., 2019; Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna and Balasubramanian, 2021) showed showed that a similar construct to food advertising content (emotional appeal, informativeness and advertising creativity) has an impact on constructs similar to product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour, which based on consumer demographics, such as these associations were moderated by consumers' age and gender. Although previous researchers (Akbar et al., 2019; Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021) had attempted to investigate these impacts, little evidence was found to investigate these associations based on consumer demographics. Therefore, this study is regarded as a critical step in filling this gap.

Seventhly, this study examined the impact of food advertising content (Emotional appeal, Informativeness and Advertising creativity) on product knowledge and the Theory of Planned Behaviour (attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour). Although previous researchers (Akbar et al., 2019; Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021) had attempted to investigate its impact on similar constructs to food advertising content (Emotional

appeal, Informativeness and Advertising creativity) on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour. However, it was found that there was very little evidence to investigate the impacts on these constructs. Therefore, this study has decreased this gap by studying the impacts of food advertising content (Emotional appeal, Informativeness and Advertising creativity) on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour.

In addition, regarding the gaps in research on the impacts of food advertising content (Emotional appeal, Informativeness and Advertising creativity) and product knowledge on the other constructs studied in this research, there was also little evidence on the impacts of product knowledge on attitude, subjective norm and perceived behavioural control. Previous studies have investigated the impact of attitude, subjective norm and perceived behavioural control on constructs similar to intention to purchase and actual purchase behaviour (Atta and Abbas and Syed, 2021; Souza, 2022; Abbas & Syed, 2021; Brumă, 2020; Gustavsen & Hegnes, 2020; Krishna & Balasubramanian, 2021). However, there were few studies on its impacts on the previously described constructs.

This study can also contribute to the existing knowledge of the literature by investigating the impacts of intention to purchase on actual purchase behaviour (Panpluem et al., 2019; Gustavsen & Hegnes, 2020; Brumă, 2020). In the same way, the other associations in this study. Little evidence investigated the impacts of intention to purchase on actual purchase behaviour. This research can take a critical step forward by investigating these impacts.

This research was conducted to reduce these gaps by investigating moderating effects of gender on the various relationships between the influence of food advertising contents (emotional appeal, informativeness and advertising creativity) and product knowledge in relation to the Theory of Planned Behaviour (TPB), leading to the ability to indicate which elements of the food advertising contents increases product knowledge toward organic food products, which in turn impact purchase intentions based on TPB. Therefore, this thesis fills the gaps.

Finally, the existing literature has been contributed by this research. This research investigated the overall conceptual model or hypotheses based on the Theory of Planned Behaviour. Previous researchers (Atta and Abbas and Syed, 2021; Souza, 2022; Abbas & Syed, 2021) rarely applied theories when investigating the impacts of food

advertising content (Emotional appeal, Informativeness and Advertising creativity). It was found that there was very little evidence in the literature, which this evidence investigated these impact using the Theory of Planned Behaviour (Singh and Verma (2017). This research impacted these impacts using the Theory of Planned Behaviour.

## 7.3.2. Managerial contributions of this study

Advertising and marketing managers would be able to efficiently apply the findings of this research in many ways. Firstly, this study would help advertisers to comprehend the overall concept of food advertising content based on emotional appeal, informativeness and advertising creativity. The findings could help them choose a message for their organic food advertising by comprehending the equally critical emotional appeal, informativeness and advertising creativity dimensions of food advertising content. Finally, the findings could enable them to understand that food advertising content characteristics are vitally critical in creating the intent to purchase organic food products among consumers.

Secondly, this study could allow advertisers to comprehend the positive impacts of emotional appeal, informativeness and advertising creativity on product knowledge. This has been found in empirical evidence (Krishna & Balasubramanian, 2021; Oktaniar et al., 2020; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Molinillo et al., 2020) and can be confirmed by this study, emotional appeal, informativeness and advertising creativity had a positive impact on product knowledge. Therefore, this study could enable advertisers to comprehend the critical impact of emotional appeal, informativeness and advertising creativity on product knowledge.

Thirdly, this study would enable advertisers to comprehend the impacts of product knowledge on attitude. Empirical evidence (Abu Bakar et al., 2021; Krishna & Balasubramanian, 2021; Chekima et al., 2021; Atta and Abbas and Syed, 2021; Solomon, 2021; Xie et al., 2020) displayed that similar to product knowledge had a positive impact on attitude, subjective norm, perceived behavioural control, intention. The findings of this study also confirmed that product knowledge was the most impacted by the attitude, subjective norm, perceived behavioural control, and intention of all the constructs explored in this study. Therefore, advertising managers could apply points to focus more on these associations.

Fourthly, this findings would help advertisers comprehend the positive impact of intention to purchase on actual purchase behaviour. These impacts could also be

confirmed by previous researchers (Gustavsen & Hegnes, 2020; Fleseriu and Cosma and Bocanet, 2020; Testa et al., 2019; Brumă, 2020; Moon and Mohel and Farooq, 2021; Hilverda et al., 2018), who recognised the related weighing of food advertising content (emotional appeal, informativeness and advertising creativity) on overall actual purchase behaviour. The empirical results, found using the quantitative section of this study, recognised that food advertising content (emotional appeal, informativeness and advertising creativity) has the most significant impact on actual purchase behaviour, followed by the impact of food advertising content (Emotional appeal, informativeness and advertising creativity) on product knowledge. Overall, the findings recommended that consumers belief in food the advertising content (emotional appeal, informativeness and advertising creativity) is a critical element of purchase behaviour. Therefore, advertisers should consider the importance of food advertising content (emotional appeal, informativeness and advertising creativity) on actual purchase behaviour when making decisions on food advertising.

In addition, to the importance of the impact of food advertising content (emotional appeal, informativeness and advertising creativity), this study would also advise advertisers regarding the influence of the other constructs such as product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour. Most previous research (Brumă, 2020; Moon and Mohel and Farooq, 2021; Hilverda et al., 2018) had suggested the influence of intention to purchase organic food products; however, there was very little evidence available. The findings of this study could confirm that intention to purchase positively impacts the actual purchase behaviour. Advertisers could apply these findings to understand the influence of intention to purchase on the actual purchase behaviour.

Finally, a further managerial contribution may be based on the impacts of attitude, subjective norm, and perceived behavioural control on the intention to purchase. It was well confirmed from the literature that attitude, subjective norm, and perceived behavioural control increase intention to purchase organic food products (Solomon, 2021; Xie et al., 2020; Souza, 2022; Atta and Abbas and Syed, 2021; Wang et al., 2019; Solomon, 2021; Xie et al., 2020). This study confirmed this suggestion and displayed that attitude, subjective norm, and perceived behavioural control were the key source of increasing intention to purchase organic food products. Therefore, marketing managers may consider this by recognising its importance. In addition, according to the quantitative findings, they would learn that the impact of attitude, subjective norm, and

perceived behavioural control on intention to purchase is higher when consumers were exposed to food advertising content (emotional appeal, informativeness and advertising creativity). This helps manager could enrich chosen strategies.

## 7.3.3. Methodological contribution of this study

This research provided an essential methodological contribution with respect to methodology.

The researcher used the quantitative method because of the need for more comprehension of the food advertising content (emotional appeal, informativeness and advertising creativity) (Desphande, 1983; Gupta et al., 2011).

The quantitative method increased the study's reliability, generalisability and validity (Churchill, 1979). In addition, there is also a gap in the literature about the examination of this concept using a quantitative research method. Previous researchers investigated the subject using a quantitative research method (Roopa & Rani, 2012; Sanders et al., 2011). Therefore, the increase in studies examining this phenomenon using a qualitative method.

Another significant contribution of this research derives from the use of structural equation modelling (SEM), a sophisticated data analysis technique, to investigate the overall conceptual framework. SEM helped in creating the simultaneous modelling of multiple layers. In addition, SEM could answer the set of interrelated research questions in a single valid model systematically. (Solomon, 2021; Xie et al., 2020; Souza, 2022; Atta, Abbas and Syed, 2021). Therefore, the study formed a methodological contribution.

Furthermore, this study adopted a two-stage method that could help the researcher investigate the measurement model by investigating causal relationships between the observed items and the latent construct. Secondly, the two-way method tested the structural model by investigating the causal associations between the observed constructs. The two-way approach could help investigate this study thoroughly, which can serve as a guideline for future study. Furthermore, this study can make a significant methodological contribution by using SEM, which could contribute to the measurement level.

As previously mentioned, the two-step method and the data analysis procedures, such as the reliability test (inter-consistency reliability and composite reliability) and validity test (convergent, discriminant and nomological validity), can be used as guidelines in future studies.

# 7.3.4. Policy Implications

This study recommends that after Thailand launches the policy that uses food advertising content related to attitude, subjective norm and perceived behavioural control to promote Thai organic food products, Thailand will increase consumers' knowledge of organic food products will increase. The policy might be the most effective way to increase Thailand's organic food market share.

This study provides information that could help national organizations or governments adopt or develop policies associated with food advertising content adherence (Emotional appeal, Informativeness and Advertising creativity).

Relevant authorities and agencies should encourage Thai consumers to consume and purchase organic food instead of ordinary food. This is because the consumption of organic food products in Thailand still needs to be higher. Therefore, it is imperative to improve communication efforts by showing Thai consumers the benefits and advantages of organic food products to increase their product knowledge and attitude towards their intention to purchase them.

The findings of this research will help Thailand create food advertising content that persuades consumers to purchase organic food products increasingly. Thai government policy provides food advertising content presented by other people (such as actors or famous people).

The Thai government policy provides food advertising content presented by other people (such as actors or famous people). The other people use food advertising content (Emotional appeal, Informativeness and Advertising creativity). For example, other people use food advertising content (Emotional appeal), which is emotional content (such as pride, horror movie, love, sad story, joy, triumphant music, etc.). The food advertising content communicates the attributes of organic food (such as healthier and safer food) (Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021). In addition, the other people use food advertising content (informativeness) should explain the characteristics and benefits of organic food products in a way that aims to match consumer wants and desires (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Hansmann and Baur and Binder, 2020; Lilja, 2019).

