



**The Impact of Subjective Norms, Behavioral Control and Attitude Factors  
on the Purchase Intention of OTOP Snacks Food Products: A Case Study  
among International Consumers in Phuket-Thailand**

**Mahamat Abdourrahmane**

**A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree  
Of Master Business Administration (International Program)**

**Prince of Songkla University**

**2014**

**Copyright of Prince of Songkla University**

**Thesis Title**            The Impact of Subjective Norms, Behavioral Control and Attitude Factors on the Purchase Intention of OTOP Snacks Food Products: A Case Study among International Consumers in Phuket-Thailand

**Author**                    Mr. Mahamat Abdourrahmane

**Major Program**        Business Administration (International Program)

---

**Major Advisor:**

.....  
 (Assoc. Prof. Sasiwemon Sukhabot)

**Examining Committee:**

.....Chairperson  
 (Dr.Walapa Phattana)  
 .....  
 (Dr. Teerasak Jindabot)  
 .....  
 (Assoc. Prof. Sasiwemon Sukhabot)

The Graduate School, Prince of Songkla University, has approved this thesis as fulfillment of the requirements for the Master of Business Administration (International Program).

.....  
 (Assoc.Prof.Dr.Teerapol Srichana)  
 Dean of Graduate School.

This is to certify that the work here submitted is the result of the candidate's own investigations. Due acknowledgement has been made of any assistance received.

..... Signature  
(Assoc. Prof. Sasiwemon Sukhabot)  
Major Advisor

..... Signature  
(Mr. Mahamat Abdourrahmane)  
Candidate

I hereby certify that this work has not been accepted in substance for any degree,  
and is not being currently submitted in candidature for any degree.

..... Signature  
(Mr. Mahamat Abdourrahmane)  
Candidate

<b>Thesis Title</b>	The Impact of Subjective Norms, Behavioral Control and Attitude Factors on the Purchase Intention of OTOP Snacks Food Products: A Case Study among International Consumers in Phuket-Thailand
<b>Author</b>	Mr. Mahamat Abdourrahmane
<b>Major Program</b>	Business Administration (International Program)
<b>Academic Year</b>	2012

## ABSTRACT

The demand of healthy food in Thailand has risen consistently with the increase in awareness of health and environmental issues as the global organic food market has grown tremendously over the past decade. Such trend is reflected in consumers' perceptions and attitudes towards organic food products. The current study examines the factors that predict the intention to purchase OTOP snack food products among international consumers in a Thai province (Phuket), using a questionnaire survey distributed to four hundred (400) respondents. The Theory of Planned Behavior shaped the research framework and hypotheses development.

Using a linear regression equation, subjective norms, behavioral control, and attitude factors namely health and environment consciousness, product trust and product attributes were modeled to impact the purchase intention of OTOP snack food products. The results of the multiple regression revealed that subjective norms and behavioral control exerted significant positive effects on the purchase intention of OTOP snack food products. However, only two factors of attitude (product trust and product attributes) were statistically significant with the purchase intention but health & environment consciousness were found to be statistically insignificant. Hence, the conclusions of the research indicated that more efforts need to be exerted to promote consumption growth and should focus on international consumers' awareness of health and environment consciousness.

## ACKNOWLEDGMENT

My supreme grateful goes to the Almighty God (Allah), who made all things possible for me in accomplishing this project.

I would like to express my profound gratitude to my master thesis supervisor, Assoc. Prof. Sasiwemon Sukhabot, for her invaluable guidance, advice, and her high commitment throughout the completion of this research work.

Constructive comments and guidance given by the examining committee members: Dr. Walapa Phattana and Dr. Teerasak Jindabot are greatly acknowledged.

I would like to concede and extend my deepest gratefulness to the Dean of the Faculty of Management Sciences, Asst. Prof. Jongpid Sirirat for giving me this invaluable opportunity to pursue my master degree in Prince of Songkla University, Hatyai Campus, Thailand.

I am also highly thankful to all my lecturers and in particular Dr. Suthinee Rurkhum, Dr. Ekkarit Gaewrapun and Dr. Yoshifumi Harada for their priceless knowledge sharing.

I am as ever, especially indebted to my parents, siblings and relatives for their love and support throughout my life. My special thanks also go Miss Piyaporn Singmahasak and all iMBA staff for their continuous support and everyone who helped me either directly or indirectly to the realization of this thesis.

## Table of Contents

<b>Chapter 1: Introduction.....</b>	<b>1</b>
Introduction.....	1-5
Background.....	5-10
Problem Statement.....	10-15
Objectives of the Research.....	15
Research Questions.....	16
Hypothesis of the Research.....	16
Significance of the Study.....	16-18
Scope of the Research.....	18-19
Limitations of the Study.....	19
Definitions of the Terms.....	20
Organization of the Thesis.....	21
<b>Chapter 2: Review of Literatures.....</b>	<b>22</b>
Introduction.....	22
Perception.....	22-27
Subjective Norms.....	28-32
Behavioral Factors.....	33-36
Attitude Factors.....	36
Definition of Attitude.....	36-41
Dimensions of Attitude in the Current Study.....	42-48
Purchase Intentions.....	48-51
International Consumers.....	51-52
Perceptions and Attitudes of the Product.....	52
Extrinsic Factors of the Product.....	52
Intrinsic Factors of the Product.....	53

Underlying Theory of this Study.....	53
The Theory of Reasoned Action (TRA).....	53-54
The Theory of Planned Behavior (TPB).....	54-55
Choice of the Theory of Study.....	55-56
Related Researches to this Research.....	56-59
Theoretical framework of this Study.....	59
<b>Chapter 3: Research Methodology.....</b>	<b>60</b>
Introduction.....	60
Population, Sample and Sampling Method.....	60-61
Type of Research.....	61
Data Collection.....	62
Primary Data.....	62
Secondary Data.....	62
Research Instruments.....	62-64
Data Analysis Technique.....	64-65
Reliability Test.....	65-70
<b>Chapter 4: Research Findings.....</b>	<b>71</b>
Introduction.....	71
Descriptive Statistics of the Respondents Profile.....	72-74
Analysis of the Variables-Means.....	75-78
Results of One Way ANOVA and t-Test.....	79-89
Correlation Analyses of the Variables.....	89-90
Multicollinearity Diagnostics.....	90-91
Regression Analyses.....	91
Simple Regression Analyses.....	91-93
Multiple Regression Analyses.....	93-96
Summary of the Findings.....	96-99



Summary of the Chapter.....	99
<b>Chapter 5: Conclusions, Discussions &amp; Recommendations.....</b>	<b>100</b>
Introduction.....	100
Characteristics of Overseas Consumers.....	100-101
Summary of the Effects of Independent and Dependent Variables .....	101-102
Discussions.....	102-113
Contributions of the Study.....	114
Academicians.....	114-115
Entrepreneurs and Marketers.....	115-116
Suggestions for Marketers and Policy Makers.....	116-117
Conclusions.....	117-119
Limitation of the Study.....	119-121
Recommendation for Future Researchers.....	121-122
<b>References.....</b>	<b>123-149</b>
<b>Appendices.....</b>	<b>150</b>
<b>Appendix A: Questionnaires in English.....</b>	<b>151-156</b>
<b>Appendix B: level of Agreement Statistics.....</b>	<b>157</b>
<b>Vitae.....</b>	<b>158</b>

## List of Tables

<b>Tables</b>	<b>Titles</b>	<b>Pages</b>
Table 1.1:	Registered OTOP Producers in 2010.....	3
Table 1.2:	OTOP Products Registration in 2010.....	4
Table 1.3:	Sales Outputs of OTOP Products from 2001-2013.....	5
Table 1.4:	Different types of OTOP Snacks and their Specification.....	10
Table 1.5:	International Tourist Arrivals to Thailand (Jan.– Dec. 2011).....	14
Table 3.1:	Reliability Test of the Pilot Study and Actual Survey Cronbach’s Alpha.....	69
Table 3.2	Validity Test Based on Guilford’s Law.....	70
Table 4.1	Descriptive Statistics of International Respondents’ Demographics.....	72
Table 4.2	Means and Standard Deviations of Subjective Norms, Behavioral Control & Purchase Intention.....	75
Table 4.3	Means and Standard Deviations of Attitude Factors.....	77
Table 4.4	Independent Sample t-test for Differences in Attitudes between Genders.....	79
Table 4.5	One-Way ANOVA Tests for Differences in Attitudes among Different Age Groups.....	80
Table 4.6	One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Countries of Origin.....	81
Table 4.7	One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Educational Levels.....	83
Table 4.8	One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Occupations.....	84
Table 4.9	One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Household Members.....	85
Table 4.10	One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Monthly Incomes.....	86
Table 4.11	Independent Sample t-test for Differences in Purchase Intention between Genders.....	88
Table 4.12	Summary of the results of One-Way ANOVA and t-Test between Demographic Characteristics and Purchase Intention...	88
Table 4.13	Pearson Correlation Coefficient of the Variables of the Study.....	89
Table 4.14	Variance Inflation Factor.....	90
Table 4.15	Analysis of Subjective Norms on Purchase Intention.....	91
Table 4.16	Regression Analysis of Behavioral Control on Purchase	

	Intention.....	93
Table 4.17	Regression Analysis of Attitude Factors on Purchase Intention..	94
Table 4.18	Multiple Regression of the Model.....	95
Table 4.19	Descriptive Statistics of the Model.....	96
Table 4.20	Significance of (t-Test, ANOVA) between Demographics and Variables of the Model.....	97
Table 4.21	Multiple Regression.....	98

## List of Figures

<b>Figures</b>	<b>Titles</b>	<b>Pages</b>
Figure 1.1:	Proportion of OTOP Products in 2010 .....	12
Figure 1.2:	Tourism Performance in Thailand (2010-2011).....	14
Figure 2.1:	Theoretical Framework of this Study.....	59

## List of Abbreviations

ANOVA	Analysis of Variance
APEC	Asia-Pacific Economic Cooperation
CBE	Community Based Enterprise
CDD	Community Development Department
DV	Dependent Variable
ESL	English as Second Language
GDP	Gross Domestic Product
GPRD	Government Public Relation Department
IV	Independent Variables
LSD	Least Significant Difference
OPC	OTOP Products Championship
OTOP	One Tambon One Product
OVOP	One Village One Product
PBC	Perceived Behavioral Control
PI	Purchase Intention
SME	Small and Medium Sized Enterprise
SN	Subjective Norms
SOE	Single Owner Enterprise
SPSS	Statistical Package for Social Science
SD	Standard Deviation
TAT	Tourism Authority of Thailand
TPB	Theory of Planned Behavior
TRA	Theory Of Reasoned Action
VDF	Village Development Fund
VIF	Variance Inflation Factor
US	United States
WHO	World Health Organization

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

One Tambon One Product (OTOP) is a Thai Version of OVOP (One Village One Product). The Thai word “tambon” stands for a sub-district. The main aim of OTOP is to encourage all local communities in Thailand to use and improve their unique wisdom and resources to create values and earn a living for themselves (Thanathikom 2005). It is one of the Thai government policies in developing the economy at the grass roots level. It is originally an idea that had been borrowed from OVOP in Japan.

OTOP program was first launched in Thailand in 2001 by the former Thai Prime Minister Thaksin Shinawatra. The program was considered as one of the most successful as a rural development policy. The difference between OTOP and OVOP lies in the fact that; in Japan, the village community is the focal point of the movement. In Thailand however, it is a national development perspective of Thai government where this latter provides assistance in term of marketing policies, training, financial, technology, and helps the communities’ villagers and entrepreneurs to develop their own products in order to compete locally and internationally. In other words, rural entrepreneurship was seen very important for a sustainable development in rural regions with the aims of reducing poverty, and meeting social needs (Bornstein, 2007).

Nevertheless, the Thai government has established OTOP project aiming at reducing poverty, creating jobs and improving the population’ income at the grassroots level. This brand marketing approach had led members to manufacture more value-added products, and ultimately improved OTOP’s export power (Kurokawa, 2009). For instance, OTOP products are officially classified into five categories likely foods fresh products from agriculture and processed foods, drinks

(alcoholic and non-alcoholic beverage), garments and clothing, utensils/ornaments/souvenirs, and herbal products (products made from herbs or have herb as an ingredient).

According to the Thai (GPRD) Government Public Relation Department (2004), in the previous years, the success of OTOP campaign had increased the shopping opportunities for visitors to Thailand and as well as the GDP has also increased. OTOP is a scheme that allows a tambon (sub-district) to become an expert on manufacturing a major product that uses local wisdom and Thai traditional craftsmanship. Moreover, OTOP products from around the country are able to be promoted as a tourism element.

Additionally, the Thai government also offers assistance in term of financial resources, training, marketing, and helping OTOP producers to market their products locally and internationally as well. When OTOP was initially set up in Thailand, the government focus relies on providing non-monetary supports as in terms of technological support, marketing support, skills and knowledge training support to the OTOP groups rather than assisting them the subsidy or monetary support (Rattanakamchuwong, 2005). After years have passed by and when the government realized that OTOP producers were facing problems in terms of monetary support and lack of running the businesses; consequently, the Thai government started granting monetary supports to OTOP producers both directly and indirectly. Thus, a Village Development Fund (VDF) was established in each village as a revolving fund that would facilitate long-term local investments and income creation in rural areas at different community levels (Thailand Investor Service Centre, 2001).

Furthermore, the Thai government also intended to promote tourism through OTOP products. These products included: silk products, woodcarving products, garments, silverware, diamond, ornaments, handicrafts, paper umbrellas, Thai food, T-shirts, and Thai dolls (The Government Public Relation Department, 2004). However, the major objective of OTOP program was to reduce the poverty

alleviation, provide employment to villagers in their communities and manufacture products that can be sold both locally and internationally.

Moreover, Kurokawa (2009) stated that in order to export OTOP food products, Thai government came up with another marketing brand strategy that can allow manufacturers and participants to come up with a good product that can be exported. Such brand strategy is also known as OPC (OTOP Products Championship).

According to OTOP producers, they are classified into three types: first, the community occupation group or Community Based Enterprise (CBEs). Second are the One Person Owner or Single Owner Enterprise (SOEs) producers and finally, the Small and Medium Sized Enterprise (SMEs). Small and medium-enterprises are generally considered as economic agents who are mainly responsible for employment creation and income generation (Regnier, 2006). These groups are defined as rural entrepreneurs. Below are the tables (1.1 and 1.2) of OTOP producers and OTOP products in 2010.

**Table 1.1: Registered OTOP Producers in 2010**

	<b>Categories of Producers</b>	<b>N0 of Group</b>
1	Community Occupation Group or CBEs	22,200
2	One Person Owner or SOEs	10, 303
3	Small and Medium Enterprise (SMEs)	725
	<b>Total</b>	<b>33, 228</b>

**Source:** JICA Bi-monthly Report, October 2010

From the table above, we can assume that there are three different types of producers groups registered under OTOP. They are community occupation group or Community Based Enterprise (CBEs), One Person Owner or a Single Owner Enterprise (SOEs), and Small and Medium-sized Enterprises (SMEs) which respectively accounted for 66.8%, 31.0%, and 2.2%. In total, there are 33,228 groups producers registered under OTOP in 2010.



**Table 1.2: OTOP Products Registration in 2010**

	<b>Categories of Products</b>	<b>N0 of Products</b>
1	Furnishing, Decoration and Souvenirs	31, 334
2	Fabrics and Dressing wear	21, 386
3	Foods	20, 330
4	Herbal Products	9,050
5	Beverage	3, 073
6	<b>Total</b>	<b>85, 173</b>

**Source:** JICA – Bi- Monthly Report -2010

As it can be referred from the table 1.2 above, there is a total of 85,173 products of OTOP which have been developed under different categories and registered in 2010. These promoted products by OTOP come under five different categories. There are: furnishing, decoration and souvenir; fabric and dressing wear; food; herbal products and beverage respectively accounted for 36.8%, 25.1%, 23.9%, 10.6% and 3.6%.

According to sales output of OTOP products, it has increased since 2001 by 4.6% in the period of 2002-2008. Sales output of OTOP products have increased domestically and internationally accounted for 86% and 14% respectively in 2008. The below figure emphasizes the trends of OTOP product sales output from 2001 to 2008. Therefore, it can be concluded that the OTOP products scheme is contributing domestically and internationally by generating revenues and increasing GDP (Gross Domestic Product) or national income level, as well as reducing the unemployment rate. However, after 2008, there was a significant drop of sales that lasted for three (3) years (2009, 2010, and 2011); but fortunately in 2012, OTOP sale figures rose up again to 79, 461 million Baht and even more in 2013 (87, 407 million Baht).

**Table 1.3: Sales Outputs of OTOP Products from 2001-2013**

<b>OTOP Sale Figures (Baht &amp; US Dollar)</b>	
<b>2001</b>	245 million ฿ / 8 million \$
<b>2002</b>	16,714 million ฿ / 557 million \$
<b>2003</b>	33,276 million ฿ / 1,109 million \$
<b>2004</b>	46,362 million ฿ / 1,545 million \$
<b>2005</b>	55,104 million ฿ / 1,837 million
<b>2006</b>	68,105 million ฿ / 2,270 million \$
<b>2007</b>	71,460 million ฿ / 2,382 million
<b>2008</b>	77,705 million ฿ / 2,590 million \$
<b>2009</b>	63,009 million ฿ / 2,100 million \$
<b>2010</b>	68,484 million ฿ / 2,283 million
<b>2011</b>	70,484 million ฿ / 2,349 million \$
<b>2012</b>	79,461million ฿ / 2,648 million \$
<b>2013</b>	87,407 million ฿ / 2,913 million \$

**Source:** Community Development Department, Ministry of Interior (2014)

## **1.2 Background of the Study**

Nowadays, current studies investigating consumers' awareness of organic food have been well developed in North America and Western Europe (Bonti-Ankomah and Yiridoe; 2006). For instance, organic foods are alleged to be more nutritious and healthier, safer, and environmentally friendly. Organic foods are also known to contain less chemical residues and taste better than conventional food; therefore, consumers are willing to pay a premium price for them (Krystallis, Fotopoulos, and Zotos; 2006). Even in newly emerging markets, consumers are intended to pay a higher price for higher quality, taste, and safe certified foods (Grannis, Hine, and Thilmany, 2001).

As the rapid development of the economy in Thailand which leads to a higher level of living standard and a change of health consciousness among Thais in the major cities, they become more aware of the impact of the quality and nutritional value of food products to their health and often demand imported food stuff for the products have been viewed as high quality products. Despite there is enormous market

potential for selling healthy food in Thailand, there is limited research about the link between Thais' attitudes toward healthy food product and purchase behaviour even though several governmental institutions started different certification systems for different healthy safe food products (Eischen, Prasertsri, and Sirikeratikul 2006).

Even less attention is paid to profile Thai consumers' typologies with healthy food purchase; however the heterogeneous nature of Thai consumers within the country cannot be underestimated. Furthermore, foreign consumers include foreign tourists, foreign residents, and international students as stated in this research contribute to amplify the economy of the country and businesses will also get benefit from the international consumers' spending as well. For this reason, OTOP is a scheme that allows a Tambon (sub-district) to become an expert on manufacturing a foremost product around the country and to be promoted as a tourism element (The Government Public Relation Department, 2004).

While visiting Thailand, international consumers can buy OTOP food products for their daily consumption or to bring home and that was the Thai government policy to promote OTOP food products through tourism industry. So all OTOP from around the country are able to be promoted as a tourism element (The Government Public Relation Department, 2004). By promoting OTOP food products into global market, Thailand's OTOP program exports reached a value of US\$ 102.5 million in 2003 and it was just US\$ 2 million in 2002 when newly OTOP was established. It means that both OTOP food producers and Thai government generate profit from its sales. Therefore, that is the reason why the Thai government has been promoting the local industry through the manufacturing of attractive specialty products based on the abundant native culture, tradition and nature (Kurokawa *et al*, 2010).

### 1.2.1 OTOP Snacks Foods

One of the main food products to be studied in this research is about OTOP snacks food. A precise consumer definition of snack food is erroneous and generally owed to salty foods consumed between regular meals. Snack foods might also mean savory snacks such as potato chips, snack nuts, and popcorn (US Market Trends and Forecasts, 2011). Additionally, other foods eaten as snacks might be sweet and commonly designated as candies. In other words, chocolate, alone or combined with other ingredients, is one of the most accepted sweet snacks. Moreover, plain snacks like plain cereals, pasta and vegetables are also slightly and commonly consumed, and the term “snack” has regularly been used to allocate to a larger meal concerning cooked or leftover items.

Nowadays, with the increase of convenience stores in different corners, there is a significant business of packaged snack foods. A concise definition may state that “snack foods” are characteristically intended to be portable, quick and satisfying (Beckley and Moskowitz, 2002). On the other hand, “processed snack foods” are considered to be less unpreserved, more durable, and more portable than prepared foods. These latter definitely contain some significant amounts of sweeteners, preservatives, and appealing ingredients like chocolate, peanuts, and specially-designed flavors (flavored potato chips).

In a research conducted by Beckley & Moskowitz (2002), they studied the extended description of snack (salty and sweet) foods to evaluate a number of components of a single food, as being seen by the consumer. The components include product description, emotional benefits, origin, and product use. Nonetheless, the Foundation Beckley and Markowitz’s study consisted of a set of 30 different inter-linked studies, all having the same makeup for the stimuli, and the same classification questionnaire. The underlying rationale for the Foundation Studies was that the findings for one food could be compared to the results for others. Such approach allows both the researcher and the marketer to understand the individual food in detail, and the food in relation to the performance of other foods (Beckley & Moskowitz, 2002).

According to the International Market Bureau (2010), in recent years, consumers are said to have more concerns about health-consciousness and most of them are pushing for fortified or functional, better-for-you, and organic foods. Beside the concerns of health-consciousness, the majority of the earlier listed food, many of these foods assert to help in weight management, improving heart health, and having less saturated fat, carbohydrates, sugar, and salt. Despite, today, one might assume the occurrence of an overall decrease in sales of snack foods (generally labeled as unhealthy) because of the multiple news stories stating a new breed of healthy consumer nearly all over the globe. However, in fact, the general snack food market keeps on reaching steady growth rates in both quantity and price, as a new variety of healthy snack foods comes out. For instance, in the UK for example, the snack food development can be analyzed as follow according to the International Market Bureau (2010):

- The sweet and savory snacks market acknowledged some changes during the past years, seeing that consumers grow to be more concerned about their health. However, snacks consumers are not buying less sweet and savory snacks; rather they are only turning on over to healthier snacks such as nuts, fruit snacks, popcorn, and pretzels.
- Healthier snacks (sweet and savory) for example; nuts and snack bars are even overtaking market share from ice cream and certain confectioneries. Thus, only chips and extruded snacks have declined in sales volume from 2004 to 2009.
- Chip companies are launching new premium flavors and developing healthier products to persuade consumers to boost their consumption. A tendency to lessen, or get rid of trans and saturated fats from chips and snack products become known in recent years, joined with reductions in other “unhealthy” ingredients, such as sugar, sodium and preservatives.

However, in Thailand, many more products such as snack food have now reached not only urban people but rural residents as well. According to the Kasikorn Thai Research Center (2004), it stated that snack food in Thailand adds up to about 15-20% of the food market and their target is primarily the younger age population. In addition, snack food accessibility can conciliate children’s consumption behavior.

Accordingly, a prior study in Thailand by Wonkongkathep (1997) suggested that 86% of primary school kids selected snacks by themselves and another 73% of them received the snacks given by their guardians. In addition, eighty two percent (82%) of the participants demonstrated that their choice of snacks were mainly “puff” and “candies” from stores in villages with an average consumption about two (2) times per day. It was evident that more than 60% of snacks were composed of starch (Aungsomwang, 1994). To sum up, another study on snack composition emphasized that crispy snacks contained high carbohydrate (80%) but were low in proteins (Sinsawat, 1995). Moreover, the ratio of carbohydrate, fat and protein failed to meet the Thai recommended values.

Regularly consumed snacks contain a high content of fat and carbohydrate such as starch and sugar. However, when those types of snacks are added to the main meals; they might have a negative impact on health. Such snacks provide energy but not nutrients. The concern is that younger people would eat less at regular meal if they frequently consume large amount of low nutrient snacks prior to their meals. Additionally, salty crispy snacks may also cause children to be thirsty and drink large amounts of water which may make them feel nauseous and decrease their appetite. Most of these different types of snacks are the same as those provided by OTOP. (See table 1.3 below).

**Table 1.4: Different types of OTOP Snacks and their Specification**

Types of Snacks	Types of Products	Certification	Pack-aging	Taste	Proces-sing Type	Texture
<b>Fruit &amp; Vegetable Snacks</b>	Banana chip fruit snack 100 %	GMP/HACCP	Bag	Salty	Fried	Crispy
	Stir bananas	N/A	Bulk	Sweet	Stir-fried	Soft
	Salt glaze bananas	N/A	Bag	Salty	Baked	Hard-crispy
	Fried bananas	N/A	Bag	Salty	Fried	Hard
	Banana chips	TTOP			Fried	Hard
	Durian chip fruit snack 100%	GMP/HACCP	Bag	Salty	Fried	Crispy
	Jackfruit chip fruit snack 100%	GMP/HACCP	Bag	Sweet	Fried	Crispy
	Mango chip fruit snack 100%	GMP/HACCP	Bag	Sour	Fried	Crispy
<b>Grain</b>	Rice cracker from hom Mali	FDA	Bag	Sweet/ Salty	Baked	Hard-crispy

**Source:** OTOP Thailand main website (<http://www.thaitambon.com>)

\***GMP**= Good Manufacturing Practice, **HACCP** (Hazard Analysis and Critical Control Point)

\* **TTOP** = TECMIPT Test Operations Procedures **FDA** = Food and Drug Administration

\* **TECMIPT**= Test and Evaluation Capabilities and Methodologies Integrated Process Team

### 1.3 Problem Statement

Today's world is more cognizant about people whenever they make a purchase decision. The current ethical, religious, moral and environmental degradations have constrained men to think of it seriously as no more deterioration is affordable for the universe. Environmental degradation and deterioration is the most aggressive feature for today's mankind. Humans are facing global warming, sea drying out issue, change in season patterns, soiled climate and water and finally the riddance of various species which are part and allotment for the healthy survival for the human being. Additionally, people are thinking carefully about their nutrition, health and value of the food that they eat every day. The accessibility of knowledge gave favors to humans not only in terms of taking more care of themselves but the environment for

healthy and safety purposes as well. As a result, the demand of organically developed goods has become greater than ever (Chen, 2009).

However, it can be observed that more and more people these days are caught up in an endless cycle of buying and throwing away, seeing consumption as a means of self-fulfillment. Truthfully consumers have less awareness of the relationship between their consumption preferences and the environmental concerns. However, the increase of the environmental consciousness has had a solicitous upshot on consumer behavior, with the organic product market expanding at a significant pace (Bhaskaran *et.al*, 2006).

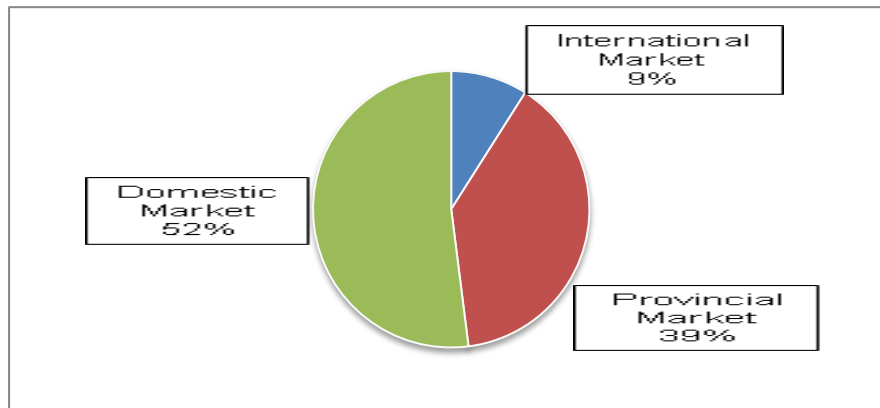
Nonetheless, one of the issues to note is that several studies have acknowledged that lack of organic food availability (ease or difficulty to provide consumer with a specific product) in store is considered as one of the barriers to consumer purchase (Byrne *et.al.*, 1991; Davies *et.al*, 1995). The choice to purchase organic products was found in research done by Thompson & Kidwell (1998). Even though the drive or intention is elevated but it is not possible to convert the intention into practice because of the low availability (Vermeir and Verbeke, 2004). The concept of purchase intention is an idea that the majority of organic food manufacturers rely on as it facilitates them to recognize the consumers' behavior of and their opinions about the products (Magistris and Gracia, 2008). That is said, in any given business, two of the golden goals most sellers want to achieve are profit and customer loyalty. In view of the fact that attitudes toward the products play an essential role in the buying decision of customers, sellers need to be flexible and also respond to the customers' needs with the right products.

However, another factor that can also persuade a person intention towards purchasing food products is the situational factor (i.e. a person who came in to a store with an intention of buying organic food products may be disturbed with the promotion of conventional products or the non-availability of the organic food products). In the case of OTOP food products providers, the government of Thailand had undertaken the project in order to encourage local communities into exercising local wisdom for



the development of locally-made products with technical assistance for both domestic and global markets (Community Development Department, 2014).

**Figure 1.1: Proportion of OTOP Products in 2010**



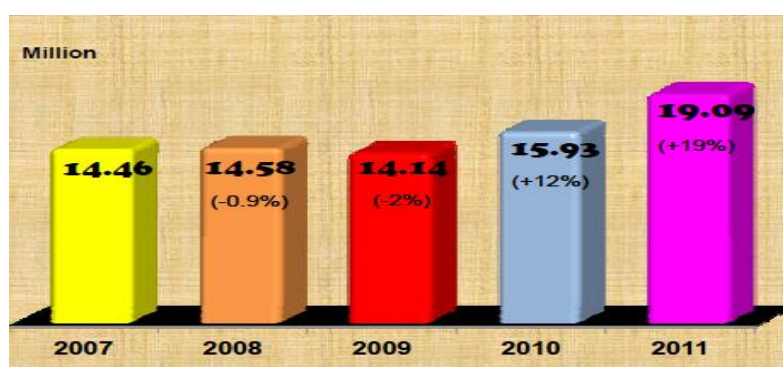
**Source:** Community Development Department, Ministry of Interior (2014)

The above figure can justify the fact that the interaction between international consumers with positive beliefs and attitude and low market domination and low product availability might create a critical attitude towards purchase behavior, which would consequently lead to a weaker perception (subjective norms and behavioral control); and intention to a lower purchase of OTOP snacks food products (Vermeir and Verbeke, 2004).

Additionally, the unfavorable economic condition and the rise of living cost (all over the world and in Thailand particularly) were the most worrying problems in Thailand. Due to the economic downturn, there is an imbalance between the income level and the increase of living cost. Therefore, most of the consumer started to change their shopping habits and being more sensitive to the price of the goods. Several findings from previous researches advocated that food expenditure patterns for high-priced products (known to characterize bigger inner cities) significantly trim down the purchase of domestic food products like fruits, vegetables and dairy products consumed by lower income families (Kirkpatrick, and Tarasuk, 2003).

Due to the global competition worldwide and market expansion of healthy food products, one may ask how well Thai OTOP producers can come up with OTOP snacks food products of good quality, health and safety in order to meet the international customers' needs, wants and to satisfy customer's demand. Moreover, OTOP snacks food products exported (neighboring or far countries) can contribute back to Thai economy and to the Thai society or communities by reducing the unemployment rate, creating jobs, increase of incomes for both manufacturers and Thai government by rising the Gross Domestic Product (GDP) or the national income level of the country. Thus, both Thai government and marketers have to provide supports in term of monetary and non-monetary support to OTOP producers to manufacture a product that can compete locally and globally. Without increasing efficiency and effectiveness, it would not be possible to be able to compete within the global market (Karki, 2007).

According to 40<sup>th</sup> APEC tourism working group meeting in 2012 and in regards to the tourism performance in Thailand during the year 2010-2011, there was an increase of almost 3.2 million visitors who arrived in Thailand (15,936,400-19,098,323). The 19 million visitors are subdivided into East-Asians (54.12%), Europeans (25.91%), South-Asians (6.07%), Oceania's residents such as Australians and New Zealanders (5.03%), Americans (4.99%), Middle-Eastern (3.16%) and Africans (0.71%). The majority of these tourists came to Thailand either for leisure, pleasure, sight-seeing, discovery or business. It can be added that this particular year (2010-2011) was the year where the Thai tourism industry has seen its peak. In other words, from 2007 to 2009, the total population of tourists in Thailand was respectively 14.46 million in 2007, 14.58 million in 2008 and 14.14 million in 2009 (Ministry of Tourism and Sports, Thailand, 2012). The below graph emphasize such trend (See Table 1.5 as well).

**Figure 1.2: Tourism Performance in Thailand (2010-2011)**

**Source of Data:** Ministry of Tourism and Sports, Thailand (2012)

**Table 1.5: International Tourist Arrivals to Thailand (Jan. – Dec. 2011)**

Nationalities	2011		2010	
	Number	% Share	Number	% Share
<b>East Asia</b>	<b>10,336,327</b>	<b>54.12</b>	<b>8,167,164</b>	<b>51.25</b>
<b>ASEAN</b>	<b>5,529,940</b>	<b>28.96</b>	<b>4,534,235</b>	<b>28.45</b>
Brunei	7,364	0.04	7,073	0.04
Cambodia	252,705	1.32	146,274	0.92
Indonesia	369,530	1.93	286,072	1.80
Laos	887,677	4.65	715,345	4.49
Malaysia	2,470,686	12.94	2,058,956	12.92
Myanmar	111,612	0.58	90,179	0.57
Philippines	271,903	1.42	246,430	1.55
Singapore	670,148	3.51	603,538	3.79
Vietnam	488,315	2.56	380,368	2.39
<b>Other East Asian Nations</b>	<b>4,806,387</b>	<b>25.16</b>	<b>3,632,929</b>	<b>22.80</b>
<b>Europe</b>	4,948,900	25.91	4,442,375	27.88
<b>The Americas</b>	953,173	4.99	844,644	5.30
<b>South Asia</b>	1,159,899	6.07	995,321	6.25
<b>Oceania</b>	960,225	5.03	789,632	4.95
<b>Middle-East</b>	603,227	3.16	569,334	3.57
<b>Africa</b>	136,542	0.71	127,930	0.80
<b>Grand Total</b>	<b>19,098,323</b>	<b>100.00</b>	15,936,400	<b>100.00</b>

**Source of Data:** Immigration Bureau, Police Department (2012)

The importance of purchase intention cannot be fully appreciated if the formation of the intention is not fully understood. It is important to understand all variables related to consumer purchase intention and how those variables affect their decision making and understands the factors affecting the latter.

