

## **INVESTIGATION OF FACTORS INFLUENCING PURCHASE INTENTION OF ORGANIC FOOD IN BANGKOK, THAILAND**

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### **Abstract**

Concerning health and environmental issues, organic foods become of particular interest for consumers in making a decision to buy food products nowadays. The organic foods market in Thailand appears to be in the early stage, compared to western countries. This calls for the empirical studies that help improving and understanding the organic foods market in Thailand. Hence, this paper aims at investigating factors influencing purchase intention of organic foods in Bangkok Thailand. Three main factors that affect on purchasing intention of organic foods that persuaded consumer choice, the attitudes towards the purchase of organic foods and subjective norms. Theory of planned behavior is adopted for conceptualizing factors affecting purchase intention. Quantitative approach is deemed more appropriate considering the study objectives. In total, 373 questionnaire survey were completed. The structural equation modelling (SEM) was employed for investigating relationships and testing the hypotheses proposed concerning the research conceptual model. The empirical findings indicated the importance that organic food industry enhance the attitudes and awareness of organic food products to consumers for increasing demand of organic foods in Bangkok, Thailand.

**Keywords:** Organic foods, Purchase intention, Marketing strategy

## Introduction

In recent years, with the massive growth in the demand for clean foods, especially nonchemical foods, in which there are growing in understanding the importance of daily foods for health among some social groups. Additionally, many news and reports show the dangerousness and low quality foods that harmful to human health (Grunert & Juhl, 1995). The study from Basha *et al.*, 2015, indicates the growing tendency of consumer in health concern in buying organic foods and using healthy products. The “organic food” has accounted for increasing market shares in the global food industry (Basha *et al.*, 2015). Considering the target of being the leader in agriculture, the government supports in researching, developing, and promoting nonchemical products selling in domestic market as well as global market. The study of Dias *et al.*, (2015) showed three main reasons of increasing trend of organic foods consumption including; the quality reputation of organic products; the well-being consideration; and quality of life standard. Most of the previous researches are conducted in developed countries. This appears to be an early stage of developing countries such as Thailand. This is, therefore, imperative in investigating factor affecting purchase intention of organic foods, with the aim of broadening the existing body of knowledge of organic foods market; and understanding the underlying reasons of intention to buy organic foods for developing the organic food industry in Thailand.

Nowadays, Theory of Planned Behavior (TPB) is widely applied for examining the individual intention towards to the behavior. Regarding intention in

purchasing organic foods, this study shows the factors impacting on perception of customers relating to social impact, environmental problems, and perception of customers about the risks of buying products (Zanoli & Naspetti, 2002). These factors are taken into account by TPB that have three main well-known causes including attitude towards to Intention, subjective norm, and perceived behavioral control. Therefore, this study examines the relationships among three main factors with purchasing intention (PI) of organic food products in Thailand.

In Thailand, there appears to lack of knowledge and awareness of organic food products; and small customer segmentation of organic food consumers. To investigate influencing factors would help in further developing of the extant literature and contribute to the application of marketing strategies in Thailand’s organic food industry. Therefore, objectives of this study are proposed as follows;

- To explore factors that influences the purchase intention of organic foods in Bangkok, Thailand
- To investigate three main influencing factors of attitude (ATT), subjective norm (SN) and perceived behavioral control (PBC), towards purchase intention (PI) of organic food products in Bangkok, Thailand.

## Literature review

In this section, the theory of Theory of Planned Behavior (TPB) is reviewed for

proposing the research conceptual framework as follows;

## Theory of planned behavior

### Attitude

*Attitude* is generally the first element regarded by some previous studies, in term of psychology perspective, attitude is defined as the feeling that people have a favorable or unfavorable to the issues in that circumstances. From the economic perspective, attitude is one of function of emerging individual belief or consciousness such as the feeling of consumer to new products or the thought of the following concept that can impact on their decision (Ajzen, 2005). Therefore, this is imperative to understand the meaning of attitude based on both context and condition (Padel & Foster, 2005). There appears to be some previous researches that explored the relationship between attitude and purchase Intention in various context (Magistris & Gracia, 2008). These papers reviewed the intention of human in some aspects. Much of the seminal works have been studied employing TPB. Concerning the change of customer behavior, researches related to healthy foods and organic food products have been widely studied to examine the lifestyle and attitude towards to care of health and environment. The study of Essoussi and Zahaf (2008) investigated the attitude of consumer of the organic foods towards purchase intention. This research is proposed the attitude as a latent variable, represented by two sub-factors of health consciousness and environmental awareness (Hair, 2009).