Furthermore, other people should use food advertising content (creative advertising) that shows the attribute and the surprising benefits of organic food products (Oktaniar et al., 2020; Haider and Ahmad and Ghani, 2019; Choi et al., 2018) that make a difference in health outcomes. Therefore, after Thai consumers are exposed to food advertising content, their intention to purchase organic food products increasing (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Hansmann and Baur and Binder, 2020; Lilja, 2019; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021; Oktaniar et al., 2020; Haider and Ahmad and Ghani, 2019; Choi et al., 2018).

Thailand's organic food product labels should use the food advertising content (emotional appeal, informativeness and advertising creativity) that other people present. Therefore, the attitude of consumers will increase their intention to purchase organic food (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Hansmann and Baur and Binder, 2020; Lilja, 2019; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021; Oktaniar et al., 2020; Haider and Ahmad and Ghani, 2019; Choi et al., 2018). Before consumers purchase organic food products, they will seek information about organic food products and then weigh the benefits of organic food products in line with their expectations toward the organic food product. They will know more about the benefit of organic food products that will make them healthy due to exposure to the food advertising content.

The food advertising content should highlight the health benefits of organic food products. For example, suppose they expect organic food products to keep them healthy, and if the benefit of organic products aligns with their expectations that they want to be healthy. They are more likely to purchase organic food products due to their perceived the attributes and benefits or surprising benefits of organic food shown by the food advertising content (Atta and Abbas and Syed, 2021; Solomon, 2021; Xie et al., 2020).

Therefore, the findings of this study have significant implications that might strengthen the context (in Thailand) to develop an appropriate policy that increases the consumer's intention to purchase organic food products. Based on the findings, this study suggests that Thailand should launch a policy that uses food advertising content that informs attributes and the surprising benefits of organic food products to Thai consumers.

With the food advertising content (emotional appeal, informativeness and advertising creativity), Thai consumers will be able to distinguish and understand the differences in characteristics, quality and benefits between organic and non-organic food products to

Thai consumers. The food advertising content stimulates the consumers' attitude to increase their intention to purchase organic food because they know more about the benefits of organic food products (Atta and Abbas and Syed, 2021; Solomon, 2021; Xie et al., 2020).

## 7.4. The limitations of the research and future research

The research's limitations and future limitations are discussed in two sub-sections, 7.4.1 and 7.4.2.

### 7.4.1. Limitations

This study revealed a preliminary foray into conceptualising food advertising content (emotional appeal, informativeness and advertising creativity). It investigated its impact on product knowledge, attitude, Subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour. On the other hand, like other studies, this research also has certain limitations that requires future exploration. These limitations could be based on the analysis/sampling and measurement approach. It also reveals relevant topics in the future.

## 7.4.1.1. The method of sampling/analysis

This study may have multiple limitations due to its depends on its approach of analysis or sampling. First, this study was conducted in a single location which is Thailand. It is recommended that other cultural contexts or distinct countries may produce different results. Previous studies have found different proportions of food advertising content in distinct cultural contexts (Busse, 2016; Solomon, 2021; Xie et al., 2020). Previous research (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Dao et al., 2014; Buaprommee & Polyorat, 2016) recommended that 25-30 per cent of advertisements in Western countries used food advertising content. Furthermore, 60 per cent of food advertising content is used in India, and 60-70 per cent is used in most Far Eastern countries. In addition, it may be recommended that findings in other contexts may differ due to distinct cultural contexts and the importance of food advertising content. This could be noted as one of the limitations arising from selecting a single research context.

This study's second limitation was that it must be based on data gathered from the 77 provinces in Thailand due to limited resources and time. Nevertheless, Thailand was selected due to the fact that Thailand is the first country in Southeast Asia to start to produce organic farming.

Thailand is well known for its agricultural production and exports of organic food products in Southeast Asia. However, Thai consumers do not have extensice knowledge about the benefits of organic food as most Thai organic food producers do not promote or market the benefits (CityLab, 2015; Fashion-Schools, 2016; TheCultureTrip, 2016; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020). On the other hand, it is impossible to assume that the findings are not generalizable in other areas of Thailand (Gustavsen & Hegnes, 2020; Sitthisuntikul, 2018; Fakged et al., 2016). These distinctions present a significant limitation in generalising the findings of this study to other areas (Xie et al., 2020; Sitthisuntikul, 2018; Fakged et al., 2016).

The third limitation of this study lies in the use of focus groups, based on the experimental research design. Therefore, the study could provide much insight into the views and beliefs of consumers of different genders. Therefore, this was another limitation of the study.

Further, this study studied only consumers' perspectives rather than those of marking and advertising managers, although some consumers might have been marketing managers. Therefore, this significant limitation that could be solved in future research.

#### 7.4.1.2. The measurement level

As with the limitations in the approach of sampling or analysis, limitations are also present in the measurement levels. Firstly, because it was a pioneering study on food advertising content (emotional appeal, informativeness and advertising creativity) and its impacts, there are limitations on the validity and generalisability of the measurement scales of research.

Secondly, as previously mentioned, this study is the first to analyse food advertising content (emotional appeal, informativeness and advertising creativity) and examine its impacts, to which the existing literature was limited. Therefore, the researcher needed to develop a new scale based on previous literature, improve it using the quantitative research findings, and then evaluate the scales for reliability and validity. However, because of the limited survey size and time, the empirical study was carried out in a single context, which is Thailand. This could have limited the refinement and expansion of the proposed measurement scales, leaving the door open for future studies.

### 7.4.1.3. The conceptual model

Besides the limitations in the analysis or sampling and measurement model, it may also have limitations in the conceptual model. Firstly, many researchers (Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Hansmann and Baur and Binder, 2020; Lilja, 2019; Molinillo et al., 2020; Wang et al., 2021; Japutra et al., 2021; Oktaniar et al., 2020; Haider and Ahmad and Ghani, 2019; Choi et al., 2018) in the business-to-consumer context could explore the three dimensions of food advertising content, which are emotional appeal, informativeness and advertising creativity, separately. Moreover, its effects should be examined. Furthermore, this study was the first on food advertising content; moreover, the fact that this study may have little literature available on this topic can be regarded as a limitation.

The second limitation derives from the fact that the researcher focused on small companies in the survey. However, the researcher needs to explore the impact of food advertising content (emotional appeal, informativeness and advertising creativity) and the other constructs on large corporations. The quantitative findings found that the impact of food advertising content was higher for larger corporations than for smaller ones. This could be regarded as another limitation.

A third limitation is the emphasis on only one category, which is organic food (Alux, 2015; News, 2015; Ranker, 2015; Whosay, 2015; Molinillo et al., 2020; Wang et al., 2021). Previous research suggested that if a researcher's focus is only on one category, such as organic food, the researcher may not confirm or may verify the universality of the model across other product categories.

Finally, this study could examine the impacts of food advertising content (emotional appeal, informativeness and advertising creativity) on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour based on consumer demographics, such as gender, there are other aspects of consumer demographics such as age, education and income and so forth, that may also influence on food advertising contents' effects on other constructs (Akbar et al., 2019; Molinillo et al., 2020; Fleseriu and Cosma and Bocanet, 2020; Wang et al., 2021; Atta and Abbas and Syed, 2021; Brumă, 2020; Atta and Abbas and Syed, 2021; Cuesta-Valiño and Rodríguez and Núñez-Barriopedro, 2020; Fleseriu and Cosma and Bocanet, 2020; Krishna & Balasubramanian, 2021). Therefore, this is regarded as another limitation of this study.

## 7.4.2. Future research directions

Several suggestions are made based on the limitations stated in the previous section to expand the current understanding of food advertising content and its impacts.

Regarding the generalisability and validity of the measurement, studies in other areas or cultural contexts may be considered, such as studies in other countries. However, as mentioned earlier, the findings of this study, which applied a Thailand-based sample, may need to be summarised in other contexts. Therefore, future studies should investigate this topic in the context of other countries.

Future study could also apply consumer-based focus groups to investigate the intention to purchase and actual purchase behaviour of consumers from distinct backgrounds and to examine how the consumers react to the topic of food advertising content and its impacts on constructs and actual purchase behaviour.

Future research should it would be preferable to apply probability sampling rather than convenience and snowball techniques used in this study due to budget and time constraints. Therefore, this limitation should be diminished by solely applying probability sampling to eliminate sampling error and potential bias concerning the validity and generalisability of the scales (Teichert et al., 2017; Xie et al., 2020). (Teichert et al., 2017; Xie et al., 2020).

Next, future research should also investigate the model based on data from advertising and marketing managers because they get the initiative to select food advertising content. The current study gathered data only from consumers to investigate the topic from their perspectives. Investigating this topic from advertisers' and marketers' points of view could provide further insights into food advertising content selection, which may prove useful to practitioners.

In addition, a future research should investigate the impacts of food advertising content (and other constructs). It should involve food advertising content with similar and dissimilar names to those of the food. It should also explore the impacts of food advertising content (and other constructs) on companies of distinct sizes, both small and large because this factor may help practitioners understand the influence food advertising content may have in distinct scenarios.

Future research should replicate the model to study different product categories. First, however, the researcher must confirm or verify the model's universality across other product categories first.

Finally, the restriction also points out that the topic may be investigated based on other consumer demographic data such as age, education and income. These demographic factors, such as gender, have an equal influence on the impact of food advertising content on other constructs and actual purchase behaviour (Shafiea & Rennieb, 2012). The results from future studies could also help advertisers and marketers examine these effects. Future research results may help marketers and advertisers investigate these impacts.

# 7.5. Summary

This research can contribute to the existing literature by providing understanding on food advertising content (emotional appeal, informativeness and advertising creativity) and by investigating its impacts on product knowledge, attitude, subjective norm, perceived behavioural control, intention to purchase and actual purchase behaviour. This chapter discusses the study's recommendations, contributions, limitations, and areas for future research. In addition, the recommendations and contributions of this chapter showed their influence in the methodological, managerial and theoretical spheres.