For this study, the researcher chose subjective norms, behavioral control, and attitudes factors (health and environmental consciousness, product trust, and product attributes) to make better predictions about international consumers' purchase intentions of OTOP snacks food products.

#### **1.4 Objectives of the Research**

The main objective of the study is commonly to comprehend the perception of foreign consumers and their attitudes that might influence their purchase intentions towards OTOP snacks food products in Thailand. The so-called consumers are among those who have made their purchases along with OTOP snacks food products (snacks such as fried banana, banana chips, rice cracker, mango ship, salty squid and shrimp, etc...), and those who are in longer term dedicated themselves as an OTOP snacks food products buyers and consumers. In short, the specific objectives of the research study are summarized as following:

- To determine the influence of subjective norms on international consumers' purchase intentions of OTOP snacks food products.
- To investigate the influence of behavioural control on international consumers' purchases intentions of OTOP snacks food products.
- To find out the influence of the different factors (health and environmental concerns, product attributes, product trust) of attitudes that may influence international consumers purchase intentions of OTOP snacks food products.

## 1.5 Research Questions

The questions of the research are elicited below:

- How does international consumer's purchase intention of OTOP snacks food products be characterized by their subjective norms?
- What are the predictions of international consumers' behavioural control on their purchase intentions of OTOP snacks food products?
- What attitude factor (health and environmental concerns, product attributes, and product trust) has an influence on international consumer's purchase intentions of OTOP snacks food products?

## 1.6 Hypotheses of the Research

The hypotheses of the present study are:

**H1:** Subjective norms can have a positive and significant influence on purchase intention.

**H2:** Behavioral control variables (high affordability and convenience) can have a significant impact on purchase intention.

**H3:** Attitude factors (health and environmental concerns, product trust and product attributes) can have a significant impact on purchase intention.

**H3.a.** Health and environmental concerns can have a significant impact on purchase intention.

**H3.b** Product trust can have a significant impact on purchase intention.

**H3.c** Product attributes can have a significant impact on purchase intention.

## 1.7 Significance of the Study

This research will assist OTOP management, OTOP store owners (retailers), marketers and Thai government to find out the opinions, points of view of international consumers in order to keep promoting and improving the quality of OTOP products and to compete globally worldwide. For instance, as the research is

limited to OTOP snacks food products, the researcher believes that this study would also assist in the following:

- 1) For the management (producers), this study will help them in term of marketing strategies to shape their OTOP snacks food products quality, brand image, in order to remain globally competitive. Besides that, OTOP producers will also gain more understanding on international customer's insight and to make necessary adjustment in order to fulfill their customer's needs and wants and meet customer's demand. Moreover, OTOP producers will also know about the international customer's perception, attitude, and their purchase intention when they want to buy OTOP products. So these marketing strategies will help them to planning and forecasting their next sales, in order to well compete with their global competitors, as now many Asian and African countries produce the similar products. So this study will be very useful for OTOP producers.
- 2) For OTOP shops/stores to retain more consumers; there is a need to analyze the behaviours and preferences of purchasers along with exploring the marketing strategies in a business unit. Since marketing mix is known to be an important element impelling the decision making of buyers; for instance marketers would not be able to adequately emphasize the marketing strategies without knowing their customers. For this reason, the study will assist OTOP snacks food products providers to understand the purchasing behaviour of international consumers which seems to be the main target group of OTOP Stores in Thailand.
- 3) Moreover, the study will also support OTOP food products marketers in learning how marketing strategies should be used to attract customers. OTOP retailers can select preferable strategies to adapt in their stores in order to maximize the sales. Moreover, they can take this opportunity to create satisfaction to international consumers themselves and other people who may purchase OTOP snacks food products in Thailand.

- 4) As for Thai government, once knowing the international customer's perception and attitude on their purchase intentions towards OTOP products, it will be easier for them to recommend to OTOP producers on how to still improve their product quality in order to compete internationally as well as to increase the level of OTOP products competition by producing diversified products with a good quality, good taste, aroma and flavor, packaging, value, brand image, and price in order to increase the sale output of OTOP globally and also promoting Thailand as a country of origin. Nevertheless, the Thai government could also enhance policies related to the improvement of OTOP products and provide new certification for new and proposed creative and innovative products in the future. This strategy could make the OTOP products well known all over the world and will still keep promoting Thailand as **“A Kitchen of the World”**.

Furthermore, the reason of studying purchase intention is that many researchers have conceded purchase intention to be a forecasting tool for market research (Lipman, 1988). According to Ghosh (1990), the author stated that purchase intention is an efficient means adopted in foreseeing purchasing process. After the consumers have settled on buying a product in any given shop, they will be motivated by their intention. On the other hand, purchase intention may be obstructed by the power of cost, perceptions of the quality and value (Zeithaml, 1988) and Grewal *et al.* (1998).

Therefore, this study will be a practical guideline for OTOP snacks food producers, marketers, retailers and Thai government in order to improve the quality of their exported agricultural and processed food products to meet the international customer's needs, wants and to remain competitive in the global market.

### **1.8 Scope of the Study**

This research is only centered in considering respondents who are foreign consumers (tourists, foreign visitors, as well as international students) who stay in or come to visit Phuket. The target population of this research study is the international customer at the age of 18-55 years old and above. This target population is suitable because they have higher disposable income and they are able to buy OTOP snacks food

products for their daily consumption as well as sending it home to their families and friends.

As for Phuket, it is considered as a target location in order to obtain the respondents. It is a very famous island and one of the most visited cities in Thailand and also it is widely known as one of the most famous and popular international tourist attraction and destination. Phuket has become a very well known holiday destination for sun, sand, and sea (Titanont and Chantradoan, 2004). Additionally, there are also many foreign tourists, visitors, and international students who visit Phuket every year. Phuket is a location where a lot of OTOP snacks food products from all Thailand regions are being sold. The previous statistics (2010) showed that a total number of international visitors to Phuket were 3,500,000 persons.

As a result, this study is limited in one particular city of Thailand, thus Phuket which does not refer to the same as the capital region (not including Bangkok and other major cities) and only targeting international customers at the age of 18-55 years old and above as respondents. However, the findings would be representative and applicable to others cities with the similar economic conditions since Phuket is a tourist attraction widely known as one of the most important modern city in the Southern part of Thailand. The study will only focus on OTOP products especially food product such as snacks.

### **1.9 Limitations of the Study**

In this study, the research will undertake quantitative approach in collecting the data. The researcher will only target the international consumers at the age of 18-55 years old and above. The data will only be collected in Phuket as a target location. Moreover, there are varieties of OTOP food product types in Phuket as well. This inquest will intend to present an overall study of only OTOP snacks food products in Phuket. Due to the nature of this study, results might not be applicable specifically to any specific OTOP snacks food products. Therefore, it would be suggestive for further study in the future.



### 1.10 Definitions of Terms

- **International consumers (visitors, tourists, and international students):**  
In this research, international consumers mean foreigners who are not Thai residents and visited Phuket on the data collection period. The international consumers in the study are limited to their nationality.
- **Purchase Intention:** A decision plan to attain (or buy) a definite product, service, or brand shaped through a preference or a decision method (AMA, 2009a). It is also a cognitive preparation to perform a behavior or action formed through a choice or a decision process that focus on the buyer's beliefs on the consequences of the action.
- **Attitudes:** are the desirable or undesirable evaluations that people make of particular behaviors (Ajzen, 1991). It is also known as an overall assessment that expresses how much a person likes or dislikes an object, issue, person, or action. Attitudes are often learned and tend to endure over time, and replicate a general evaluation of something based on the set of associations linked to it (Hoyer & MacInnis, 2007).
- **Perception** is the process by which an individual selects, organizes, and interprets information to create a meaningful picture of the world (Hudson, 1999). However, consumer perception of a product encompasses all the stages of the process of bringing the product to the markets, from design and manufacture to distribution and retail.
- **OTOP** is defined as "One Tambon One Product" is a Thai version of OVOP. Tambon stands for sub-districts. OTOP was launched in Thailand in 2001 up to 2006 by the former Prime Minister Thaksin Shinawatra.
- **OTOP Snacks Food Product:** snack foods are both salty and sweet foods that assess a number of components of a single food, as the consumer might see them (Beckley & Moskowitz, 2002).

## 1.11 Organization of the Thesis

The research report will consist of 5 chapters:

- **Chapter 1 Introduction:** the chapter introduces the readers to the report by describing the background of the subject interest, the problem statement, research objectives and questions, hypotheses development, significance, scope and limitations of the study, definition of the key concepts, and the organization of the thesis.
- **Chapter 2 Review of Literatures** applies some related literatures on the core concepts (perception and its types, attitude factors, purchase intention), and the understanding of international consumers. Furthermore, the chapter is concerned with the two main theories on which the present study is basically standing on: The Theory of Reasoned Action and Theory of Planned Behavior. This chapter also focuses on the related researches to the study and the proposed theoretical framework of the study.
- **Chapter 3 Research Methodology** takes a closer look at the explanation of the research procedures, including sections on population, sample and sampling method; type of the research, data collection methods, research instruments, data analysis techniques and validity and reliability testing methods. In this chapter, a pilot test is allocated to describe the pilot test process and result in assessing the validity and reliability of the selected items.
- **Chapter 4 Findings of the Research** deals with the analysis of data and the research findings.
- **Chapter 5 Conclusions, Discussions, and Recommendations** presents the discussion, contributions of the study, suggestions, conclusions and limitations of this study. The implications for further researches are also discussed.

## CHAPTER TWO

### REVIEW OF LITERATURES

#### 2.1 Introduction

As mentioned earlier by the researcher in chapter one, this study will identify the factors that might influence the international consumer's perception and attitude on their purchase intentions of OTOP snacks food products. These factors can be summarized such as subjective norms, behavioral control and consumer's attitude factors (health and environmental consciousness, product attributes and product trust) towards the purchase intentions of OTOP snacks food products. First, the researcher will define all the independent and dependent variables related to the conceptual framework. They are as following:

1. Perception
2. Attitude Factors
3. Purchase Intentions
4. International Consumers
5. Perception and Attitude of the Product
6. Underlying Theory of the Study
7. Related Researches to the Study
8. Theoretical Framework of this Study

#### 2.2 Perception

Perception in consumer behavior is a procedure throughout which consumers *select*, *organize* and *interpret* the stimuli, so as to provide a meaningful and coherent view of the world to themselves. Perception also means assigning meaning and incorporating it into their world. In short, Perception can be defined as how one views under the persuasion of past experience and personal opinion. It can be noted that a behavior is strongly controlled by psychological factor of perception (Crawford, and Garland, 1988). Brown (2006) gave a definition of perception as being the process of selecting,

organizing and interpreting informational inputs, to produce meaning. For instance, information inputs are the sensations received through sight, taste, hearing, smell and touch.

Ateljevsic (2000) argued that perception can be defined as the process of translating information from the external world into the internal, mental world, that each of us experiences. In addition, Gibson (1979) stated that perception is a direct effect of the properties of the environment and does not engage any form of sensory processing. Customers have different perception from the same message. Customer can identify the products in regards to the reflection and different consumers can make out the difference in the same products (Martin, Ahmad and Gordon, 2006). In order to know how well the customers respond to the product, the marketer can use senses to attract customers in terms of their vision, sound, touch, taste, and smell but all of these factors must depend on the product.

Furthermore, in conditioning consumer choice, perception is considered to be more important than reality. It has been further argued that images of products, from the base of the selection development, to construe information and to channel consumer behavior, as individuals act upon what they consider to be true (Ateljevic, 2000). For instance, international consumers make decisions in conformity with their own view of reality; their behavior follows from this view (Ateljevic, 2000).

For instance, perception studies merge elements of psychology, sociology, anthropology and economics (Albaum & Smith, 2005). A number of beliefs, which can be cognitive or evaluative, can come together to create an attitude (Heberlein, 1981). The relationship between attitudes, intentions and behavior has been clarified by Fishbein, & Ajzen (1975). Stakeholders and players coping with ethically-oriented goods or marketing intellectuals in quest of to better comprehend this process, are hindered by the fact that the research familiarity base about consumers and their behavior from an ethical perspective is reasonably weak (Aguer, Burke, Devinney, & Louviere, 2003).

The market for organic food continues to raise globally at a benchmark rate of 20% per annum. Just two years ago, over thirty-seven million hectares of land worldwide are managed organically by approximately two million farmers. In Europe for example, more than 250,000 farms managed around ten million hectares of organic land, with the uppermost share of organic agricultural land found in places like Spain, Italy and Germany (Willer and Kilcher, 2011). In the last decades, this increasing popularity has characterized the growth of a multidisciplinary stream of research that has investigated the psychological and anthropological drivers of organic food consumption.

Today with the huge awareness on organic food, consumers have separated themselves from the origin of their food and the circumstance of food production which is less apparent today. This addresses how these consumers apprehend their food and can be seen as constituents of the rising interest in locally and organically produced food (Torjusen *et al.*, 2001). Organic consumers are considered to be acquainted with their role in the food scheme. The purchase of organic can be seen as a way of dealing with the intricate, contemporary food system and its perceived risks due to licensed organic products are prohibited and bear information about their production (Torjusen *et al.*, 2001). In contrast, Pedersen (2003) argued that the perception of the preference of organic products as a risk-reducing approach illustrates only a portion of the decision process and the demand for organic food. The author required a deep view on this issue and called for the search for reliable exchange partners, the wish to sustain local producers or to formulate a political avowal as some of extra factors included in the purchase decision.

Ethical principles (ecological sustainability and care for animal welfare) that shape a sort of “inspirational framework” for organic farming have been attributed to be the main drivers of consumers’ choices of organic food in multiple studies. However, on the contrary, another set of studies conceived that the buying behaviour of organic food is stimulated by the alleged healthiness of such products (Guido 2009; Guido *et al.* 2010). In other words, many consumers are becoming growingly aware of health risks related to the consumption of traditional (non-organic) and novel (genetically

modified) food products as well (Siegrist 2008). Thus, the perceived healthfulness of organic food products might be a motivating force of consumption. As this said, it can be argued that there are some corporations that aimed at promoting interest in organic food production by addressing the specific apprehensions of the diverse groups of consumers. By developing custom-made communication programs; such companies efficaciously foster organic food consumption and possibly motivate the adoption of sustainable consumption patterns.

Nevertheless, Royne, Levy, and Martinez (2011) emphasized that getting to diverse consumer groups with the proper strategies may explain more positive environmental friendly behaviours and improved health for existing and potential generations. However, by following such approach, institutions should try to classify various consumer groups to target using adapted plans. Consequently, consumers, farmers and retailers have different ideas of quality of products. That is to say that consumers and producers in one hand, nutritional value, taste or environmentally sound production replicate good quality. Retailers on the other hand, rely more on the appearance of products, which is represented by factors such as size, color, or shape (Torjusen *et al.*, 2004). Finally, appearance, taste, freshness and shelf-life are essential for consumers in general, so for organic products, these quality attributes need to be applied as well (Torjusen *et al.*, 2001).

Numerous consumers consider organic products as pure and less contaminated with pesticides and accordingly as good for their health. It has to be noted that organic agriculture is part of a healthier lifestyle development which becomes more well-liked among consumers. Consumers' anxiety about food production and quality is growing (Pedersen, 2003). Consumers correlate higher ethical standards with organic. Expected control and inspection are required to ascertain enduring trust in organic production (Pedersen, 2003). Consumers also look forward to added values from organic products when compared to products which are conventional. Organic food is assumed to be of better quality because the products are costly. For some consumers, improving the quality of healthy food is interlinked to environmental aspects in the main production. For healthy food consumers, it symbolized better taste and others

bond it with a special and less taken advantage of behavior of the producer in the market (Pedersen, 2003).

Nonetheless, for consumers, the deriving benefits from organic products rely on their awareness of the production process. The findings of the research by Torjusen *et al.* (2001) demonstrated that many consumers reflect on ethical, environmental, social and health features when selecting food, attributes which are mostly associated to the production and processing of the food. Hence, most of the attributes cannot be observed or experienced directly, information is limited, so trust plays an important role (Torjusen *et al.*, 2001).

To add, Pedersen (2003) stated that consumers can gain ethical and moral satisfaction from buying healthy food products and increase their psychological well-being. Ethical and environmental distresses about food production are imperative to consumers but there are great differences between consumer divisions. The persuasion of these concerns on buying depends on whether consumers can relate products with environmental problems or other concerns and values in their lives (Torjusen *et al.*, 2001).

For instance, consumers' perceptions on healthy food like quality cues confer to the purpose of beliefs and consequently the purchase preference. In other words, multiple researches were conducted to recognize and categorize the most important intrinsic and extrinsic quality cues concerning food product. To be specific, intrinsic quality cues consists of the physiological components of the product (attributes) whereas extrinsic quality cues include price, product presentation, origin or brand (Steenkamp and Van Trijp, 1996). Steenkamp and Van Trijp (1996) added that at the point of purchase, only a few of these quality attributes can be reviewed by the consumer as they formed the consumer's expected quality.

Accordingly, the opinion on expected quality is assessed at the point of purchase whereas experienced quality is evaluated at the focus in rationale at the point of consumption. That is to say that the consumer shapes the decision into buying healthy products in relation to cues such as price; label; brand; appearance and type of process in terms of attributes like flavor, freshness and nutrition (Grunert *et al.*, 1996). Such approach that differentiates between the evaluations of food quality before and after purchase is known as the “total food quality model”. Healthy food products organizations ascertained that they create healthy product that meets the expectations of consumer due to the fact that the most central quality attributes are well recognized.

In a nutshell, consumer perception pertains to how people form opinions about companies and the products they offer through the purchases they make. Corporations (businesses) apply consumer perception theory to determine how their consumers perceive them. They also use consumer perception theory to build up marketing and advertising strategies projected to retain existing consumers and attract new ones. There are different types of perceptions among which:

- Values and motivations
- Perceived price
- Information of trusted source
- Perceived benefits
- Subjective Norms
- Behavioral Control

For instance, in this thesis, the researcher is interested in the last two types (subjective norms, behavioral control) of perception in order to determine their prediction of the purchase of OTOP snack food products.



### 2.2.1 Subjective Norms

Subjective norms can be defined as the effects of external factors on customer's intention whereby beliefs play important roles in forming the intention of those customers (Miller, 2005). Additionally, Fishbein and Ajzen (1975); and Olsen (2004) stated in their literatures that social norms are described as the perceived social pressure or expectation of the society (subjective norms) or from specific groups or individual (normative beliefs).

Subjective norms can be also interpreted as the "perceived social force" to perform an exact behaviour (Ajzen, 1991). According to Ajzen and Fishbein (1977), subjective norms are said to be a form of belief that individuals approve or disapprove certain behavior when assuming and performing the same. That is said, individuals not only perform behavior under social pressure rather subjective norms provide them information about the suitability of a behavior under consideration (Jager, 2000). Subjective norms are alleged to influence the intention to purchase autonomously (Robinson & Smith, 2002).

For instance, it would be recommendable to identify the dimensions of subjective norms such as descriptive norms and moral norms in order to boost the predictability of this construct within the TPB (Theory of Planned Behavior) model (Armitage & Conner, 2001; Donald & Cooper, 2001). Pragmatic studies demonstrated that descriptive norms have put in to the estimation of intention in competition of subjective norms (Tuu *et al.*, 2008); and consequently, the underlining concept of subjective norms accentuated on the possibility of gaining approval or disapproval from significant others for one's intentions and actions, while descriptive norms refer to perceptions of other people's behavior in the domain (Sheeran & Orbell, 1999).

In past researches on both the purchase intention and the behavior towards food products, the role of subjective norms was not comprehensible, particularly when considering their effects in structuring the behavior (Ajzen, 1991). However, authors like Magnusson, Arvola, Hursti, Aberg, and Sjoden (2001) did not adopt subjective

norms in their study while Sparks and Shepherd (1992) did use it though the significance of this factor is not strong. As a result, this does not indicate that subjective norms play a minor role, Shepherd and O'Keefe (1984); Shimp and Kavas (1984) and Chang (1998) obtained a significant causes and effect relation from subjective norms to attitudes (not found in previous studies).

In addition, the rapport between subjective norms and attitudes generally concerned the ethics, morality and human's benefits. In the researcher's conclusion, Chang (1998) evoked that if there is a link between subjective norms and other original factors, such association could not be ignored. Researches about subjective norms showed that these latter are a good interpreter of behavior, when a different person's well-being is influenced by an individual's actions (Sheeran & Taylor, 1999; Kok & Godin, 1996). However, if it concerns one person in taking a preference, the impact of subjective norms is insignificant (Rimal & Lapinski, 2005).

Moreover, the literatures in exploring the acceptance of the TPB to food products purchasing behavior showed that both subjective norms and behavioral control exercise greater impacts on consumers' behavioral intention (Chan & Lau, 2001). As such, Bagozzi *et al.* (2000) stated that the prediction of subjective norms is assumed to look at the social pressure a decision maker feels whether to make a purchase or not. The authors also explained that among other results, the factor "subjective norms" were found to have a persuasion on respondents' decisions. McClelland's (1987) theory of needs on the other hand proposed that a person is likely to carry out a behavior that is believed to be pleasing loved ones or referent group, by reason of their call for being affiliated and identified to a group. As this said, a person's intention to consume healthy food are possible to be reinforced if they trust that their relatives look forward for them to do so, or they incline to be recognized with other people who are consuming organic/healthy food (Chen 2007).

Accordingly, Chen (2007) has lately conducted a study relating to consumers' attitudes and purchase intentions about organic foods. The research employed the Theory of Planned Behavior (TPB) as the major model. Contrarily to other studies implementing this theory, yet, the researcher examined the presence of possible moderating influences of food related personality traits and food contribution on different associations between food choice purposes and the consumers' intention to purchase. In addition, Chen (2007) suggested that when individuals have positive subjective norms to purchase healthy foods, they will be more likely to have intention to do such purchase. The outcomes of the research within the proposed model pointed out that in combination with other attributes (attitudes to organic foods purchase, perceived behavioral control, and perceived difficulty), positive subjective norm significantly increased the consumers' intention to purchase.

#### **2.2.1.1 Belief (Family/loved ones)**

The social determinant of intention is the person's insight of the social stress put on him to carry out or not carry out the behavior in question. Since such perception deals with perceived prescriptions, this factor is termed "subjective norms". In the case of purchasing a product, a person may believe that most people who are important to him think he should buy the so-called "product" or he may believe that they think he should not. Therefore, as an empirically tested general rule, the more positive the subjective norm regarding a behavior, the stronger should be a person's intention to complete the behavior under thoughtfulness (Ajzen, 1991). For instance, Ajzen (2006) pointed that the assumption exhibits that subjective norms are established by the entire combination of accessible normative beliefs relating to the expectations of important referents for this person (e.g. family or friends).

Fishbein and Ajzen (1975) described "belief" as the subjective prospect that the behavior has a definite attribute; and it is possible to gain some perception of a person's behavioral intention, by measuring his attitude towards performing the behavior, and his subjective norms. Under subjective norms, there are beliefs (normative beliefs) of a person in which specific individuals or a group (referents)

think he should or should not perform the behavior; and as a result, a person who believes that the people who are relevant referents for him in purchasing a product think he should do so, will perceive pressure to do so.

The Theory of Planned Behavior has been effectively relevant to an extensive range of behaviors and meta-analytic assessment supported the theory's predictions. In prospective studies for example, intentions characteristically contributed between 19-38 percent of the variance in behavior (Ajzen, 1991; Armitage & Conner, 2001). Subjective norms (under TRA) explained about 50 percent of the variance in intentions (Ajzen, 1991; Armitage & Conner, 2001; Sheeran & Taylor, 1999). Although the effect sizes are remarkable (Cohen, 1992), it is also obvious that the TPB leaves a significant amount of the variance in intentions and behaviour to be explained. Whilst some of the unexplained variance can be attributed to methodological factors, yet the conceptual factors should also be considered (Sutton, 1998).

In the context of food choice, Vermeir and Verbeke (2006) testified that the aspiration to adhere to other people could clarify strong intentions to purchase healthy food products even if the personal attitudes are weak. Trafimow (1998) evoked that there may be diverse contributory trails to behaviors for special people. For example, some individuals possibly will be more intended to complete behaviors on the foundation of the attitudinal way but the normative conduit may perhaps be more imperative for other persons. Accordingly, intervention strategies ought to be centered not only on the behavior of concern, rather on the definite persons of concern. However, it is compulsory to have a scheme of shaping, for every individual to complete the behavior sourced by attitudinal or normative factors.

Gotschi, Vogel, and Lindenthal (2010) found that for Austrian adolescents, primary socialization have a considerable authority on the expansion of a positive attitude towards organic or healthy food, while secondary socialization, has less impact on attitude formation. Tarkiainen and Sundqvist (2005) found no direct noteworthy path association between subjective norm and intention to purchase healthy food, but

rather an important positive alliance between subjective norm and attitude toward healthy food consumption. The reviews on TPB applications from Ajzen (1991) and Armitage and Conner (2001) pointed toward subjective norms often put forth no direct outcomes on intentions after checking for the influences of attitude and PBC (Bamberg *et al.*, 2007).

### **2.2.1.2 Group Affiliation and Identification**

Terry and Hogg (2000) undertook a well-designed explanation that norms have a greater impact whenever individuals powerfully identify themselves with their group (as long as the group identification is salient). In consequence, if a person wishes to interfere on a normative intensity, it might be practical to observe the group or groups with which the individual stoutly identifies. Providing the group norms are reliable with the path of the intercession, rising the salience of this group membership is probably to facilitate pushing the person in that path.

Trafimow and Finlay (1996) considered that the persuasion of norms might be improved by leading the collective self (the location in memory that contains thoughts about group membership). Ybarra and Trafimow (1998) in their research analyzed this assumption by priming the personal or collective self and then evaluated attitudes, norms, and intentions to utilize a condom during sexual intercourse. Contrasting to when the personal self was primed, the impact of norms was significantly improved when the collective self was primed.

Bamberg, Hunecke and Blobaum (2007) in their study adopted the structural equation modeling. In their findings, the authors discovered that subjective norms cannot have a direct relationship with intention; rather an indirect control by influencing the behavioral control, attitudes, norms and guilty emotions concerning environmental behavior. It is whispered that people follow norms of sociality not simply for alerting from pressure of social except information regarding the most effectual and appropriate behavior is provided (Bamberg *et al.*, 2007).

### 2.2.2 Perceived Behavioral Control

Perceived Behavioral Control (PBC) signifies an individual's own perception about his or her ability to carry out a specified behavior. It is determined by beliefs about the presence of factors that may facilitate or impede performance of the behavior (Ajzen, 2006). In this case, control beliefs are defined as the presence of conditions that can either facilitate or obstruct someone in performing behavior.

Perceived Behavioral Control (PBC) emphasizes an individual's viewpoint about the ease or complexity in performing the behavior (Ajzen, 1991, Olsen, 2004, Pawlak & Malinauskas, 2008). In case a person is hypothetical to have more resources and chances, it is understood that he or she has a significant control over the behavior (Olsen, 2004). In other words, the third group of salient beliefs that answered the behavioral control is known as control beliefs (Ajzen, 1991, 2001, Pawlak & Malinauskas, 2008). These latter also illustrate the level of resistance perceived by a person to carry out a preferred behavior (Pawlak & Malinauskas, 2008).

Ajzen (2005) differentiated a perception from the locus of control suggested by Rotter (1966) when elucidating it to behavioral control. That is to say that locus of control is concerned about a person's beliefs which are comparatively established in all conditions. Behavioral control on the other hand, may change based on situations and categories of behaviors to be carried out. Nonetheless, locus of control according to Rotter (1966) is focusing on an individual's beliefs and success in doing something relies on his or her own effort (Rotter, 1966). Thus, when the belief is linked to detailed achievements, subsequently it is known as a perceived behavioral control.

Ajzen (1991) redefined the perceived behavioral control construct as a self-efficacy concept (Conner and Abraham, 2001). The author added that perceived behavioral control combined with the intention of the behavior can be directly adopted in determining behavioral achievement; as a result the perceived behavioral control has an effect on both the intention and the behavior (Ajzen, 1991).

Nevertheless, perceived behavioral control is more essential in persuading an individual's behavior, and especially when the behavior is not completely under volitional control (Ajzen, 1991, 2001, Chiou, 1998). Hence, two main constituents of PBC have been detected. It also means that the first constituent is the availability of resources needed to undertake the behavior (e.g. money, time, and other resources); whilst the second constituent is about the individual's self-confidence in performing the certain behavior (Ajzen, 1991, 2001).

Since the Theory of Planned Behavior (TPB) confirmed that the expectedness of its constructs differs within situations and behaviors; so as the level of importance of the perceived behavioral control-intention relationship may possibly be different as per the situation and behavior (Armitage & Conner, 2001). Additionally, the factors of the behavioral control could be either internal (skills, knowledge, lack of abilities, willpower, compulsion) or external (time, opportunity, situation, dependence on others) to the individual (Ajzen, 1991). Olsen (2004) also uncovered that the most vital control factors impacting consumers' food products purchasing comprise price/cost, convenience/availability and knowledge.

The PBC construct is defined as an integrated component of internal, external control and contextual factors that international consumers may perceive its ease or complexities in completing their intention to consume and engage in OTOP snack food products purchase. In more in depth exploration, price/cost, availability, and convenience are presumed to be the main determinants of personal control over purchasing OTOP snack food products. It should be worthy to mention that some of these beliefs also affect attitude, thus they affect both the attitude and PBC. However, here price/cost refers the actual cost, while price/cost in the attitude refers to the individual's perceptions about purchasing OTOP snack food products.

### **2.2.2.1 Affordability/Cost/Price**

Affordability or cost can be a particularly central factor in what people choose to eat. In some cases, the least healthy preferences are also the most affordable-high-fat and high-sugar foods tend to cost less per calorie than healthier alternatives like fruits and vegetables (Glanz, Krista, Tilley, and Hrist, 1998). This could make it complex for some lower-income consumers to pay for healthier options (Golan, Stewart, Kuchler, and Dong, 2008). It is apparent that the cost of food has a greater role in predicting both the eating models and health behaviors (Darmon, Ferguson, and Briend, 2002).

Personal food selection is also influenced by price. In a research by Glanz, *et.al* (1998), it was found that both adults and adolescents pointed out that price is one of the most important factors in predicting food choice, second only to taste. Interference researches specified that the reductions of price alone, or with promotional resources, provide to enhance purchases of healthy food. In conclusion, a current state-level ecological study confirmed that the price of food and the shopping environment play a significant part in clearing up the obesity epidemic (Chou, Grossman, and Saffer, 2004). With respect to the expenditure of healthy food products, a number of authors like Burell and Vrieze (2003), Padel and Foster (2005) and Vermeir and Verbeke (2006) testified a gap between consumer's attitudes and their asserted or marketplace behaviour.

### **2.2.2.2 Convenience**

It is important to recall that for dependent behaviors on skills, planning, competence, assistance of others, time, money, or the management of other external or internal interferences (Ajzen, 1991), actions will consequently be a product of both product and value expectancies (Bandura, 1997). Accordingly, Ajzen (2001) argued that when perceived behavioral control is implicit in this approach; it is the same as Bandura's conception of self-efficacy, but only when self-efficacy is described with respect to the achievement of specific behaviors (Bandura, 1997).



For instance, it is emphasized that from both the social cognitive theory (Bandura, 1997) and modified learning theory (Wallston, 1992) that although an individual believes that a behavior will positively generate valued results, he or she will only be motivated to (try to) carry out the behavior to the point that he or she is positive in his or her ability to complete it effectively.

A number of studies have also operationalized affordability as a part of behavioral control, in impacting behavioral intention (Thompson and Thompson 1996; Notani 1997; Oh and Hsu 2001). As this said, affordability relates to the ability to accept the cost without severe drawbacks to the ability for action. From a consumer's point of view, affordability is intimately linked with economic and search (convenience) costs. ACNielsen (2005) stated that the higher monetary cost was alleged to be the major hurdle to organic food consumption for one third of respondents in Asia Pacific and over 40 percent of European and North American consumers. Likewise, limitations in supplies and allocation channels were seen as factors that raise the cost of sourcing for natural food.

## **2.3 Attitudes Factors**

### **2.3.1 Definition of Attitude**

Attitude has been defined as a mental and neural state of readiness that basically influences the response of the audience towards all objects and situations with which the audience is confronted (Allport, 1935). Schultz and Zelezny, (2000) indicated attitudes by taking into account the attitude towards environmental concerns as being the deep rooted concept in a person's self with a perception of the degree of bonding between self and the environment.

Additionally, the definition of attitude is elaborated as a mental and neural state of readiness to respond that is organized throughout experience and puts forth a directive and/or dynamic influence on behavior (quoted in Huls; 1999). It is also a feeling inside that reproduces the customer's tendency if he/she likes or dislikes such as product brand, aspect, service, packaging and situation. Attitudes can also symbolize a

person's common feeling of favorableness or unfavorableness headed for some stimulus object or things. Attitudes are forever embraced with respect to an exact object whether it is a person, place, event, or idea and designate one's feeling or influence toward that object. As a consequence, attitudes also are likely to be constant over time and are complicated to change. An attitude makes a colossal difference in terms of when and where a person goes for vacations, what he/she eats and drinks (Aimkij and Mujtaba, 2010).