The results show the positive impact of customer attitude towards purchase intention. Considering the extant literature. The hypothesis is proposed as follow;

*Hypothesis 1: Attitude has positive effect on Purchase Intention.*

### Subjected norms (SN)

People are influenced by ambient elements on the behavioral intention, which is confirmed by previous studies. Based on TPB, subjective norm (SN) is the main factor, which is considered as the external and internal elements such as social pressure, family culture, environmental living. These factors influence the individual perception and awareness of circumstance (Fishbein & Ajzen, 2005). Following prior studies, SN are mentioned as the relation to custom, especially perception. For some cases, individual will rely on the norms that they have experienced and followed to decide whether they will do or will not do the action, indicating the relationship between SN and Intention to do any action of each person (Arvola et al., 2008). Bertoldo and Castro (2016) point out that social pressures impacted on individual thought before they decide to act. Having been studied in many related fields, SN have been defined as people's concern about the normative behaviors that surround their living place, work, or their interests (Thompson and Kidwell, 1998). As explicit meanings of SN defined by Ajzen (1991) are culture, rule, traditional norms or social network. These elements are considered leading to people intention. In this study, SN variable is observed as Personal Norms, Social Norms and Family Norms (Hair,

2009). Thus, the hypothesis is proposed as follow;

*Hypothesis 2: Subjective Norms has positive effect on Purchase Intention.*

### **Perceived behavior control (PBC)**

The strong relationship between PBC and purchase intention has been examined by previous researches. Individual perception is defined as the capacity of human to act and/or react the purposeful events (Kim & Chung, 2011). Likewise, the perception is impacted by some internal elements such as abilities, emotions, skills, knowledge; and external factors such as finance, occasions, barriers and etc. These factors control the behavior of each person, depending on the context and performances (Ajzen, 1991; Vermeir & Verbeke, 2006). According TPB, there are many psychologists who denoted that people have ability to recognize their resources in exact occasions to approach and intent to act, who are prospective to understand and use the subjective inferences to ask themselves whether they should or should not do. If the belief of individual thinks that is extremely hard to perform, their PBC will be weak. Therefore, the conclusion from previous studies indicate that PBC has been explained as people who have high perception, knows how to control their behavior (Kalafatis et al., 1999; Kihlberg and Risvik, 2006; Kim and Chung, 2011; Tarkiainen and Sundqvist, 2005). Considering the research findings related customer behavior in the food industry, people tend to pay more attention in their life especially in health and social problems. Customers are willing to purchase products which are good for their health regardless the higher price (Montano, &

Kasprzyk, 2015). With this regards, the third hypothesis is proposed as follows;

*Hypothesis 3: Perceived Behavioral Control has positive effect on purchase intention*

The extant literature also showed some key findings that indicate the positive attitudes affecting on PBC. People has the attitude towards paying money to purchase products that impact on the perceived behaviors control (Hansen *et al.*, 2004). For example, when people believed that foods are good for their health, they will create a mindset consciously, in which influenced by the attitudes that guide the controlling factors of behavior. Cannière *et al.*, (2009) suggest that behavior shows the interested action that people got from practicing and experience. In contrast, if customer has bad attitude towards the products that affect on their life negativity, they will control their behaviors in buying those products (Li, Mizerski, Lee and Liu, 2009). Therefore, there appears to be positive relationship between attitude and PBC towards purchase intention as the following hypothesis 4;

*Hypothesis 4: Attitude positively impacts on Perceived Behavioral Control towards purchase intention*