The aim, questions and objective of research have achieved a milestone by identifying the uniqueness of the topic, the approaches used; moreover, and the theoretical and managerial contributions generated. However, there are limitations in the detailed, as well as a lack of generalisability, as a result of the fact that perspectives were gathered only from consumers, the limitations of sampling, measurements and qualitative data, and other limitations according to the conceptual model.

These limitations allowed the researcher to propose ideas for future studies. Future study may perform research in a diverse setting considering the measurements and context limitations. A future study may also apply focus groups to investigate the behaviour of consumers from distinct ethnic backgrounds use a larger sample size and include probabilistic sampling. A future study may consist of data provided by advertising and marketing managers may also be included. In addition, the conceptual model should be investigated using distinct types of food advertising content and

corporations. A future study may also relate to other consumers from different demographic groups. Finally, it may investigate the impacts of food advertising content towards advertising.

Inaddition, the aim and question of research gave rise to various objectives. Based on the aim, questions and objectives of research, this study has made contributions to the current literature in various ways: firstly by exploring the meanings of gender and food advertising content (emotional appeal, informativeness and advertising creativity) and the other constructs; secondly by examining the impact of gender which moderates the relationship between advertising creativity and product knowledge and the other constructs; and finally by examining the impacts of the other constructs on each other.

The aim, questions and objectives of research have achieved a milestone by identifying numerous gaps in the literature. Firstly, the concept of gender was not very clear. Previous researchers (Heru, 2015; Oktaniar et al., 2020; Jinadasa et al., 2020) focused on gender; however, there was a little evidence on gender moderating the relationship between the advertising creativity and product knowledge.

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#### **APPENDICES**

#### Appendix A: Questionnaire (ภาคผนวก A: แบบสอบถาม)

#### Questionnaire (แบบสอบถาม)

Chokchai Srianan, a current PhD candidate at Middlesex University, London, UK, conducts the research. This study examines what elements of food advertising can increase product knowledge toward organic food products, which impact purchase intentions based on the TPB.

(โชคชัย ศรีอนันต์ ผู้สมัครระดับปริญญาเอกในปัจจุบันที่ Middlesex University ลอนดอน สหราชอาณาจักร เป็นผู้ดำเนินการวิจัย
การศึกษานี้มีวัตถุประสงค์เพื่อศึกษาว่าองค์ประกอบ ใดของการ โฆษณาอาหารช่วยเพิ่มความรู้เกี่ยวกับผลิตภัณฑ์อาหารออร์แกนิกอย่าง
ไร ซึ่งจะส่งผลต่อความตั้งใจในการซื้อตาม TPB)

In this study, you are asked to participate in a voluntary survey regarding your feelings and thoughts on the aforementioned topics. The success of this study entirely depends on the information provided by the participants, such as you. Therefore, your kind cooperation is crucial to getting a project successful. (ในการศึกษานี้ข้อให้คุณเข้าร่วมการสำรวจโดยสมัคร ใจเกี่ยวกับความรู้สึกและความคิดของคุณในหัวข้อดังกล่าว ความสำเร็จของการศึกษานี้ขึ้นอยู่กับข้อมูลที่ผู้เข้าร่วมให้ไว้ เช่น คุณ ดังนั้นความร่วมมือที่ดีของคุณจึงมีความสำคัญอย่างยิ่งต่อการทำให้โครงการประสบความสำเร็จ)

Your participation and information collected from this research will be kept anonymous and not adopted for any other objective, apart from the publications. (การมีส่วนร่วมและข้อมูลของ คุณที่รวบรวมจากการวิจัยนี้จะถูกเก็บ ไว้โดย ไม่เปิดเผยตัวตนและจะ ไม่นำ ไปใช้เพื่อวัตถุประสงค์อื่นใดนอกเหนือจากสิ่งพิมพ์)

This study will not collect any information about respondents' IP addresses. (การศึกษานี้จะไม่ รวบรวมข้อมูลใดๆ เกี่ยวกับที่อยู่ IP ของผู้ตอบ)

Individual participant data will be kept entirely confidential during the study. Only the researcher and his supervisor can access participant data during the study. For statistical analysis, information will be anonymised so no individual can be identified.

(ข้อมูลของผู้เข้าร่วมรายบุคคลจะถูกเก็บเป็นความลับทั้งหมดในระหว่างการศึกษาวิจัย เฉพาะผู้วิจัยและผู้บังคับบัญชาเท่านั้นที่สามารถเข้าถึงข้อมูลผู้เข้าร่วมในระหว่างการศึกษา สำหรับการวิเคราะห์ทางสถิติ ข้อมูลจะไม่ระบุตัวตน ดังนั้นจึงไม่สามารถระบุตัวบุคคลได้) While answering the questions, you can withdraw from the survey anytime. However, when you have finished and submitted your answers, your information will be combined with the information of other participants and will no longer be identifiable. Therefore, you cannot withdraw your participation when your information has been submitted. (ขณะตอบคำถาม คุณสามารถถอนตัวจากแบบสำรวจได้ทุกเมื่อ อย่างไรก็ตาม เมื่อคุณตอบเสร็จและส่งคำตอบแล้ว ข้อมูลของคุณจะถูกรวมเข้ากับข้อมูลของผู้เข้าร่วมคนอื่นๆ และจะไม่สามารถระบุตัวตนได้อีกต่อไป ดังนั้นคุณจึงไม่สามารถถอนการเข้าร่วมได้เมื่อข้อมูลของคุณถูกส่งไปแล้ว)

The original data will be stored on https://www.google.com/forms/about/ (an online survey system for data collection) and protected by a secure password. Coded data will also be stored on a password-protected computer. (ข้อมูลเคิมจะถูกเก็บไว้ใน https://www.google.com/forms/about/ (เป็นระบบสำรวจออนไลน์สำหรับการรวบรวมข้อมูล) และป้องกันด้วย

nttps://www.google.com/torms/about/ (เบนระบบสารวจออน เลนสาหรบการรวบรวมขอมูล) และบองกนควย รหัสผ่านที่ปลอคภัย ข้อมูลที่เข้ารหัสจะถูกเก็บ ไว้ในคอมพิวเตอร์ที่มีการป้องกันค้วยรหัสผ่าน)

The questionnaire will take no more than 15 minutes to complete. (แบบสอบถามจะใช้เวลาไม่เกิน 15 นาทีในการกรอก)

#### Consent (ความยินยอม)

I have read and understood the explanation of study. On this basis, I agree to take part in the survey. Also, I consent to publishing the project results, understanding that all information will be kept confidential. (ข้าพเจ้าได้อ่านและเข้าใจคำอธิบายของการศึกษาแล้ว บนพื้นฐานนี้ ฉันตกลงที่จะมีส่วนร่วมในการสำรวจ นอกจากนี้

ข้าพเจ้ายินยอมให้เผยแพร่ผลงานโครงการโคยเข้าใจว่าข้อมูลทั้งหมคจะถูกเกี่บเป็นความลับ)

I understand that I can withdraw from the survey anytime, including withdrawing any data I have provided. However, when I have finished my participation, my information will be combined with that of other participants and will no longer be identifiable. Therefore, I cannot withdraw my participation when my data has been submitted.

(ฉันเข้าใจว่าฉันสามารถถอนตัวจากแบบสำรวจได้ตลอดเวลา รวมถึงการถอนข้อมูลใดๆ ที่ฉันให้ไว้ อย่างไรก็ตาม เมื่อฉันเสร็จสิ้นการเข้าร่วมแล้ว ข้อมูลของฉันจะถูกรวมเข้ากับข้อมูลของผู้เข้าร่วมคนอื่นๆ และจะไม่สามารถระบุตัวตนได้อีกต่อไป ดังนั้น ฉันไม่สามารถถอนการเข้าร่วมได้เมื่อข้อมูลของฉันถูกส่งไปแล้ว)

If you do Not wish to participate in the study, you can exit the survey now. (หากคุณไม่ ต้องการเข้าร่วมการศึกษา คุณสามารถออกจากแบบสำรวจได้ทันที)

If you do wish to take part, tick the box "I consent to participate in the study". (หากคุณ ต้องการเข้าร่วม ให้ทำเครื่องหมายที่ช่อง "ฉันยินยอมให้เข้าร่วมในการศึกษาวิจัย")
 I consent to participate in the study. (ฉันยินยอมให้เข้าร่วมการศึกษา)

If you face any issues or have questions, please do not hesitate to contact me directly at CS1093@live.mdx.ac.uk

หากคุณประสบปัญหาใด ๆ หรือมีคำถามโปรคอย่าลังเลที่จะติดต่อฉันโดยตรงที่ CS1093@live.mdx.ac.uk Many thanks.