An attitude is a made-believe supposition that characterizes an individual's extent of having a preference or disliking an object or an item (Exforsys Inc, 2010). Attitudes can usually mean positive or negative observations of an individual, place, thing, or whatever symbolized to be the attitudinal object (Glossary, 2010). When it comes to decision making, individuals can have both positive and negative aspects towards the object under discussion. Consequently, the configurative representation of an attitude has three components known to be cognitive, affective and behavioral, (Exforsys Inc, 2010). In other words, the first component (cognitive) addresses the individual's beliefs; the second focuses on the emotions and assessments, and the last component (behavioral) emphasizes the method of performing towards the "attitude object". To add, the belief characteristics of positive attitudes are commonly estimated through researches, discussions and other reporting techniques, whereas the emotional factors are further simply appraised by observing some physiological signs like heart rates (Gale Group, 2001).

According to Robertson (1973), attitude reflects the liaison between a consumer and an object. However, it is rather complicated to define the object, as researchers Solomon, Bamossy and Askegaard (2002) estimated all that can impact the attitude towards something as the object of attitude. Following Ajzen and Fishbein (1980) as well as Rosenberg and Hoyland (1960), attitude can be illustrated as a scrupulous estimation of an object, which could persuade the feeling, knowledge or behaviour with regard to the object.

In defining the term attitude, towards behaviour, attitude has contributed to the level an individual has a desirable or non-desirable valuation or behaviour-based appraisals in question (Ajzen, 1991). According to Ajzen (1999), if the attitude is more desired in view of the behaviour, then the similarity of a consumer to act the reflected behaviour becomes higher. In regards to the analysis of attitude conception, few explanations were undertaken and the current definition of attitude suggested, it is possible to identify the attributes, characteristics to it easily. Within the definition of consumer based attitude, the object of attitude is widely inferred. The object can be a physical thing or an action. Moreover, it is possible to associate attitude with one object (a person) or the entire group (a social class).

In all of marketing, one of the most determined conceptions is attitude. That means attitude plays a critical function in the most important models relating to consumer behavior, and is integrated, in one structure or another in popular marketing studies. Attitude also plays primarily an essential role because it is assumed to strongly impact behavior (Churchill & Labocci, 2005). Numerous earlier researches have made contributions to discover the link between consumers' environmental attitudes and behavior (Chan, 1999; Alwitt & Pitts, 1996; Fraj & Martinez, 2007; Stern, 2000) and evaluating consumers' environmental attitude-behavior in the different setting of cultures (Laroche *et al.*, 2002; and Oreg & Katz-Gerro, 2006).

An attitude toward a product implied the instructions that customers rely on and the item in which they are attracted. Consumers with a positive attitude to a product will be more tending to choose the store and purchase the product. Conversely, in the case of consumers with critical attitudes, they will not pick the product or will not acquire the product (Moye and Kincade, 1999). Results from prior researches demonstrated that consumers enclose varied perceptions of healthy food which allow their attitudes toward it (safety, health) and the environment. These are conclusive in knowing the purchasing decision method of consumers with reference to healthy food products. In addition, countless researchers exhibited that health aspects are the mainly frequent issue. These factors operated as a stimulus to select organic or healthy food (Williams and Hammit, 2001; Magnusson *et al.*, 2003; Wandel and Bugge, 1997).

Moreover, consumers' attitudes towards healthy food are strongly interrelated to consumers' willingness to undertake healthy actions. That is to say, the more ready a consumer is to take healthy actions, the more positive his/her attitudes toward healthy food. In contrast, a consumer's health consciousness impacts his/her attitude towards healthy food. Consequently, positive attitude towards the products not only has an impact on the purchasing decision of consumers and an individual's health, it also affects the accomplishment or breakdown of food products in the food marketplace (Thompson and Kidwell, 1998).

Nonetheless, personality and attitude are the exclusive natures of a special individual persuading behavior and reaction to the company environment. Buying behavior is always subjective to personality. Hence, marketers and advertisers extensively adopted personality traits interested in the advertising of their product or service. Nowadays, consumers' attitudes can also amend in the various environments. Some of personality or attitude can be uncovered in one individual although some parts were coming across in the mainstream of society (Chaudhuri, 2006).

Attitude was found to be a significant element while eating healthy foods as an intention factor. The TRA (theory of reasoned action) developed by (Ajzen and Fishbein, 1975) and (Fishbein and Ajzen, 2005) enlightened that attitude is a vital factor of behavioral intention and this is submitted in many researches. Beside, in terms of healthy good usage, TRA and TPB (theory of planned behaviour) were assumed to be stable.

For instance, research related to consumer attitude and preference for organic products is very indiscernible (Chinnici, D'Amico, & Pecorino, 2002). Consumer attitude to foods is principally influenced by quality attributes. Ethical factors are sometimes overstated (Browne, Harris, Hofny-Collins, Pasiecznik, and Wallace (2000). Many authors pledge to the notation that a considerable growth in production and demand for organic products is very obvious. Major reasons alluded in favor to this trend are amongst safety of consumers, nutritional value of organic food products

and the environmental friendly component associated with organic production (Maguire, Owens, and Simon, (2004).

Nowadays, some researchers (Yiridoe, Bonti-Ankomah, and Martin, 2005) have mentioned that the reasons of buying organic products could be grouped according to concerns (food safety, human health, environmental impact) and commodity attributes (quality, taste, freshness and packaging). However, consumers of organic food products are changing according to their countries background, level of awareness, product availability and attitude changes. Yet, consumers have positive attitudes towards organic products that are perceived as healthier than conventional ones (Chinnici *et al.* 2002).

Comparable consumer apprehensions and motivations opposed to environmental issues have been stated in a different explorative study in Southern Italy (Driouech, Medicamento, and De Gennaro, 2010). The mainstream of consumers has apprehended that their buying behavior has a through contact on many ecological crises (Laroche, Toffoli, Kim, and Muller, 1996). The expansion of organic agriculture is seen as part of the promising marketing tendencies where consumers require knowing what remuneration a food could convey before making buying decision. People who purchase healthy food have been categorized into four groups (Davies, *et.al* 1996) namely:

- Greens: people who are concerned with the environment;
- Food phobic: people who are concerned about chemical residues in food;
- Humanists: those who are preoccupied with factory farming methods and;
- Hedonists: believers confirming that premium products must be better and importantly taste better.

A Swiss study proposed that values, attitudes and purchasing motivations are product-specific; frequently less connected to natural farming in all-purpose and differs along with consumer groups (Sanders and Richter, 2003). Higher developed products are less purchased for their organic derivation but for other product uniqueness (Pedersen, 2003). Various expected healthy consumers are expected to purchase only definite

natural products. The most important reason to purchase healthy dairy products is related to animal wellbeing, followed by individual healthiness apprehensions and environmental protection (Sanders and Richter, 2003).

The impact of food behaviors, attitudes, beliefs and estimations on choosing and buying the food is of an accurate significance in the approval or denial of food (Schifferstein, 2001; Magnusson and Koivisto, 2002; Harker *et al.*, 2003; Urala and Lahteenmaki, 2004; Jaeger, 2006; Villegas *et al.*, 2009). Thus, there were five top impacts on choosing food in 15 European member states found by the Pan-European Survey of Consumer Attitudes to Food, Nutrition and Health. These five influences are quality/freshness (74%), price (43%), taste (38%), trying to eat healthy (32%) and what a family wants to eat (29%). These findings acquired by combining 15 European member states, which considerably diverged from one country to another. In the contrary, in the USA features such as taste, cost, nutrition, convenience and weight concerns impacted the choices of food (Glanz *et al.*, 1998).

Nevertheless, in Pan-European lesson, health aspects to be predominantly central are believed by females, older subject, and more educated subjects. On the other hands, “taste” and “habit” are the foremost characteristics of food choice usually selected by the males. In addition, price seems to be vital among unemployed and retired subjects. Similarly as of today, consumers concentrate more on health features of healthy products. Nevertheless, negative health aspects of more common chemicals intake, lead to many diverse health troubles like direct risk of heart attack, hypertrophy of the left heart chamber, greater possibility of infection of *Helicobacter pylori* and risk of stomach cancer. In a study by Lilić and Matekalo-Sverak (2011), eleven (11) EU countries have decided and signed the plan of chemical content reduction of 16% in the next 4 years. Accordingly, World Health Organization (WHO) started the lessening strategy through regional directors.

### **2.3.2 Dimensions of Attitude in the Current Study**

The attitude variable in this study is measured through health and environmental consciousness, product trust and product attributes.

#### **2.3.2.1 Health and Environmental Consciousness**

Makatouni (2002) found in his study that respondents recognize organic or healthy food products as a medium of accomplishing personal and societal values, of which the primary is focusing on the health aspect for either their family or themselves. Consequently, health factor is the most important drive for organic food products purchase. Finally, values related to the environment and animal welfare are also fit to be essential motivators for organic food products choice. Several papers have mentioned about the contents of organic and normal products. Those papers have confirmed that organic food products have less fat and contained more carbohydrate. Vitamins in organic food are at a higher level than normal food.

In reference to health issue, organic foods include a high percentage of vitamin C and it is significant for the safety of human body. Additionally, there are also resources in organic products that can assist in cancer disease. Researches illustrated that the expenditure of organic contents has dwindled cancer growth in the body of patients. In animal production for example, there is also unlikeness between animals grown with organic schemes and those with non-organic practices. Studies also demonstrated that the percentage of important constituent in animal with accepted development is more superior to other animals with contradictory procedures. As an example, milk from natural animals is further important and with advanced percentage of compulsory factors (Huber, Rembalkowska, Srednicka, Bügel, & van de Vijver, 2011).

Consumers understand that all the works from manufacture, sharing, removal and use of goods may bring negative consequences to the environment. However, goods that are produced in natural ways do not harm the nature. Organic food can help to reduce nature contamination, defend the health of water and soil, and decrease the use of

chemical instruments in farming (Zeinab and Maryam, 2012). This is why consumers have interest to use organic products. Thus, it can be understood that there is a positive relation between consumers who are worried about nature with their intention to buy organic food. The growth of these kinds of consumers will lead to more consumption of organic food.

Grunert and Juhl (1995) defined a customer who is environmentally concerned as a consumer “who distinguishes that the construction, delivery, disposal and making use of products end up in external costs, and view those costs negatively and attempts to lessen them as much as possible all through own actions”. That means products that are environmentally friendly have been produced using techniques that do not destroy the environment; this is on its own the mainly significant feature shaping consumers who are conscious about the environment and its problems.

Rooted in the papers of Werner and Alvensleben (2011), there is an association between the level of customers’ concern for the environment and their drive to purchase organic products. Huang (1996) revealed that the intensification in organic product expenditure is due to an expansion in environmental apprehension in the public. As elucidated by Staff (2011), few people buy organic food for environmental motives, as organic farming procedures are built up to facilitate the environment and reduce pollution, and care for the quality of the water and earth.

To add, in the cross-cultural studies done between two countries; Squire, Juric and Cornwell (2001) have completed an analysis on a cross-cultural study of Danish and New Zealand consumers. The study wanted to look into the relations between health and diet apprehensions, concerns of the environment, self-belief in the non-organic food industry, demographic characteristics, and force of organic food products consumption of consumers from Denmark and New Zealand. The results established that health concern, environmental concerns about the conventional food industry are important in influencing the power of organic food products consumption.



### 2.3.2.2 Product Trust

Trust is investigated in many different disciplines ranging from philosophy, sociology to psychology and marketing research. There is neither complete agreement about its definition, nor about the conditions that determine its development as well as its measurement. Being a multidisciplinary concept, the definition of trust varies across disciplines. Trust, in broader aspect can also be said as 'general trust', defined as "the extent to which one believes that others will not act to exploit one's vulnerabilities" (Lobb, 2004). Hence, researches conceptualize trust as a combination of rational thinking (cognitive process) and feelings, instinct and intuition (affective influences) (Lobb, 2004). Individual's past experience is the base for trust formation (Lobb, 2004).

Since it is difficult for general consumer to assess the risk associated with the food through normal investigation and judgment; they have to depend on other informational sources like media and institutions, which is refereed as 'social trust', while 'social trust' is defined as the people's willingness to rely on experts and institutions in the management of risk and technologies (Chen and Li, 2007). Thus, the phenomenon of trust is more discussed in risk and food safety related media and information researches.

However, in consumer behavior related studies the interaction of trust in 'institutions' or individuals (suppliers of food or government/regulators) on consumers purchasing behavior is the main focus of research (Lobb, *et. al.* 2007, Lobb, 2004). Renn and Levine (1991) found five distinct components of trust as such the degree of perceived expertise of the source, lack of biases in information, fairness, consistency over time and good faith. Additionally, Lobb (2005) identified several sources of information on food safety available for consumers as follows: labels; advertising; other point of-purchase information; word of-mouth; diet and health guidelines from the medical profession, consumer groups; and media news. Hence, other varieties of information (results of scientific study) are regularly expressed throughout one of the listed medium (Lobb, 2005). Reporting bias and knowledge bias are two perception factors

in measuring trust. The reporting bias is characterized as the complete trust in the truthfulness of the source of information, while knowledge bias is associated to the (perceived) degree of knowledge (expertise) of the source.

Against the background of the previous considerations, trust was conceptualized in organic food as a multidimensional concept taking on the consumers' intention to depend on other actors like farmers, retailers, certification bodies or labels (trusting intention), on the one hand, and consumer beliefs in the dependability of these actors (trusting beliefs) on the other hand (McKnight, Choudhury, Kacmar, 2002). In addition, consumer trusting intentions and trusting beliefs toward healthy food are viewed as the outcome of their all-purpose character to trust, personal trust in definite actors of the organic group, and institutional trust in the usefulness and validation of the organic rules and the related reaction of being associated to the actors of the organic group. These different varieties of trust are not looked upon as autonomous from each other, but present a relationship between them. Institutional trust is shaped in individual obstacles with salient agents, but the reality of institutional trust may also stalwartly impact whether an individual trusts a person or not (McKnight and Chervany, 2001).

Study on European consumers found that information obtained from consumer association is more trustworthy than that of other food related people and institutions; simultaneously tabloid newspapers, government ministers are less trustworthy as they are assumed to have personal/group interest for the safety information (Lobb, 2005). The influence of these sorts of consumer associations & other organizations is subject to further research in developing countries. This study will define trust from the both perspective as the consumers trust on different fish vendors at different fish trading spots; and the trustworthiness of various food safety information sources such as the food industry, friends, Government officers and organizations, medical doctor, supermarket information leaflet, quality newspapers, television programs and news, university scientist. As consumer associations in Bangladesh are not so active regarding the food safety issue this study will exclude

the public trust on them. However, this important issue will be kept for further research. Thus, in this study for modeling purpose the trust construct is divided as trust on information sources and trust on sales outlets.

There were comparatively little researches which investigated trust in healthy food. Researchers like Bech-Larsen and Grunert (2001) examined belief attributes adopting the example of healthy products. The authors founded that with credence attributes; the reliability of information and information carriers plays a fundamental role. Karstens and Belz (2006) as well argued for changing belief attributes in a complete investigation, it is worth to consider attributes like labels, self-declarations, product brands, corporate brands, personality and internet presence. There are other papers which explored the integrity of assurance methods such as organic certification (van Amstel *et al.*, 2008), however, there are small number of studies which scrutinized the credibility as alleged by the consumers. Nilsson *et al.* (2004) evoked that most of consumers believed in organic labels, but they are doubtful about what the perception organic is about, and accordingly, they need more information. Another group of researchers, however, concluded that information is not sufficient in setting up trust (Meijboom *et al.*, 2006).

### **2.3.2.3 Product Attributes**

Wickliffe and Pysarchik (2001) emphasized that product attributes in general are the significant features (brand and price) that encompass thorough impact on consumers' behavior. In other words, brand and price are the two dynamics which cover up most important areas of the product attributes; however there are some other elements of the attributes among which aspects like structure, look, color, weight and quality can be listed. Likewise, Abbott, Holland, Giacomini and Shackleton (2009) described product attributes as being the sensory processes of the product, the cognitive features of the products; as well as its casual properties notified in terms of design, technology and engineering processes of the product constituting the overall rating of the product on the part of consumer.

In addition, Bian and Moutinho (2011) further explained that product attributes are the significant features that differentiate the product from others. That is to say, there are two types of attributes namely the intrinsic and extrinsic. Hence, the intrinsic attributes are the information bundles that have a direct impact on the product whereas the extrinsic attributes are the information bundles which have an indirect impact on the product. Thus, product attributes is essentially the likeness of the brand's image enclosing the features of the product. Therefore, product attributes play an important role in pulling off brand equity. As a result, consumers' satisfaction level decisively depends on the attributes. If the consumers are more satisfied, they will show interest in the particular product and make purchases repeatedly.

Nowadays, as consumers are more concerned about healthy food, the most important feature they think about is the product organoleptic (pertaining to the sensory properties of a particular food or chemical) quality. Such thoughtfulness is due to the fact that a product organoleptic quality consists of its typical sensory properties of a food: its taste, appearance and color, aroma, size and firmness, and even sound (the "snap" or "crack" when biting into a crusty apple). Nevertheless, organoleptic measures also comprise mouth feel and any other sensations associated with eating a food even though there are many difficulties related to the taste (Heaton, 2001).

In the midst of the allegations made with reference to organic growing methods is that they produce more flavorful (better tasting) products. This is definitely the acknowledged validation for undertaking countless researches in latest years, (Maga, Moore, and Oshima, and Yield, 1972; Schutz, and Lorenz, 1976) which have set out to establish the validity of this claim. Yet, even if organic produce is not greater in sensory terms, there were possibly other reasons for applying organic farming systems together with safety and environmental concerns. In contrast, there are several reasons regarding product attributes and consumers' purchase.

In a study by Heaton, (2001); the researcher found that 43% of consumers of organic food answered “better taste” as a major reason for buying organic products (Heaton, 2001). It is very important to know if the consumer certainty of “better taste” is exclusively due to the “halo effect” of the organic label, and, if not, what explanation for the often-cited assertion that organic produce tastes better. In addition, many marketers of organic foods emphasized that their food product taste better. When such claims are integrated in advertising and promotional literature, they must conform to the federal rules prevailing marketing claims and must be backed up by believable scientific proof (Drewnowski, and Gomez-Carneros, 2000). As the organic industry moves toward more direct claims regarding comparative taste in advertising and product labeling, it will be essential to support such claims with a strong body of evidence from carefully designed and controlled experiments (Drewnowski, and Gomez-Carneros, 2000).

## **2.4 Purchase Intentions**

Purchase intention is the compliance of a consumer to buy a particular product (Doods *et al.*, 1991). Social psychology recommended that intentions should be the best determinants of personal behavior, since purchase intentions replicated the consumer’s own look of purchase likelihood, in competition of other pertinent aspects that could influence consumer’s behavior and decisions (Young *et al.*, 1998). Purchase intention is a concept the majority of food producers focused on as it facilitated them recognizing consumers’ behavior of and their perceptions of the products (Magistris and Gracia, 2008). Once suppliers have an enhanced acceptance of consumers, they can endow with a wide variety of products and that deal with consumer’s satisfaction. On the other hand, consumers are also conscious of their health concern when buying a product.

OTOP food manufactures should provide sufficient information about their products. In contrast if food manufacturers provide insufficient information about their products; customers may have a wrong perception of these products and this apprehension will affect their purchase intention (<http://www.anninhthudo.vn/>).

Putting food product information clarifies the product and the consumer will have a better understanding and perception of the food product. In order to predict the future purchase intention many factors (motivational factors) should be taking into account.

According to Fishbein and Azjen (1975), intentions have four elements. First, the behavior which is intended to be carried out, then the target object at which the behavior is directed, the situation in which the behavior is to be performed as well and finally the time at which the behavior is to be performed. Moreover, the normal intentions of the beholder (positive or negative) are most likely to determine their consequential behaviors (positive or negative) towards the object. The consumers' purchase intentions are therefore defined as the likeliness of buying or rejecting any commodity by the consumers (Whitlar *et al.*, 1993).

Researchers have mostly adopted this variable as a factor of behavior since it shortens the dimension of behavior, particularly if the complexities of observing the real purchasing process of each person are borne in mind (Chandon *et al.*, 2005; Newberry *et al.*, 2003); nonetheless, any determination of consumer behavior based on buying intentions is far from ideal. Numerous explorations noted inconsistencies between intentions and behaviors (Newberry *et al.*, 2003; Young *et. al*, 1998). Consumers in diverse countries give different main concerns to the dynamics that influenced their purchase intentions (Lee and Green, 1991). An additional current research by Chandon *et al.* (2005) evaluated consumers' intentions to purchase toward foodstuff, vehicles and laptops. The research conclusions supplied facts to advocate that the stronger the consumer's intention to purchase, the greater the possibility of the consumer purchasing the products being measured.

Elbeck (2008) explained the willingness of prospective consumers in terms of their intention to purchase about a product. The sales of a business could be based on the market analysis on the intention to purchase of customers. Forecasting purchases is the pre-step that channels consumers to actual purchase proceedings, and it is comprehended as intention to purchase (Howard and Sheth, 1967). In addition, relying on a variety of prior theories, intention to purchase can be measured as the

determinant of future purchase decisions (Warshaw, 1980; Bagozzi, 1983; Fishbein and Ajzen, 1975).

Two levels are employed to investigate purchase intention: the purchase intent scale (McDaniel and Gates, 1991) and the 11-point purchase probability scale (Wright *et al.*, 2002) which are constructed to examine the response of a consumer about the partiality of an item that will be purchased in the future. Both the purchase intent and probability scales demonstrated the reliability in the findings with better accuracy (Wright and MacRae, 2007).

Some earlier researches disclosed considerable disparities between purchase intention and purchase behavior (Warshaw, 1980; Kalwani and Silk, 1982). From a customer's perception, there is a difference between purchase intention and purchase behavior. On the other hand, this does not indicate that researchers can disregard this factor for the reasons that some prior researches examined the vital and positive relationships between purchase intention and the purchase behavior of consumers through many strong associations (Newberry, Kleinz and Boshoff, 2003; Sheppard, Hartwick and Warshaw, 1988; Morowitz *et al.*, 1996).

As intentions are determined by the perceptions the consumers believe for the product or services at disposal. These intentions are impacted by a number of factors. Ness *et al.* (2010), in their study on discovering the consumer's intentions to purchase in six European countries found analogous findings in all countries in regard to the great outcomes of consumers' perceived rate for the product on their behavioral intention to purchase it. Furthermore, they uncovered an interceding conclusion of satisfaction in this relationship.

The research in Taiwan by Chen (2007) confirmed that consumers' attitudes and purchase intentions concerning organic foods are impacted by four main factors of positive attitude, positive subjective norm, behavioral control and perceived difficulty. In the researcher's findings, the first three factors which are positive attitude, positive subjective norm and behavioral control display positive role in predicting the purchase

intentions of the consumers, however, perceived difficulty is negatively linked to the purchase intentions.

Factors having an effect on consumer intentions to purchase organic food for instance perceived risks, social norms, perceived quality, availability, convenience and trust are some of the foremost dynamics implicated in predicting consumers' purchase intentions (Thom, 2007; Linh, 2009). On the subject of the intentions to purchase organic food, Cook *et al.* (2002) acquired that it was impacted by self-identity, attitude, social norms and perceived behavioral control. Yet, the most important factors in influencing consumers' intentions to purchase organic food are perceived risks (Poveda *et al.*, 2009; Font and Gil, 2009), perceived quality (Schiffman and Kanuk, 2004; Linh, 2009) and social norms (Schiffman and Kanuk, 2004; Sharma and Malhotra, 2007).

The reviews of literature enlightened the ignorance of giving priority to instill these factors in shaping success and adoption of organic food by the producers and government (LANCET, 1999) which is confining the consumers as well as the producers to get ultimate benefits from these technological advancements. Chen (2009) argued that using general motives (factors) is not helpful to demonstrate good predictions about consumers' intention to purchase. Moreover, Chen (2009) argued that two specific causes need to be examined: (health consciousness and environmental attitudes towards organic food products) in order to make better predictions.

## **2.5 International Consumers**

An international consumer is a person who purchases goods or services issued from a country which is not his/her and the purchase relies on the good or service uses. In other words, a consumer is anyone who engages himself in physical activities, of evaluating, acquiring, using or disposing of goods and services. A customer is one who actually purchases a product or service from a particular organisation or a shop. A customer is always defined in terms of a specific product or company. However,



the term consumer is a broader term which emphasises not only the actual buyer or customer, but also its users, i.e. consumers. Sometimes a product is purchased by the head of the family and used by the whole family, i.e. a refrigerator or a car. There are some consumer behaviour roles which are played by different members of the family.

In this study, the international consumers are East-Asians, Europeans, South-Asians, Oceania's residents such as Australians and New Zealanders, Americans, Middle-Eastern and Africans. Moreover, in order to understand international consumers, one has to first comprehend their culture. International consumer culture is shaped by the extension of businesses organized around market principles into every corner of the planet. International consumer culture is "at one and the same time, an ideology and a social process, as something continuously made and remade through constantly shifting relations, practices, and technologies" of market mediation (Mazzarella, 2004).

## **2.6 Perception & Attitudes of the Product**

Product's extrinsic and intrinsic factors should be taking into account as consumers always rely on them before purchasing a product.

### **2.6.1 Extrinsic Factors of the Product**

Extrinsic means as not an inherent component of the thing or not contain in something (Free Dictionary, 2011). Prior studies showed that extrinsic cues play a crucial role in persuading consumers' intention to purchase than intrinsic cues (Richardson, 1997). Extrinsic factors of the product related to this study include attributes, label and brand. Extrinsic pointers are external cues related to the product. Such cues can be represented as in terms of price, brand image, country of origin, or distribution intensity that influences the consumer's perception of a product quality. (Somphol, 2008). Furthermore, extrinsic factors of the product also include packaging assumed to be an imperative factor because consumer usually observing product by looking at the information provided on the packaging throughout the decision-making process. (Ampuero, and Vila, 2006).

## **2.6. 2 Intrinsic Factors of the Product**

Intrinsic is known as being part of the likely of something (Longman Dictionary, 2004). Intrinsic factor is related to physical product distinctiveness where it includes risks, perceived quality and value. However, a product's physical characteristics like size, color, flavor, or aroma serve to persuade the consumer's perceptions of product quality. Intrinsic cues actually are defined as the characteristics which are part of the physical product, which cannot be changed without also changing the physical product itself (Olson, 1977; Olson & Jacoby, 1972).

## **2.7 Underlying theory of the Study**

### **2.7.1 The Theory of Reasoned Action (TRA)**

The theory of reasoned action (TRA) was proposed for the first time by Fishbein & Ajzen (1975). The vital aim of the TRA is to predict and comprehend a person's behavior (Ajzen and Fishbein, 1980) by examining the components of the behavior in question. The TRA requires that a person's intention of performing a behavior is a direct determinant of him or her truly performing the behavior. Besides, a person's intention is a direct determinant of their attitude toward performing the behavior and their subjective norm. The term "attitude toward the behavior" basically refers to a person's negative/positive evaluation of performing the behavior. Subjective norm however determines a person's perception of the social pressures that go along with the decision to either perform or not perform the behavior. Moreover, a person's beliefs are direct determinants of their attitude toward the behavior and their subjective norm. However, the TRA only applies to behaviors under complete volitional control.

In predicting the intention, fundamental to the TRA is an individual's intention to perform a specific behavior. Ajzen, (1991) emphasized that intentions envisage how hard a person is willing to try and how much effort he or she is willing to set forth in order to perform a given behavior. As stated earlier, the theory presumes that an

individual's intentions are determined by two independent variables known as "attitude toward the behavior" and "subjective norms".

The first antecedent, attitude towards behavior is determined by the combination of the evaluation of the expected outcomes and accessible beliefs that performing the behavior leads to the outcome. Thus, the attitudes then describe the level to which this person values the performance of the behavior either in the positively or negatively responded.

However, the second antecedent to intention represents an internalized perception that people important to the decision maker prefer him or her engage or not engage in a behavior. Such important representations can be an individual or group as the decision maker's friend, spouse, children, parents, and doctor. This antecedent, which is known as subjective norm (SN) is based both on the normative beliefs or the perceived preferences of individual referents and on the individual's motivation to comply with these preferences. Therefore, intentions to perform the behavior should be effectively predicted provided that the appropriate measures of attitudes and subjective norms are taken into consideration (Ajzen & Fishbein, 1980).

### **2.7.2 The Theory of Planned Behavior (TPB)**

The TPB was developed by Ajzen as an extension of the TRA to improve the predicting power of the model and to better explain human intentions and behavior. In other words, the theory of planned behavior solves the original model's limitations in dealing with behaviors over which people have incomplete volitional control (Ajzen, 1991). As an extension of the TRA, the TPB still contains all the components from the TRA, but it incorporates two elements that were lacking in the TRA which are "control beliefs" and "Perceived Behavioral Control" (PBC). By considering these elements, the TPB surpasses the limitations of the TRA by not only allowing the prediction of behaviors that are under complete volitional control, but also those behaviors that are not under complete volitional control (Ajzen, 1991).

Similarly, Liska (1984) and other researchers Sheppard *et al* (1988) suggested that the theory of reasoned action cannot deal with behaviors that require resources, cooperation, and skills. The TPB deals with the extent to which one's intentions to perform behaviors can be carried out depending in part on the amount of resources and control one has over the behavior. That is, the resources and opportunities available to a person must, to some extent, dictate the likelihood of behavior achievement.

### **2.7.3 Choice of the Theory of Study**

From the theories of reasoned action, the researcher for this study chose to work with the Theory of Planned Behaviour (TPB). Because the research is interested in the relationship between perceptions, attitudes and intentions to purchase and also identifying what the strongest predictors of intentions to purchase of OTOP snack food products, the TPB seemed to be the most appropriate. Under the TPB, PBC (Perceived Behavioral Control) is included and the study is not restricted to researching behaviors only under volitional control. At first glance, purchasing OTOP snacks food products may seem like a behavior that is relatively straightforward and would not present any significant obstacles.

However, this may not be the case, and that there may be significant obstacles to purchasing OTOP snacks food products for international consumers in Phuket (excluding Thais) that may prevent them from engaging in this behavior. However, because the research is interested in the determinants of purchase intentions for OTOP snacks food products rather than the actual behavior of buying them, the TPB is only utilized up to the "intention" component.

Furthermore, a number of meta-analysis have been successful at providing evidence that support the theory's assumption that intentions can predict measures of attitudes toward the behavior, subjective norms, and PBC with considerable accuracy (Armitage & Conner, 2001; Shepherd, Hartwick, & Warshaw, 1988; Godin & Kok, 1996). Such strong statistical support for predictive power of the theory further

convinced the researcher that the Theory of Planned Behavior could prove to be quite valuable.

## **2.8 Related Researches to the Study**

A research that provides more valuable information on the purchasing behavior of organic food products was the study undertaken by Onyango, Hallman and Bellows (2007) in the US food system. It can be noted that the objectives of the study were to identify and estimate the importance of the various factors impacting consumer perception and acceptance of organic food products and profile likely consumers of organic food products.

Hence, the factors which were considered important in determining the regularity of organic food products purchase were in liaison with food naturalness aspects (such as no artificial flavors or coloring), vegetarians (persons who do not eat meat or animal products) and production location. The study also revealed that food familiarity aspect (whether the respondents have consumed a food previously or prefer a familiar brand) was negatively associated with organic food products purchase. It is interesting to note that the study has contributed to the emerging literatures by broadening the list of drivers of organic food products purchase beyond socio-economies factors to include public opinions regarding characteristics of food that are important in consuming decisions. In regards to subjective norms, these latter contributed to the overall available normative ideas regarding the vital expectation of important referents for individual like friends or family (Ajzen, 2006).

Subjective norms also concern the perceived social pressures to undertake or not undertake behavior (Ajzen 1991; O'Neal 2007). Individuals' subjective norms reflect their beliefs about how others, who are important to them, would view them engaging in a particular behaviour.

For instance, the research from Messina and Saba (2003), Chen (2007), Thøgersen (2007a) and Dean *et al.*, (2008) mentioned a positive and considerable relationship through intention of users to purchase organic food, their attitude towards organic food purchasing, perceived behavioural control, and subjective norms. Magistris and Gracia (2007) made a summary of organic food purchasing which was found to have an important and positive association with the purchasing of organic food intention and positive attitudes toward organic foods regarding environmental and health issues, and a higher degree of knowledge and income. Several studies comprehended that the intention to purchase organic foods and behaviour are notably and positively correlated, based on the beliefs of Sundqvist and Tarkiainen (2005), Saba and Messina (2003), and Thøgersen (2007b).

Consciousness transmits to the intellectual system of the human (Rosenthal, 1986; Carruthers, 2000; Gennaro, 1995). Health has been described as "*a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*" (WHO, 1948). There are loads of factors that can impinge on human's health such as disease, environmental external and internal factors, medication, food consumption, etc. For these reasons, consumers become cautious in their food collection and with reference to safety factors. Health is a significant factor in the buying decision process (Wandel and Bugge, 1997; Magnusson *et al.*, 2001). The relationship between health perception and conscious is built to turn into one impending factor in the research of health-consciousness. As previously mentioned, organic food holds no harmful additives, more nutrients than conventional food and is safer for human's health. Consequently, selecting organic food seems to be an appropriate judgment. This is the reason why foods which are labeled as organic could make consumers think/perceive that organic foods are safe when compared with conventional ones (Grankvist and Biel, 2001; Torjusen *et al.*, 1999).

The research by Davies, Titterington, and Cochrane, (1995) revealed factors such as health and environmental concerns are the two foremost reasons for consumers' intention to purchase organic products. There were also similar findings reported in O'Donovan and McCarty (2002). The authors found that respondents who purchased

or had “intention” to purchase organic meat placed higher level of importance on health compared to those who did not purchase or had “no intention” to purchase organic meat. Tsakiridou, Boutsouki, Zotos and Mattas (2008) also found that environmental and health concerns are strong motives for consumers and seem to affect organic food products consumption.