### **Purchase intention**

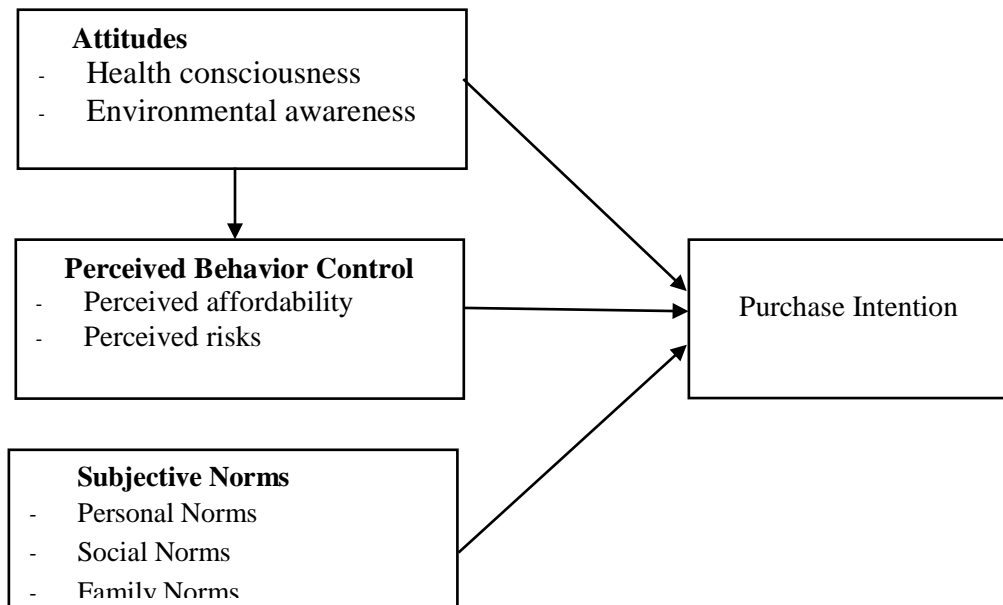
Intention is usually defined as psychological thought that people plan to act in the right condition. Some psychologists have tried to develop formula to calculate the weight of factors influencing on human intention towards to act rational behaviors (Gogoi, 2013). Some research papers have tried to define the main elements of purchase intention.

In healthcare sector, customer relies healthy elements of products or services that have no negative influence on health or good reputations (Hoppe et al., 2013). As consumer in e-commerce, main factors include trust, risk, social norms, demographic. From the economics perspective, most of researchers believe that buying intention can be predicted by investigating the internal and external factors (Suprpto and Wijaya, 2012). In particular, of the organic food industry, important aspects such as healthy foods, eco-friendly etc. were widely adopted. Spears and Singh (2004) have provided the evidence to understand the term of “intention” as the individual conscious to buy products relating to subject norms, especially personal norm (Khan et al., 2015). In Thailand, the current situation is that people are growing awareness on

the quality standards of products. Customers tend consider more about the source of origin of food products, health certification, in order to reduce risk in purchasing foods (Van Doorn and Verhoef, 2011).

## Conceptual framework

The research framework was conceptualized based on the literature reviewed in previous sections. TPB was adopted as a main theory for investigating factors influencing purchase intention of organic foods. All Variables are reviewed and adapted based on previous studies. The research conceptual framework is proposed as the following figure 1.



**Figure 1** Research conceptual model

## Research methodology

To achieve the research objectives for investigating factors influencing purchase intention as proposed research conceptual model. Research methodology is explained in this section as follows;

### Data collection

Based on the research conceptual model, the questionnaire survey was designed considering the PBC theory. The measurement of each part in the questionnaire instrument were justified and adapted from previous studies. With this regards, the questionnaire consisted of five sections in order to cover objectives of this research including: demographic, Attitudes, PBC, SN, and purchase intention. Two academic and one practitioner helped in refining the survey instrument for enhancing the validity. Modification of the questions was done considering the experts' advice. A five-point Likert scale was used to ask respondents for scoring ( items) ranging from 1 = strongly disagree to 5 = strongly agree. The pilot test was conducted with 30 respondents to ensure reliability of the survey instruments. 400 questionnaires were distributed to respondents in Bangkok who experienced buying organic food products. In total, there were 373 completed questionnaire utilized for further analysis.