Yours sincerely Chokchai Srianan Department of Marketing, Branding and Tourism The Business School Middlesex University London Hendon – NW4 4BT London

Before you complete the questionnaire, please look at the advertisement below, which communicates the nutritional value of soymilk organic. (ก่อนที่คุณจะตอบแบบสอบถาม โปรดอ่านโฆษณาด้านล่างซึ่งบอกถึงคุณค่าทาง โภชนาการของนมถั่วเหลืองออร์แกนิก)



Below are statements of Emotional appeal, Informativeness and Advertising creativity towards organic food advertising. Please specify your general impressions. (ด้านล่างนี้คือ ข้อความเกี่ยวกับความดึงดูดใจทางอารมณ์ การให้ข้อมูล และความคิดสร้างสรรค์ในการโฆษณาที่มีต่อการโฆษณาอาหารออร์แกนิก โปรคระบุการแสดงผลทั่วไปของคุณ)

	Strongly Disagree ไม่เห็นด้วย อย่างยิ่ง	Disagree ไม่เห็นด้วย	Somewhat Disagree ค่อนข้าง ไม่เห็นด้วย	Neutral ปานกลาง	Somewhat Agree ค่อนข้าง เห็นด้วย	Agree เห็นด้วย	Strongly agree เห็นด้วยอย่าง ยิ่ง
After seeing this ad, I had intense feelings. (เห็นโฆษณานี้แล้วรู้สึก หนักใจ)							
I was emotionally attracted by the key message of this ad. (จัน รู้สึกประทับใจกับข้อความสำคัญของโฆษณานี้)							
The emotional aspect of this ad leads me to like the ad. (ด้าน อารมณ์ของโฆษณานี้ทำให้ฉันชอบโฆษณา)							
Information obtained from the ad would be useful. (ข้อมูลที่ได้รับจาก โฆษณาจะเป็นประโยชน์)							
I would learn a lot from using the ad. (จันจะได้เรียนรู้มากมายจากการใช้ โฆษณา)							
I think the information obtained from the ad would be helpful. (ฉันคิดว่าข้อมูลที่ได้รับจากโฆษณาจะเป็น ประโยชน์)							
The ad is unique. (โฆษณามี เอกลักษณ์)							
The ad is really out of ordinary. (โฆษณาไม่ธรรมดาจริงๆ)							
The ad is intriguing. (โฆษณามีความ น่าสนใจ)							
The ad is surprising. (โฆษณานั้นน่า ประหลาดใจ)							

Below are statements of product knowledge towards organic food products. Please specify your general impressions. (ด้านล่างนี้เป็นข้อความแสดงความรู้เกี่ยวกับผลิตภัณฑ์เกี่ยวกับความตั้งใจที่จะ ชื่อผลิตภัณฑ์อาหารอินทรีย์ โปรดระบุการแสดงผลทั่วไปของคุณ)

	Strongly Disagree ไม่เห็นด้วยอย่าง ซึ่ง	Disagree ไม่เห็นด้วย	Somewhat Disagree ค่อนข้าง ไม่เห็นด้วย	Neutral ปานกลาง	Somewhat Agree ค่อนข้าง เห็นด้วย	Agree เห็นด้วย	Strongly agree เห็นด้วย อย่างยิ่ง
I know a lot about organic food product. (ฉันรู้มากเกี่ยวกับผลิตภัณฑ์อาหาร ออร์แกนิก)							
I have great buying experience with an organic food product. (ฉันมีประสบการณ์การซื้อผลิตภัณฑ์อาหารออร์ แกนิกที่ยอดเยี่ยม)							
I am familiar with the organic food product. (ฉันกุ้นเคยกับผลิตภัณฑ์ อาหารออร์แกนิก)							
I understand the features and benefits of organic food product. (ฉันเข้าใจคุณสมบัติและประโยชน์ของผลิตภัณฑ์ อาหารออร์แกนิก)							
My knowledge about organic food product is better relative to the individuals that I know.  (ความรู้ของฉันเกี่ยวกับผลิตภัณฑ์อาหารออร์แก นิกนั้นคีกว่าเมื่อเทียบกับบุคคลที่ฉันรู้จัก)							

Below are statements of attitude towards the intention to purchase organic food products. Please specify your general impressions. (ด้านล่างนี้เป็นข้อความแสดงทัศนคติต่อความตั้งใจที่จะ ซื้อผลิตภัณฑ์อาหารอินทรีย์ โปรดระบุการแสดงผลทั่วไปของคุณ)

	Strongly Disagree ไม่เห็นค้วยอย่าง ชิ่ง	Disagree ไม่เห็นด้วย	Somewhat Disagree ค่อนข้าง ไม่เห็นด้วย	Neutral ปานกลาง	Somewhat Agree ค่อนข้าง เห็นด้วย	Agree เห็นด้วย	Strongly agree เห็นด้วย อย่างยิ่ง
Organic food products have lower chemical residues than ordinary foods. (ผลิตภัณฑ์อาหารออร์แกนิกมีสารเคมีตกค้าง ต่ำกว่าอาหารธรรมดา)							
Organic food products are safer to eat than ordinary foods. (ผลิตภัณฑ์อาหารออร์แก นิกปลอดภัยต่อการรับประทานมากกว่าอาหารธรรมดา)							
Organic food products are healthier to eat than ordinary foods. (ผลิตภัณฑ์ อาหารออร์แกนิกมีประโยชน์ต่อสุขภาพมากกว่าอาหาร ทั่วไป)							
Organic food products are tastes better than ordinary foods. (ผลิตภัณฑ์ อาหารออร์แกนิกมีรสชาติดีกว่าอาหารธรรมดา)							
Organic food products have superior quality than ordinary foods. (ผลิตภัณฑ์อาหารออร์แกนิกมีคุณภาพที่ เหนือกว่าอาหารธรรมดา)							
Organic food products are more expensive to eat than ordinary foods. (ผลิตภัณฑ์อาหารออร์แกนิกมีราคาแพงกว่า อาหารธรรมดา)							
Organic food products are more attractive to eat than ordinary foods. (ผลิตภัณฑ์อาหารออร์แกนิกนำกินกว่าอาหารธรรมคา)							

Below are statements of the subjective norm towards the intention to purchase organic food products. Please specify your general impressions. ด้านล่างนี้เป็นข้อความของบรรทัดฐานส่วนตัวที่ มีต่อความตั้งใจที่จะซื้อผลิตภัณฑ์อาหารออร์แกนิก โปรดระบุการแสดงผลทั่วไปของคุณ

	Strongly	Disagree	Somewhat	Neutral	Somewhat	Agree	Strongly
	Disagree ไม่เห็นด้วยอย่าง	ไม่เห็นด้วย	Disagree ค่อนข้าง	ปานกลาง	Agree ค่อนข้าง	เห็นด้วย	agree เห็นด้วย
	ยิ่ง		ไม่เห็นด้วย		เห็นด้วย		อย่างยิ่ง
The trend of purchasing organic							
food product among people							
around me is increasing. (แนวโน้มการ							
ซื้อผลิตภัณฑ์อาหารออร์แกนิกในหมู่ผู้คนรอบตัวฉัน							
เพิ่มขึ้น)							
People around me generally believe							
that it is better for health to use							
organic food product. (ผู้คนรอบตัวฉันมักเชื่อ							
ว่าการใช้ผลิตภัณฑ์อาหารออร์แกนิกดีต่อสุขภาพมากกว่า)							
My close friends and family							
members would appreciate if I							
purchase organic food product.							
(เพื่อนสนิทและสมาชิกในครอบครัวของฉันจะยินคี							
ถ้าฉันซื้อผลิตภัณฑ์อาหารออร์แกนิก)							
I would obtain all the required							
support (time, money, information							
related) from family and friends							
to. (ฉันจะได้รับการสนับสนุนที่จำเป็นทั้งหมด							
(เวลา เงิน ข้อมูลที่เกี่ยวข้อง) จากครอบครัวและเพื่อน							
f <sub>3</sub> )							

Below are statements of perceived behavioral control towards the intention to purchase organic food products. Please specify your general impressions. (ด้านล่างนี้เป็นข้อความแสดงการ ควบคุมพฤติกรรมที่มีต่อความตั้งใจที่จะซื้อผลิตภัณฑ์อาหารอินทรีย์ โปรคระบุการแสดงผลทั่วไปของคุณ)

	Strongly Disagree ไม่เห็นด้วยอย่าง ชิ่ง	Disagree ไม่เห็นด้วย	Somewhat Disagree ค่อนข้าง ไม่เห็นด้วย	Neutral ปานกลาง	Somewhat Agree ค่อนข้าง เห็นด้วย	Agree เห็นด้วย	Strongly agree เห็นด้วย อย่างยิ่ง
I can take the decision independently to purchase organic food product. (ลับสามารถ ตัดสินใจซื้อผลิตภัณฑ์อาหารออร์แกนิกได้อย่าง อิสระ)							
I have the financial capability to purchase organic food product. (ลันมี ความสามารถทางการเงินในการซื้อผลิตภัณฑ์อาหาร ออร์แกนิก)							
I have the time to go for purchasing organic food product. (ฉันมีเวลาไปซื้อผลิตภัณฑ์อาหาร ออร์แกนิก)							
I have complete information and awareness regarding where to purchase organic food product. (ฉันมีข้อมูลครบถ้วนและความตระหนักเกี่ยวกับ สถานที่ซื้อผลิตภัณฑ์อาหารออร์แกนิก)							
Organic food product is readily available in the location where I reside. (ผลิตภัณฑ์อาหารออร์แกนิกมีขายใน พื้นที่ที่ฉันอาศัยอยู่)							
I can handle any (time, money, information related) difficulties related to my purchasing decision. (ฉันสามารถจัดการกับปัญหาใดๆ (เวลา เงิน ข้อมูลที่เกี่ยวข้อง) ที่เกี่ยวข้องกับการ ตัดสินใจซื้อของฉันได้)							

Below are statements of intention to purchase organic food products. Please specify your general impressions. (ด้านล่างนี้คือข้อความแสดงความจำนงในการซื้อผลิตภัณฑ์อาหารออร์แกนิก โปรดระบุการ แสดงผลทั่วไปของคุณ)

	Strongly Disagree ไม่เห็นด้วยอย่าง ยิ่ง	Disagree ไม่เห็นด้วย	Somewhat Disagree ค่อนข้าง ไม่เห็นด้วย	Neutral ปานกลาง	Somewhat Agree ค่อนข้าง เห็นด้วย	Agree เห็นด้วย	Strongl y agree เห็นด้วย อย่างยิ่ง
I would look for specialty shops to purchase organic food products. (ฉันจะมอง หาร้านค้าพิเศษเพื่อชื่อผลิตภัณฑ์อาหารออร์แกนิก)							
I am willing to purchase organic food products in the future. (ฉันอินดีที่จะซื้อผลิตภัณฑ์ อาหารออร์แกนิกในอนาคต)							
I am willing to purchase organic food products on a regular basis. (ฉันอินดีที่จะชื่อผลิตภัณฑ์ อาหารออร์แกนิกเป็นประจำ)							
I would also recommend others to purchase organic food products. (จันยัง อยากจะแนะนำให้คนอื่นชื่อผลิตภัณฑ์อาหารออร์แกนิก)							