Apprehensions linked to the environment are natural in the ever more environmentally conscious market place. Over the years, the greater part of consumers has recognized that their purchasing behavior has a direct influence on loads of ecological problems (Laroche, *et.al*, 1996). The escalation of organic agriculture is seen as part of the promising marketing trends where consumers require knowing what benefits a food could bring before making a purchase decision. Even though the claim for organic food is still optimistic, there are signs that markets are maturing and development rates over the last few years slowed to below 10 percent (Firth *et. al*, 2004).

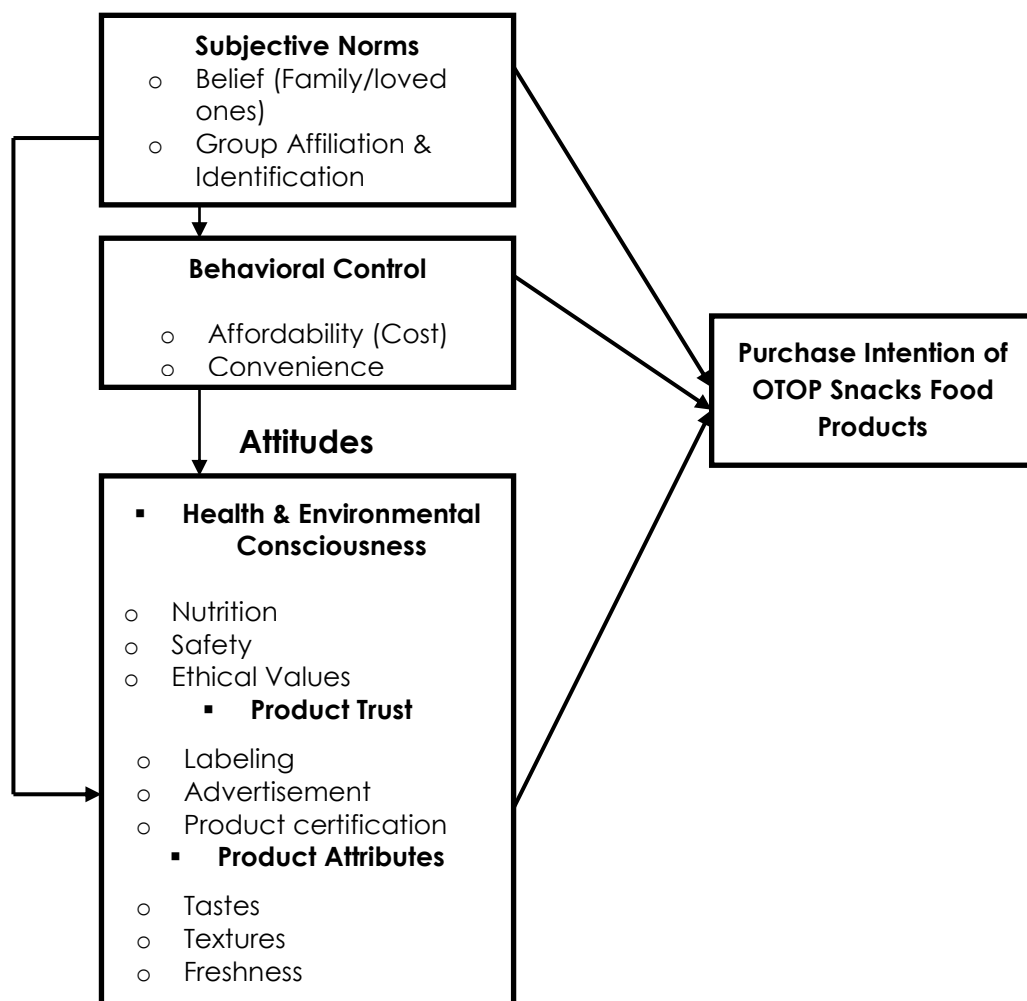
Grunert and Juhl (1995) obtained that there is a liaison between the environmental attitudes and purchasing decision relating to organic food. Accordingly, positive attitudes toward environmental things could lead to positive attitudes with respect to purchasing decision and frequency. For example, Loureiro *et al.* (2001) established that consumers who purchased organic fruits (apples) have positive attitudes toward the environment and food safety. Durham and Andrade (2005) confirmed that consumer’ attitudes towards health and environmental factors are the core reasons to clarify organic food purchases intention. Environmental attitudes can also be allied to beliefs and response toward an object (Heberlein, 1981).

To add, prior studies have coupled organic food consumption with behavioral attitudes such as health consciousness, environmental consciousness, trust of organic food claims and attractiveness of organic food attributes such as taste, texture, freshness (Hughner *et al.* 2007; Gil and Soder, 2006; Aryal *et al*; 2009). In other words, a person who has well-built health values is probably to accept the significance of exercise, keep up a healthy diet, cease from smoking and consume moderate amounts of alcohol (Bephage 2000).

Finally, in regards to other factors of attitudes which are Product trust and product attributes, Luhmann (1979) defines trust as confidence in one's expectations, where desirable conducts are viewed as certain while undesirable conducts are removed from consideration. Trust of organic food claims is a strong determinant of intention to consume due to the credence nature of organic food. Credence products are those for which consumers are not able to evaluate effectively as the benefits of consumption cannot be directly or immediately observed. Consequently, consumers may rely on product labeling, advertisements and certifications as signals of the trustworthiness of product claims.

## 2.9 Theoretical Framework of this Study

**Figure 2.1: Theoretical Framework**



**Source:** The current study



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

In this chapter, the researcher will deal with the methodology utilized in conducting this study. It is described the methodology used by the researcher to investigate and collect the data in order to achieve the objectives of this research study. In this section, this research study discusses the study area, the selection of the sample, the collection of data, as well as the data analysis procedures. Therefore, this chapter will illustrate the research design as following:

- Population, Sample and Sampling Method
- Type of Research
- Data Collection
- Research Instrument
- Data Analysis Techniques
- Reliability and Validity Tests

#### **3.2 Population, Sample and Sampling Methods**

##### **3.2.1 Population**

The target population of this research study is all international consumers (Visitors, Tourists, and International students) at the ages of 18 and above 55 years old who visit and stay in Phuket.

##### **3.2.2 The Sample Size & Sampling Method**

According to the Statistical Data issued by Tourism Authority of Thailand (TAT), Phuket Branch in 2010, the number of international visitors (international consumers) arrivals were about 3.5 million people. The sample size of international consumers

will be determined base on Taro Yamane's Formula in order to compute the sample size at 95% confidence level with a 5% margin of error.

According to the formula:  $n = N/1+N(e)^2$

Where, n= Sample Size of group,

N = Number of target Population,

e = Confidence Interval or error = 0.05

$n = 3,500,000/1 + 3,500,000(0.05)^2 = 399.99989$ , or **n = 400**

So the total population size is **400**.

Convenience sampling method will be chosen as the preferred method in this research to distribute the questionnaires to the respondents. Hsu *et al.* (2008) claim that convenience sampling is often conducted in locations where intended respondents can be easily found and at a time when potential respondents are willing to participate to answer the questionnaires.

The researcher will distribute 400 questionnaires to the target respondents for data collection. The convenience sampling location is Phuket where the researcher will distribute its questionnaires to the target respondents. The advantage of convenience sampling is that a convenience sampling is where the respondents are selected because they happen to be at the right place and at the right time. Moreover, the sample unit tends to be easily accessible. Convenience sampling can also achieve cost efficiency and time saving.

### **3.3 Type of Research**

This study applied quantitative research method, by collecting data from the respondents who are international consumers (visitors, tourists, and international students) who come to visit and stay in Phuket.

### **3.4 Data Collection**

#### **3.4.1 Primary Data**

In this study, the research methodology will be done by survey method using questionnaires. The researcher will distribute 400 questionnaires to the international consumer's respondents who come to visit and stay in Phuket. The primary data will be collected from the target respondents. The questionnaires are written in English.

#### **3.4.2 Secondary Data**

According to the researcher, the secondary data is collected from the following:

- (1) The articles;
- (2) Academic journals;
- (3) Related literatures review;
- (4) Internets (websites); and
- (5) Textbooks.

### **3.5 Research Instruments**

The questionnaires in English will be distributed to all international consumers who come to visit and stay in Phuket. The questionnaire consists of three sections:

- (1) The first **Section "A"** consists of demographic respondent's profile.
- (2) The second **Section "B"** consists of Subjective norms
- (3) The third **Section "C"** consists of Behavioral Control
- (4) The fourth **Section "D"** consists of Attitude factors
- (5) The fifth **Section "E"** consists of Purchase intentions factors.

The questionnaire is structured for the purpose to investigate an international consumer's subjective norms, behavioral control and attitude factors towards the purchase intention of OTOP snacks food products in Phuket. The questionnaire combined both, multiple choice and Likert-type scale questions.

## **Section A: International Consumer demographic Characteristics**

The first Section consists of demographic information of the respondent's profile such as age, gender, country of origin, educational level, occupation, household members, and income. It is the basic details that carry out the international consumer demographic characteristics created by the researcher.

### **3.5.1 Sources of the Questionnaire**

## **Section B: Subjective Norms**

The second section composes of 8 statements. A five-point Likert scale will be used as the response format for the subjective norms variable. There are (1) strongly disagree, (2) disagree, (3) not sure, (4) agree, (5) strongly disagree. The eight (8) statements of subjective norms in the questionnaire were taken from the papers written by Voon, Ngui, and Agrawal (2011) and Yeung and Wallace (2012). Moreover, six (6) statements were retrieved from the article of Yeung and Wallace (2012) and only two (2) statements from the paper of Voon, Ngui, and Agrawal (2011).

## **Section C: Behavioral Control**

The third section composes of 8 statements. A five-point Likert scale will be used as the response format for the behavioral control variable. There are (1) strongly disagree, (2) disagree, (3) not sure, (4) agree, (5) strongly disagree. The eight (8) statements of behavioral control in the questionnaire were taken from the papers written by Voon, Ngui, and Agrawal (2011) and Yeung and Wallace (2012). In addition, six (6) statements were retrieved from the article of Voon, Ngui, and Agrawal (2011) and only two (2) statements from the paper of Yeung and Wallace (2012).

## **Section D: Attitude Factors**

The fourth section consists of 26 statements divided into three parts: the health and environmental consciousness consists of 9 statements, product trust consists of 10 statements, and product attributes consists of 7 statements. The attitude factors variables were adapted from a review of related literature, the theory of planned behavior. A five-point Likert scale is used as the response format for the needs variables. There are (1) strongly disagree, (2) disagree, (3) not sure, (4) agree, (5) strongly disagree. In addition, six (6) statements of “health and environmental consciousness” were retrieved from the article of Voon, Ngui, and Agrawal (2011) and only three (3) statements from the paper of Yeung and Wallace (2012). Nonetheless, from the 10 statements of product trust; six (6) statements were borrowed from the article of Siti Nurafifah, Pan Ein, and Mohaini (2012) and only four (4) statements from the paper of Voon, Ngui, and Agrawal (2011). Finally the 7 statements of product attributes were respectively (5) taken from Voon, Ngui, and Agrawal (2011) and (2) from Yeung and Wallace (2012).

## **Section E: Purchase Intention**

The fifth section consists of six main questions about the purchase intentions. A five-point Likert scale will be used as the response format for purchase intention variables. There are: (1) strongly disagree, (2) disagree, (3) not sure, (4) agree, and (5) strongly agree. The six (6) statements of purchase intention in the questionnaire were taken from the papers written by Voon, Ngui, and Agrawal (2011) and Yeung and Wallace (2012). In addition, four (4) statements were retrieved from the article of Voon, Ngui, and Agrawal (2011) and only two (2) statements from the paper of Siti Nurafifah, Pan Ein, and Mohaini (2012).

### **3.6 Data Analysis Techniques**

The data in this study will be analyzed using SPSS program. The researcher uses descriptive statistic (e.g. frequencies, percentages, mean, and standard deviation), One Way-ANOVA, the independent sample t-Test, the correlation analysis, and the

regression analysis as well. Each section of the questionnaire will be analyzed with proper statistic.

- i. Descriptive statistics will be used in order to identify the international consumer's demographic profiles, subjective norms, behavioral control and attitude for purchasing OTOP snacks food products.
- ii. One Way-ANOVA and the independent sample t-Test will be used to examine the influence of the demographic variables on the independent variable (attitudes factors), and the dependent variable which is purchase intention (PI) as well.
- iii. The correlation analysis will be used to determine the relationship among the independent variables (IVs) and the dependent variable (DV) by adopting the Pearson correlation.
- iv. The regression analysis (single and multiple) will be both conducted in order to figure out the best predictor of purchase intention among international consumers of OTOP snacks food products and their impact on purchase intentions.
- v. The level of agreement in this research followed the Kappa statistics in which "perfect agreement" would equate to a kappa of 1, and "chance agreement" would equate to 0. (See Appendix B.)

### **3.7 Reliability and Validity Tests**

Reliability and validity are important reflections for a researcher in his or her investigations. However, the difference is that reliability is the extent to which a measure is free from error and therefore yields reliable outcomes whereas validity is the extent to which a measure is apprehensive with the behavioral inferences that one can extrapolate from a test (Gregory, 1992).

#### **3.7.1 Reliability**

Joppe (2000) defined reliability as being the extent to which outcomes are consistent over time and a precise illustration of the total population under study is referred to as reliability. The author added that if the outcomes of a study can be reproduced under a similar method, then the research instrument is assumed to be reliable. Represented in this citation is the idea of replicability or repeatability of results or observations. Kirk

and Miller (1986) on the other hand classified three types of reliability referred to in quantitative research, which relates to:

- 1) The degree to which a measurement, given repeatedly, remains the same
- 2) The stability of a measurement over time; and
- 3) The similarity of measurements within a given time period.

Reliability is a major apprehension when a psychological test is used to evaluate some attribute or behavior (Rosenthal and Rosnow, 1991). There are many ways that random errors can impact measurements in tests (Nunnally, 1978). Nonetheless, numerous sources of error may be introduced by the variations in other forms of the test, by the situational factors that impact the behavior of the subjects under study, by the approaches used by the different examiners, and by other factors of influence. Hence, the researcher (or science, in general) is limited by the reliability of the measurement instruments and/or by the reliability with which he/she uses them.

Reliability estimates change with special populations (i.e. population samples) and as a function of the error involved. These facts emphasize the meaning of consistently reporting reliability estimates for each administration of an instrument, as test samples, or subject populations, are rarely the same across situations and in different research settings. Because reliability is consistency of measurement over time or stability of measurement over a variety of conditions, the most commonly used technique to estimate reliability is with a measure of association, the correlation coefficient, often termed reliability coefficient (Rosnow and Rosenthal, 1991).

### **3.7.2 Validity**

Joppe (2000) defined validity under quantitative research as a determinant of whether the research truly measures that which it was intended to measure or how truthful the research results are. Wainer and Braun (1998) illustrated the validity in quantitative research as “construct validity”. They also emphasized that quantitative researchers actively cause or influence the interchange between construct and data in order to validate their investigation, usually by the application of a test or other process. In this

sense, the involvement of the researchers in the research process would greatly reduce the validity of a test.

### **3.7.2.1 Types of Validity**

Messick (1995) stated that the concept of validity is best understood and examined within the context of its four discrete facets: content validity, construct validity, criterion validity and consequential validity.

- i.** Content validity considers whether or not the items on a given test accurately reflect the theoretical domain of the latent construct it claims to measure. Items need to effectively act as a representative sample of all the possible questions that could have been derived from the construct (Gregory, 1992).
- ii.** Construct validity of a measure is directly concerned with the theoretical relationship of a variable (e.g. a score on some scale) to other variables. It is the extent to which a measure ‘behaves’ the way that the construct it purports to measure should behave with regard to established measures of other constructs” (DeVellis, 1991).
- iii.** Criterion validity refers to the ability to draw accurate inferences from test scores to a related behavioral criterion of interest. This validity measure can be pursued in one of two contexts: predictive validity or concurrent validity. In criterion-oriented validity, the investigator is primarily interested in some criterion which he wants to predict. If the criterion is obtained some time after the test is given, predictive validity is being studied. However, if the test scores and criterion are “determined at essentially the same time”, then concurrent validity is being examined (Cronbach & Meehl, 1955).



- iv. Consequential validity refers to the notion that the social consequences of test scores and their subsequent interpretation should be considered not only with the original intention of the test, but also cultural norms (Messick, 1995). This idea points to both the intended and unintended consequences of a measure, which may be either positive or negative.

### **3.7.3 Results of Reliability and Validity Tests**

In the below sections (3.7.3.1. & 3.7.3.2), the results of the reliability test for both the pilot test and the actual sample of the study are explained. Additionally, the validity results were described through the usability of the Guilford's law on the strength of relationship.

#### **3.7.3.1 Results of Reliability Test**

The sample of the pilot test consists of forty questionnaires (n=40) distributed to internationals in Hat Yai. The main reason of selecting n=40 is based on the criterion of Baker (1994) who stated that "a pilot study is often used to pre-test or try out a research instrument. Baker (1994) also found that a sample size of 10-20% of the sample size of the actual study is a reasonable number of participants to consider enrolling in a pilot. Baker also added that although a pilot study does not guarantee success in the main study; it greatly increases the likelihood. Thus, for this pilot study, forty questionnaires were distributed and only 30 were answered and returned, making up a response rate of 75%. The results of the reliability test are in the below table.

**Table 3.1:** Reliability Test of the Pilot Study and Actual Survey Cronbach's Alpha Results

All Variables	Number of Items	Cronbach's Alpha	
		Pilot Test Hatyai (n=30)	Actual sample Phuket (n=400)
Subjective Norms	8	0.829	0.874
Behavioral Control	8	0.782	0.700
Health & Environmental Consciousness	9	0.815	0.809
Product Trust	10	0.824	0.901
Product Attributes	7	0.797	0.883
Purchase Intention	6	0.740	0.737

From the above table (3.1), it can be concluded that all six (6) variables have an  $\alpha$ -value  $> 0.7$  for both the pilot study and actual survey. That means all the items in the questionnaires were well comprehended by the thirty (30) and (400) participants. Thus, the internal consistency strategy of the test does not require administering the test twice or having two forms of the test.

However, when all variables were entered (48 items), the value of  $\alpha$  was over 80%. This can be explained by the fact that a high coefficient alpha does not always mean a high degree of internal consistency. This is because alpha is also affected by the *length of the test*. If the test length is too short, the value of alpha is reduced. Thus, to increase alpha, more related items testing the same concept might have been added to the test. It is also important to note that alpha is a property of the scores on a test from a specific sample of testees.

### 3.7.3.2 Results of Validity Test

Correlation is used to look at the 'net strength' relationship between two continuous variables (Sweet and Martin, 2008). In this study, correlation is used as the predicted change in the value of the dependent variable (i.e. purchase intention) for one-unit change in the independent variables (i.e. subjective norms, behavioral control, [attitude factors (health and environment consciousness, product trust and product

attributes)). Guilford's (1973) rule was used to determine the correlation strength, which is depicted as in table 3.2.

**Table 3.2:** Validity Test Based on Guilford's Law

R	Strength of Relationship
< 0.20	Almost negligible relationship
0.20-0.40	Low correlation; definite but small relationship
0.40-0.70	Moderate correlation; substantial relationship
0.70-0.90	High correlation; marked relationship
> 90	Very high correlation; very dependable relationship

The relationship readings pointed out a low to moderate ( $r=0.319$  to  $0.646$ ) correlation between almost all independent variables and the purchase intention of OTOP snacks food products. The table also signified all variables have good association with the intention in purchasing OTOP snacks food products. Both product attributes ( $r=0.646$ ) and product trust ( $r=0.526$ ) were found to be the important determinants of consumers overall attitude towards the purchase intention of OTOP snacks food products. However, the less important factors toward the purchase intention of OTOP snack food products were 'health and environment consciousness' ( $r=0.387$ ), 'subjective norms' ( $r=0.353$ ) and 'behavioral control' ( $r=0.319$ ). In general, the result of correlation analysis showed that all variables significantly influenced the purchase intention of OTOP snacks food products.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS**

#### **4.1 Introduction**

This chapter highlighted all the results of the study. Descriptive statistics have been shown to represent the general conditions of the selected demographic variables. Then correlation matrix (Pearson's Correlation analysis) for the variables has been displayed in order to look for significant correlations among the variables. Correlation analysis is the statistical tool used to describe the degree to which one variable is linearly related to another (Levin & Rubin, 1998).

Moreover, both a simple and multiple regression analyses have been conducted to test the strength of associations between the studied variables. The Statistical Package for Social Science (SPSS) software (v. 16) has been employed to carry out the above analyses through using the data collected from the distributed questionnaires to diverse international respondents in Phuket.

As stated in the previous chapter, 450 questionnaires were distributed, only 404 were returned. The researcher did consider only 400 answered questionnaires for this research. Thus, this study presented a response rate of about 88.89%. It is believed that such result is satisfactory and the study is reliable. The results of this study are shown as below:

- 4.1 Descriptive statistics of respondents' profiles
- 4.2 Analyses of the variables-means
- 4.3 Results of One-Way ANOVA and independent sample t-Test
- 4.4 Correlation analyses among the variables
- 4.5 Results of Regression Analysis
- 4.6 Summary of the Findings
- 4.7 Summary of the Chapter

## 4.2 Descriptive Statistics of Respondents' Profiles

Respondents' profiles are summarized in the table 4.1 below. There are 7 items included in the demographic section. These items of the demographic characteristics are illustrated as follow:

**Table 4.1: Descriptive Statistics of International Respondents' Demographics**

Demographic Characteristics		Frequency (N=400)	Percentage (N=400)
<b>Gender</b>	Male	264	66.0
	Female	136	34.0
<b>Age</b>	18-25	103	25.8
	26-34	194	48.5
	35-44	55	13.8
	45-54	29	7.2
	Above 55	19	4.8
<b>Country of Origin</b>	Europe	81	20.2
	Americas	53	13.2
	Asia	153	38.2
	Australia/New Zealand	85	21.2
	Africa	22	5.5
	Others	6	1.5
<b>Education Level</b>	Certificate	54	13.5
	Diploma	60	15.0
	Bachelor Degree	161	40.2
	Master Degree	80	20.0
	PhD Degree	27	6.8
	Others	18	4.5
<b>Occupation</b>	Student	45	11.2
	Professional	83	20.8
	Gvt Employee	72	18.0
	Self-employed	17	4.2
	Comp. Employee	152	38.0
	Unempl/Retired	16	4.0
	Others	15	3.8
<b>Household Members</b>	1-2	141	35.2
	3-4	177	44.2
	5-6	66	16.5
	7-8	12	3.0
	9 or more	4	1.0

**Table 4.1 Continued**

<b>Monthly Income</b>	\$1000 and less	66	16.5
	\$1001- \$2000	101	25.2
	\$2001- \$3000	103	25.8
	\$3001- \$4000	52	13.0
	\$4001- \$5000	24	6.0
	\$5000 and above	41	10.2
	Total	387	96.8
	Missing	13	3.2

The above table (4.1) indicated that from the 400 respondents, there were 264 (66.0%) males, whereas the remaining 136 who formed a percentage of 34% were females. Thus, Thailand as a touristic country attracts more male internationals compared to their female counterparts. By reference to age, almost half (194) of the respondents' ages were between 26 and 34 years old. This group made up a percentage of 48.5%. The second highest group (104 or even more than a quarter) encompassed respondents whose ages are between 18 and 25 years old and marked up a percentage of 25.8%. Moreover, respondents whose ages were (35-44) and (45-54) groups had respectively the percentages of 13.8% and 7.2%. However, the oldest group or people whose ages were above 55 years old had the least of frequencies (4.8%). It is assumed that younger people are more attracted to either come for a visit or for a long stay in Thailand.

As far as "country of origin" is concerned; the highest response rate was from the Asian respondents making up a total of 153 out of 400 and forming a percentage of 38.5%. The second largest group consists of Australians and New Zealanders (21.2%); then come Europeans (20.2%) and Americans (13.2%). Finally, African respondents (n=22) had the smallest percentage (5.5%) among the identified participants. However, there were few respondents (n=6) who claimed to be from other part of the world by writing down places like A.S (American Samoa), F.J (Fiji), M.V (Maldives), P.N (Pitcairn), S.M. (San Marino) and T.T (Trinidad and Tobago). For such confusion, the researcher reported this respondent as "others".

With respect to educational level, a great number of the respondents (n=161) were “bachelor degree” holders constituting a response rate of 40.2%. Additionally, respondents with master degrees, diploma, and certificates had the respective frequencies (80, 60, and 54) and percentages (20.0%, 15.0% and 13.5%). However, in this study, there were only twenty-seven (n=27) participants whose educational level was at the doctorate level and they compiled a 4.5% response rate. Finally, within this category, there were eighteen (n=18) participants whose certificates were not included in this category. In other words, some of them mentioned that they were “high school” graduates and others having “IT certificate”, “social working certificate” and post-doctorate degree (professor). Thus, in general, the participants of this study were highly educated and they might provide accurate answers to the surveys.

In terms of occupation, more than  $\frac{3}{4}$  of the respondents were either “company employees”, “professionals” or “government employees” and they respectively had (n= 152 or 38.0%); (n= 83 or 20.8% ) and (n =72 or 18.0%). However, the other  $\frac{1}{4}$  or less number of participants had for occupations: students (11.2%); self-employed (4.2%); unemployed/retired (4.0%) and (3.8%) labeled “others” among which they were housewives, and volunteer workers. With regards to household members, more than three-quarter of the respondents (79.4%) were from households with 1-2 and 3-4 people with respectively (35.2%) and (44.2%). Another 16.5% and 3.0% of the respondents’ households correspondingly consist of 5-6 and 7-8 members. However, only 1.0% of the participants (n=4) were from households with a larger family of 9 or more persons. Regarding “monthly income”, it was found that more than half (51.0%) of the respondents had a monthly income of \$1001- \$2000 (25.2%) and \$2001- \$3000 (25.8%). In addition, there were seventy-six (19%) participants whose incomes were \$3,001- \$4,000 and \$4,001-\$5,000 and respectively formed 13% and 6%. The table also demonstrated that only forty-one (n=41) respondents’ incomes were \$5000 and above and another sixty-six (n=66) with \$1000 and less. However, the table also had proven that 13 respondents (3.2%) who did not disclose information regarding their income for some reasons that only themselves know.

### 4.3 Analyses of the Variables-Means

Table 4.2 explained the descriptive statistics (Means and Standard Deviations) of the variables of the study and the 400 respondents' level of agreement on each statement of the variables.

**Table 4.2 Means and Standard Deviations of Subjective Norms, Behavioral Control & Purchase Intention**

<b>International Respondents (n=400)</b>			
	<b>Subjective Norms Mean</b>	<b>SD</b>	<b>Level of Agreement</b>
Friends and family consume OTOP products.	3.15	1.19	Neutral
OTOP products are better than conventional ones.	2.96	1.01	Neutral
I have the approval to buy OTOP products.	3.43	.984	Neutral
Friends and family buy OTOP products.	3.28	.961	Neutral
My family encourages me to buy OTOP products.	2.91	1.10	Neutral
Important people to me buy OTOP products.	3.23	1.03	Neutral
I am expected to purchase OTOP products.	2.74	1.14	Neutral
Many people like me, buy OTOP products.	3.18	.944	Neutral
<b>Overall Mean</b>	<b>3.11</b>	<b>.764</b>	<b>Neutral</b>
<b>Behavioral Control</b>	<b>Mean</b>	<b>SD</b>	<b>Level of Agreement</b>
OTOP products are too expensive.	2.83	1.02	Neutral
Higher income consumers afford OTOP products.	2.77	1.08	Neutral
OTOP products are beyond my budget.	2.72	1.14	Neutral
Buying OTOP products is inconvenient.	2.96	1.08	Neutral
OTOP products are available in limited stores.	3.49	.973	Agree
There is no variety of OTOP products in the stores.	3.75	.996	Agree
Purchasing OTOP products is entirely up to me.	4.18	.829	Agree
I have control on buying OTOP products.	4.14	.830	Agree
<b>Overall Mean</b>	<b>3.36</b>	<b>.566</b>	<b>Neutral</b>
<b>Purchase Intention</b>	<b>Mean</b>	<b>SD</b>	<b>Level of Agreement</b>
I buy OTOP products to save money.	3.58	1.15	Agree
I consider buying OTOP products.	3.93	.801	Agree
I buy OTOP products even if the choices are limited.	3.58	.828	Agree
I buy OTOP products because of the benefits.	3.48	.822	Neutral
I spend more time sourcing for OTOP products.	2.90	.983	Neutral
I buy OTOP products at rate of conventional ones.	3.35	.825	Neutral
<b>Overall Mean</b>	<b>3.47</b>	<b>.598</b>	<b>Neutral</b>



From the results of the table above, the international consumers of this study seemed to fairly agree that “subjective norms” is a factor that might influence the purchase intention of OTOP snacks food products with an overall mean score of  $\bar{X}=3.11$ , and standard deviation of  $SD = .764$ . By referring to the scoring results, the statement “I have the approval to buy OTOP products” had the highest mean ( $\bar{X}=3.43$ ,  $SD = .984$ ).

Consumers mentally process objective information about the products and form an impression of the benefits they provide. They express the preference or lack of preference for stores, brands and other marketing stimuli by reflecting a favorable or unfavorable attitude, which might affect their purchasing intention. In other words, a country-of-origin research provide evidence that consumers carry diverse perceptions about products based on the national images of the country where the product or brand is believed to be created or produced, and that these perceptions affect consumer attitudes, purchase intentions.

Yet, consumers who reject the idea of buying specific products may express the intention to purchase other foreign products. However, there are two (2) obstacles (ethnocentrism and culture) that might trigger the non- occurrence of such purchase affecting their subjective norms toward the product to be irrelevant.

- Consumer ethnocentrism has generally acknowledged that ethnocentric consumers tend to avoid buying products from any foreign country and the concept of ethnocentrism also ought to be included when the unit of analysis involves understanding the consumer buying behavior process, (Suh, 2002; Klein *et al.* 1998; Granzin and Painter, 2001). A study by Marín (2005) on consumer ethnocentrism in Spain confirmed that consumers prefer to purchase domestic products rather than foreign imported products as a result of their ethnocentrism.

- Many studies have examined consumers' attitudes towards foreign products (Bhuiyan, 1997; Wang and Heitmeyer, 2006), and the results illustrates that consumers' purchase behavior heavily shaped by culture and purchasing power, it is necessary to study cultural aspect. The identification of the significant influence of subjective norms failed to capture personal normative as social position or reputation are not of important distress to those international consumers as far as a domestic product is concerned.

Moreover, the international consumers' level of agreement of the eight (8) statements of behavioural control appeared moderately important. In other words, the overall mean score was 3.36 and a standard deviation of SD = .566. For instance, the statement "Purchasing OTOP snacks food products is entirely up to me" had the strongest mean ( $\bar{x}$  = 4.18, SD = .829). Finally, international consumers' level of agreement of purchase intention statements appeared fairly important with an overall mean score of 3.47 and a standard deviation S.D = .598. To add, the statement "I will consider purchasing OTOP snacks food products" hold the highest mean score ( $\bar{x}$  = 3.93, SD = .801).

Table 4.3 summarized the mean scores of the three factors of attitude

**Table 4.3 Means and Standard Deviations of Attitude Factors**

Health and Environmental Consciousness	International Respondents (n=400)		
	Mean	SD	Level of Agreement
I am concerned of the nutrition in the food.	3.96	.924	Agree
I am concerned of the additives of OTOP products.	3.69	.970	Agree
I am concerned of the process of OTOP products.	3.67	.994	Agree
I focus on unhealthy substances of OTOP products.	3.79	.965	Agree
Health issues are vital when buying OTOP products.	3.98	.902	Agree
OTOP products are more environmentally friendly.	3.63	.873	Agree
OTOP products have anti-sickness effects.	2.98	.932	Neutral
I'm scared to eat food contaminated with pesticides.	3.95	.921	Agree
I am concerned about the plants and animals' life.	3.90	.910	Agree
<b>Overall Mean</b>	<b>3.73</b>	<b>.587</b>	<b>Agree</b>

**Table 4.3 Continued**

<b>Product Trust</b>	<b>Mean</b>	<b>SD</b>	<b>Level of Agreement</b>
OTOP providers are honest about their products.	3.33	.782	Neutral
OTOP producers practice organic farming.	3.29	.770	Neutral
I trust the information on OTOP products.	3.57	.817	Agree
I think labels of OTOP products are worth buying.	3.63	.810	Agree
Advertisement is vital when buying OTOP products.	3.94	.891	Agree
Deciding to buy OTOP products is subjective to ads.	3.87	1.04	Agree
The memo of ads persuades to buy OTOP products.	3.95	1.01	Agree
I trust the “ads” message of OTOP provider.	3.75	.963	Agree
I trust the organic certification of OTOP labels.	3.73	.820	Agree
I trust OTOP labels of organic products.	3.67	.770	Agree
<b>Overall Mean</b>	<b>3.67</b>	<b>.631</b>	<b>Agree</b>

<b>Product Attributes</b>	<b>Mean</b>	<b>SD</b>	<b>Level of Agreement</b>
OTOP products smell nice and taste good.	3.74	.705	Agree
OTOP products have a pleasant texture.	3.74	.678	Agree
OTOP products are free from genetic modifications.	3.48	.756	Neutral
OTOP products do not have artificial flavour.	3.46	.806	Neutral
OTOP products are free from pesticides.	3.43	.729	Neutral
OTOP products are fresher than other brands.	3.68	.746	Agree
OTOP products stated their ingredients and their %.	3.88	.807	Agree
<b>Overall Mean</b>	<b>3.63</b>	<b>.573</b>	<b>Agree</b>

The above table 4.3 summarized the mean scores of the three factors of attitude. The factor “health and environmental consciousness” had the highest overall mean score of 3.73 and a standard deviation of  $SD = .587$ ; then “product trust” with an overall mean score of 3.67 and a standard deviation of  $SD = .631$  and finally “product attributes” had 3.63 for its overall mean and a standard deviation of  $SD = .573$ .