### Data analysis

In this study, descriptive statistics analysis was conducted to explain demographic information of respondents. Agreement level of all constructs in the study was also examined. Confirmatory factor analysis (CFA) was employed to access construct reliability, convergent validity, and discriminant validity of the respective constructs of the research conceptual model. Two- step modelling approach suggested by James et. al. (1982) was adopted. Structural equation model (SEM) were employed after CFA for testing the goodness of fit of the model; and investigating relationships among constructs proposed in the research conceptual model. All the hypotheses were tested utilizing results from SEM analysis.

### Data analysis results

In this research, descriptive statistics was analyzed to explain the demographic data of respondents. Confirmatory factor analysis (CFA) and structural equation model (SEM) were employed to test model fit and relationships between independent and dependent variables of the proposed model. All hypotheses were tested based on SEM analysis. Detailed analysis results are as follows.

### Demographic

There are five main questions in demographic section including: gender, age, income, marriage status and awareness of Organic foods. In terms of gender, male accounts for 42.4 % (158

respondents) and female stands for 57.6% (215 respondents). Relating to age, 139 respondents belong to the group age between 20 and 30 (37.3%), 142 respondents aged from 31-40 (38.1%), 79 respondents are between 41-50 (21.2%), 9 of them are in the range 51-60 (2.4%); and the remaining 4 respondents belongs to the age group more than 61 (1.1%).

In term of incomes, the majority of respondent's income range is 21,000 and 40,000 (44.2%), the income range under 20,000 baht accounts for 21.2%, 22.8% of respondents are in the range of 41,000-60,000 baht, and the remaining respondent's income exceeds the amount of 60,000 baht (11.8%). Considering the marital status, the major responses is Single (60.3%), married status (37%), divorced accounted for 2.1%, and the remaining of widowed for 0.5 %. In term of organic food products awareness, 223 responses know about organic foods (60%), and the rest has known but not much for 42%.

## Confirmatory factor analysis

Confirmatory factor analysis (CFA) was conducted in order to evaluate the measurement model (Gerbing and Anderson, 1988). The analysis process follows the two-step modelling approach suggested by James et. al. (1982) for assuring the goodness of fit of measurement model before examining the full structural model in further stage.

CFA therefore provides the assessment of convergent and discriminant validity of the measurement model. Considering suggestions by Hair et al. (2010), the measurement model fit was evaluated concerning a number of fit indices including: the Chisquare ( $X^2$ ) and the ratio of  $X^2$  to degrees of freedom; root mean square of error of approximation (RMSEA); goodness of fit index; Adjusted Goodness-of-Fit Index (AGFI); comparative fit index (CFI).

The goodness of fit indices resulted from CFA using AMOS programs are as follows; The p-value of the Chi-square is 2.561, indicating the exact fit of the model at 0.001 significant level. The Adjusted Goodness-of-Fit Index (AGFI), and the Comparative Fit index (CFI) stand at .895, and .901, which show that the specified model fits well. The root mean square of approximation (RMSEA) is .0065, which provides evidence of close fit of the model in relation to the degrees of freedom because RMSEA is less than .05. The Tucker Lewis Index (TLI) is .999, while CFI is .901. Both belong to incremental fit indices and their values are well above the recommended threshold level of .90, which further supported the close fit of the model. The norm Chisquare ( $X^2/df$ ) has a value of 2.561. This falls within the recommended range of 3 to 1 which indicated conditional support for model fit (Carmines and McIver, 1981). Figure 2 below shows the results of CFA analysis