Below are statements of the actual purchase behaviour towards organic food products. Please specify your general impressions. (ด้านล่างนี้เป็นข้อความแสดงพฤติกรรมการซื้อผลิตภัณฑ์อาหารออร์แก นิก โปรดระบุการแสดงผลทั่วไปของคุณ)

	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง	Disagree ไม่เห็นด้วย	Somewh at Disagre e ค่อนข้าง ไม่เห็นด้วย	Neutral ปานกลาง	Somewhat Agree ค่อนข้าง เห็นด้วย	Agree เห็นด้วย	Strongly agree เห็นด้วยอย่าง ซึ่ง
I often purchase organic food products. (ฉันมักจะชื้อผลิตภัณฑ์อาหารออร์แกนิก)							
I often purchase organic food products on regular basics. (สันมักจะ							
ชื่อผลิตภัณฑ์อาหารออร์แกนิกเป็นประจำ)  I often purchase organic food products because they are more environmentally friendly. (ฉันมักจะชื่อ ผลิตภัณฑ์อาหารออร์แกนิกเพราะเป็นมิตรกับ สิ่งแวคล้อมมากกว่า)							
I often purchase organic food products that against animaltesting. (ฉันมักจะซื้อผลิตภัณฑ์อาหารออร์แกนิก ที่ไม่ผ่านการทคสอบกับสัตว์)							
I often purchase organic food products that are safety to consume. (ฉันมักจะชื่อผลิตภัณฑ์อาหารออร์แก นิกที่ปลอดภัยในการบริโภค)							
I often purchase organic food products for my health. (ฉันมักจะซื้อ ผลิตภัณฑ์อาหารออร์แกนิกเพื่อสุขภาพของฉัน)							

food advertising, plea	esearcner runy understand about your opinion on the element or ase answer the following questions. (เพื่อช่วยให้ผู้วิจัยเข้าใจอย่างถ่องแท้เกี่ยวกับ เริงลงองการจัดกรอบข้อความเชิงบวกโปรคตอบคำถามต่อไปนี้)
Your gender (เพศของกุณ)	Female (เพศหญิง) Male (เพศชาย) Others (อื่นๆ)
Your age (อายุของคุณ)	Under 18 (ต่ำกว่า 18)
	41-50 51-60 above 60 (มากกว่า 60)
Please state the higher ได้รับ)	est level of education you have obtained. (โปรดระบุระดับการศึกษาสูงสุดที่คุณ
Primary school (	ระดับประถม) Middle primary school (ระดับมัธยมตั้น)
Senior High Sch	ool (ระดับชั้นมัธยมตอนปลาย)
Vocational Certi	ficate (Voc. Cert.) (ประกาศนียบัตรวิชาชีพ (ปวช.))
Diploma/High V	ocational Certificate (Dip./High Voc. Cert.) (ประกาศนียบัตรวิชาชีพชั้นสูง
Undergraduate (	ระดับปริญญาตรี) Postgraduate or above (สูงกว่าปริญญาตรีขึ้นไป)
	suitable option below indicating your employment status (Choose อกที่เหมาะสมที่สุดด้านล่างเพื่อระบุสถานะการจ้างงานของคุณ (เลือกเพียงข้อเดียว))
I am currently emplo (ปัจจุบันฉันมีงานทำ)	yed I am not currently employed (ตอนนี้ฉันไม่ได้ทำงาน)
Top executive or	manager (ผู้บริหารระดับสูงหรือผู้จัดการ)
Owner of a busin	ess (เจ้าของภูรกิจ)
	r architect (ทนายความทันตแพทย์หรือสถาปนิก) 🔲 Retired (เกษียณแล้ว)
	affs (เจ้าหน้าที่สำนักงาน / ธุรการ)
Worker (คนงาน)	
L Civil servant (ข้าราช	·
Craftsman (ช่างฝีมือ	
Other (อื่นๆ)	
=	again for your cooperation and taking your precious time! (ขอขอบคุณอีกครั้งสำหรับความร่วมมือและสละเวลาอันมีค่าของคุณ!)

## **Appendix B: Skewness and Kurtosis for each item**

Emotional\_appeal items skewness and kurtosis

	Statistics								
		Emotional_ap	Emotional_ap	Emotional_ap peal 3					
N	Valid	900	900	900					
	Missing	0	0	0					
Skewness		644	560	565					
Std. Error of	Skewness	.082	.082	.082					
Kurtosis		272	234	257					
Std. Error of	Kurtosis	.163	.163	.163					

#### Informativeness items skewness and kurtosis

		Statistic	S	
		Informativene ss1	Informativen ess 2	Informativen ess 3
N	Valid	900	900	900
	Missing	0	0	0
Skewness		830	561	697
Std. Error of	Skewness	.082	.082	.082
Kurtosis		099	405	363
Std. Error of	Kurtosis	.163	.163	.163

Advertising\_creativity items skewness and kurtosis

	Statistics									
		Advertising_	Advertising Advertising Adverti		Advertising_					
		creativity 1	creativity 2	creativity 3	creativity 4					
N	Valid	900	900	900	900					
	Missing	0	0	0	0					
Skewness		507	319	448	087					
Std. Error of	Skewness	.082	.082	.082	.082					
Kurtosis		761	831	766	957					
Std. Error of	Kurtosis	.163	.163	.163	.163					

Product\_knowledge items skewness and kurtosis

Statistics									
		Product_k	Product_k	Product_k	Product_k	Product_k			
		nowledge	nowledge	nowledge	nowledge	nowledge			
		1	2	3	4	5			
N	Valid	900	900	900	900	900			
	Missing	0	0	0	0	0			
Skewness		049	066	113	337	113			
Std. Error of	Skewness	.082	.082	.082	.082	.082			
Kurtosis		762	909	920	822	929			
Std. Error of	Kurtosis	.163	.163	.163	.163	.163			

#### Attitude items skewness and kurtosis

Statistics										
		Attitude								
		1	2	3	4	5	6	7		
N	Valid	900	900	900	900	900	900	900		
	Missing	0	0	0	0	0	0	0		
Skewness	8	348	618	607	146	475	760	225		
Std. Error	of Skewness	.082	.082	.082	.082	.082	.082	.082		
Kurtosis		-1.068	612	581	745	702	543	754		
Std. Error	of Kurtosis	.163	.163	.163	.163	.163	.163	.163		

Subjective\_norm items skewness and kurtosis

Statistics									
		Subjective_n	Subjective_n	Subjective_n	Subjective_n				
		orm 1	orm 2	orm 3	orm 4				
N	Valid	900	900	900	900				
	Missing	0	0	0	0				
Skewnes	S	161	236	132	056				
Std. Erro	r of Skewness	.082	.082	.082	.082				
Kurtosis		895	819	830	722				
Std. Erro	r of Kurtosis	.163	.163	.163	.163				

Perceived\_behavioral\_control items skewness and kurtosis

			Statis	tics			
		Perceiv	Perceive	Perceive	Perceive	Perceive	Perceive
		ed_beha	d_behav	d_behav	d_behav	d_behav	d_behav
		vioral_c	ioral_co	ioral_co	ioral_co	ioral_co	ioral_co
		ontrol	ntrol	ntrol	ntrol	ntrol	ntrol
N	Valid	900	900	900	900	900	900
	Missing	0	0	0	0	0	0
Skewness		708	507	402	287	316	461
Std. Error of S	Skewness	.082	.082	.082	.082	.082	.082
Kurtosis		609	735	781	753	899	748
Std. Error of H	Kurtosis	.163	.163	.163	.163	.163	.163

Intention\_purchase items skewness and kurtosis

intention_parenase items skewness and kartosis									
Statistics									
		Intention_pur	Intention_pur	Intention_pur	Intention_pur				
		chase 1	chase 2	chase 3	chase 4				
N	Valid	900	900	900	900				
	Missing	0	0	0	0				
Skewness		064	342	180	266				
Std. Error of	Skewness	.082	.082	.082	.082				
Kurtosis		907	860	914	863				
Std. Error of	Kurtosis	.163	.163	.163	.163				

Actual\_purchase\_behaviour items skewness and kurtosis

			Sta	tistics			
		Actual_pu	Actual_purc	Actual_purcha	Actual_purch	Actual_purc	Actual_pur
		rchase_be	hase_behav	se_behaviour	ase_behaviou	hase_behav	chase_be
		haviour 1	iour 2	3	r 4	iour 5	haviour 6
N	Valid	900	900	900	900	900	900
	Missing	0	0	0	0	0	0
Skewness		.064	.097	026	007	226	227
Std. Error of	Skewness	.082	.082	.082	.082	.082	.082
Kurtosis		991	991	-1.099	-1.063	-1.156	-1.131
Std. Error of	Kurtosis	.163	.163	.163	.163	.163	.163

## **Appendix C: Eigenvalues**

#### 1. Eigenvalues for Emotional\_appeal

Total Variance Explained									
		Initial Eigenvalu	es	Extraction	Extraction Sums of Squared Loadings				
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %			
1	2.686	89.527	89.527	2.539	84.636	84.636			
2	.224	7.474	97.000						
3	.090	3.000	100.000						
Extraction	Extraction Method: Principal Axis Factoring.								

#### 2. Eigenvalues for Informativeness

Total Variance Explained									
		Initial Eigenvalu	es	Extraction	Extraction Sums of Squared Loadings				
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %			
1	2.774	92.473	92.473	2.664	88.810	88.810			
2	.150	5.008	97.481						
3	.076	2.519	100.000						
Extraction	n Method: Pri	ncipal Axis Factori	ng.						

#### 3. Eigenvalues for Advertising\_creativity

	Total Variance Explained									
		Initial Eigenvalu	es	Extraction	Extraction Sums of Squared Loadings					
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %				
1	3.507	87.666	87.666	3.361	84.030	84.030				
2	.318	7.940	95.606							
3	.102	2.541	98.147							
4	.074	1.853	100.000							
Extraction	n Method: Pri	ncipal Axis Factori	ng.							