## 4.4 Results of One-Way ANOVA and t-Tests

### 4.4.1 Relationship of Demographic Characteristics and Attitude Factors

The results of the independent sample t-test for the differences in attitudes between genders were reported in tables 4.4.

**Table 4.4: Independent Sample t-test for Differences in Attitudes between Genders**

Attitudes Factors	Gender				t-test	
	Male n=264		Female n=136		t- value	p- value
	Mean	SD	Mean	SD		
<b>Health and Environmental Consciousness</b>	<b>3.72</b>	<b>.59</b>	<b>3.74</b>	<b>.59</b>	<b>-.38</b>	<b>.443</b>
I am concerned of the nutrition in the food.	3.94	.94	4.01	.90	-.70	.372
I am concerned of the additives of OTOP products.	3.65	.95	3.76	1.01	-1.11	.527
I am concerned of the process of OTOP products.	3.64	.97	3.72	1.04	-.73	.610
I focus on unhealthy substances of OTOP products.	3.80	.93	3.80	1.04	.194	.057
Health issues are vital when buying OTOP products.	3.96	.88	4.03	.95	-.75	.128
OTOP products are more environmentally friendly.	3.67	.84	3.54	.93	1.45	.232
OTOP products have anti-sickness effects.	3.00	.96	2.95	.88	.45	.461
I'm scared to eat food contaminated with pesticides.	3.93	.92	4.00	.91	-.63	.548
I am concerned about the plants and animals' life.	3.90	.89	3.91	.96	-.22	.250
<b>Product Trust</b>	<b>3.66</b>	<b>.66</b>	<b>3.69</b>	<b>.57</b>	<b>-.44</b>	<b>.066</b>
OTOP providers are honest about their products.	3.34	.78	3.30	.78	.48	.680
OTOP producers practice organic farming.	3.28	.77	3.31	.77	-.35	.780
I trust the information on OTOP products.	3.52	.82	3.66	.81	-1.57	.517
I think labels of OTOP products are worth buying.	3.57	.82	3.73	.78	-1.83	.241
Advertisement is vital when buying OTOP products.	3.92	.90	3.97	.87	-.49	.361
Deciding to buy OTOP products is subjective to ads.	3.85	1.05	3.90	1.02	-.51	.265
The memo of ads persuades to buy OTOP products.	3.95	1.04	3.95	.95	.021	.300
I trust the "ads" message of OTOP provider.	3.77	.99	3.70	.91	.69	.393
I trust the organic certification of OTOP labels.	3.75	.84	3.71	.78	.47	.286
I trust OTOP labels of organic products.	3.67	.78	3.68	.76	-.07	.676
<b>Product Attributes</b>	<b>3.64</b>	<b>.57</b>	<b>3.60</b>	<b>.59</b>	<b>.59</b>	<b>.872</b>
OTOP products smell nice and taste good.	3.72	.71	3.79	.70	-.90	.244
OTOP products have a pleasant texture.	3.74	.69	3.74	.66	.05	.359
OTOP products are free from genetic modifications.	3.53	.75	3.38	.75	1.90	.383
OTOP products do not have additives/artificial flavour.	3.47	.80	3.43	.81	.42	.936
OTOP products are free from pesticides.	3.43	.72	3.43	.75	-.08	.775
OTOP products are fresher than other brands.	3.68	.70	3.66	.83	.255	.046*
OTOP products stated their ingredients and their %.	3.91	.79	3.80	.84	1.31	.249

First, the t-test was conducted to determine the significance of the mean of two groups (male and female) of gender and the differences in their attitude factors. The analysis of the results was performed at 5% level of significance; in which the value of  $p \leq .05$  was considered significant and  $p \leq .01$  as highly significant. However, by referring to the table 4.4 above, there were no statistically significant differences between international consumers' gender and the overall attitude factors. Thus, the attitudes factors did not exhibit any difference between international consumers' genders. Second, the One-Way ANOVA tests for differences in attitudes among the six other demographic characteristics were conducted to establish the statistically differences in attitude across these groups. For instance, the results of the One-Way ANOVA test for differences in attitudes among respondents' age groups are exhibited in table 4.5 below.

**Table 4.5: One-Way ANOVA Tests for Differences in Attitudes among Different Age Groups**

Attitudes Factors	Age						
	Mean					ANOVA	
	18-25	26-34	35-44	45-54	>55	F-value	p-value
<b>Health and Environmental Consciousness</b>	<b>3.65</b>	<b>3.75</b>	<b>3.82</b>	<b>3.72</b>	<b>3.73</b>	<b>.89</b>	<b>.470</b>
I am concerned of the nutrition in the food.	3.78	3.98	4.02	4.28	4.11	2.09	.081
I am concerned of the additives of OTOP products.	3.72	3.65	3.73	3.79	3.63	.21	.936
I am concerned of the process of OTOP products.	3.60	3.63	3.75	3.93	3.84	.92	.450
I focus on unhealthy substances of OTOP products.	3.66	3.79	4.05	3.69	3.89	1.64	.163
Health issues are vital when buying OTOP products.	3.85	4.03	4.11	3.86	4.00	1.06	.375
OTOP products are more environmentally friendly.	3.58	3.69	3.73	3.28	3.42	1.96	.099
OTOP products have anti-sickness effects.	3.07	2.93	3.00	2.83	3.11	.64	.638
I'm scared to eat food contaminated with pesticides.	3.76	4.09	4.00	3.93	3.53	3.34	.010**
I am concerned about the plants and animals' life.	3.79	3.94	3.96	3.90	4.00	.63	.641
<b>Product Trust</b>	<b>3.59</b>	<b>3.71</b>	<b>3.78</b>	<b>3.54</b>	<b>3.66</b>	<b>1.33</b>	<b>.260</b>
OTOP providers are honest about their products.	3.26	3.28	3.49	3.34	3.68	1.98	.096
OTOP producers practice organic farming.	3.27	3.24	3.44	3.24	3.53	1.18	.320
I trust the information on OTOP products.	3.52	3.56	3.69	3.41	3.68	.74	.566
I think labels of OTOP products are worth buying.	3.50	3.71	3.69	3.45	3.53	1.73	.142
Advertisement is vital when buying OTOP products.	3.86	3.98	4.04	3.69	4.00	1.06	.374
Deciding to buy OTOP products is subjective to ads.	3.76	3.95	3.98	3.69	3.59	1.33	.258
The memo of ads persuades to buy OTOP products.	3.76	4.11	4.04	3.62	3.63	3.60	.007**
I trust the "ads" message of OTOP provider.	3.62	3.80	3.89	3.66	3.53	1.23	.296
I trust the organic certification of OTOP labels.	3.65	3.76	3.80	3.72	3.74	.40	.812
I trust OTOP labels of organic products.	3.66	3.67	3.73	3.59	3.74	.20	.938

**Table 4.5 Continued**

<b>Product Attributes</b>	<b>3.57</b>	<b>3.66</b>	<b>3.71</b>	<b>3.53</b>	<b>3.57</b>	<b>.95</b>	<b>.435</b>
OTOP products smell nice and taste good.	3.70	3.77	3.89	3.52	3.63	1.64	.164
OTOP products have a pleasant texture.	3.68	3.77	3.87	3.55	3.58	1.68	.153
OTOP products are free from genetic modifications.	3.47	3.47	3.53	3.38	3.58	.28	.893
OTOP products do not have additives flavour.	3.49	3.44	3.53	3.24	3.58	.78	.541
OTOP products are free from pesticides.	3.31	3.46	3.53	3.45	3.47	1.03	.390
OTOP products are fresher than other brands.	3.60	3.75	3.67	3.62	3.42	1.30	.270
OTOP products stated their ingredients and their %.	3.74	3.93	3.96	3.93	3.74	1.30	.271

The analysis of the results was performed at 5% level of significance; in which the value of  $p \leq .05$  was considered significant and  $p \leq .01$  as highly significant. In regards to “age groups”, the results showed that in terms of mean, only international consumers whose age group 35-44 showed the highest mean scores in all three factors of attitudes. Yet, there were no statistically significant differences with overall attitude factors among different international consumers’ age groups even though there were two (2) statements (one of each) of “health and environmental consciousness” and “product trust” which were highly significant (at  $p \leq .01$ ).

Additionally, the results of the One-Way ANOVA test for differences in attitudes among respondents’ countries of origin are presented in table 4.6 below.

**Table 4.6: One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Countries of Origin**

<b>Attitudes Factors</b>	<b>Countries of Origin</b>							<b>ANOVA</b>	
	<b>Mean</b>						<b>F-value</b>	<b>p-value</b>	
	<b>Euro pe</b>	<b>Ame rica</b>	<b>Asia</b>	<b>Aus/ NZ</b>	<b>Af-rica</b>	<b>Oth</b>			
<b>Health &amp; Environmental Consciousness</b>	<b>3.66</b>	<b>3.71</b>	<b>3.81</b>	<b>3.68</b>	<b>3.74</b>	<b>3.48</b>	<b>1.15</b>	<b>.336</b>	
I am concerned of the nutrition in the food.	3.91	3.92	4.00	3.94	4.14	3.67	.40	.850	
I am concerned of the additives of OTOP products.	3.68	3.70	3.75	3.58	3.73	3.83	.36	.873	
I am concerned of the process of OTOP products.	3.57	3.55	3.81	3.64	3.64	3.17	1.28	.271	
I focus on unhealthy substances of OTOP products.	3.75	3.64	3.93	3.65	3.95	3.50	1.58	.164	
Health issues are vital when buy OTOP products.	3.93	4.00	4.12	3.81	3.95	3.67	1.52	.181	
OTOP products are more environmentally friendly.	3.56	3.83	3.77	3.38	3.36	3.50	3.45	.005**	
OTOP products have anti-sickness effects.	2.96	2.74	3.10	2.98	2.82	2.83	1.39	.226	
I’m scared to eat food contaminate with pesticides.	3.69	4.11	3.99	4.08	3.91	3.50	2.35	.041*	
I am concerned about the plants and animals’ life.	3.88	3.87	3.81	4.07	4.18	3.67	1.42	.215	

**Table 4.6 Continued**

<b>Product Trust</b>	<b>3.61</b>	<b>3.53</b>	<b>3.83</b>	<b>3.58</b>	<b>3.58</b>	<b>3.42</b>	<b>3.36</b>	<b>.006**</b>
OTOP providers are honest about their products.	3.31	3.06	3.44	3.31	3.27	3.67	2.18	.055
OTOP producers practice organic farming.	3.35	2.96	3.38	3.32	3.18	3.17	2.61	.025*
I trust the information on OTOP products.	3.57	3.40	3.70	3.45	3.55	3.33	1.75	.122
I think labels of OTOP products are worth buying.	3.58	3.51	3.80	3.45	3.55	3.83	2.54	.028*
An ad is vital when buying OTOP products.	3.88	3.75	4.14	3.85	3.82	3.17	3.31	.006**
Decide buying OTOP product is subjective to ads.	3.69	3.87	4.07	3.75	3.77	3.17	2.40	.037*
The memo of ads persuades buy OTOP products.	3.94	3.85	4.15	3.75	3.73	3.50	2.48	.031*
I trust the “ads” message of OTOP provider.	3.57	3.70	3.96	3.65	3.50	3.33	2.85	.015*
I trust the organic certification of OTOP labels.	3.64	3.64	3.86	3.65	3.77	3.50	1.40	.224
I trust OTOP labels of organic products.	3.59	3.55	3.80	3.60	3.68	3.50	1.57	.167
<b>Product Attributes</b>	<b>3.58</b>	<b>3.48</b>	<b>3.82</b>	<b>3.46</b>	<b>3.46</b>	<b>3.52</b>	<b>6.63</b>	<b>.000**</b>
OTOP products smell nice and taste good.	3.69	3.62	3.95	3.54	3.55	3.67	5.15	.000**
OTOP products have a pleasant texture.	3.73	3.58	3.92	3.56	3.64	3.33	4.62	.000**
OTOP products are free from modifications.	3.47	3.23	3.69	3.29	3.41	3.00	5.46	.000**
OTOP products do not have additives flavour	3.46	3.17	3.69	3.26	3.27	3.67	5.45	.000**
OTOP products are free from pesticides.	3.37	3.32	3.59	3.29	3.32	3.50	2.54	.028*
OTOP products are fresher than other brands.	3.51	3.60	3.91	3.51	3.55	3.50	5.27	.000**
OTOP products state their ingredients and their %.	3.86	3.85	4.01	3.75	3.50	4.00	2.23	.005**

As far as the respondents’ different countries of origin are concerned, it was found that there were statistically significant differences between the respondents’ different countries of origin with overall attitude except “health and environmental consciousness”. The results of LSD post hoc test also illustrated that Asian consumers seemed to acknowledge that “product trust” and “product attributes” were the two main factors of attitudes that impact their purchase intention of OTOP snack food products compared to other citizens (Europeans, Americans, Australians/New Zealanders, and Africans).

Nevertheless, the results of the One-Way ANOVA test for differences in attitudes among respondents’ education level are shown below in table 4.7.

**Table 4.7: One-Way ANOVA Tests for Differences in Attitudes between Respondents' Educational Levels**

Attitudes Factors	Educational Level						ANOVA	
	Mean						F-value	p-value
	Certificate	Diploma	Bachelor or Dgr.	Master Deg.	PhD Deg.	Other		
<b>Health &amp; Environmental Consciousness</b>	<b>3.59</b>	<b>3.80</b>	<b>3.72</b>	<b>3.81</b>	<b>3.90</b>	<b>3.41</b>	<b>2.67</b>	<b>.022*</b>
I am concerned of the nutrition in the food.	3.87	4.05	3.88	4.09	4.26	3.72	1.61	.158
I am concerned of the additives of OTOP products.	3.52	3.75	3.66	3.80	3.96	3.39	1.40	.222
I am concerned of the process of OTOP products.	3.46	3.72	3.70	3.81	3.70	3.22	1.59	.161
I focus on unhealthy substances of OTOP products.	3.54	3.90	3.76	3.93	4.22	3.28	3.45	.005**
Health issues are vital when buyi OTOP products.	3.81	4.08	4.02	4.01	4.15	3.39	2.39	.037*
OTOP products are more environmentally friendly.	3.54	3.62	3.61	3.76	3.70	3.33	.97	.439
OTOP products have anti-sickness effects.	2.87	3.13	2.89	3.03	3.07	3.22	1.12	.348
I'm scared to eat food contaminated with pesticides.	3.70	4.00	4.04	4.04	3.93	3.44	2.37	.039*
I am concerned about the plants and animals' life.	3.96	3.95	3.93	3.79	4.07	3.67	.787	.559
<b>Product Trust</b>	<b>3.53</b>	<b>3.63</b>	<b>3.70</b>	<b>3.75</b>	<b>3.76</b>	<b>3.52</b>	<b>1.26</b>	<b>.281</b>
OTOP providers are honest about their products.	3.15	3.45	3.27	3.36	3.52	3.50	1.56	.171
OTOP producers practice organic farming.	3.19	3.47	3.23	3.30	3.26	3.56	1.48	.196
I trust the information on OTOP products.	3.41	3.62	3.55	3.64	3.81	3.28	1.54	.175
I think labels of OTOP products are worth buying.	3.65	3.57	3.62	3.60	3.81	3.61	.38	.861
Ad is vital when buying OTOP products.	3.74	3.87	3.99	4.10	3.89	3.67	1.63	.152
Decide to buy OTOP products is subjective to ads.	3.63	3.80	3.99	4.03	3.63	3.33	2.75	.019*
The memo of ads persuades to buy OTOP products.	3.69	3.65	4.09	4.19	3.93	3.44	4.47	.001**
I trust the "ads" message of OTOP provider.	3.60	3.53	3.86	3.81	3.96	3.28	2.54	.028*
I trust the organic certification of OTOP labels.	3.67	3.68	3.73	3.79	3.89	3.67	.40	.847
I trust OTOP labels of organic products.	3.57	3.62	3.65	3.70	3.93	3.89	1.17	.322
<b>Product Attributes</b>	<b>3.51</b>	<b>3.51</b>	<b>3.64</b>	<b>3.77</b>	<b>3.73</b>	<b>3.49</b>	<b>2.36</b>	<b>.039*</b>
OTOP products smell nice and taste good.	3.69	3.63	3.75	3.81	3.89	3.67	.79	.555
OTOP products have a pleasant texture.	3.72	3.62	3.74	3.86	3.85	3.44	1.77	.117
OTOP products are free from genetic modifications.	3.26	3.35	3.48	3.68	3.56	3.44	2.45	.034*
OTOP products do not have artificial flavor	3.30	3.37	3.43	3.60	3.70	3.50	1.65	.145
OTOP products are free from pesticides.	3.37	3.40	3.40	3.56	3.48	3.33	.77	.570
OTOP products are fresher than other brands.	3.52	3.48	3.73	3.84	3.74	3.44	2.66	.022*
OTOP products stated their ingredients and their %.	3.70	3.73	3.93	4.04	3.89	3.61	2.08	.067

Concerning the respondents' education level, the results of table 4.7 above explained that there were statistically significant differences between the respondents' education level with overall attitude except "product trust". In other words, "health and environmental consciousness" was more important among PhD holders and "product attributes" among master degree holders. In nutshell, only highly educated participants were concerned with attitude factors when they are willing to purchase OTOP snack food products compared to other less educated consumers (certificate, diploma and bachelor degree graduates).



The fifth factor of demographic characteristics is “occupation”. The results of the One-Way ANOVA test for differences in attitudes among respondents’ occupations are demonstrated in the below table 4.8.

**Table 4.8: One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Occupations**

Attitudes Factors	Occupations							ANOVA	
	Mean							F-value	p-value
	Student	Professional	Govt empl	Self-empl.	Com. empl.	Unemp Retired	Others		
<b>Health &amp; Environmental Consciousness</b>	<b>3.62</b>	<b>3.80</b>	<b>3.80</b>	<b>3.69</b>	<b>3.71</b>	<b>3.58</b>	<b>3.73</b>	<b>.87</b>	<b>.517</b>
I am concerned of the nutrition in the food.	3.78	4.19	4.04	3.94	3.89	4.00	4.07	.85	.531
I am concerned of the additives of OTOP product.	3.78	3.75	3.75	3.65	3.66	3.38	3.47	.59	.740
I am concerned of the process of OTOP products.	3.53	3.63	3.85	3.53	3.70	3.44	3.60	.78	.585
I focus on unhealthy substances of OTOP product.	3.51	3.95	3.89	3.76	3.76	3.75	3.73	1.19	.311
Health issues are vital when I buy OTOP product.	3.78	4.14	4.03	3.82	3.99	3.88	3.73	1.18	.314
OTOP products are environmentally friendly.	3.44	3.65	3.64	3.53	3.70	3.44	3.53	.69	.656
OTOP products have anti-sickness effects.	3.07	2.97	2.96	3.29	2.93	2.75	3.27	.87	.514
I’m scared eat food contaminated with pesticides.	3.78	4.00	4.13	3.82	3.95	3.38	4.13	1.96	.071
I am concerned about the plants and animals’ life.	3.93	4.06	3.90	3.88	3.78	4.19	4.00	1.21	.302
<b>Product Trust</b>	<b>3.65</b>	<b>3.67</b>	<b>3.77</b>	<b>3.69</b>	<b>3.63</b>	<b>3.64</b>	<b>3.68</b>	<b>.43</b>	<b>.857</b>
OTOP providers are honest about their products.	3.36	3.47	3.39	3.65	3.14	3.56	3.40	2.73	.013*
OTOP producers practice organic farming.	3.40	3.35	3.36	3.53	3.14	3.50	3.27	1.73	.112
I trust the information on OTOP products.	3.56	3.64	3.60	3.76	3.49	3.75	3.40	.77	.595
I think labels of OTOP products are worth buying.	3.67	3.65	3.65	3.65	3.59	3.50	3.67	.16	.987
An ad is vital when buying OTOP products.	3.96	3.90	4.06	3.59	3.92	4.06	4.00	.74	.618
Decide to buy OTOP product is subjective to ads.	3.67	3.80	4.07	3.65	3.93	3.63	3.80	1.17	.322
The memo of ads persuade to buy OTOP product.	3.71	3.89	4.15	3.71	4.01	3.56	4.07	1.67	.126
I trust the “ads” message of OTOP provider.	3.62	3.67	3.85	3.82	3.81	3.44	3.60	.79	.579
I trust the organic certification of OTOP labels.	3.78	3.64	3.90	3.76	3.69	3.69	3.73	.80	.573
I trust OTOP labels of organic products.	3.80	3.69	3.71	3.76	3.58	3.69	3.87	.81	.562
<b>Product Attributes</b>	<b>3.48</b>	<b>3.69</b>	<b>3.71</b>	<b>3.64</b>	<b>3.63</b>	<b>3.29</b>	<b>3.70</b>	<b>1.95</b>	<b>.072</b>
OTOP products smell nice and taste good.	3.60	3.86	3.76	3.59	3.74	3.50	3.87	1.20	.303
OTOP products have a pleasant texture.	3.67	3.82	3.78	3.76	3.70	3.44	3.93	1.13	.347
OTOP products are free from modifications.	3.38	3.45	3.61	3.53	3.47	3.38	3.40	.62	.715
OTOP products do not have /artificial flavor	3.51	3.47	3.49	3.53	3.44	3.13	3.53	.56	.764
OTOP products are free from pesticides.	3.13	3.41	3.53	3.53	3.48	3.19	3.60	2.17	.050*
OTOP products are fresher than other brands.	3.49	3.84	3.76	3.59	3.68	3.00	3.60	3.75	.001**
OTOP products state their ingredients and their %.	3.56	3.99	4.03	3.94	3.87	3.38	4.00	3.08	.006**

In regards to the participants’ occupation, the results emphasized that “government employees” showed higher mean scores in “health and environmental consciousness”, “product trust” and “product attributes” compared to other professions. However, there were still no statistically significant differences with overall attitude factors among different participants’ occupations as presented in the above table (4.8).

Accordingly, the results of the One-Way ANOVA test for differences in attitudes among respondents' household members are proven in the below table 4.9.

**Table 4.9: One-Way ANOVA Tests for Differences in Attitudes between Respondents' Household Members**

Attitudes Factors	Mean					ANOVA	
	1-2	3-4	5-6	7-8	9or>	F-value	p-value
<b>Health &amp; Environmental Consciousness</b>	<b>3.76</b>	<b>3.74</b>	<b>3.69</b>	<b>3.32</b>	<b>4.08</b>	<b>2.00</b>	<b>.094</b>
I am concerned of the nutrition in the food.	3.91	3.97	4.18	3.25	4.25	3.00	.019*
I am concerned of the additives of OTOP products.	3.75	3.68	3.67	3.25	3.75	.78	.540
I am concerned of the process of OTOP products.	3.77	3.68	3.52	3.17	4.25	1.85	.118
I focus on unhealthy substances of OTOP products.	3.84	3.83	3.64	3.50	4.00	.896	.467
Health issues are vital when buying OTOP product.	4.00	4.03	3.86	3.58	4.75	1.728	.143
OTOP products are more environmentally friendly.	3.59	3.73	3.44	3.50	3.75	1.52	.194
OTOP products have anti-sickness effects.	3.13	2.92	2.82	2.92	3.25	1.70	.148
I'm scared eat food contaminated with pesticides.	3.91	3.98	4.05	3.42	4.25	1.386	.238
I am concerned about the plants and animals' life.	3.94	3.86	4.02	3.33	4.50	2.0	.093
<b>Product Trust</b>	<b>3.73</b>	<b>3.67</b>	<b>3.53</b>	<b>3.76</b>	<b>3.50</b>	<b>1.28</b>	<b>.276</b>
OTOP providers are honest about their products.	3.45	3.27	3.18	3.42	3.75	1.97	.098
OTOP producers practice organic farming.	3.40	3.24	3.15	3.25	3.75	1.86	.117
I trust the information on OTOP products.	3.65	3.54	3.47	3.58	3.25	.83	.506
I think labels of OTOP products are worth buying.	3.63	3.63	3.61	3.67	3.50	.04	.997
An ad is vital when buying OTOP products.	3.99	3.96	3.77	3.92	4.25	.820	.513
Decide to buy OTOP products is subjective to ads.	3.89	3.92	3.70	3.92	3.75	.565	.688
The memo of ads persuades to buy OTOP products.	3.99	3.98	3.79	4.08	3.50	.78	.540
I trust the "ads" message of OTOP provider.	3.77	3.81	3.59	3.67	2.75	1.76	.135
I trust the organic certification of OTOP labels.	3.84	3.71	3.55	4.08	3.25	2.40	.049*
I trust OTOP labels of organic products.	3.72	3.69	3.50	4.00	3.25	1.83	.123
<b>Product Attributes</b>	<b>3.68</b>	<b>3.63</b>	<b>3.50</b>	<b>3.63</b>	<b>3.54</b>	<b>1.23</b>	<b>.298</b>
OTOP products smell nice and taste good.	3.84	3.68	3.74	3.50	3.50	1.52	.196
OTOP products have a pleasant texture.	3.83	3.69	3.73	3.50	3.50	1.38	.241
OTOP products are free from modifications.	3.60	3.43	3.32	3.58	3.25	2.05	.086
OTOP products do not have artificial flavor	3.56	3.42	3.27	3.75	3.50	1.93	.104
OTOP products are free from pesticides.	3.52	3.45	3.18	3.50	3.25	2.59	.036*
OTOP products are fresher than other brands.	3.59	3.79	3.56	3.67	3.75	1.86	.117
OTOP products stated their ingredients and their %.	3.85	3.96	3.68	3.92	4.00	1.51	.198

In Addition, by referring to the characteristic “household members”, the results showed that there were still no statistically significant differences with overall attitude factors among different participants’ household members even though there were three (3) statements (one of each factor) which were significant (at  $p \leq .05$ ). However, in terms of mean, “household with 9 members or more” had the highest mean scores in “health and environmental consciousness”. In regards to “product trust” and “product attributes”, “household with 7-8 members” and “household with 1-2 members” respectively exhibited higher mean scores compared to other household members.

Finally, “monthly income” is the last demographic characteristic. The results are emphasized below:

**Table 4.10: One-Way ANOVA Tests for Differences in Attitudes between Respondents’ Monthly Incomes**

Attitudes Factors	Monthly Income						ANOVA	
	Mean						F-value	p-value
	\$1K or <	\$1K - \$2K	\$2K-\$3K	\$3K-\$4K	\$4K-\$5K	\$5K or >		
<b>Health &amp; Environmental Consciousness</b>	<b>3.78</b>	<b>3.82</b>	<b>3.69</b>	<b>3.71</b>	<b>3.70</b>	<b>3.61</b>	<b>1.00</b>	<b>.415</b>
I am concerned of the nutrition in the food.	4.02	4.06	3.88	4.13	3.63	3.90	1.47	.200
I am concerned of the additives of OTOP product.	3.74	3.87	3.54	3.83	3.46	3.61	1.74	.125
I am concerned of the process of OTOP products.	3.58	3.94	3.47	3.71	3.71	3.76	2.59	.026*
I focus on unhealthy substances of OTOP product.	3.92	3.82	3.80	3.69	3.88	3.66	.56	.730
Health issues are vital buying OTOP products.	4.03	4.07	3.97	3.92	3.92	3.76	.81	.545
OTOP products are more environmental friendly.	3.62	3.62	3.77	3.56	3.58	3.27	1.99	.080
OTOP products have anti-sickness effects.	3.00	3.05	2.84	2.94	3.21	3.02	.95	.451
I’m scared eat food contaminated with pesticides.	4.03	4.08	4.05	3.77	4.00	3.68	1.90	.094
I am concerned about the plants and animals’ life.	4.06	3.83	3.90	3.79	3.92	3.80	.75	.587
<b>Product Trust</b>	<b>3.79</b>	<b>3.71</b>	<b>3.62</b>	<b>3.68</b>	<b>3.80</b>	<b>3.46</b>	<b>1.80</b>	<b>.112</b>
OTOP providers are honest about their products.	3.47	3.28	3.17	3.40	3.67	3.44	2.83	.016*
OTOP producers practice organic farming.	3.42	3.22	3.15	3.31	3.46	3.39	1.67	.141
I trust the information on OTOP products.	3.73	3.52	3.46	3.62	3.67	3.54	1.04	.391
I think labels of OTOP products are worth buying.	3.74	3.65	3.58	3.58	3.63	3.49	.63	.681
An ad is vital when buying OTOP products.	4.02	4.03	3.98	3.89	4.08	3.54	2.17	.057
Deciding buy OTOP products is subjective to ads.	3.94	4.09	3.90	3.96	3.83	3.29	3.71	.003**
The memo of ads persuades to buy OTOP product.	4.09	4.07	4.03	3.94	3.88	3.41	3.08	.010**
I trust the “ads” message of OTOP provider.	3.85	3.83	3.76	3.73	3.83	3.37	1.64	.148
I trust the organic certification of OTOP labels.	3.88	3.74	3.59	3.75	3.96	3.61	1.60	.159
I trust OTOP labels of organic products.	3.79	3.66	3.63	3.58	4.00	3.49	1.87	.099

**Table 4.10 Continued**

<b>Product Attributes</b>	<b>3.65</b>	<b>3.67</b>	<b>3.69</b>	<b>3.55</b>	<b>3.59</b>	<b>3.45</b>	<b>1.35</b>	<b>.243</b>
OTOP products smell nice and taste good.	3.83	3.74	3.74	3.60	3.67	3.80	.78	.564
OTOP products have a pleasant texture.	3.83	3.74	3.76	3.52	3.75	3.80	1.44	.209
OTOP products are free from genetic modifications.	3.61	3.54	3.41	3.31	3.58	3.39	1.46	.201
OTOP products do not have additives flavor	3.52	3.49	3.52	3.33	3.38	3.29	.89	.488
OTOP products are free from pesticides.	3.45	3.47	3.53	3.35	3.42	3.15	1.85	.102
OTOP products are fresher than other brands.	3.65	3.73	3.86	3.71	3.50	3.24	4.71	.000**
OTOP product stated their ingredient and their %.	3.68	3.97	4.01	4.02	3.83	3.49	3.93	.002**

The above table 4.10 illustrated that there were still no statistically significant differences with overall attitude factors between different participants' monthly incomes albeit there were six (6) statements (one for "health and environmental consciousness"; three for "product trust" and two of "product attributes") which were significant (at  $p \leq .05$  and  $p \leq .01$ ). Conversely, "respondents with monthly incomes of \$1001-\$2000" showed the highest mean scores in "health and environmental consciousness". Additionally, incidentally to "product trust", respondents with monthly incomes of "\$4001-\$5000" showed more concerns with a mean score (3.80). Finally, in relation to "product attributes", respondents with monthly incomes of "\$2001-\$3000" demonstrated higher mean scores compared to other incomes.

#### **4.4.2 Significance of Demographic Characteristics and Purchase Intention**

First, the simple independent t-test was also conducted to determine the significance of the mean of two groups (male and female) of gender and the differences in their purchase intention. The analysis of the results was carried out at 5% level of significance; in which the value of  $p \leq .05$  was considered significant and  $p \leq .01$  as highly significant.

**Table 4.11: Independent Sample t-test for Differences in Purchase Intention between Genders**

	Gender					
	Male n=264		Female n=136		t-test	
	Mea n	SD	Mean	SD	t- value	p- value
<b>Purchase Intention</b>	<b>3.46</b>	<b>.58</b>	<b>3.49</b>	<b>.63</b>	<b>-.50</b>	<b>.288</b>
I buy OTOP products to save money.	3.53	1.16	3.68	1.12	-1.24	.211
I consider buying OTOP products.	3.90	.78	3.99	.84	-.99	.660
I buy OTOP products even if the choices are limited.	3.60	.80	3.53	.89	.79	.151
I buy OTOP products because of the benefits.	3.48	.81	3.47	.85	.16	.360
I spend more time sourcing for OTOP products.	2.86	1.01	2.96	.94	-1.00	.136
I buy OTOP products at any rate of conventional ones.	3.38	.82	3.31	.83	.76	.919

By looking at table 4.11 in above, there were no statistically significant differences between international consumers' gender and the overall purchase intention. Thus, the dependent variable (i.e. purchase intention of OTOP snack food products) did not reveal any difference between international consumers' genders (males and females).

Secondly, the One Way-ANOVA test was conducted to create the statistically differences in purchase intention across the six different demographic characteristics. The analysis of the results was performed at 5% level of significance; in which the value of  $p \leq .05$  was considered significant and  $p \leq .01$  as highly significant.

**Table 4.12 Summary of the results of One-Way ANOVA and t-Test between Demographic Characteristics and Purchase Intention**

	Gender	Age	Country of Origin	Education Level	Occupation	Household Members	Monthly Income
<b>Purchase Intention</b>							
t-value	-.50						
F-value		2.22	4.04	1.31	1.26	.82	.77
p-value	.288	.066	.001**	.260	.275	.510	.517
<b>Significance Status</b>	<b>×</b>	<b>×</b>	<b>✓</b>	<b>×</b>	<b>×</b>	<b>×</b>	<b>×</b>

The above table (12) explained that from the six different demographic characteristics (age, country of origin, education level, occupation, monthly income and household members), there were only statistically significant differences with overall purchase intention among different international consumer' country of origin. Therefore, the purchase intention of OTOP snack food products did not disclose any difference amongst international consumers' demographic characteristics like age, education level, occupation, monthly income and household members.

#### 4.5 Correlation Analyses among the Variables

The significance of the linear bivariate correlation was measured by adopting the Pearson correlation (which values vary from 0-1) between the IVs (subjective norms, behavioral control, health and environmental consciousness, product trust, and product attributes) and the DV (purchase intention).