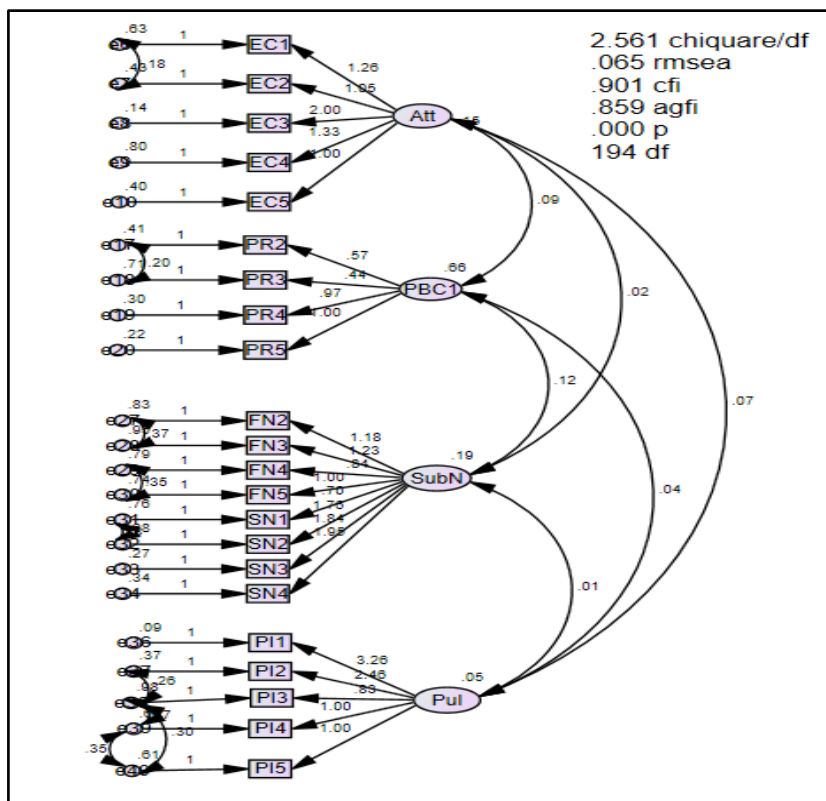


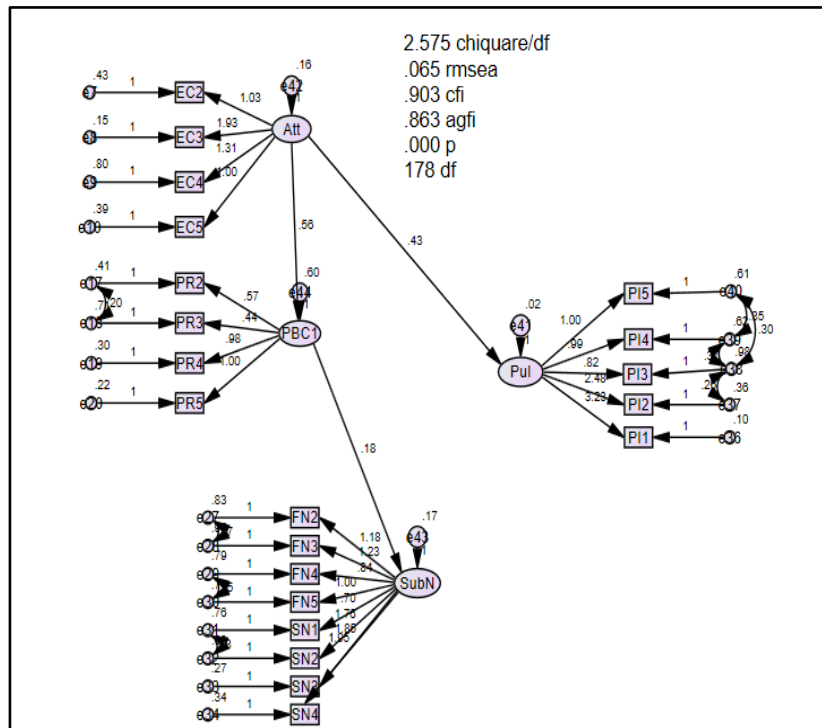
Figure 2 CFA model

## Model fit and hypotheses testing

Confirmatory factor analysis was conducted in the prior section, indicating that some variables were removed concerning the underlying theory and

goodness of fit of each construct. This section, therefore, describes the adjustment of the model fit resulted from SEM analysis. AMOS program was employed for investigating and testing the research conceptual model. The final model is shown as figure 3 below.