#### 4. Eigenvalues for Product\_knowledge

	Total Variance Explained													
		Initial Eigenvalu	es	Extraction	Extraction Sums of Squared Loadings									
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %								
1	4.373	87.459	87.459	4.218	84.356	84.356								
2	.221	4.417	91.876											
3	.171	3.424	95.300											
4	.153	3.055	98.355											
5	.082	1.645	100.000											
Extraction	n Method: Pri	ncipal Axis Factori	na.			Extraction Method: Principal Axis Factoring.								

5. Eigenvalues for Attitude

	Total Variance Explained									
	Initial Eigenvalues			Extraction	Extraction Sums of Squared Loadings					
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %				
1	5.445	77.782	77.782	5.201	74.306	74.306				
2	.509	7.269	85.051							
3	.361	5.164	90.214							
4	.290	4.146	94.361							
5	.160	2.286	96.647							
6	.137	1.955	98.602							
7	.098	1.398	100.000							
Extraction	n Method: Pri	ncipal Axis Factori	ng.							

6. Eigenvalues for Subjective\_norm

Total Variance Explained									
		Initial Eigenvalu	es	Extraction	Extraction Sums of Squared Loadings				
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %			
1	3.342	83.549	83.549	3.140	78.495	78.495			
2	.351	8.765	92.313						
3	.203	5.080	97.393						
4	.104	2.607	100.000						
Extraction	n Method: Pri	ncipal Axis Factori	ng.						

7. Eigenvalues for Perceived\_behavioral\_control

	Total Variance Explained									
		Initial Eigenvalu	es	Extraction	Extraction Sums of Squared Loadings					
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %				
1	5.018	83.640	83.640	4.825	80.424	80.424				
2	.375	6.247	89.887							
3	.184	3.071	92.958							
4	.178	2.975	95.932							
5	.127	2.115	98.047							
6	.117	1.953	100.000							
Extraction	n Method: Pri	ncipal Axis Factori	ng.			•				

#### 8. Eigenvalues for Intention\_purchase

Total Variance Explained										
		Initial Eigenvalu	ies	Extraction	on Sums of Square	ed Loadings				
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %				
1	3.637	90.929	90.929	3.518	87.952	87.952				
2	.172	4.294	95.223							
3	.102	2.562	97.786							
4	.089	2.214	100.000							
Extraction	n Method: Pri	ncipal Axis Factori	ng.							

9. Eigenvalues for Actual purchase behaviour

<u> </u>	5. Eigenvalues for Actual_purchase_benaviour										
	Total Variance Explained										
		Initial Eigenvalu	es	Extraction	on Sums of Square	ed Loadings					
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %					
1	5.225	87.087	87.087	5.072	84.541	84.541					
2	.362	6.037	93.125								
3	.207	3.456	96.580								
4	.089	1.476	98.056								
5	.069	1.146	99.202								
6	.048	.798	100.000								
Extraction	n Method: Pri	ncipal Axis Factori	ng.								

## Appendix D. Kolmogrov-Smirnov and Shapiro-Walk

1. Emotional\_appeal items Kolmogorov-Smirnov and Shapiro-Walk

	Tests of Normality									
	Kolmo	ogorov-Smirr	nov <sup>a</sup>	Shapiro-Wilk						
	Statistic	df	Sig.	Statistic	df	Sig.				
After seeing	.160	900	.000	.894	900	.000				
this ad, I										
had intense										
feelings.										
I was	.155	900	.000	.924	900	.000				
emotionally										
attracted by										
the key										
message of										
this ad.										
The	.165	900	.000	.924	900	.000				
emotional										
aspect of										
this ad										
leads me to										
like the ad.										
a. Lilliefors Siç	gnificance Cor	rection								

2. Informativeness items Kolmogorov-Smirnov and Shapiro-Walk

Tests of Normality								
	Kolmo	gorov-Smi	rnov <sup>a</sup>	Shapiro-Wilk				
	Statistic	df	Sig.	Statistic	df	Sig.		
Information	.208	900	.000	.883	900	.000		
obtained from the								
ad would be useful.								
I would learn a lot	.168	900	.000	.918	900	.000		
from using the ad.								
I think the	.201	900	.000	.897	900	.000		
information								
obtained from the								
ad would be								
helpful.								
a. Lilliefors Significar	nce Correction	า						

3. Advertising\_creativity items Kolmogorov-Smirnov and Shapiro-Walk

Tests of Normality									
	Kolm	ogorov-Sn	nirnov <sup>a</sup>		Shapiro-Wilk				
	Statistic	df	Sig.	Statistic	df	Sig.			
The ad is unique	.176	900	.000	.912	900	.000			
The ad is really out of ordinary.	.140	900	.000	.932	900	.000			
The ad is intriguing.	.165	900	.000	.919	900	.000			
The ad is surprising.	.129	900	.000	.938	900	.000			
a. Lilliefors Significance	Correction								

#### $4. \quad Product\_knowledge \ items \ Kolmogorov-Smirnov \ and \ Shapiro-Walk$

Tests of Normality									
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk					
	Statistic	df	Sig.	Statistic	df	Sig.			
I know a lot about	.158	900	.000	.939	900	.000			
organic food product.									
I have great buying	.129	900	.000	.940	900	.000			
experience with an									
organic food product.									
I am familiar with the	.130	900	.000	.940	900	.000			
organic food product.									
I understand the	.141	900	.000	.930	900	.000			
features and benefits									
of organic food									
product.									
My knowledge about	.125	900	.000	.941	900	.000			
organic food product									
is better relative to									
the individuals that I									
know.									
a. Lilliefors Significanc	e Correction								

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#### 5. Attitude items Kolmogorov-Smirnov and Shapiro-Walk

	•	Tests of	Normality	у		
	Kolmog	gorov-Smirı	nov <sup>a</sup>	Sh	napiro-Wilk	
	Statistic	df	Sig.	Statistic	df	Sig.
Organic food	.161	900	.000	.911	900	.000
products have						
lower chemical						
residues than						
ordinary foods.						
Organic food	.191	900	.000	.899	900	.000
products are						
safer to eat						
than ordinary						
foods.						
Organic food	.185	900	.000	.904	900	.000
products are						
healthier to eat						
than ordinary						
foods.						
Organic food	.146	900	.000	.942	900	.000
products are						
tastes better						
than ordinary						
foods.						
Organic food	.158	900	.000	.920	900	.000
products have						
superior quality						
than ordinary						
foods.						
Organic food	.211	900	.000	.866	900	.000
products are						
more expensive						
to eat than						
ordinary foods.						
Organic food	.130	900	.000	.940	900	.000
products are						
more attractive						
to eat than						
ordinary foods.						
a. Lilliefors Signifi	icance Correcti	ion				

#### 6. Subjective\_norm items Kolmogorov-Smirnov and Shapiro-Walk

		Tests o	f Norma	lity		
	Kolmogo	orov-Smirnov	v <sup>a</sup>	S	Shapiro-Wilk	
	Statistic	df	Sig.	Statistic	df	Sig.
The trend of	.153	900	.000	.925	900	.000
purchasing						
organic food						
product among						
people around						
me is increasing.						
People around	.141	900	.000	.936	900	.000
me generally						
believe that it is						
better for health						
to use organic						
food product.						
My close friends	.147	900	.000	.939	900	.000
and family						
members would						
appreciate if I						
purchase organic						
food product.						
I would obtain all	.145	900	.000	.946	900	.000
the required						
support (time,						
money,						
information						
related) from						
family and friends						
to.						
a. Lilliefors Significa	ance Correction					

#### 7. Perceived\_behavioral\_control items Kolmogorov-Smirnov and Shapiro-Walk

	Tests of Normality								
	Kolmog	orov-Smirn	nov <sup>a</sup>	Shapiro-Wilk					
	Statistic	df	Sig.	Statistic	df	Sig.			
I can take the decision	.217	900	.000	.874	900	.000			
independently to									
purchase organic food									
product.									
I have the financial	.173	900	.000	.912	900	.000			
capability to purchase									
organic food product.									
I have the time to go	.162	900	.000	.925	900	.000			
for purchasing organic									
food product.									
I have complete	.138	900	.000	.937	900	.000			
information and									
awareness regarding									
where to purchase									
organic food product.									
Organic food product	.151	900	.000	.928	900	.000			
is readily available in									
the location where I									
reside									
I can handle any (time,	.167	900	.000	.917	900	.000			
money, information									
related) difficulties									
related to my									
purchasing decision.									