**Table 4.13: Pearson Correlation Coefficient of the Variables of the Study**

		Pearson Correlation Coefficient					
		SN	BC	HEC	PT	PA	PI
SN	Subjective Norms	1.000					
BC	Behavioral Control	.070	1.000				
HEC	Health & Environment Consciousness	.342**	.280**	1.000			
PT	Product Trust	.319**	.235**	.418**	1.000		
PA	Product Attributes	.419**	.265**	.477**	.651**	1.000	
PI	Purchase Intention	.353**	.319**	.387**	.526**	.646**	1.000

\*\* . Correlation is significant at the 0.01 level (2-tailed)

\* . Correlation is significant at the 0.05 level (2-tailed)

The above table 4.13 illustrates the relationship amongst the variables and such relationship was determined by their coefficients. In other words, the correlation results in the below table (4.19) indicated that subjective norms (.353); behavioral control (.319); health and environmental consciousness (.387); product trust (.526); and product attributes (.646) had a significant correlation with international consumers' purchase intention at 0.01 significance level. Moreover, behavioral control (.280) had a significant correlation with health and environmental consciousness; product trust (.235); and product attributes (.265) at 0.01 significance level but not with subjective norms (.353).

In addition, health and environmental consciousness (.342) had a significant correlation with subjective norms; product trust (.418); and product attributes (.477) at 0.01 significance. Nonetheless, product trust (.319) had a significant correlation with subjective norms; and product attributes (.651) at 0.01 significance level. Finally, product attributes (.419) had a significant correlation with subjective norms at 0.01 significance. From the results, we can conclude that the data do not require multicollinearity analyses because the bivariate correlation between the IVs is less than 80 and above. A commonly given rule of thumb is that VIFs of 10 or higher (or equivalently, tolerances of 1.0 or less) may be reason for concern. This is, however, just a rule of thumb; Allison says he gets concerned when the VIF is over 2.5 and the tolerance is under .40.

#### 4.5.1 Multicollinearity Diagnostics

Multicollinearity was used to check whether there is any relation among the independent variables. Multicollinearity describes the degree to which any variable's effect can be predicted by the other variable (Hair *et al.*, 1995). The existence of multicollinearity, i.e. high correlation between the independent variables, is a serious problem in multiple regressions because the effect of each independent variable on the dependent variable becomes difficult to identify. A widely used method to detect for and measure multicollinearity is the Variance Inflation Factor (VIF) for each independent variable (Naser *et al.*, 2002).

**Table 4.14: Variance Inflation Factor**

<b>Variables</b>	<b>VIF</b>
Subjective Norms	1.263
Behavioral Control	1.124
Health and Environmental Consciousness	1.415
Product Trust	1.791
Product Attributes	2.046

**Dependent Variable: PI.**

The results in table 4.14 above revealed that there is no multicollinearity problem in this study because the VIF for each independent variable is less than 10. In circumstances where the VIF is above 10, the independent variables are considered highly correlated, causing a multicollinearity problem (Silver, 1997). Thus, the multicollinearity diagnostics command to include the VIF was selected when running the multiple regression models.

## 4.6 Regression Analyses

In this study, both simple and multiple regressions were conducted to determine the best predictor of purchase intention among the international consumers of OTOP snack food products in Phuket (Thailand). The results of the regressions in accordance to the research objectives are described below.

### 4.6.1 Simple Regression between Purchase Intention (PI) with Subjective Norms (SN)

The table 4.15 shown below illustrated that the enter method added the first independent variable (Subjective Norms). After adding subjective norms, the data was examined using simple regression to proliferate most lucid results. In other words, the model shown in table 4.15 indicates that “subjective norms” is used as the only independent variable in the regression.

**Table 4.15: Regression Analysis of Subjective Norms on Purchase Intention**

Independent Variable	Subjective Norms on Purchase Intention				
	B	SE B	$\beta$	T	Sig.
Constant	2.609	.118		22.190	.000
Subjective Norms	.276	.037	.353	7.520	.000**
R <sup>2</sup> Value	.124			F	56.553
Adjusted R <sup>2</sup>	.122			Sig.	.000**

a. Predictors: (Constant), Subjective Norms

b. Dependent Variable: Purchase Intention

\*Significance Level at  $p < .05$

**Source: Current Study**



The first regression will only use subjective norms (SN) as the independent variable that influences the dependant variable (purchase intention of OTOP snack food products noted PI). After “subjective norms” was entered, the researcher opted to observe the value of the adjusted R square. The main goal of observing the adjusted value of the R square is to apprehend the best model that can explain the purchase intention of OTOP snack food products.

The first hypothesis posed that subjective norms can have a positive and significant influence on purchase intention. The regression analysis indicated that subjective norms accounted for 12.2% of the variance in purchase intention of OTOP snack food products,  $R = .353$ ,  $R^2 = .124$ , adjusted  $R^2 = .122$ ,  $F(1, 398) = 56.553$ ,  $p < .000$ . These results explained that 12.2% of the purchase intention of OTOP snack food products can be explained by subjective norms, while 87.8% of the purchase intention of OTOP snack food products can be explained by some other factors. Thus, one independent factor cannot explain much of the purchase intention of OTOP snack food products; but still, the first hypothesis was supported.

#### **4.6.2 Simple Regression between Purchase Intention (PI) with Behavioral Control (BC)**

In table 4.16 below, it is shown that the data was examined using simple regression to proliferate most coherent results. The model shown in table 4.16 indicates that “behavioral control” is used as the only independent variable in the regression. After “behavioral control” was entered, the researcher opted to observe the value of the adjusted R square. The main goal of observing the adjusted value of the R square is to apprehend the best model that can explain the purchase intention of OTOP snack food products.

**Table 4.16: Regression Analysis of Behavioral Control on Purchase Intention**

Independent Variable	Behavioral Control on Purchase Intention				
	B	SE B	$\beta$	t	Sig.
Constant	2.337	.171		13.679	.000
Behavioral Control	.337	.050	.319	6.714	.000**
R <sup>2</sup> Value	.102			F	45.082
Adjusted R <sup>2</sup>	.099			Sig.	.000**

a. Predictors: (Constant), Behavioral Control

b. Dependent Variable: Purchase Intention

\*Significance Level at  $p < .05$

**Source: Current Study**

The second hypothesis posed that behavioral control can have a significant impact on purchase intention. The regression analysis indicated that behavioral control accounted for .099% of the variance in purchase intention of OTOP snack food products,  $R = .319$ ,  $R^2 = .102$ , adjusted  $R^2 = .099$ ,  $F(1, 398) = 45.082$ ,  $p < .000$ . These results explained that 9.9% of the purchase intention of OTOP snack food products can be explained by behavioral control, while 90.1% of the purchase intention of OTOP snack food products can be explained by some other factors. Thus, one independent factor cannot explain much of the purchase intention of OTOP snack food products; but still, the second hypothesis was supported.

#### **4.6.3 Multiple Regression between Purchase Intention (PI) with Attitudes Factors**

Table 4.17 below indicated that the three factors (Heath and environmental consciousness; product trust and product attributes) of the independent variable “attitude” were entered. The table 4.17 showed that the enter method added the three independent variables one by one. After adding the independent variables one by one, the data was examined using multiple regressions to proliferate most cogent results.

**Table 4.17: Regression Analysis of Attitude Factors on Purchase Intention**

Independent Variables	Attitude Factors on Purchase Intention				
	B	SE B	$\beta$	t	Sig.
Constant	.695	.171		4.060	.000
Health & Environment Consciousness	.080	.044	.078	1.804	.072
Product Trust	.160	.047	.169	3.367	.001**
Product Attributes	.521	.054	.499	9.637	.000**
R <sup>2</sup> Value	.442			F	104.465
Adjusted R <sup>2</sup>	.438			Sig.	.000**

a. Predictors: (Constant), Health & Environment Consciousness, Product Trust and Product Attributes

b. Dependent Variable: Purchase Intention

\*Significance Level at  $p < .05$

**Source: Current Study**

The model indicates that “Heath and Environmental Consciousness;” is used as the first independent variable in the regression. The first regression will only use Heath and Environmental Consciousness; (HEC) as the independent variable that influences the dependant variable (the purchase intention of OTOP snack food products).

The second model of regression will add Product Trust (PT) as a second variable in determining the level of the purchase intention of OTOP snack food products. Finally, the third and last model of regression will add and Product Attributes (PA) as a third variable in determining the the purchase intention of OTOP snack food products.

After all three independent variables (HEC, PT, and PA) were entered; the researcher decided on examining the value of the adjusted R square. The main purpose of observing the adjusted value of the R square is to capture the best model that can explain the purchase intention of OTOP snack food products. The third hypothesis posed that attitude factors (health and environmental concerns, product trust and product attributes) can have a significant impact on purchase intention. A multiple regression analysis indicated that the three predictors; health and environmental concerns, product trust and product attributes accounted for 43.8% of the variance in purchase intention of OTOP snack food

products,  $R = .665$ ,  $R^2 = .443$ , adjusted  $R^2 = .438$ ,  $F(3, 396) = 104.465$ ,  $p < .000$ . The third hypothesis was partially supported.

The findings revealed that the strongest predictor was product attributes ( $= .521$ ,  $p < .000$ ), followed by product trust ( $= .160$ ,  $p < .001$ ), and health and environmental concerns ( $= .080$ ,  $p < .072$ ). The two factors (product attributes and product trust) positively predicted the purchase intention of OTOP snack food products; but health and environmental concerns did not. Therefore, it can be concluded from the outcomes that that international consumers' purchase intention of OTOP snack food products was influenced by product attributes and product trust.

#### 4.6.4 Multiple Regression of the Model (All Variables Included)

The final testing endorses a final regression analysis used to test the contribution of subjective norms, behavioral control, health and environmental concerns, product trust and product attributes in predicting the purchase intention of OTOP snack food products. The results of regressing five independent variables on purchase intention of OTOP snack food products were presented in the below table 4.18.

**Table 4.18: Multiple Regression of the Model**

Independent Variables	Independent Variables on Purchase Intention				
	B	SE B	$\beta$	t	Sig.
Constant	.346	.188		1.839	0.067
Subjective Norms	.072	.032	.092	2.232	<b>.026*</b>
Behavioral Control	.155	.041	.147	3.764	<b>.000**</b>
Health & Environment Consciousness	.035	.045	.034	.776	.438
Product Trust	.146	.047	.154	3.117	<b>.002**</b>
Product Attributes	.472	.055	.453	8.595	<b>.000**</b>
R <sup>2</sup> Value	.466			F	68.764
Adjusted R <sup>2</sup>	.459			Sig.	.000**

The "Model Summary" showed that the five independent variables were entered into the regression model, the R (.683), which is the correlation of all variables with the dependent variable, after all the inter-correlations among the five independent variables were taken into account, the R square is obtained (.466).

The variables contribution explained that all variables entered accounted for 46.6% of the variance in purchase intention of OTOP snack food products,  $R = .683$ ,  $R^2 = .466$ , adjusted  $R^2 = .459$ ,  $F(5, 394) = 68.764$ ,  $p < .000$ . The findings also revealed that the strongest predictors were product attributes ( $= .472$ ,  $p < .000$ ), followed by behavioral control ( $= .155$ ,  $p < .000$ ) then product trust ( $= .146$ ,  $p < .002$ ). In addition, subjective norms ( $= .072$ ,  $p < .026$ ) was also a predictor of purchase intention of OTOP snack food products, but health and environmental concerns ( $= .035$ ,  $p < .438$ ) was not a predictor of purchase intention of OTOP snack food products.

Thus, the four variables (product attributes, behavioral control, product trust and subjective norms) positively predicted the purchase intention of OTOP snack food products; but health and environmental concerns did not. Therefore, it can be concluded that international consumers' purchase intention of OTOP snack food products was influenced by the attributes of the product, their behavioral control, their trust towards the product and their subjective norms on how they perceived the product.

#### 4.7 Summary of the Findings

Table 4.19 explained the descriptive statistics of all the variables of study included in the model.

**Table 4.19: Descriptive Statistics of the Model**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Subjective Norms	400	3.1091	.76378
Behavioral Control	400	3.3528	.56551
Health & Environmental Consciousness	400	3.7286	.58701
Product Trust	400	3.6715	.63110
Product Attributes	400	3.6275	.57346
Purchase Intention	400	3.4683	.59817

As exhibited on table 4.19 above, the variable “health & environmental consciousness” had the highest mean (3.73), and then followed by “product trust” (3.67) “product attributes” (3.63), and “purchase intention” (3.46). However, “behavioral control” (3.35) and “subjective norms” (3.11) were assumed to have the lowest means.

Nonetheless, table 4.20 summarizes the results of the t-test and one-way ANOVA between the demographic characteristics and both attitudes factors (health & environmental consciousness, product trust and product attributes) and purchase intention

**Table 4.20: Significance of (t-Test, ANOVA) between Demographics and Variables of the Model**

Demographic Characteristics							
	Gender	Age	Country of Origin	Education level	Occupation	Household Members	Monthly Income
<b>Attitude Factors</b>							
Health & Environment Consciousness	.443	.470	.336	<b>.022*</b>	.517	.094	.415
Product Trust	.066	.260	<b>.006**</b>	.281	.857	.276	.112
Product Attributes	.872	.435	<b>.000**</b>	<b>.039*</b>	.072	.298	.243
<b>Purchase Intention</b>	.288	.066	<b>.001**</b>	.260	.275	.510	.574

**Note:** \* indicates statistically significant differences at  $p \leq .05$

\*\* indicates statistically significant differences at  $p \leq .01$

As indicated in table 4.20 above, among the demographic characteristics, only “country of origin” was found to be statistically significant with two attitude factors (product trust and product attributes) and the dependent variable “purchase intention”. Additionally, “educational level” was also found to be statistically significant with two attitude factors (health and environmental consciousness and product attributes) but yet there was no significance with “purchase intention”. Thus, it can be concluded that only two characteristics (country of origin and educational level) were important to the international consumers as far as their attitudes and purchase intention were concerned. As this said, other characteristics such as gender, age, occupation, household members

and monthly income were of less concern to the participants of the study when they intend to purchase OTOP snack food products.

**Table 4.21: Multiple Regression**

Independent Variables	Independent Variables on Purchase Intention				
	B	SE B	$\beta$	t	Sig.
Constant	.346	.188		1.839	0.067
Subjective Norms	.072	.032	.092	2.232	<b>.026*</b>
Behavioral Control	.155	.041	.147	3.764	<b>.000**</b>
Health & Environment Consciousness	.035	.045	.034	.776	.438
Product Trust	.146	.047	.154	3.117	<b>.002**</b>
Product Attributes	.472	.055	.453	8.595	<b>.000**</b>
R <sup>2</sup> Value	.466			F	68.764
Adjusted R <sup>2</sup>	.459			Sig.	.000**

The results in table 4.21 illustrated that the variables contribution accounted for 46.6% of the variance in purchase intention of OTOP snack food products,  $R = .683$ ,  $R^2 = .466$ , adjusted  $R^2 = .459$ ,  $F(5, 394) = 68.764$ ,  $p < .000$ . The findings also revealed that the strongest predictors were product attributes ( $= .472$ ,  $p < .000$ ), followed by behavioral control ( $= .155$ ,  $p < .000$ ) then product trust ( $= .146$ ,  $p < .002$ ). In addition, subjective norms ( $= .072$ ,  $p < .026$ ) was also a predictor of purchase intention of OTOP snack food products, but health and environmental concerns ( $= .035$ ,  $p < .438$ ) was not a predictor of purchase intention of OTOP snack food products.

In regards to the current study, the four variables (product attributes, behavioral control, product trust and subjective norms) positively predicted the purchase intention of OTOP snack food products; but health and environmental concerns did not. Therefore the first two objectives of the research were met. The third objective however was not fully attained.

#### **4.8 Summary of the Chapter**

This chapter has presented the descriptive statistics, the reliability coefficient, the correlation analysis as well as the regression. In summary, in order to achieve the objectives of the study, the three hypotheses in this study were fairly supported. Overall, the results indicated that almost all predictors, including (subjective norms, behavioral control, product trust and product attributes) contributed to the purchase intention of OTOP snack food products except health & environment consciousness". Hence, the conclusions, discussions of these findings are mandated to the next chapter; and few recommendations for future research will be provided as well.



## **CHAPTER FIVE**

### **CONCLUSIONS, DISCUSSIONS & RECOMMENDATIONS**

#### **5.1 Introduction**

This thesis sought to determine the best predictor between subjective norms, behavioural control and the attitude factors (health and environmental consciousness, product trust and product attributes) toward the purchase intention of OTOP snack food products among international consumers in Phuket (Thailand). The main findings and their implications are highlighted. Based on the findings of the study, conclusions are drawn. In this chapter, the findings are discussed related to the hypotheses and the research objectives. The last section in this chapter encompasses few recommendations that describe the area that can be explored or future research that could be carried out by other researchers.

#### **5.2 Characteristics of Overseas Consumers**

In regards to the distinctive traits of the respondents, the findings of the current research exhibited that almost two-thirds of the respondents were males and only one-third of them were females. The age of the respondents were ranged from 18-55 years and above. Hence, the findings also showed that more than 85% of this is in the age bracket of 18-44 years. All the respondents have at least a secondary education (certificate) with more than half holding college/university degrees.

Additionally, As far as “country of origin” is concerned; the highest response rate was from the Asian respondents (38.5%) who seem to display more willingness to purchase OTOP snack food products. In other words, Asians consumers estimated OTOP snack food products based on the portrait, the reputation, and the stereotype that they attach to Thai products. The image of OTOP snack food products is produced by combining both

the products to its representatives, Thai people's characteristics, the country's economic and political background, history and tradition of the Thailand.

Consequently, country of origin impacts both product evaluations and purchase intention. In general, the assessment of a country coupled with a product directs to an equivalent favorable and unfavorable evaluation of a product. This could be explained that Asian consumers exhibited high purchase intention of OTOP snack food products maybe based on their experience with the products from the country in question. On the contrary, non-Asian consumers in the study showed less concern of purchasing OTOP snack food products possibly due to personal experience, knowledge regarding the country political belief, ethnocentric tendency or fear of the unknown. In other words, high ethnocentrism scores will be related to the reluctance of purchasing foreign products and tendencies to evaluate their products negatively.

### **5.3 Summary of the Effects of Independent and Dependent Variables**

The effects of independent variables on the dependent variable can be illustrated by referring to both correlation and regression analyses.

The correlation readings pointed out a low to moderate ( $r=0.319$  to  $0.646$ ) correlation between almost all independent variables and the purchase intention of OTOP snacks food products. That is to say, all variables have good association with the intention in purchasing OTOP snacks food products. Both product attributes ( $r= 0.646$ ) and product trust ( $r=0.526$ ) were found to be the important determinants of consumers overall attitude towards the purchase intention of OTOP snacks food products. However, the less important factors toward the purchase intention of OTOP snack food products were 'health and environment consciousness' ( $r=0.387$ ), 'subjective norms' ( $r=0.353$ ) and 'behavioral control' ( $r=0.319$ ). In general, the result of correlation analysis showed that all variables significantly influenced the purchase intention of OTOP snacks food products.

Additionally, relation to the outcomes of the regression of the model, the influence of each independent variable revealed that four independent variables significantly predict the purchase intention of OTOP snacks food products. 'Product attributes' was the strongest predictor ( $\beta=.453$ ,  $t=8.595$ ) followed by 'product trust' ( $\beta=.154$ ,  $t=3.117$ ), then 'behavioral control' ( $\beta=.147$ ,  $t=3.764$ ), and finally 'subjective norms' ( $\beta=.092$ ,  $t=2.232$ ). 'Health and environment consciousness' ( $\beta=.034$ ,  $t=0.776$ ) however, were found to not significantly predict the purchase intention of OTOP snacks food products.

## 5.4 Discussions

The objectives of the study were met as the researcher had evaluated the prediction of the purchase intention of OTOP snack food products and found that "subjective norms", "behavioral control", "product trust" and "product attributes" were good predictors of purchase intention. Moreover, by reviewing the third objective, "health & environment consciousness" were found to be statistically insignificant with purchase intention.

### **i. To determine the influence of subjective norms on international consumers' purchase intentions of OTOP snacks food products.**

In this study, "Subjective Norms" was the weakest predictor of intention to purchase OTOP snack food products ( $\beta = .072$ ). This finding is in line with previous food choice applications of the TPB model.

Mahon *et al.* (2006) examined the predictive function of the TPB (Theory of Planned Behavior) model in the context of ready meal and takeaway food consumption in the UK. It was found that subjective norms contributed to the predictive power of the model for ready meals, but it was a weaker predictor than attitude. They further found that subjective norms had no predictive effect on takeaway food. Brewer *et al.* (1999) on the other hand, determined the factors influencing consumption or avoidance of milk in

American consumers using the Theory of Reasoned Action (TRA). In their study, attitude was a good predictor of milk consumption, but “subjective norms” was not.

Moreover, Chen (2007) hypothesized that given that organic foods are perceived as healthier (Grankvist and Biel, 2001; Magnusson *et al.*, 2001); when Taiwan consumers alleged that the important people surrounding them think organic foods are better than conventional foods, they will have more intention of purchasing organic foods. It was confirmed that subjective norms positively enhanced consumers' intention to purchase organic foods, even though it showed less strong predictive power than attitude.

McCarthy *et al.* (2003) in their study regarding the Irish market and in determining the factors that influence the intention to purchase beef; they found that subjective norms significantly influenced the purchase intention for beef, but it made less contribution to explaining behavioral intention than attitude. Correspondingly, subjective norms was established to have a significant outcome on consumers' intention to buy fermented sausages with reduced sodium content, but it was a weaker predictor than attitude (Guardia *et al.*, 2006).

However, in the same context of food choice, authors like Vermeir and Verbeke (2006) testified that the desire to comply with other people might explain strong intentions to purchase sustainable dairy products despite weak personal attitudes. Applied to organic food consumption, Chen (2007), Thøgersen (2007b) and Dean *et al.* (2008) discovered a significant positive relation between consumers' intention to purchase organic food and their subjective norms. Furthermore, subjective norms had been found to be the strongest predictor in some other studies. Chase *et al.* (2003) tested the variables of the theory of planned behavior model in predicting dieticians' intentions to promote whole-grain foods. In the study, “subjective norms” was the strongest predictor of intention. The results revealed that subjective norms was 11.9 times more important than attitudes and 2.3

times more important than perceived behavioral control in explaining intention to promote whole-grain foods.

**ii. Objective 2: To investigate the impacts of behavioural control on international consumers' purchase intentions of OTOP snacks food products.**

The multiple regression analysis confirmed that “behavioural control” was a significant predictor of intention to purchase OTOP snacks food products ( $\beta = .155$ ) in this study. Although behavioral control was a significant and positive predictor, it was a weaker predictor than one of the attitude factors (product attributes) in the model. This is consistent with other food choice studies.

Mahon *et al.* (2006) studied the predictors of intention to eat ready meals and takeaway foods of British consumers. In their study, “behavioural control” (also known as perceived behavioural control) failed to appear as a significant predictor of consumption of either food. Similarly, Bredahl and Grunert (1997) adopted the TPB model to explain intention to buy three specific sea food categories, fish, frozen fish and shelled shrimps of Danish consumers. However, the perceived lack of capacity and control of purchasing and preparing the product was analyzed, and it was found as no significant predictor of consumption of all three types of sea foods.

Guardia *et al.* (2006) also assessed consumers' behavioural intention towards the purchase of reduced salt sausages in Cataluña using the TPB model. Even though all components of the TPB model had a significant effect on behavioural intention, behavioural control was the weakest predictor of intention. Hence, Povey *et al.* (2000) pointed out when a person has a high level of self-confidence in evaluating the purchasing decision of a product, behavioural control will not be a most important issue in influencing his or her behavioural intention.

Contrarily to the above mentioned findings, behavioural control has been found to be a stronger predictor of behavioural intention, in some earlier studies (Bogers *et al.*, 2004). Bogers *et al.* (2004) found that behavioural control was the strongest predictor intention to consume both foods, fruits and vegetable, amongst Dutch consumers. In their study, the prediction by behavioral control was better for the intention to eat vegetables than for the intention to eat fruits. Chen (2007) in another study tested Taiwan consumers' intention to purchase organic food by using the theory of planned behavior model. As a result, behavioural control was found to be a stronger predictor than subjective norm, and a weaker predictor than attitude.

For instance, under behavioral control, there are some perceived barriers (price, availability, lack of product trust and product appearance) that may obstruct and perceived abilities (income) that may facilitate behavioral intention and behavior of consuming organic food.

Tarkiainen and Sundqvist (2005) cited that in the majority of earlier studies, consumers embraced a positive attitude toward organic food, whereas the proportion of consumers who purchase organic food on a regular basis remains quite low. The main consumption barriers for organic food found in literature are the relatively high price premium (McEachern and Willock, 2004; O'Donovan and McCarthy, 2002; Zanolli and Naspetti, 2002) and the real or perceived lack of availability (Chrysohoidis and Krystallis, 2005; Lea and Worsley, 2005; Makatouni, 2002; O'Donovan and McCarthy, 2002). Moreover, other authors had also mentioned some additional elements of consumption barriers such as uncertainty (Thøgersen, 2007a) or the lack of information, low knowledge (Padel and Foster, 2005) and the lack of trust in the organic certification process (Lea and Worsley, 2005).

On the other hand, Jager (2000) and Ajzen (2006) evoked that differences in abilities such as financial resources may have a strong impact on the performance of behaviour. Bonti-Ankomah and Yiridoe (2006) reported that according to several empirical studies (Hill and Lynchehaun, 2002; Kuhar and Juvancic, 2005; Fotopoulos and Krystallis, 2002b) income seemed to play a significant positive role in explaining organic food purchases in Europe, while other studies did not find this relation to be significant in the USA (Durham and Andrade, 2005; Zepeda and Li, 2007; Wolf, 2002). Studies in Canada (Cunningham, 2002) reported a positive relationship between income and willingness to buy organic products, up to a given level of income.

Nonetheless, Riefer and Hamm (2008) also found that the changes in organic food consumption also arose in relation to changes in the situation of income. That is to say, in some cases, respondents described that due to their partners' unemployment; organic food consumption was limited. Kenanog˘lu and Karahan (2002) showed that in Turkey, the limited sales of organic products were mainly caused by the average low income of people and the considerable price premium for organic products.

Gracia and de Magistris (2007) studied the force of the importance that Italian consumers affixed to the price when shopping for organic food, and found that consumers who paid more attention to the price when shopping are less likely to be regular consumers. Kihlberg and Risvik (2007) as well found that Swedish consumers did not buy organic products because of its higher in price compared with conventional products. Dutch consumers also did not buy organic food because of its expensiveness, and even if they did buy it, they bought less (Verhoef, 2005).

Similarly, Zanolini and Naspetti (2002) found that most of Italian consumers hesitated to purchase organic food due to its higher price. A series of studies also pointed out that changing price strategy directly affected consumers' food purchasing behavior, and that reduced price of food products significantly increased the sales of the food products (French, 2003).

In conclusion, in this study, it could be expected that the reason for the weak contribution of behavioral control to explaining the purchasing intention for OTOP snack food products was because the international consumers thought that expensiveness of OTOP snack food products negatively impacted on their purchasing behavior, but products trust of its efficacy and availability positively impacted on their behavior. In particular, international consumers in the lower income growing tended to think that they could not easily buy OTOP snack food products because of its high price compared with those who were in the higher of income.

**iii. Objective 3: To find out the effect of the different factors (health and environmental concerns, product trust, and product attributes) of attitudes that may influence international consumers purchase intentions of OTOP snacks food products.**

In this study, the variable "attitude" had three factors: health and environmental concerns, product trust, and product attributes. Similarly, in previous researches, Jung (1971) defined attitude as a psychological construct which represents an individual's readiness to act or react in a certain way. It is a relatively enduring evaluation of an object against alternatives, and is based on an individual's thoughts (cognition), beliefs (values) and emotions (affection) towards the object (Hoyer and MacInnis 2004; Dossey and Keegan 2009).



Previous studies have associated organic food consumption with behavioral attitudes such as health consciousness, environmental consciousness, trust of organic food claims and the desirability of organic food attributes such as taste, texture, freshness (Hughner *et al.* 2007; Gil and Soder 2006; Thøgersen 2006; Aryal *et al.* 2009). Thus, in this study, the antecedents of attitude are:

- Health and environmental consciousness
- Product Trust
- Product attributes

#### **a) Health and Environmental Consciousness**

In this study, the multiple regression analysis confirmed that “health and environmental consciousness” was the weakest predictor of intention to purchase OTOP snacks food products ( $\beta = .035$ ) in this study. This is not consistent with other food choice studies.

First and Brozina (2009) in their study on “the impact of cultural differences on organic food consumption among consumers in West European countries”, reported that while the impact of cultural dimensions varied among the consumers, all exclusively considered health as the prime motive for consumption. Similarly, Roitner-Schobesberger *et al.* (2008) found that health consciousness was a main motive to purchase organic food in Thailand, particularly when consumers are concerned with residues from synthetic chemicals used in agriculture.

Magnusson *et al.* (2003) also found health to be the stronger predictor of attitude and purchase intention towards organic foods especially when compared with environmental motives. Besides, they found that health consciousness was a good predictor of attitude, intention and the purchase of organic foods.

Zanoli and Naspetti (2002) conducted a study on Italian consumers by constructing a means-end model with the aim of linking attributes of the product to the needs of consumers. They found that consumers were positive on the whole about organic food

and that central to their decision to purchase was the health and wellbeing factor, which occupied central positions on both chains.

On the other hand, environmental consciousness was a key determinant in a study on Norwegian consumers (Honkanen *et al.* 2006). They investigated the ethical motives in consumers' choice of organic food and found that environmental and animal rights issues had a strong influence over attitudes towards organic food. Specifically, the more concerned consumers are about these issues, the more positive their attitudes will be and the more likely they will consume organic food. A study by Chen (2009) also found that health consciousness and environmental attitudes influenced the consumer's attitude toward organic foods through his/her healthy lifestyle.

However, similarly to the findings of the research, Michaelidou and Hassan (2008) in the article, "*The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food*" found that health consciousness had the least strong influence on purchase intention, seeming to show that health consciousness only has an indirect impact on intention. The strongest influence they found on purchase intention in the regression was ethical identity (0.62) followed by food safety (0.31), and health consciousness came last (0.16). It can be concluded that the results may reflect the effect of egotistic motives such as healthiness and food safety, on attitude and purchase intention towards organic food as declining, whereas considerations such as ethical considerations may be becoming more relevant in determining attitude and intention towards organic food. In sum, there are clearly divergent views on the importance of health consciousness and its relation to purchase intention.

## **b) Product Trust**

Product trust was included in this study as the second antecedent of the variable attitude. This variable was labeled “Product trust”, because all items of this variable related to the confidence respondents had about information sources for OTOP snacks food products. The factor “Product trust” had a significant influence on the intention to purchase for OTOP snacks food products, even though it was not the strongest contribution to explaining the behavioral intention ( $\beta = .146$ ) in the model. Thus, hypothesis 3b was confirmed. Luhmann (1979) confirmed that trust of organic food claims is a strong determinant of intention to consume due to the credence nature of organic food. In other words, credence products are those for which consumers cannot evaluate successfully as the benefits of consumption cannot be directly or directly observed. Accordingly, organic food consumers may rely on product labeling, advertisements and certifications as signals of the trustworthiness of product claims. The extent that these engender consumer trust will therefore influence the intention to purchase organic food.

Perrini *et al.* (2009) in their study found that Italian consumers were more likely to trust retailers of organic products if they believe the retailer is committed to respecting their rights and the environment. Nevertheless, Vermeir and Verbeke (2008) adopted the extended TPB model to investigate sustainable purchase behavior and to formulate recommendations for stimulating sustainable food consumption among young adults in Belgium. They found that trust had a direct positive effect on intention to purchase sustainable dairy products.

Lobb *et al.* (2007) in their research investigated how food purchase can be explained and predicted taking into account trust in food safety information using the TPB model. The findings determined that trust in information sources significantly influenced the purchase intention of chicken. Kim *et al.* (2008) used the modified TPB model including

trust to investigate consumers' decision-making processes leading to purchase behaviour. Findings found that consumers' trust positively affected consumers' intention to purchase.

Bonne and Verbeke (2008) focused on trust amongst Belgian Muslims in information sources about *halal* meat (denoting or relating to meat prepared as prescribed by Muslim law) and their confidence in key actors and institutions for monitoring and controlling the supply chain. For instance, the researchers' findings revealed that trust in information sources had a significant effect on consumers' intention to purchase, and Islamic institutions and the Islamic butcher received, in general, most confidence for monitoring and controlling the *halal* status of meat.

Concerned Muslim consumers showed higher confidence in Belgian than in Islamic institutions, which was associated with perceiving a lack of information, poor hygiene and safety concern as barriers to purchasing halal meat. Confident consumers displayed a clear preference for Islamic institutions to monitor and communicate about halal. Islamic idealists, who were typified by younger age, second generation and high Muslim self-identity, differed from the confident consumers through their very low confidence in local Belgian sources and institutions.

### **c) Product Attributes**

In this study, the multiple regression analysis confirmed that “product attributes” were the strongest predictor of intention to purchase OTOP snacks food products ( $\beta = .472$ ) in this study. This is consistent with other food choice studies as the term “product attributes” is too broad.

Bian and Moutinho (2011) studied the purchase behavior of customers by determining the prediction of product attributes on customer's purchase behavior. They conducted their study in Glasgow and collected the data from randomly selected twenty (20) supermarkets. As a result, they proved that positive product attributes are the significant

predictor of purchase intention. Jung & Bonn (n.d) also undertook a study on the effect of product attributes on the consumer purchase intention. For that purpose, data were collected from respondents having age 21 or above through questionnaire. Their study found a significant effect of product attributes on consumer purchase intention.