**Figure 3** The final research model

The final research model was gradually adjusted for achieving the goodness of fit. The analysis results provide absolute goodness-of-fit measures as follows: The p-value of the Chi-square (Degrees of freedom = 178) is at 0.00 meaning that the model is statistically significant. The Adjusted Goodness-of-Fit Index (AGFI), and the Comparative Fit index (CFI) stand at 0.863, and .903, which show that the specified model fits well after gradually adjusted. The root mean square of approximation (RMSEA) is .065, which provides evidence of close fit of the model in relation to the degrees of freedom. The comparative fit index (CFI)

is .903. This belong to incremental fit indices and their values are well above the recommended threshold level of .90, which further supported the close fit of the model. The norm Chisquare ( $X^2/df$ ) has a value of 2.575, in which the value is within the recommended range of 1 to 3. This indicated conditional support for model fit (Carmines and McIver, 1981).

Based on the research conceptual model, four main hypotheses were tested utilizing the results from SEM analysis. The results of hypothesis testing were provided as Table 1 below:

**Table 1** Hypotheses testing results

Hypotheses	Result
Hypothesis 1 :Attitude has positive effect on purchase intention.	Accepted
Hypothesis 2: Subjective norms has positive effect on purchase intention.	Rejected
Hypothesis 3 :perceived behavioral control positively effects on purchase intention	Rejected
Hypothesis 4 :attitude positively impacts on perceived behavioral control .	Accepted

Considering the importance of this study, not many studies have been made considering the investigation of customer attitude towards organic food products in Thailand. Therefore, this paper contributes to existing body of knowledge related to organic food industry.

## Discussion and conclusion

Considering the research questions and research objectives, this is imperative to discuss the research findings for further proposing the theoretical and practical contributions of this research. First of all, the key findings from demographic analysis indicate that the target consumer of organic food products in Bangkok is female with the age range of 21-40, in which having the incomes between 20,000 – 40,000. Most of them know and aware of the importance in having good health resulted in having intention to buy organic food products.

To investigate relationship of all variables proposed in the research conceptual model, Results from the SEM analysis were employed for testing four main hypotheses. H1 is accepted. The results indicate the significant

relationship of consumer's attitude towards to purchase intention of organic food products. This confirmed the prior studies that consumers aware of their health issues and concern the environment impact, so that they intend to buy organic food products. These key findings in line with the studies of Vermeir and Verbeke (2006) and Chen (2007). H2 is rejected, indicating subjective norm has no impact on purchase intention. In more details, family norm and social norm factors were considered positively influencing purchase intention of organic food products, whilst personal norm has no impact on purchase intention. Personal Norm represented for self-norm action such as the knowledge that they learn by themselves, their independent attitude. Overall, these findings indicate that customers tend to be influenced by traditional norm and lifestyle from their family in buying organic food products (Maloney, 2014). Considering the SEM analysis results, H3 is rejected. The findings indicated that perceived affordability has no positive impact on purchase intention. In more details, this can be explained that perception of finance has no positive effect on purchase intention. Thai consumer has not much knowledge about organic food products price, resulted from the SEM analysis that perceived affordability is

rejected in the research conceptual model. Different from previous studies, SEM analysis results indicated the significant relationships between attitude and perceived behavioral control. Hence, H4 is rejected. This calls for the important implications that consumers tend to concern more about health and environment in which influencing perceptions related to affordability and risks. The research findings have been shown different from the previous researched in some aspects, however, the underlying reasons may result from the subjective reasons regarding the specific context of organic food products. Considering as the early stage of organic food industry development, this is imperative that organic food industry focus on educating and communicating with the target customers for enhancing the attitudes towards health consciousness and environmental awareness.

Overall, this study reflects the significant insights that contribute to the existing body of knowledge related to customer behavior in purchasing organic food products in a specific context of

Bangkok, Thailand. Additionally, the outstanding results indicated the strong relationship between attitudes towards purchase intention of organic food products. This brings the key managerial implications for organic food producers in focusing on enhancing the attitudes of consumers related to health consciousness and environment awareness that directly affect purchase intention. Different approaches should be considered for enhancing health consciousness and environmental awareness such as educational model, info-graphic, digital media etc. Further studies should broaden the body of knowledge by conducting and utilizing this research framework in other countries, in particularly of south east Asia context. Concerning the difference from previous studies, qualitative research should be conducted for further understanding of the customer attitudes and perception of the organic food products. Design thinking approach may be of interest in adopting for better understanding of consumer insights. This can help in developing the organic food industry in the future.

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