#### 8. Intention\_purchase items Kolmogorov-Smirnov and Shapiro-Walk

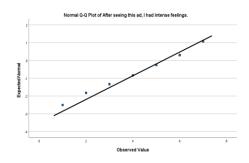
	Tests of Normality									
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk						
	Statistic	df	Sig.	Statistic	df	Sig.				
I would look for	.142	900	.000	.939	900	.000				
specialty shops to										
purchase organic										
food products.										
I am willing to	.152	900	.000	.927	900	.000				
purchase organic										
food products in the										
future.										
I am willing to	.142	900	.000	.935	900	.000				
purchase organic										
food products on a										
regular basis.										
I would also	.142	900	.000	.931	900	.000				
recommend others to										
purchase organic										
food products.										
a. Lilliefors Significanc	e Correction									

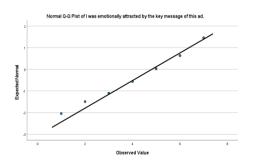
#### 9. Actual\_purchase\_behaviour items Kolmogorov-Smirnov and Shapiro-Walk

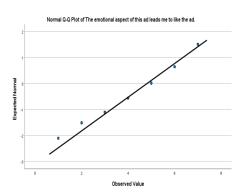
		Tests of	Normalit	y		
	Kolmo	ogorov-Smirr	10V <sup>a</sup>		Shapiro-W	ilk
	Statistic	df	Sig.	Statistic	df	Sig.
I often purchase	.128	900	.000	.938	900	.000
organic food						
products.						
I often purchase	.126	900	.000	.937	900	.000
organic food						
products on regular						
basics.						
I often purchase	.135	900	.000	.932	900	.000
organic food						
products because						
they are more						
environmentally						
friendly.						
I often purchase	.128	900	.000	.933	900	.000
organic food						
products that against						
animal-testing.						
I often purchase	.167	900	.000	.915	900	.000
organic food						
products that are						
safety to consume.						
I often purchase	.159	900	.000	.917	900	.000
organic food						
products for my						
health.						
a. Lilliefors Significanc	e Correction					

## **Appendix E. Normal plots**

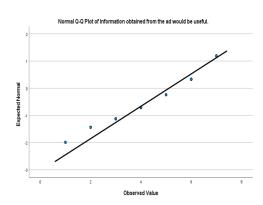
#### 1. Emotional appeal items normal plots

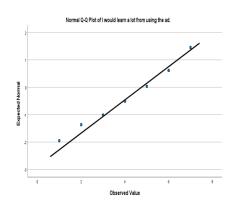


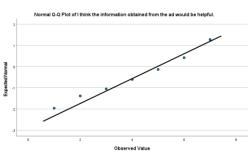




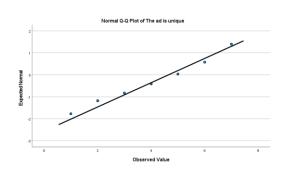
#### 2. Informativeness items normal plots

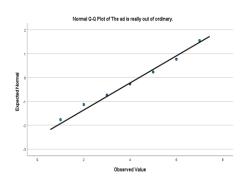


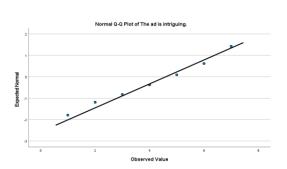


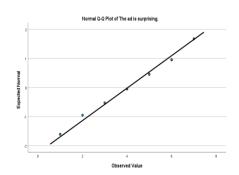


#### 3. Advertising creativity items normal plots

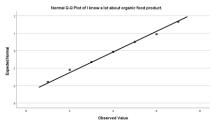


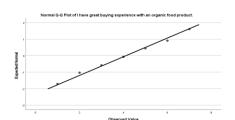


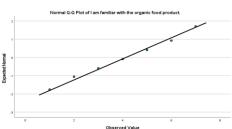


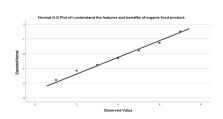


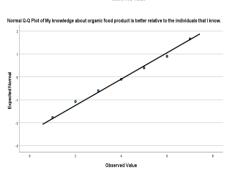
#### 4. Product knowledge items normal plots



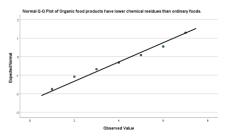


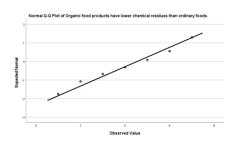


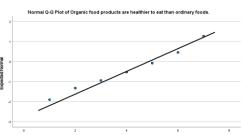


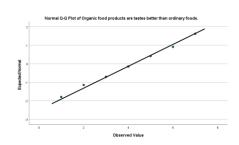


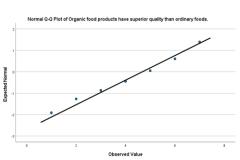
#### 5. Attitude items normal plots

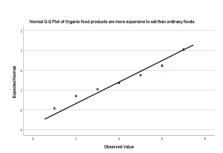


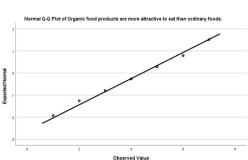




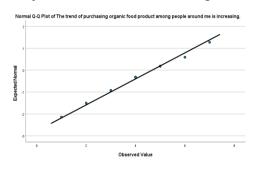


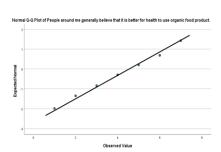


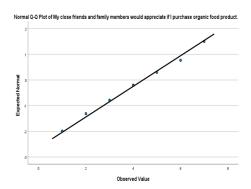


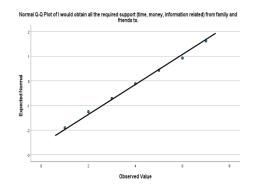


#### 6. Subjective norm items normal plots

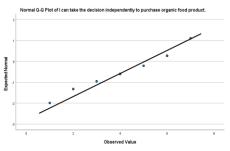


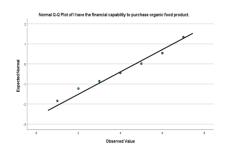


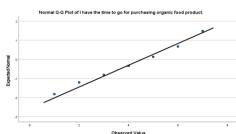


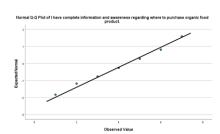


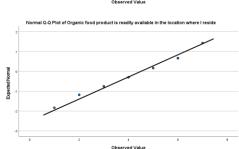
#### 7. Perceived behavioural control items normal plots

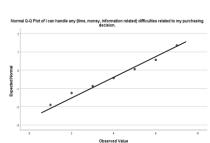




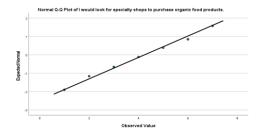


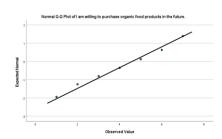


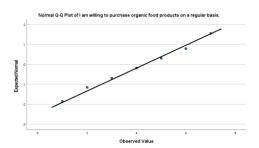


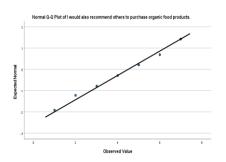


#### 8. Intention to purchase items normal plots

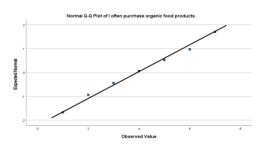


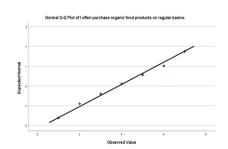




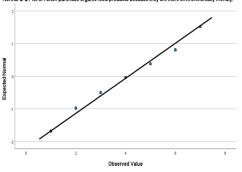


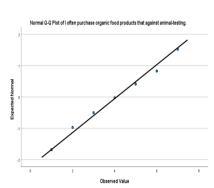
#### 9. Actual purchase behaviour items normal plots

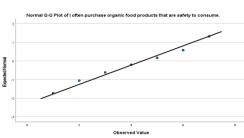


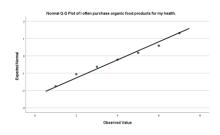












## **Appendix F: Introduction message for the online survey,**

# Reminder message for online survey and Reminder message for online survey (Final reminder)

#### **Introduction message for the online survey**

(ข้อความแนะนำสำหรับการสำรวจออนไลน์)

Hi everybody is pariticipating in examining the impacts of the food advertising contents (emotional appeal, informativeness and advertising creativity), attitude, subjective norm, perceived behavioral control, product knowledge help the researcher understand the purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB). Moreover, the survey investigates the moderating effects of gender on the various relationships between the impacts of food advertising content and product knowledge

(สวัสดีทุกคนกำลังมีส่วนร่วมในการตรวจสอบผลกระทบของเนื้อหาโฆษณาอาหาร (การดึงดูดทางอารมณ์ ข้อมูล และความคิดสร้างสรรค์ในการโฆษณา) ทัศนคติ บรรทัดฐานส่วนตัว การรับรู้การควบคุมพฤติกรรม ความรู้เกี่ยวกับผลิตภัณฑ์ช่วยให้ผู้วิจัยเข้าใจความตั้งใจในการซื้อและพฤติกรรมการซื้อที่เกิดขึ้นจริงต่ออาหารออร์แกนิก เรื่องทฤษฎีพฤติกรรมการวางแผน (TPB) นอกจากนี้ การสำรวจยังตรวจสอบผลกระทบของเพศต่อความสัมพันธ์ต่างๆ ระหว่างผลกระทบของเนื้อหาโฆษณาอาหารและความรู้เกี่ยวกับผลิตภัณฑ์ที่เกี่ยวข้องกับ TPB)

The researcher would like to gain insight into how the food advertising contents, attitude, subjective norm, perceived behavioral control, product knowledge and the moderating effects of gender are used to help the researcher improve consumers purchase intention and actual purchase behavior toward organic foods, based on the Theory of planned behavior (TPB).

(ผู้วิจัยต้องการทราบข้อมูลเซิงลึกว่าเนื้อหาโฆษณาอาหาร ทัศนคติ บรรทัดฐานเชิงอัตนัย การรับรู้การควบคุมพฤติกรรม ความรู้เกี่ยวกับผลิตภัณฑ์และผลกระทบในการควบคุมเพศถูกนำมาใช้เพื่อช่วยให้ผู้วิจัยปรับปรุงความตั้งใจในการซื้อของผู้บริโภคแ ละพฤติกรรมการซื้อจริงต่ออาหารออร์แกนิกได้อย่างไร ที่เกี่ยวข้องกับทฤษฎีพฤติกรรมการวางแผน (TPB)

Please complete this survey before Friday, April 15<sup>th</sup>, 2022 Click on the link below to get started! <a href="https://forms.gle/ct74pKm4hKjX9RR48">https://forms.gle/ct74pKm4hKjX9RR48</a>

(โปรดตอบแบบสำรวจนี้ก่อนวันศุกร์ที่ 15 เมษายน 2022 คลิกลิงก์ด้านล่างเพื่อเริ่มต้น https://forms.gle/ct74pKm4hKjX9RR48)

As reward, you will receive £3 cash (150 Bath) after you have filled in the survey.

(เพื่อเป็นรางวัล คุณจะ ได้รับเงินสด 3 ปอนค์ (150 บาท) หลังจากกรอกแบบสำรวจแล้ว)

While your participation is voluntary, I strongly recommend that you take the survey because your feedback will help to increase organic food sales in Thailand.