Radder and Roux (2005) illustrated that sensory appeals, such as appearance or colour, texture and taste or smell are some of the important influencing factors on the acceptance of food and in eating behavior for consumers. In their study, they were to determine South African consumers' perceptions and opinions of taste that could influence their preference for wild venison. The findings revealed that South African consumer' perceived tenderness, juiciness and flavor as primary indicators of the taste of red meat. Additionally, it was also found that fifty two percent (52%) of respondents regarded colour as an extremely important indicator of red meat quality, and smell and texture were regarded as important quality indicators. Fifty nine percent of the respondents labeled smell as extremely important in judging red meat quality, and 41% regarded it as important to slightly important. In other words, these attributes of the product are the best interpreters of South African consumers' intention to purchase.

Similarly, O'Donovan and McCarthy (2002) examined Irish consumer perceptions and purchase intention of organic meat. The importance of appearance was similar for both groups those who purchased or had intention to purchase organic meat and who had no intention to purchase organic meat. Thus, this finding suggested that appearance is an important factor for food choice but not organic meat.

Rolls *et al.* (1982) by examining the influence of food appearance on intake offered sweets of different colors to children. Children consumed similar amounts under all conditions. The results had proven that the taste of the favorite colour of the foods eaten was rated higher than the taste of the other colors, and a significant decline in pleasantness of the colors eaten in comparison with the colors not eaten was reported.

Accordingly, Lavin and Lawless (1998) investigated the effect of colour change in a fruit beverage on sweetness judgments and liking of milk. Three groups of American children were tested, in age groups of 5 to 7, 8 to 10 and 11 to 14-years-old, and their responses and contextual effects were compared to those of adults. It was found that children did not show the expected effect of darker red colors raising sweetness judgments in the fruit beverage, and the 11 to 14-years-old group judged lighter red colour as sweeter. This result was the opposite direction from adults.

Fotopoulos *et al.* (2003) analyzed consumers' purchasing motive with Greek organic wine and found that quality such as colour, aroma, taste and finesse constituted the main advantages of the product. Although consumers indicated their satisfaction and the importance health aspect of organic wine, this latter played a vital role between the purchase motives of organic buyers and non-buyers. Therefore, from the numerous findings cited earlier, product attributes as an antecedent of attitude were the strongest predictor of intention to purchase OTOP snacks food products.

### **5.3 Contributions of the Study**

As purchase intention is important because, as this study shows, there are some significant differences in the subjective norms and health perception which in turn lead to significant differences in purchase intention in Europe and Africa as compared to Asia and Southeast Asia.

In light of these remarks, the research recommends that deeper market research of these factors should be conducted in each country in order to have a better understanding of the international consumer's needs and wants in each region. Nevertheless, the study contributed by providing clear thoughts on international consumers' organic food consumption of Thai products leading to interesting hypotheses and recommendations for researchers (academicians), policy makers, and marketers involved in the Thai organic food market.

In addition, the research result will benefit not only to general readers but also the OTOP producers, retailers, marketers and the Thai government as well in order to know the international consumer's perception and attitude towards the purchase intentions of OTOP snacks food products in order to compete globally and to promote Thailand as “**A Kitchen of the World.**”

### **5.3.1 Academicians**

There are several important contributions from the obtained results out of this study. First of all, the study can serve as a reference to examine the validity of the TPB model for analyzing topics related to organic food considering other cultural settings and behavioral determinants. The usefulness of the TPB in the case of organic food consumption has been demonstrated by several studies. It can be concluded that organic purchases are positively and significantly related to intentions to purchase in combination with behavioral control. Intentions are in turn influenced by the attitude, personal and subjective norms and (perceived) behavioural control. Recent studies indicate that including personal norms (Arvola *et al.*, 2008, Dean *et al.*, 2008) and emotions within the TPB model may help explaining organic food purchases.

This study had served to reach a better acceptance about the factors that international consumers have on OTOP snacks food products. It helped presenting good information about the taste preferences of international consumers as well as indicating international consumer's position according to their perceptions and attitudes towards their intention to purchase OTOP snacks food products. However, this study indicated that health and environmental concerns were not more important for international consumers and were not the reasons for their purchase. Related to these findings, it is believed that it would be interesting if future research would focus more on a detailed description of health concerns and environmental consciousness, other attitude factors as well as international consumers (non-, light-, medium- and heavy users) of OTOP snack food products.

Getting more insight herein may be very relevant as the group of light and medium users have important potential for future market growth.

### **5.2.2 Entrepreneurs and Marketers (OTOP Producers & Thai Government)**

The results of this research designated that consumer associations and authoritarian bodies of organic food products interested in supporting the growth of Thai organic food sector may increase the receptiveness of their messages by taking into consideration that different groups of OTOP food products buyers would trail different values, and properly tailoring communication campaigns on health and the environment. It would be believed that by concentrating on the specific concerns of each consumer group, such a differentiated approach may boost up the effectiveness of policies directed at motivating sustainable consumption patterns and foster public confidence in the safety standards of Thai organic farming.

Nevertheless, the research findings can help both entrepreneurs and marketers to plan their policy with regard to actions improving the purchase and usage behavior of the consumers towards OTOP snack food products. It is important for OTOP entrepreneurs to work towards improving the environment by understanding the behavioral aspects of the consumption so that they could make international consumers change and believe in certain aspects of their actions leading to the betterment of the environment and ecology.

Correspondingly, it is of immense importance for marketers to include the elements of health and environmental concerns in their marketing strategy. The current study would help them in understanding an important element of the marketing strategy which is the behavior of consumers. The findings such as insignificant impact of health and environmental consciousness on purchase intention of OTOP snack food products could be a new thing for international consumers in Thailand; hence marketers may have to



move away from the traditional way of managing their marketing activities targeted exclusively on local (Thais) consumers.

To add, OTOP entrepreneurs and marketers need to keep in mind that health and environmental awareness have significant impact on the attitudes towards OTOP snack food products. Both (health and environment) provide them with the chance to propose their communication content along the lines of the requirements to develop the knowledge level of target audience. There is always a concern towards validity of the claims made by marketers for the organic products. However, the hesitation is more enhanced in the absence of appropriate communication that tells about the authenticity of the claim. A right set of knowledge is expected to have positive impact on the attitude of the consumers as per the findings of this study.

The important role attitudes play in driving the purchase of OTOP food products cannot be ignored. OTOP agricultural producers and retail outlets selling food products should target messages to international consumers (Europeans, Americans and Africans) that seek to engender and capitalize upon their favorable attitudes towards Thai food products consumption.

### **5.3 Suggestions for Marketers and Entrepreneurs**

#### **i. Marketing the Organic Concept Overseas**

OTOP food producers should launch a campaign (social marketing) to raise awareness about OTOP agriculture products among international consumers in order to improve the understanding of organic agriculture and to build momentum in supporting organic development. This could create a suitable environment for the development of medium and long-term plans. OTOP food producers should also develop marketing activities (excluding profits or selling purpose) to support the environmental attitudes, perceived

value and organic knowledge of international customers with the aim of providing them positive attitudes towards OTOP food products.

## **ii. Starting up a Niche Markets in Overseas Countries**

After the supply and management stages have progressed and production becomes more stable, OTOP food producers should now articulate a marketing strategy and start selling products at a profit; and international consumers would thus have some specific knowledge and perceived value of the OTOP food products since they would have a chance to experience the products and evaluate the product, using their own perception. OTOP food producers should start with a niche market because at first the amount of organic food produced will be low. Given the limited supply, niche markets would be appropriate and more suitable than market integration. Niche market could satisfy the small needs of consumers who already have higher awareness of organic agriculture, a better understanding of the benefits of organic products (especially healthy factors), and are willing to pay for organic products.

## **5.5 Conclusions**

Regard to the measurement of the results of the diverse analyses, it can be plainly noted that the scale measurement of estimating subjective norms, behavioral control and international consumers' attitudes towards the purchase intention of OTOP snack food products was reliable and valid. In other words, all variables have  $\alpha$ -value  $> 0.7$  (the items in the questionnaires were well comprehended by the four hundred (400) participants) and there was no multicollinearity problem in this study because the VIF (Variance Inflation Factor) for each independent variable was less than 10. As an overall, the significance of the regression model was statistically significant. Thus, achieving the research objectives are elucidated by discussing the results of the regression analysis of the model.

From the multiple regression analysis of the model, the findings in the previous chapter (table 4.18) revealed that subjective norms was statistically significant (.026\*) with purchase intention at  $p \leq .05$ . Therefore, “subjective norms” is a predictor of purchase intention and the first hypothesis of the study was supported. Moreover, the behavioral control variable was also found to be statistically significant (.000\*\*) with purchase intention at  $p \leq .01$ . Thus, “behavioral control” is a predictor of purchase intention and the second hypothesis of the study was supported as well.

Finally, the above table also illustrated that attitude factors such as “health & environment consciousness” were found to be statistically insignificant (.438) with purchase intention. However, the two other factors of attitude (product trust and product attributes) were found to be statistically significant with purchase intention and their respective significance levels were (.002\*\*) and (.000\*\*) at  $p \leq .01$ . Accordingly, “product trust” and “product attributes” were good predictors of purchase intention and the third hypothesis of the study was partially supported. The main reason of stating that H3 was partially supported is due to the fact that the claims of H3a were not attained.

#### ○ **Summary of Hypothesis Testing**

In the first chapter of the study, three main hypotheses were constructed. These hypotheses are:

- **Hypothesis 1:** Subjective norms can have a positive and significant influence on purchase intention (Hypothesis was statistically true).
- **Hypothesis 2:** Behavioral control variable can have a significant impact on purchase intention (Hypothesis was statistically true).
- **Hypothesis 3:** Attitude factors (health and environmental concerns, product trust and product attributes) can have a significant impact on purchase intention (Hypothesis was statistically and partially true).

- **Hypothesis 3.a.** Health and environmental concerns can significantly persuade the purchase intention (Hypothesis was statistically not true).
- **Hypothesis 3.b** Product trust can have a significant impact on purchase intention (Hypothesis was statistically true).
- **Hypothesis 3.c** Product attributes can significantly influence the purchase intention (Hypothesis was statistically true).

## 5.6 Limitations of the Study

Even though the current study made important contributions to the understanding of international consumers' perception about OTOP snacks food products and investigating the determinants of the relationship between attitude factors and intention to purchase OTOP snacks food products, several limitations remain and need thoughtfulness when deducing the findings. Overcoming these limitations can provide directives for future research.

The first limitation that needs serious concerns was about language barriers and culture differences among Asian (Malaysians, Arabs, Chinese, and Japanese) and European (Russians, Ukrainians and French) respondents. Regarding language, the above cited nationalities had a serious issue. Culturally speaking, the main difficulty the researcher faced was how to approach respondents of Malay, Chinese and Japanese nationalities. For these latter, English means more than just a foreign language and they also share cultural values such as high power distance, high collectivism, and high face concerns.

For future researchers in this topic, their works should examine ESL (English as Second Language) Asians in other non-English speaking countries to broaden the scope of this study. They should also observe how cultural factors affect the impact of language barrier by comparing Asian ESL customers to other ESL customers from different cultural backgrounds, such as Indian ESL customers. This is because the so-called Asians (Malaysians, Arabs, Chinese, and Japanese) who were approached by the researcher and did not wish to participate to this study were more concerned about "losing face" and

“feeling embarrassed” which led to their non-participative behaviors such as “no speak English.” However, Indian ESL customers might not be as concerned about “losing face” and may feel more “cooperative” than “embarrassed” which may lead to a different behavior such as “ok, let me fill in your questionnaire for you.”

Secondly, the non-identification of international consumers as being organic food and environmentally friendly food consumers might be one of the reasons to come out with such data. Besides, there was also the unawareness of OTOP brand despite the fact that the logo and products of the brand were shown in the front page of the questionnaire and explained to respondents before they completed the questionnaire, still, many respondents could not exactly recognize the brand. In fact, OTOP brand is well-known among Thais but not all international consumers, and it may cause international consumers’ confusion. Therefore, this study could not obtain pure data only for OTOP snacks food products purchasing behavior among international consumers in Phuket (Thailand).

Thirdly, there needs to be more of a theoretical basis for the dissolution of health and environmental consciousness into different factors (safety, nutrition, ethical values) that may have possible direct influences on purchase intention into the research model. That is why the results of this study indicated an insignificant relationship between health and environmental consciousness and purchase intention, health and environmental consciousness did not explain intention to purchase with a satisfactory contribution.

The fourth limitation relates to the use of convenience sampling and the number of respondents in the elicitation survey. There were few consumers’ behavior studies relating to OTOP food product among international consumers in Thailand, and the elicitation survey, thus, was carried out to compensate for the lack of a conceptual basis in the existing literature. Although samples were obtained by adopting a random survey method through the whole of Phuket, samples were limited to consumers who shop for OTOP food product and are within OTOP stores in Phuket. Additionally, relatively small

samples were obtained. Therefore, perhaps, those respondents did not truly represent the populations of international consumers in Thailand, and did not match the perceptions and understanding of OTOP food product consumers in Thailand.

Future works should be concerned with using a more comprehensive sampling design and, which would be more systematic. Probability sampling would give a higher reliability and validity to the data and findings of those future studies. Future studies should be based on the results of the current study and attempt to offer further insights by identifying factors that moderate and/or mediate the impact of intention on actual behavior under different conditions. In view of these concerns, the findings of this study will offer a definite foundation upon which to undertake further research work. Finally, the last limitation was related to the researcher in terms of time to complete both the fourth and fifth chapters as the time length (2 months) for completing such study is very insufficient. Therefore, to complete the whole report within two months is very intricate.

### **5.7 Recommendations for Future Research**

Based on the findings and limitations of this research, the following recommendations can be made to increase the purchase intention of OTOP snack food products among international consumers in Thailand.

- Future researchers should also identify international consumers specifically as being organic food consumers (non-, light-, medium- and heavy users) and are well-aware of OTOP brand without explaining to them. This could be possible if only OTOP food producers launch a campaign to raise awareness about OTOP brand among all their stakeholders, especially overseas consumers. This would lead to a gain in more accurate results and medium users have important potential for future market growth.
- Future researches should consider using several identifiable factors of “health and environmental consciousness” to explain behavioral intention for food choice, and

then investigate the relationship between each of the health and environmental consciousness” and consumers’ food choice behavior.

- Future papers within the same topic should also try to conduct a comparative study between international and local consumers of OTOP brand and especially studying their perception and behavioral attitude towards the purchase intention of OTOP food products. The comparative study will help to better appreciate the “study gap” unfulfilled in this current study when international consumers were taken as the only participants for the research.
- For OTOP entrepreneurs and marketers, they should consider undertaking a Supply Chain Management (SCM) towards overseas countries because a good supply chain will help to synchronize the organic production and sales more effectively. OTOP food producers should first set up logistics (managing transportation, distribution, packaging or even the manufacturer) to ensure the quality of the products and generate international consumers’ trust and make OTOP food market development successful.
- Finally, future works should also explore the business performance of OTOP entrepreneurs and compare the findings among OTOP styles of entrepreneurship in other cultures and different geographical regions. The further research should apply an approach that influence and impact the business performance of OTOP entrepreneurs in different market size.

## References

- Abbott, M., Holland, R., Giacomin, J. and Shackleton, J. (2009). Changing affective content in brand and product attributes. *Journal of Product & Brand Management*, 18(1), 17-26
- AC Nielsen, I. (2005). Organic and functional foods have plenty of room to grow according to new ACNielsen global study, AC Nielsen. [Accessed 09<sup>th</sup> January, 2013] <[http://enus.nielsen.com/content/nielsen/en\\_us/news.html](http://enus.nielsen.com/content/nielsen/en_us/news.html)>.
- Aguer P., Burke, P., Devinney, T. M. and Louviere, J. J. (2003). What will consumers pay for social product features? *Journal of Business Ethics*, 42 (3), 281-304.
- Aimkij, N., and Mujtaba, B. G. (April 2010). Branding and Brand Equity Measurement in the Beer Industry of Thailand. *Chinese Business Review*, 9 (4), 01-16.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In: J. Kuhl & J. Beckmann (Eds.), *Action Control: From Cognition to Behavior* (11-39). NY: Springer Verlag.
- Ajzen, I. (1988). *Attitudes, personality and behavior*. Milton Keynes: Open University Press.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27-58.
- Ajzen, I. (2002a). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665-683.
- Ajzen, I. (2006). *Theory of Planned Behaviour - Diagram*. Icek Ajzen - Homepage: <http://people.umass.edu/aizen/tpb.html>.
- Ajzen, I. & Driver, B. L. (1992). Applications of the theory of planned behavior to leisure choice. *Journal of Leisure Research*, 24, 207- 224.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84, 888-918.
- Ajzen, I. & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.



- Ajzen, I., & Fishbein, M. (2008). Scaling and testing multiplicative combinations in the expectancy–value model of attitudes. *Journal of Applied Social Psychology*, 38, 2222-2247
- Albaum, G. and Smith, S. (2005). *Fundamentals of marketing research*. California: Sage Publications.
- Allport, G.W. (1935). Attitudes. *In Handbook of Social Psychology*. Worcester, MA: Clark University Press
- Alwitt, L. F. and Pitts, R. E. (1996). Predicting purchase intentions for an environmentally sensitive product. *Journal of Consumer Psychology*, 5, 49–64.
- Ares, G. and Gambaro, A. (2007). Influence of gender, age and motives underlying food choice on perceived healthiness and willingness to try functional foods. *Appetite*, 49,148-158.
- AMA (2009a), AMA dictionary, URL: [http://www.marketingpower.com/\\_layouts/Dictionary.aspx](http://www.marketingpower.com/_layouts/Dictionary.aspx).
- Armitage, C. J. and Conner, M. (2001). Efficacy of the theory of planned behaviour: a meta-analytic review. *British Journal of Social Psychology*, 40,471-499.
- Arnould, E. J., Price, L., & Zinkhan, G. (2004). *Consumers (2nd ed.)*, McGraw-Hill/Irwin, New York.
- Aryal, K. P, Chaudhary, P., Pandit, S. & Sharma, G. (2009). Consumers' willingness to pay for organic products: A case from Kathmandu valley. *The Journal of Agriculture and Environment* 10:12-22.
- Assael, H. (1995). *Consumer behavior and marketing action*, 5<sup>th</sup> ed. Ohio: South-Western.
- Ateljevic, J. (2000). *Information technology and service quality in small tourism firms*. Paper presented at the ATLAS Annual Conference, Munich, Germany, July 27, 1999.
- Ateljevic, I. & Doorne, A. (2000). Staying within the fence: lifestyle entrepreneurship in tourism. *Journal of Sustainable Tourism* 8(5): 378-392.
- Aungsumwang, S. (1994). *Only one snack out of hundred has standard label*. Smart Buyer Magazine, 1: 12-21.

- Bagozzi, R. P. (1983). A holistic methodology for modelling consumer response to innovation. *Journal of Operations Research*, 31, 128-176.
- Bagozzi, R. P., Wong, N., Abe, S. and Bergami, M. (2000). Cultural and situational contingencies and the theory of reasoned action: Application to fast food restaurant consumption. *Journal of Consumer Psychology*, 9: 97–106.
- Bamberg, S., Hunecke, M. & Blobaum, A. (2007). Social context, personal norms and the use of public transportation: Two field studies. *Journal of Environmental Psychology*, 27(3), 190-203.
- Bandura, A.(1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 122–147.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and Health*, 13, 623–649.
- Barker, S. M. and Trost, J. F. (1973). Cultivate the high-volume consumer. *Harvard Business Review*, 51(2), 118-122.
- Bass, F. M., King, C. W. and Pessemier, E. A. (1968). *Applications of the Sciences in Marketing Management*, New York, John Wiley and Sons.
- Batte, M. T., Hooker, N. H., Haab, T. C. and Beaverson, J. (2007). Putting their money where their mouths are: Consumer willingness to pay for multi-ingredient processed organic food products. *Food Policy*, 32,145-159.
- Bech-Larsen, T. and Grunert, K.G. (2001). Konsumententscheidungen bei Vertrauenseigenschaften: Eine Untersuchung am Beispiel des Kaufes von ökologischen Lebensmitteln in Deutschland und Dänemark. *Marketing 3: 188-197*.
- Beckley, J., & Moskowitz, H. R. (2002). *Databasing the consumer mind: The Crave It!, Drink It!, Buy It! & Healthy You! Databases*. Anaheim: Institute Of Food Technologists.
- Bei, Lien-Ti (2000). *The Whitepaper on Lifestyle: A Report of the 2000 Survey on Taiwanese Consumption Habits*. Taipei City: Business Weekly Publications.

- Bephage, G. (2000). *Social and Behavioral Sciences for Nurses. An Integrated Approach, China*: Churchill Livingstone Press, 1-336.
- Bhaskaran, P. M., Cary, J. and Fernandez, S. (2006). Environmentally sustainable food production and marketing. *British food Journal*, 108, 8, 677 -690.
- Bian, X. and Moutinho, L. (2011). The role brand image, product involvement, and knowledge in explaining consumer purchase behavior of counterfeits. *European Journal of Marketing*, 45(1/2), 191-216.
- Binkley, J. and Golub, A. (2007). Comparison of grocery purchase patterns of diet soda buyers to those of regular soda buyers. *Appetite*, 49(3), 561-571.
- Bogers, R. P., Brug, J., van Assema, P. and Dagnelie, P. C. (2004). Explaining fruit and vegetable consumption: the theory of planned behaviour and misconception of personal intake levels. *Appetite*, 42, 157-166.
- Bonne, K. and Verbeke, W. (2008) Muslim consumer trust in halal meat status and control in Belgium. *Meat Science*, 79, 113-123.
- Bonti-Ankomah, S., & Yiridoe, E. K. (2006). *Organic and conventional food: a literature review of the economics of consumer perceptions and preference*: Nova Scotia Agriculture College, Organic Agriculture Centre of Canada.
- Bornstein, D. (2007). *How to Change the World: Social Entrepreneurs and the Power of New Ideas* (2nd ed.), New York: Oxford University Press.
- Brandt, K. (2003). *Investigations of organic food and health*. Innovations in Food Technology.
- Bredahl, L. and Grunert, K. G. (1997). Determinants of the consumption of fish and shellfish in Denmark: An application of the theory of planned behaviour. *Seafood from Producer to Consumer, Integrated Approach to Quality*, 21-30.
- Brewer, J., Blake, A. J., Rankin, S. A. and Douglass, L. W. (1999). Theory of reasoned action predicts milk consumption in women. *Journal of American Dietetic Association*, 99, 39-44.
- Brown, C. (2006). Consumers' preferences for locally produced food: A study in Southeast Missouri. *American Journal of Alternative Agriculture*, 18, 213-224.
- Browne. A., Harris, P., Hofny-Collins, A., Pasiecznik, N. and Wallace, R. (2000). Organic production and ethical trade: definition, practice and links. *Journal of Food Policy*, 25 (200), 69-89.

- Burell, A. and Vrieze, G. (2003). Ethical motivation of Dutch egg consumers", *Tijdschrift voor Sociaalwetenschappelijk onderzoek van de Landbouw*, 18(1), 30-40.
- Carruthers, P. (2000). *Phenomenal consciousness*. New York: Cambridge University Press.
- Chan, R. Y. and Lau, L. B. (2001). Explaining green purchasing behavior: A cross-cultural study on American and Chinese consumers. *Journal of International Consumer Marketing*, 14: 9-40.
- Chandon, P., Morwitz, V.G. and Reinartz, W.J. (2005). Do intentions really predict behaviour? Self-generated validity effects in survey research. *Journal of Marketing*, 69: 2, 1-14.
- Chang, C. W. (2001). *An empirical study on consumer characteristics in different cosmetics channels*. Master thesis. Institute of Management Science, Tamkang University
- Chang, M. K. (1998). Predicting unethical behavior: a comparison of the theory of reasoned action and the theory of planned behavior. *Journal of Business Ethics*, 17 (16), 1825-1833.
- Chase, K., Reicks, M. and Jones, J. M. (2003). Applying the theory of planned behavior to promotion of whole-grain foods by dietitians. *Journal of the American Dietetic Association*, 103(12), 1639-1642.
- Chaudhuri, A. (2006). *Emotion and Reason in Consumer Behavior*. Butterworth Heinemann: Oxford, UK.
- Chen, M. F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, 18(7), 1008-1021.
- Chen, M. F. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. *Journal of British food*, 111 (2), 165-178.
- Chen, M. F. (2009). The rise of store brands among hypermarkets in Malaysia. Available from: <http://amrjournal.blogspot.com/2009/03/rise-of-store-brands-amonghypermarkets.html>. [Accessed 13<sup>th</sup> March, 2013].

- Chen, M. F. and Li, H. L. (2007). The consumer's attitude toward genetically modified foods in Taiwan. *Food Quality and Preference*, 18, 662–674.
- Cheng C. H. & Liu, M. C. (2001). A preliminary research of vacation lifestyles and consumer behaviors: a case of Kenting's travelers. *Journal of Tourism Studies*, 7(2): 93-110.
- Chin, F. L. (2002). Segmenting customer brand preference: demographic or psychographic. *Journal of Product Brand Management*, 11(4): 249-268.
- Chinnici G., D'Amico, M. and Pecorino, B. (2002). A multivariate statistical analysis on the consumers of organic products. *British Food Journal*, 104 (3/4/5), 187-199.
- Chiou, J. S. (1998). The effects of attitude, subjective norm, and perceived behavioral control on consumers' purchase intentions: The moderating effects of product knowledge and attention to social comparison information. *Proceedings of National Science Council ROC*, 9 (2), 298-308.
- Chou, S., Grossman, M. and Saffer, H. (2004). An economic analysis of adult obesity: results from the behavioral risk factor surveillance system. *Journal of Health and Economics*, 23, 565–87.
- Chryssohoidis, G.M. and Krystallis, A. (2005). Organic consumers' personal values research: testing and validating the list of values (LOV) scale and implementing a value-based segmentation task. *Food Quality and Preference*, 16(7), 585-99.
- Churchill, J. G. and Labocci, D. (2005). *Marketing research: Methodological foundations*, Thomson, 697 pages.
- Cohen, R. & Swerdlik, M. (2010). *Psychological testing and assessment*. Boston: McGraw-Hill Higher Education.
- Conner, M. and Abraham, C. (2001). Conscientiousness and the theory of planned behavior: toward a more complete model of the antecedents of intentions and behavior. *Personality and Social Psychology Bulletin*, 27, 1547.
- Cook, A. J., Kerr, G. N. & Moore, K. (2002). Attitudes and intentions towards purchasing GM food. *Journal of Economy Psychology*. 23,557-572.
- Costa, P. T., McCrae, R. R. & Dye, D. A. (1991). Facet scales for agreeableness and conscientiousness: A revision of the NEO Personality Inventory. *Personality and Individual Differences*. 12, 887-898.

- Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Cunningham, R. M. (1956). Brand loyalty-What, where, how much?" *Harvard Business Review*, 34(1) 116-128.
- Cunningham, R. M. (2001). *The organic consumer profile: Not only who you think it is!* Alberta: Strategic Information Services Unit, Agriculture, Food and Rural Development.
- Cunningham, R. M. (2002). *Who is the organic consumer?* Paper presented at Growing Organic Conference, Red Deer, Edmonton, March 11/12.
- Darmon, N., Ferguson, E. L. and Briend A. A. (2002). Cost constraint alone has adverse effects on food selection and nutrient density: an analysis of human diets by linear programming. *Journal of Nutrition*, 132(12):3764– 3771.
- Davies, A., Titterington, A.J., Cochrane, C (1995). Who buys organic food? A profile of the purchasers of organic food in Northern Ireland. *British Food Journal*, 97(10), 17-23.
- Dean, M., Raats, M. M. & Shepherd, R. (2008). Moral concerns and consumer choice of fresh and processed organic foods. *Journal of Applied Social Psychology*, 38(8), 2088-2107.
- Dodds, W. B., Monroe, K. B. and Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3), 307–319.
- Donald, I., and Cooper, S. R. (2001). A facet approach to extending the normative component of the theory of reasoned action. *British Journal of Social Psychology*, 40, 599–621.
- Dossey, B. M. and Keegan, L. (2009). *Holistic Nursing: A Handbook for Practice*, Sudbury, MA: Jones and Bartlett Publishers.
- Drees, W. B. (2009). *Technology, Trust and Religion: Roles of Religion in Controversies over Ecology and the Modification of Life*. AUP-Leiden University Press.
- Drewnowski, A., and Gomez-Carneros, C. (2000). Bitter taste, phyto-nutrients, and the consumer: a review. *American Journal of Clinical Nutrition*, 72, 1424-1435.

- Driouech, N., Medicamento, U. and De Gennaro, B. (2010). Preliminary explorative research about ethical values and organic food consumption in Apulia region, South of Italy. *15<sup>th</sup> International BioL Prize, International forum: ethics and olive production, Bari (Italy)*.
- Durham C. A., Andrade, D. (2005). *Health vs. environmental motivation in organic preferences and purchases*. American Agricultural Economics Association Annual Meeting, Providence, Rhode Island.
- Eischen, E., Prasertsri, P. and Sirikeratikul, S. (2006). *Thailand organic products Thailand's organic outlook*. In *Global Agriculture Information Network*, edited by R. Nicely. Bangkok: USDA Foreign Agricultural Service.
- Elbeck, M. (2008). Qualifying purchase intentions using queuing theory. *Journal of applied quantitative methods*, 3(2), 167-178.
- Engel, J. F., Blackwell, R. D., & Miniard, P.W. (1990). *Consumer Behavior* (6th ed.). Chicago: Dryden.
- Exforsys Inc. (2000-2010). Psychology of Attitude. [Online] Available at: <http://www.exforsys.com/career-center/attitude-development/the-psychology-of-attitude.html> (Accessed 12th January, 2013).
- Eysenck, H. J (1967). *The Biological Basis of Personality*. Springfield, IL.
- Feldman, S. D. and Thielbar, G. W. (eds) (1972). *Lifestyles: Diversity in American society*. Boston: Little Brown and Co.
- Finch, J. E. (2005). The impact of personal consumption values and beliefs on organic food purchase behavior. *Journal of Food Products Marketing*, 11(4), 63-76.
- First, I. and Brozina, S. (2009). Cultural influences on motives for organic food consumption. *EuroMed Journal of Business*, 4(2), 185-199.
- Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behavior. An Introduction to theory and research*. Reading, Mass: Addison-Wesley.
- Font M. C. & Gil, J. M (2009). Structural equation modeling of consumer acceptance of genetically modified food in the Mediterranean Europe: A cross country study. *Food Quality & Preference*, 20,399-409.

- Fotopoulos, C. and Krystallis, A. (2002b). Purchasing motives and profile of the Greek organic consumer: a countrywide survey. *British Food Journal*, 104(3/5), 232-260.
- Fotopoulos, C., Krystallis, A. and Nessc, M. (2003). Wine produced by organic grapes in Greece: using means-end chains analysis to reveal organic buyers' purchasing motives in comparison to the non-buyers. *Food Quality and Preference*, 14,549-566.
- Fraj, E. and Martinez, E. (2007). Ecological consumer behavior: An empirical analysis. *International Journal of Consumer Studies*, 31: 26–33.
- French, S. A. (2003) Pricing effects on food choices. *The Journal of Nutrition*, 133, 841S-843S
- Gennaro, R. (1995). *Consciousness and self-consciousness: A defense of the higher-order thought theory of consciousness*. Amsterdam & Philadelphia: John Benjamins.
- Ghosh, A. (1990). *Retail management*. Chicago: Dryden press.
- Gil, J. M. & Soler, F. (2006). Knowledge and willingness to pay for organic food in Spain: Evidence from experimental auctions. *Food Economics* 3, 109-124.
- Glanz, K., Krista, A. R., Tilley, B. C. and Hrist, K. (1998). Psychosocial correlates of healthful diets among male auto workers. *Cancer Epidemiology, Biomarkers and prevention*, (7), 119–126.
- Golan, E., Stewart, H., Kuchler, F. and Dong, D. (2008). Can low-income Americans afford a healthy diet? *Amber Waves*, 6(5).
- Gotschi, E., Vogel, S. & Lindenthal, T. (2007). *High school students' attitudes and behaviour towards organic products: survey results from Vienna*. In Institute for Sustainable Economic Development, D. o. E. a. S. S., University of Natural Resources and Applied Life Sciences (Ed.). Vienna.
- Gracia, A. and de Magistris, T. (2007). Organic food product purchase behaviour: a pilot study for urban consumers in the South of Italy. *Spanish Journal of Agricultural Research*, 5(4), 439-451.
- Grankvist, G. and Biel, A. (2001). The importance of beliefs and purchase criteria in the choice of eco-labeled food products. *Journal of Environmental Psychology*, 21, 405-410.



- Grannis, J., Hine, S., & Thilmany, D. (2001). Marketing premium food products in emerging economies: The case of Macedonian cheese. *Journal of International Food & Agribusiness Marketing*, 13(2/3), 59.
- Grewal, D., Monroe, K.B. and Krishnan, R. (1998). The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. *Journal of Marketing* 62(2): 46–59.
- Grunert, K. G., Larsen, H. H., Madson, T. K., Baadsgaard, A. (1996). *Market orientation in food and agriculture*. Boston, MA: Kulwer Academic Publishers, 29–112.
- Grunert, S. and Juhl, J. H. (1995). Values, environmental attitudes, and buying of organic foods. *Journal of Economic Psychology*, 16 (1), 39-62.
- Guardia, M. D., Guerrero, L., Gelabert, J., Gou, P. and Arnau, J. (2006). Consumer attitude towards sodium reduction in meat products and acceptability of fermented sausages with reduced sodium content. *Meat Science*, 7 (3), 484-490.
- Guido, G. (2009). *Behind Ethical Consumption: Purchasing Motives and Marketing Strategies for Organic Food Products, Non-GMOs, Bio-Fuels*. Bern: Peter Lang AG International Academic Publishers.
- Guido, G., Irene, P. M., Peluso, A. M., Ralph, C. M. and Carolina, B. (2010). The role of ethics and product personality in the intention to purchase organic food products: A structural equation modeling approach. *International Review of Economics*, 57(1), 79–102.
- Haley, R. I. (1971). Beyond benefit segmentation. *Journal of Advertising Research*, 11(4), 3-8.
- Harcar, T. A. and Kaynak, E. (2008). Life-style orientation of rural us and Canadian consumers: Are regio-centric standardized marketing strategies feasible?. *Asia Pacific Journal of Marketing and Logistics*, 20 (4), 433-454.
- Harker, F. R., Gunson, F. A. and Jaeger, S. R. (2003). The case of fruit quality: an interpretive review of consumer attitudes, and preferences for apples. *Postharvest Biological Technology*, 28, 333–347.
- Harper, G. C. and Makatouni, A. (2002.). Consumer perception of organic food productions and farm animal welfare. *British Food Journal*, 104 (3-5), 287-299.