(แม้ว่าการเข้าร่วมจะเป็นไปโดยสมัครใจ แต่ฉันขอแนะนำให้คุณทำแบบสำรวจนี้ เนื่องจากความคิดเห็นของคุณจะช่วยเพิ่มยอดขายอาหารออร์แกนิกในประเทศไทย)

The survey will be open for three weeks starting at 15/11/2021 and can be completed online.

(แบบสำรวจนี้จะเปิดเป็นเวลาสามสัปดาห์เริ่มตั้งแต่วันที่ 15/11/2021 และสามารถตอบแบบออนไลน์ได้)

The research thanks you for your contribution to this important initiative.

(การวิจัยขอขอบคุณสำหรับการสนับสนุนโครงการริเริ่มที่สำคัญนี้)

If you face any issues or have questions, please do not hesitate to contact me directly at CS1093@live.mdx.ac.uk

(หากคุณประสบปัญหาหรือมีคำถามใดๆ โปรดอย่าลังเลที่จะติดต่อฉันโดยตรงที่ CS1093@live.mdx.ac.uk)

Yours sincerely

Chokchai Srianan

Department of Marketing, Branding and Tourism

The Business School

Middlesex University London

Hendon – NW4 4BT London

Reminder message for online survey

(ข้อความแจ้งเตือนสำหรับการสำรวจออนไลน์)

Hi, Everyone

(สวัสดีทุกคน)

I hope this message reaches you well. I would like to express my gratitude for those who have already participated in my online survey for purchase intentions and actual purchase behavior toward organic food. For those who haven't had a chance yet, I kindly remind you that the investigation will be closed soon.

(ฉันหวังว่าข้อความนี้จะส่งถึงคุณด้วยดีฉันขอขอบคุณผู้ที่ร่วมทำแบบสำรวจออนไลน์เกี่ยวกับความตั้งใจในการซื้อและพฤติกรรมการซื้ ออาหารออร์แกนิกจริงของฉัน สำหรับผู้ที่ยังไม่ได้ทำแบบสำรวจออนไลน์นี้ ฉันขอย้ำเตือนว่าแบบสำรวจออนไลน์นี้จะปิดตัวลงในเร็วๆ

นี้)

Your feedback is instrumental in increasing organic food sales in Thailand. In addition, it can make meaningful improvements. I guarantee you that all responses will be kept confidential and used solely for the purpose of analysis.

(ความคิดเห็นของคุณมีส่วนช่วยในการเพิ่มยอดขายอาหารออร์แกนิกในประเทศไทย นอกจากนี้ยังสามารถปรับปรุงให้ดีขึ้นได้ ฉันรับประกันว่าคำตอบทั้งหมดจะถูกเก็บเป็นความลับและใช้เพื่อวัตถุประสงค์ในการวิเคราะห์เท่านั้น)

The survey only takes a few minutes to complete and I value every response I received.

(แบบสำรวจใช้เวลาเพียงไม่กี่นาทีในการตอบแบบสอบถาม และฉันก็ให้ความสำคัญกับทุกคำตอบที่ได้รับ)

Your insights are important for me. Please take some time to share your thoughts before the survey is over.

(ข้อมูลเชิงลึกของคุณมีความสำคัญสำหรับฉัน โปรคสละเวลาแบ่งปั่นความคิดเห็นของคุณก่อนที่แบบสำรวจจะสิ้นสุด)

Survey Link: https://forms.gle/ct74pKm4hKjX9RR48

(ถึงค์แบบสำรวจ: https://forms.gle/ct74pKm4hKjX9RR48)

Thank you for your time and valuable feedback.

(ขอบคุณสำหรับเวลาและข้อเสนอแนะอันมีค่าของคุณ)

As reward, you will receive £3 cash (150 Bath) after you have filled in the survey.

(เพื่อเป็นรางวัล คุณจะ ได้รับเงินสด 3 ปอนค์ (150 บาท) หลังจากกรอกแบบสำรวจแล้ว)

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If you face any issues or have questions, please do not hesitate to contact me directly at CS1093@live.mdx.ac.uk

(หากคุณประสบปัญหาหรือมีคำถามใดๆ โปรดอย่าลังเลที่จะติดต่อฉันโดยตรงที่ CS1093@live.mdx.ac.uk)

Yours sincerely

Chokchai Srianan

Department of Marketing, Branding and Tourism

The Business School

Middlesex University London

Hendon – NW4 4BT London

#### Reminder message for online survey

(ข้อความแจ้งเตือนสำหรับการสำรวจออนไลน์)

Hi, Everyone (สวัสดีทุกคน)

I would like to thank all the people who have participated in my online survey for purchase intentions and actual purchase behavior toward organic food so far. Your contribution is commendable.

(ฉันขอขอบคุณทุกคนที่มีส่วนร่วมในการสำรวจออนไลน์ของฉันสำหรับความตั้งใจในการซื้อและพฤติกรรมการซื้ออาหารออร์แกนิกที่เ กิดขึ้นจริงจนถึงตอนนี้ การมีส่วนร่วมของคุณน่ายกย่อง)

For those who haven't joined yet, we would like to remind you to check your email, Facebook, Messenger and Lines application inbox for a personalized survey link to share your ideas. (สำหรับผู้ที่ยังไม่ได้ทำแบบสำรวจออนไลน์นี้ เราขอเดือนให้คุณตรวจสอบอีเมล, Facebook, Messenger และกล่องจดหมายของแอปพลิเคชัน Lines เพื่อรับลิงก์แบบสำรวจส่วนตัวเพื่อแชร์แนวคิดของคุณ)

Your feedback it is necessary in shaping my future initiatives and instrumental in increasing organic food sales in Thailand.

(ความคิดเห็นของคุณมีความจำเป็นต่อการกำหนดความคิดริเริ่มในอนาคตของฉันและเป็นเครื่องมือในการเพิ่มยอดขายอาหารออร์แกนิก ในประเทศไทย)

Please take some time to share your insights. Your information is very valuable to me.

Survey Link: https://forms.gle/ct74pKm4hKjX9RR48

(โปรดใช้เวลาสักครู่เพื่อแบ่งปันข้อมูลเชิงลึกของคุณ ข้อมูลของคุณมีค่ามากสำหรับฉันลิงค์แบบสำรวจ: https://forms.gle/ct74pKm4hKjX9RR48)

As reward, you will receive £3 cash (150 Bath) after you have filled in the survey. (เพื่อเป็นรางวัล คุณจะ ได้รับเงินสด 3 ปอนด์ (150 บาท) หลังจากกรอกแบบสำรวจแล้ว)

Thank you for your ongoing support. (ขอบคุณสำหรับการสนับสนุนอย่างต่อเนื่องของคุณ)

If you face any issues or have questions, please do not hesitate to contact me directly at <a href="mailto:CS1093@live.mdx.ac.uk">CS1093@live.mdx.ac.uk</a> (หากคุณประสบปัญหาหรือมีคำถามใดๆ โปรดอย่าลังเลที่จะติดต่อฉันโดยตรงที่

CS1093@live.mdx.ac.uk)

Yours sincerely

Chokchai Srianan

Department of Marketing, Branding and Tourism

The Business School

Middlesex University London

Hendon – NW4 4BT London

#### Reminder message for online survey (Final reminder)

(ข้อความแจ้งเตือนสำหรับแบบสำรวจออนไลน์ (คำเตือนครั้งสุดท้าย)

Hi everyone

(สวัสดีทุกคน)

You were recently invited to participate in an end-of-program survey. This survey aims to collect information about customers' purchase intention and actual purchase behavior toward organic foods.

(คุณได้รับเชิญให้เข้าร่วมการสำรวจก่อนสิ้นสุดการสำรวจครั้งนี้เมื่อเร็วๆ นี้ แบบสำรวจนี้มีวัตถุประสงค์เพื่อรวบรวมข้อมูลเกี่ยวกับความตั้งใจซื้อของลูกค้าและพฤติกรรมการซื้ออาหารออร์แกนิกที่เกิดขึ้นจริง)

If you have already filled out the survey thank you for taking the time. If you haven't replied yet, there is still time to express your valuable feedbank. Please complete this survey before Friday, April 15th 2022 (before midnight the UK Time.). Click on the link below to get started! https://forms.gle/ct74pKm4hKjX9RR48 หากคุณได้กรอกแบบสำรวจแล้ว (ขอขอบคุณที่สละเวลา หากคุณยังไม่ได้ตอบกลับ ยังมีเวลาที่จะแสดงความคิดเห็นอันมีค่าของคุณ

โปรคตอบแบบสำรวจนี้ก่อนวันศุกร์ที่ 15 เมษายน 2022 (กก่อนเที่ยงคืนตามเวลาของประเทศสหราชอาณาจักร) คลิกที่ลิงค์ด้านล่างเพื่อเริ่มต้น! https://forms.gle/ct74pKm4hKjX9RR48)

As reward, you will receive £3 cash (150 Bath) after you filled in the survey. (เพื่อเป็นรางวัล คุณจะได้รับเงินสด 3 ปอนด์ (150 บาท) หลังจากกรอกแบบสำรวจแล้ว)

As always, your answers are confidential, and only aggregate data will be reported to the researcher.

(และเช่นเคย คำตอบของคุณเป็นความลับ และจะมีเพียงข้อมูลรวมเท่านั้นที่จะถูกรายงานไปยังผู้วิจัย)

I encourage you to take the survey and leave your feedback. (ฉันขอแนะนำให้คุณทำแบบสำรวจและแสดงความคิดเห็น)

If you face any issues or have questions, please do not hesitate to contact me directly at <a href="mailto:CS1093@live.mdx.ac.uk">CS1093@live.mdx.ac.uk</a>

(หากคุณประสบปัญหาหรือมีคำถามใดๆ โปรดอย่าลังเลที่จะติดต่อฉันโดยตรงที่ CS1093@live.mdx.ac.uk)

Yours sincerely

Chokchai Srianan

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