- Heaton, S. (2001). *Organic farming, food quality and human health. A review of the evidence*, 88. Soil Association, Bristol.
- Heberlein, A. T. (1981). *Environmental attitudes*. Madison, Wisconsin, 241 – 270.
- Hill, H. and Lynchehaun, F. (2002). Organic milk: attitudes and consumption patterns. *British Food Journal*, 104(7), 526-42.
- Honkanen, P., Verplanken, T. and Olsen, S. (2006). Ethical values and motives driving organic food choice. *Journal of Consumer Behavior*, 5, 420-430.
- Howard, J. A. and Sheth, J. N. (1967). *A Theory of Buyer Behavior*, in Moyer, R. (ed.) “Changing Marketing System”, Proceedings of the 1967 Winter Conference of the American Marketing Association AMA, 253-262.
- Hoyer, W. D. and MacInnis, D. J. (2004). *Consumer Behavior*. Boston: Houghton Mifflin.
- Hsu, C., Killion, L., Brown, G., Gross, M. J. & Huang, S. (2008). Tourism marketing: An Asia-Pacific perspective. Brisbane: John Wiley & Sons Ltd.
- Huang, C. (1996). Consumer preferences and attitudes towards organically grown produce. *European Review of Agricultural Economics*, 23, 331-342.
- Huang, S. M. (1999). Lifestyle, consumption attitude, and consumption behavior - a profile analysis of the generation cohort in Taiwan. Master thesis. Graduate School of Management, Yuan Ze University.
- Huber, M., Rembialkowska, E., Srednicka, D., Bügel, S., and van de Vijver, L. (2011). Organic food and impact on human health: Assessing the status quo and prospects of research. *NJAS-Wageningen Journal of Life Sciences*. DOI: 10.1016/j.njas.2011.01.004
- Hudson, S. (ed) (2003). *Sport and Adventure Tourism*. Haworth Hospitality Pub, New York.
- Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J. & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6, 1-17
- Huls, J. (1999). *Attitude Theory*. Retrieved March 24, 2005, from [http://www.ciadvertising.org/studies/student/99\\_spring/theory/huls/theory1.html](http://www.ciadvertising.org/studies/student/99_spring/theory/huls/theory1.html).
- Jaeger, S. R. (2006). Non-sensory factors in sensory science research. *Food quality Preferences*, 17, 132–144.

- Jager, W. (2000), *Modelling Consumer Behaviour*, University of Groningen, Groningen,
- Jung, C.G. (1971). *Psychological Types, Collected Works*, Vol.6. Princeton, NJ: Princeton University Press.
- Kalwani, M. U. and Silk, A. J. (1982). On the reliability and predictive validity of purchase intention measures. *Marketing Science*, 1, 243-287.
- Karki, B.B. (2007). Role of entrepreneurship and small business in national development. *The Journal of Nepalese Business Studies*, 4 (1): 75-82.
- Karstens, B., and Belz, F.-M. (2006). Information asymmetries, labels and trust in the German food market: A critical analysis based on the economics of information. *International Journal of Advertising* 25: 189.
- Kassarjian, H. H. (1971). Personality and consumer behavior: A review. *Journal of Marketing Research*, 8(4), 409-418.
- Kenanog˘lu, Z. and Karahan, ˆO. (2002). Policy implementations for organic agriculture in Turkey. *British Food Journal*, 104(3-4-5), 300-318.
- Khan, M. A. (1981). Evaluation of food selection patterns and preferences. *CRC Critical Reviews in Food Science and Nutrition*, 15,129-153.
- Kihlberg, I. and Risvik, E. (2007). Consumers of organic foods – value segments and liking of bread. *Food Quality and Preference*, 18(3), 471-481.
- Kim, D. J., Ferrin, D. L. and Raghav Rao, H. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44, 544-564.
- Klerck, D. & Sweeney, J. C. (2007). The effect of knowledge types on consumer perceived risk and adoption of genetically modified foods. *Journal of Psychology & Marketing*, 24, (2).
- Kok, G. and Godin, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion*, 11, 87-98.
- Koster, E. P. and Mojet, J. (2007). *Theories of food choice development*. In L. Frewer and van Trijp. "Understanding consumers of food products". Woodhead, Cambridge, 93–124.

- Kotler, P. (1980). *Principles of Marketing*: Englewood Cliffs, New Jersey: Prentice Hall.
- Kotler, P. (2003). *Marketing Management* (11<sup>th</sup>ed.), Upper Saddle River, NJ: Pearson Education, Inc.
- Kotler, P. & Keller, K. L. (2009). *Marketing Management. Pearson International Edition. 13<sup>th</sup> edition*. Pearson Education Inc. Upper Saddle River.
- Krissoff, B. (1998). Emergence of US organic agriculture - can we compete: discussion. *American Agricultural Economics Association Annual Meeting*. Salt Lake City, UT, USA.
- Krystallis, A., Fotopoulos, C., & Zotos, Y. (2006). Organic consumers' profile and their willingness to pay (WTP) for selected organic food products in Greece. *Journal of International Consumer Marketing*, 19(1), 81-106.
- Kuhar, A. and Juvancic, L. (2005). *Modelling consumer preferences towards organic and integrated fruits and vegetables in Slovenia*. Paper presented at 97<sup>th</sup> EAAE Seminar on The Economics and Policy of Diet and Health, Reading.
- Kurokawa, K. (2009). Effectiveness and limitations of the One Village One Product' (OVOP) approach as a government-led development policy: Evidence from Thai 'One Tambon One Product' (OTOP)", *Studies in Regional Science*, 39 (4), 977-989.
- Lappalainen, R., Kearney, J. and Gibney, M. (1998). A pan EU survey of consumer attitudes to food, nutrition and health: An overview. *Food Quality and Preference*, 9(6), 467-478.
- Laroche, M., Toffoli, R., Kim, C. and Muller, T. E. (1996). The influence of culture in pro-environment knowledge, attitude and behaviors: a Canadian perspective. *Advances in Consumer Research*, 23, 53 – 62.
- Laroche, M., Tomiuk, M.-A., Bergeron, J. and Barbaro-Forleo, G. (2002). Cultural differences in environmental knowledge, attitudes, and behaviours of Canadian consumers, *Canadian Journal of Administrative Sciences*, 19, 267–283.
- Lavin, J. G. and Lawless, H. T. (1998). Effects of color and odor on judgments of sweetness among children and adults. *Food Quality and Preference*, 9(4), 283-289.

- Lea, E. and Worsley, T. (2005). Australians' organic food beliefs, demographics and values. *British Food Journal*, Vol. 107(11), 855-69.
- Lenneräs, M., Fjellstrom, C., Becker, W., Giachetti, I., Schmitt, A., Remaut deWinter, A. M. and Kearney, M. (1997). Influences on food choice perceived to be important by nationally-representative samples of adults in the European Union. *European Journal of Clinical Nutrition*, 51, 8-15.
- Levin, R. I., and Rubin, D. S. (1998). *Statistics for Management*. (7th ed.). Published by Prentice Hall, Inc., NJ.
- Linh, P. T .T. (2009). *The effect of perceived risk on attitudes, intentions and consumption of fish in Hanoi*. M.S. Thesis, the Norwegian College of Fishery Science, Univ. of Tromso, Norway.
- Lipman, J. (1988). *Single-Source Ad Research Heralds Detailed Look of Households Habits*. The Wall Street Journal, 39.
- Liska, A. E. (1984). A critical examination of the causal structure of the Fishbein/Ajzen attitude behavioral model. *Social Psychology Quarterly*, 47, 61-74.
- Lobb, A. (2004). *A methodological review of the impacts of risk and trust on consumer behaviour towards food safety*. Paper prepared for presentation at the 84<sup>th</sup> EAAE Seminar 'Food Safety in a Dynamic World' Zeist, The Netherlands, February 8<sup>th</sup> – 11<sup>th</sup>.
- Lobb, A. (2005). Consumer trust, risk and food safety: A review. *Food Economics – Acta Agriculturae Scandinavica, Section C*, 2(1), 3-12.
- Lobb, A., Mazzocchi, M., and Traill, W. (2007). Modelling risk perception and trust in food safety information within the theory of planned behaviour. *Food Quality and Preference*, 18, 384–395.
- Lockie, S., Lyons, K., Lawrence, G., & Mummery, K. (2002). Eating green: motivations behind organic food consumption in Australia. *Rural Sociology* 42(1), 23-40.
- Loureiro, M., McCluskey, J., and Mittlehammer, R. (2001). Assessing consumer preferences for organic, eco-labeled, and regular apples. *Journal of Agricultural and Resource Economics*.
- Luhmann, N. (1979). *Trust and Power*. Chichester: Wiley.

- McCarthy, M. and Henson, S. (2005). Perceived risk and risk reduction strategies in the choice of beef by Irish consumers. *Food Quality and Preference*, 16, 435–445.
- McClelland, D.C. (1987). *Human Motivation*. New York: Cambridge University Press.
- McCrae, R., Costa, P. (1997). Personality trait structure as a human universal. *American Psychologist*, 52(5), 509-516.
- McDaniel, C. and Gates, R. (1991). *Contemporary Marketing Research*, St. Paul, MN, West Publishing Company.
- McIntosh, R. W., Goeldner, C. R. (1984). *Tourism Principles, Practices, Philosophies*. New York: John Wiley & Sons, Inc.
- Maga, J.A., Moore, F.D., and Oshima, N., Yield, (1976). Nitrate levels and sensory properties of spinach as influenced by organic and mineral nitrogen fertilizer levels. *Journal of Sciences and Food Agriculture*, 27, 109-114.
- Magistris, T., & Gracia, A. (2008). The decision to buy organic food products in Southern Italy. *Journal of British food*, 110 (9), 929-947.
- Magnusson, K. M., Arvola, A., Hursti, K. K. U., Aberg, L. and Sjoden, O. P. (2001). Attitudes towards organic foods among Swedish consumers. *British Food Journal*, 103 (3), 209-226.
- Magnusson, M. K., Arvola, A., Hursti, K. K. U., Aberg, L. and Sjo'den, O. P. (2003). Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour. *Appetite*, 40(2), 109-117.
- Magnusson, K. M. and Koivisto, H. (2002). Consumer attitudes towards genetically modified foods. *Appetite*, 39, (1), 9–24.
- Maguire, K. B., Owens, N. and Simon, N. B. (2004). The price premium for organic baby food: a hedonic analysis. *Journal of Agriculture and Resource Economics*, 29(1), 132-149.
- Mahon, D., Cowan, C. and McCarthy, M. (2006). The role of attitudes, subjective norm, perceived control and habit in the consumption of ready meals and takeaways in Great Britain. *Food Quality and Preference*, 17,474-481.
- Makatouni, A. (2002) What motivates consumers to buy organic food in the UK? Results from a qualitative study. *British Food Journal*, 104(3/4/5), 345-352.

- Martin, E., Ahmad, J. & Gordon F. (eds 2) (2006). *Consumer Behavior*. Published by John Wiley & Sons Inc.
- Maslow, A. H. (1954). *Motivation and Personality*. New York: Harper. .
- Mazzarella, W. (2003). *Shoveling Smoke: Advertising and Globalization in Contemporary India*. Durham: Duke University Press.
- Meijboom, F.L.B., Visak, T. and Brom, F.W.A. (2006). From trust to trustworthiness: Why information is not enough in the food sector. *Journal of Agricultural and Environmental Ethics*, 19: 427-442.
- Michaelidou, N., and Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32, 163-170.
- Miller, K. E. (2005). *Communications theories: perspectives, processes, and contexts*. New York: McGraw-Hill.
- Miller, K. E. and Ginter, J. L. (1979). An investigation of situational variation in brand choice behavior and attitude. *Journal of Marketing Research*, 16, 111-123.
- Minhas RS, Jacobs EM (1996). Benefit segmentation by factor analysis: an improved method of targeting customers for financial services. *International Journal of Bank Marketing*, 14(3): 3-13.
- Mitchell, A. (1983). *The Nine American Life Styles*. New York: Warner.
- Morowitz, V. G., Steckel, J. and Gupta, A. (1996). *When do Purchase Intentions Predict Sales? Working Paper, Stern School of Business, New York University, New York*.
- Moye, L. N. and Kincade H. D. (1999). Shopping orientation segments: Exploring Differences in store patronage and attitudes toward retail store environments among female apparel consumers. *International journal of consumer studies*, 27 (1), 58-71.
- Naser, K., Alkhatib, K. and Karbhari, Y. (2002). Empirical evidence on the depth of corporate information disclosure in developing countries: the case of Jordan. *International Journal of Commerce & Management*, 12(3/4), 122-134.

- Ness, M. R., Ness, M., Brennan, M., Oughton, E., Ritson, C., and Ruto, E. (2010). Modeling consumer behavioral intentions towards food with implications for marketing quality low-input and organic food. *Food Quality Preference*, 21: 100-111.
- Newberry, C.R., Klemz, B.R., and Boshoff, C. (2003). Managerial implications of predicting purchase behavior from purchase intentions: a retail patronage case study. *The Journal of Services Marketing*, 17(6/7), 609-618.
- Nilsson, H., Tunçer, B. and Thidell, Å. (2004). The use of eco-labeling like initiatives on food products to promote quality assurance--is there enough credibility? *Journal of Cleaner Production* 12: 517.
- Notani, A.S. (1997). Perceptions of affordability: their role in predicting purchase intent and purchase. *Journal of Economic Psychology* 18, 525-546.
- Nunnally, J. & Bernstein, L. (1994). *Psychometric theory*. New York: McGraw-Hill Higher, Inc.
- O'Donovan, P. & McCarthy, M. (2002). Irish consumer preference for organic meat. *British Food Journal*, 104, 353-370.
- O'Neal, P. W. (2007). *Motivation of Health Behavior*. New York: Nova Science Publishers Inc.
- Oh, H. & Hsu, C. H. (2001). Volitional degrees of gambling behaviors. *Annals of Tourism Research* 28(3): 618-637.
- Olsen, S. O. (2004). Antecedents of Seafood Consumption Behavior: An Overview. *Journal of Aquatic Food Product Technology*, 13(3), 79-91.
- Onyango, B. M, Hallman, W.K & Bellows, A.C. (2007). Purchasing organic food in US food systems: A study of attitudes and practice. *British Food Journal* 109 (5):399-411.
- Oram, N., Laing, D. G., Hutchinson, I., Owen, J., Rose, G., Freeman, M. and Newell, G. (1995). The influence of flavor and color on drink identification by children and adults. *Developmental Psychobiology*, 29,239-246.
- Oreg, S. and Katz-G., T., (2006). Predicting pro-environmental behavior cross-nationally: Values, the theory of planned behavior, and value-belief-norm theory. *Environment and Behavior*, 38: 462-483.



- Padel, S. and Foster, C. (2005). Exploring the gap between attitudes and behaviour—understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), 606-25.
- Pawlak, R. and Malinauskas, B. (2008). The use of the theory of planned behavior to assess predictors of intention to eat fruits among 9th-grade students attending two public high schools in eastern. *Family and Consumer Sciences Research Journal*, 37, 16-26.
- Pedersen, B. (2003). Organic agriculture: the consumers' perspective. In: OECD, ed. *Organic agriculture. Sustainability, markets and policies. 2002, Washington DC*. OECD and CABI Publishing, 245-255.
- Peri, C. (2006). The universe of food quality. *Food Quality and Preference*, 17, 3–8.
- Perrini, F., Castaldo, S., Misani, N. and Tencati, A. (2010). The impact of corporate social responsibility associations on trust in organic products marketed by mainstream retailers: a study of Italian consumers. *Business Strategy and the Environment*, 19(8), 512-526.
- Plummer, J. T. (1974). The concepts and application of life style segmentation. *Journal of Marketing*, 38(1), 33–37.
- Poveda, A. M., Molla-Bauza, M. B., Gomis, F. J. & Martinez, L. M. (2009). Consumer-perceived risk model for the introduction of genetically modified food in Spain. *Food Policy*. 34, 519-528
- Povey, R., Conner, M., Sparks, P., James, R. and Shepherd, R. (2000). Application of the Theory of Planned Behaviour to two dietary behaviours: Roles of perceived control and self-efficacy. *British Journal of Health Psychology*, 5, 121-139.
- Porter, M.E., (1974). Consumer behavior, retailer power and market performance in consumer goods industries. *The Review of Economics and Statistics*, 56(4): 419-436.
- Quinn, L., Hines, T. & Bennison, D. (2007). Making sense of market segmentation: a fashion retailing case. *European Journal of Marketing*, 41(5/6): 439-465.
- Radder, L. and Roux, R. (2005). Factors affecting food choice in relation to venison: A South African example. *Meat Science*, 71, 583-589.
- Rattanakamchuwong, S. (2005). *Study of Key Success Factors of Community Business for OTOP Champion Rewards Winner (5 STAR): A Case Study of Handicraft Groups*

- in Western Central Region.* (Masters research study N. HD2346.T35 .a162, Kasetsart University). Bangkok: Kasetsart University.
- Regnier, P. (2006). *Japanese Small Enterprise Development Cooperation Overseas: Linkage with Japanese Industrial Organizations and Ties with Japanese SMEs.* Retrieved on 09<sup>th</sup> February, 2013 from <http://www.jil.go.jp/profile/documents/Regnier.pdf>
- Richardson, P., Jain, A. K. & Dick, A. S. (1997). The influence of store aesthetics on the evaluation of private label brands. *Journal of Product and Brand Management*, 5(1), 19-28.
- Riesman, D. (1950). *The Lonely Crowd* in Riesman, D., Glazer, N. and Denney, R. New Haven, CT: Yale University Press.
- Riefer, A. and Hamm, U. (2008). *Changes in families' organic food consumption.* Paper presented at 12<sup>th</sup> Congress of the European Association of Agricultural Economists –EAAE, Ghent.
- Rimal, R. N. and Lapinski, M. (2005). An explication of social norms. *Communication Theory*. 15(2), 127-147.
- Robertson, T. S. (1973). *Perspectives in Consumer Behaviour.* Robertson, H. Kassarian, 230.
- Robinson, R., and Smith. C. (2002). Psychosocial and demographic variables associated with consumer intention to purchase sustainable produced foods as defined by the Midwest food alliance. *Journal of Nutrition Education and Behaviour* 34(6): 316-325.
- Roitner-Schobesberger, B., Darnhofer, I., Somsook, S. and Vogl, C. R. (2008). Consumer perceptions of organic foods in Bangkok, Thailand. *Food Policy*, 33(2), 112- 121.
- Rolls, B. J., Rowe, E. A. and Rolls, E. T. (1982). How sensory properties of foods affect human feeding behaviour. *Physiology and Behavior*, 29,409-417.
- Rosenberg, M. J. and Hoyland, C. I. (1960). *Cognitive, Affective and Behavioral Components of Attitudes. Attitude, Organization and Change.* Yale University Press, New Haven, 1-14.
- Rosenthal, D. (1986). Two concepts of consciousness. *Philosophical Studies*, 49, 329-359.

- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80 (1), 609.
- Royne, M. B., Levy, M. and Martinez, J. (2011). The public health implications of consumers' environmental concern and their willingness to pay for an eco-friendly product. *The Journal of Consumer Affairs*, 45,(2),329–343.
- Saba, A. & Messina, F. (2003). Attitudes towards organic foods and risk/benefit perception associated with pesticides. *Food Quality and Preference*, 14, 637–645.
- Sanders, J. and Richter, T. (2003). Impact of socio-demographic factors on consumption patterns and buying motives with respect to organic dairy products in Switzerland. In: Hovi, M., Martini, A. and Padel, S. eds. *Socioeconomic aspects of animal health and food safety in organic farming systems. Proceedings of the 1st SAFO Workshop, 5-7 September 2003, Florence*. SAFO, 211-218.
- Schifferstein, H. (2001). *Effects of product beliefs on product perception and linking*. In: Frewer, Risvik, Schifferstein (eds) *Food, people, society. A European perspective of consumers' food choices*, Springer, Munich, 73–96.
- Schiffman, L. G. & Kanuk, L. L. (2004). *Consumer Behavior*. 8<sup>th</sup> ed. China: Pearson Education Asia Limited and Tsinghua University Press.
- Schultz, P. W. & Zeleny, L. C. (2000). Promoting environmentalism. *The Journal of Social Issues*, 56, 443-457.
- Schutz, H.G. and Lorenz, O. A. (1976). Consumer preferences for vegetables grown under 'commercial' and 'organic' conditions. *Journal of Food Sciences*, 41, 70-73.
- Sharma, A. & Malhotra, D. (2007). *Personality and Social Norms*. 1<sup>st</sup> ed. New Delhi: Publishing Company.
- Sheppard, B. H., Hartwick, J. & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15, 325-343.
- Shepherd, G. J. and O'Keefe, D. J. (1984). Separability of attitudinal and normative influences on behavioral intentions in the Fishbein-Ajzen model. *The Journal of Social Psychology*, 122, 287-288.
- Sheeran, P., and Orbell, S. (1999). Augmenting the theory of planned behavior: Roles for anticipated regret and descriptive norm. *Journal of Applied Social Psychology*, 29, 2127–2142.

- Sheeran, P., and Taylor, S. (1999). Predicting intentions to use condoms: A meta-analysis and comparison of the theories of reasoned action and planned behavior. *Journal of Applied Psychology, 29*, 1624-1675.
- Sheeran, P., Trafimow, D. and Armitage, C. J. (2003). Predicting behavior from perceived behavioral control: tests of the accuracy assumption of the theory of planned behavior. *British Journal of Socio- Psychology, 42*, (3), 393-410.
- Sherbeck, J. A., Wulf, D. M., Morgan, J. B., Tatum, J. D., Smith, G. C. and Williams, S. N. (1995). Dietary supplementation of vitamin E to feedlot cattle affects retail display properties. *Journal of Food Science, 60*, 250-252.
- Shimp, T. A., Kavas, A. (1984). The theory of reasoned action applied to coupon usage. *Journal of Consumer Research, 11* (3), 795-799.
- Siegrist, M. (2008). Factors influencing public acceptance of innovative food technologies and products. *Trends in Food Science & Technology, 19*, (11), 603-608.
- Silver, M. (1997). *Business Statistics*. (2<sup>nd</sup> ed.). Published by McGraw-Hill Publishing Company.
- Sinsawat T. (1995.). *Nutritional value of snack and ready to eat food among children in rural area and its effect on nutritional status in children ages between 2-5 years in Khon Kaen, Research report*. Bangkok, Khon Kaen University.
- Solomon, M., Bamossy, G. and Askegaard, S. (2002). *Consumer Behaviour. A European Perspective*, 126-153, Prentice Hall.
- SondergaardH, . A. and Edelenbos,M . (2007). What parents prefer and children like - Investigating choice of vegetable-based food for children. *Food Quality and Preference, 18*, 949-962.
- Squires, L., Juric, B., & Cornwell, T. (2001). Level of market development and intensity of organic food consumption: cross-cultural study of Danish and New Zealand consumers. *Journal of Consumer Marketing, 5*(18), 392-409.
- Steenkamp, J. B. (1990). Conceptual model of quality perceptions process. *Journal of Business Research, 21*, 309-333.

- Steenkamp, J. B. and Van Trijp, H. C. (1996). Quality guidance: A consumer-based approach to food quality improvement using partial least squares. *European Review of Agricultural Economics*, 23, (2), 195–215.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56, 407–424.
- Tan, D. T., Chen, C. N., & Lai, M. K. (1999). Reliability and validity tests on ICP lifestyle scale, reorganization of factors, and comparison of tendencies. *Journal of Chinese Management Review*, 2(7): 69-80.
- Tarkiainen, A. & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(10-11), 808-822.
- Tavakol, M., Mohagheghi, M. A. & Dennick, R. (2008). Assessing the skills of surgical residents using simulation. *Journal of Surgery Education*, 65(2), 77-83.
- Terry, D. J., and Hogg, M. A. (2000). (Eds.) *Attitudes, Behavior, and Social Context: The Role of Norms and Group Membership*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Thai Tambon: Tambon Products. Retrieved on March 10<sup>th</sup> March 2013, from <http://www.thaitambon.com/English/index.htm>
- Thai Tambon, Handbook for the Selection of OTOP Product Champion – OPC. Retrieved on March 17<sup>th</sup> 2013, from <http://www.thaitambon.com/OTOP/ProductChampion/PC1.htm>
- Thanathikom, W. (2005). *Creative Entrepreneurship in Asia. Country Paper (Thailand I)*. Asian Productivity Organization, Tokyo.
- Thøgersen, J. (2006). Predicting Consumer Choices of Organic Food: Results from the CONDOR Project, in *Proceedings of European Joint Organic Congress*, eds. Andreasen C.B., L. Elsgaard, S. Sondergaard, L. Sorensen and G. Hansen. 30-31, Odense, Denmark.
- Thøgersen, J. (2007a). Consumer decision-making with regard to organic food products. in Vaz, M. T. d. N., Vaz, P., Nijkamp, P. & Rastoin, J. L. (Eds.) *Traditional Food Production Facing Sustainability: A European Challenge; Ashgate*.

- Thøgersen, J. (2007b). The motivational roots of norms for environmentally responsible behaviour. *Nordic Consumer Policy Research Conference. Helsinki.*
- THE LANCET (1999). *Health risks of genetically modified foods.* 353, 1811.
- Thom, N. T. (2007). *Attitudes, motivation and consumption of seafood in Bacninh province, Vietnam.* M.S. Thesis, the Norwegian College of Fishery Science, University of Tromsø, Norway.
- Thompson, G. D. and Kidwell, J. (1998). Explaining the choice of organic produce: cosmetic defects, prices, and consumer preferences. *American Journal of Agriculture Economic*, 80, 277-287.
- Thompson, N. J. and Thompson, K. E. (1996). Reasoned action theory: An application to alcohol-free beer. *Journal of Marketing Practice: Applied Marketing Science*, 2(2), 35-48.
- Titanont, A., & Chantradoan, N. J. (2004). *Packaging Phuket: Focusing on Price 153 Bundling.* Retrieved on 12<sup>th</sup> February, 2013, from [http://www.handels.gu.se/epc/archive/00004313/01/gbs\\_thesis\\_55.pdf](http://www.handels.gu.se/epc/archive/00004313/01/gbs_thesis_55.pdf).
- Torjusen, H., Lieblein, G., Wandel, A., and Francis, C. A. (2001). Food system orientation and quality perception among consumers and producers of organic food in Hedmark County, Norway. *Food Quality and Preference*, 12, 207-216.
- Torjusen, H., Nyberg, A. and Wndel, M. (1999). *Organic food: consumer's perception and dietary choices.* SIFO report 5, Lysaker, Norway.
- Torjusen, H., Sangstad, L., O'doherty J. K. and Kjaernes, U. (2004). *European consumers' conception of organic food: a review of available research.* Oslo: National Institute for Consumer Research.
- Tourism Authority of Thailand. (2009). *Summary of Marketing Plan for Tourism year 2009. In the documents for the training on tourism: guidelines in tourism development in Thailand.* Fang district, Chiang Mai province.
- Trafimow, D. (1998). Attitudinal and normative processes in health behavior. *Psychology and Health*, 13, 307-317.

- Trafimow, D., and Finlay, K. A. (1996). The importance of subjective norms for a minority of people: Between-subjects and within-subjects analyses. *Personality and Social Psychology Bulletin*, 22, 820-828.
- Tsakiridou, E., Mattas, K. & Tzimitra-Kaloglanni, I. (2006). The influence of consumer characteristics and attitudes on the demand for organic olive oil. *Journal of International Food & Agribusiness Marketing*, 18(3-4), 23-31.
- Tuu, H. H., Olsen, S. O., Thao, D. T. and Anh, N. T. (2008). The role of norms in explaining attitudes, intention and consumption of a common food (fish) in Vietnam. *Journal of Appetite*, 51, 546-551.
- Urala, N., Lahteenmaki, L. (2004). Attitudes behind consumers' willingness to use functional foods. *Food quality Preferences*, 15,793-803.
- Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Pelletier, L. G., and Mongeau, C. (1992). Ajzen and Fishbein's theory of reasoned action as applied to moral behavior: a confirmatory analysis. *Journal of Personality and Social Psychology*, 62 (1), 98-109.
- Van Amstel, M., Driessen, P. and Glasbergen, P. (2008). Eco-labeling and information asymmetry: a comparison of five eco-labels in the Netherlands. *Journal of Cleaner Production* 16, 263-276.
- Verbeke, W. (2005). Agriculture and the food industry in the information age. *European Review of Agricultural Economics*, 32(3), 347-368.
- Verhoef, P. C. (2005). Explaining purchases of organic meat by Dutch consumers. *European Review of Agricultural Economics*, 32, 245-267.
- Vermeir, I. & Verbeke, W. (2006). *Sustainable Food Consumption: Exploring the Consumer Attitude-Behavior gap*. Working paper.
- Vermeir, I. and Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64, 542-553.
- Villegas, B., Carbonell, I. and Costel E. (2009). Acceptability of milk and soymilk vanilla beverages. Demographics consumption frequency and sensory aspects. *Food Science and Technology International*, 15, 203-210.
- Wagner, G. G., Frick, J. R., & Schupp, J. (2007). The German Socio-Economic Panel Study (SOEP): Scope, evolution and enhancements. *Schmollers Jahrbuch*, 1, 139-170.

- Wallston, K. A. (1992). Hocus-pocus, the focus isn't strictly on locus: Rotter's social learning theory modified for health. *Cognitive Therapy and Research*, 2, 183–199.
- Wandel, M. and Bugge, A. (1997). Environmental concern in consumer evaluation of food quality. *Food Quality and Preference*, 8(1), 19-26.
- Warshaw, P. R. (1980). Predicting purchase and other behaviors from general and contextually specific intentions. *Journal of Marketing Research*, 17, 26-33.
- Weaver, P., Kaufman, T. J., & Yoon, Y. (2001). A market segmentation study based on benefits sought by visitors at heritage sites. *Tourism Analysis*, 6(3/4), 213-222.
- Weirich, P. (2007). *Labeling Genetically Modified Food: The Philosophical and Legal Debate*, 1<sup>st</sup> ed. Oxford University Press, U.S.A.
- Wells, W. D. (1975). Psychographics: A critical review. *Journal of Marketing Research*, 12(2), 196-213.
- Werner, J., & Alvensleben, R.V. (2011). Consumer Attitudes towards Organic Food in Germany (F.R.). *Symposium on Horticultural Economics*, 8,(155).
- Whitlar, D. B., Geurts, M. D. and Swenson, M. J. (1993). New product forecasting with a Purchase intention survey. *Journal of Business Forecasting Methods System*, 12 (3): 1-18.
- WHO, (2010). *20 Questions on Genetically Modified Foods*. World Health Organization. Retrieved from: <http://www.who.int/essitng>, (Accessed on: July, 09, 2013).
- Wier, M. and Andersen, L. M. (2003). *Consumer demand for organic foods: Attitudes, values and purchasing behavior*. Organic E-Prints (online). Retrieved on 17.09.2013, from: <http://orgprints.org/00001829> or <http://www.darcof.dk>
- Wickliffe, V, P., Pysarchik, D, T. (2001). A look at product attributes as enhancers of group integration among US and Korean consumers. *International Journal of Retail and Distribution Management*, 29(2), 99-109.
- Willer, H. and Kilcher L. eds.(2011). *The World of Organic Agriculture. Statistics & Emerging Trends*. Bonn: IFOAM and Frick: FiBL
- Williams, C. M. (2002). Nutritional quality of organic food: shades of grey or shades of green? *Proceedings of the Nutrition Society*, 61, 19-24.



- Williams, P. and Hammitt, K. (2001). Perceived risks of conventional and organic produce: Pesticides, pathogens and natural toxins. *Risk Analysis Journal*, 21 (2), 319-330.
- Wolf, M. M. (2002). *An analysis of the impact of price on consumer interest in organic grapes and a profile of organic purchasers*. Paper presented at American Agricultural Economic Association Annual Meeting, Long Beach, CA.
- Wonkongkathep, S. (1997). Measurement of snack consumption behavior of primary school children in Kok-Soung district, Pattananikom sub-district, Lopburi Province. *Journal of Medical Science*, 11, 139-155.
- Wright, M. and MacRae, M. (2007). Bias and variability in purchase intention scales. *Journal of the Academy of Marketing Science*, 35, 617-624.
- Wright, M., Sharp, A. and Sharp, B. (2002). Market statistics for the Dirichlet model: Using the juster scale to replace panel data. *International Journal of Research in Marketing*, 19(1), 81-90.
- Wu, F. M. (2000). *Lifestyle and behavior of internet radio audience*. Master thesis. Institute of Communication Management, National Sun YetSen University.
- Yiridoe, E., Bonti-Ankomah, S., & Martin, R. (2005). Comparison of consumer perceptions and preference toward organic versus conventionally produced foods. *Renewable Agriculture and Food Systems*, 20, 193-205
- Ybarra, O. and Trafimow, D. (1998). How priming the private self or collective self affects the relative weights of attitudes or subjective norms. *Personality and Social Psychology Bulletin*, 24, 362-370.
- Young, M.R., DeSarbo, W.S. and Morwitz, V.G. (1998). The Stochastic modeling of purchase intentions and behavior. *Management Science*, 44, (2)188-202.
- Zanoli, R. and Naspetti, S. (2002). Consumer motivations in the purchase of organic food: a means-end approach. *British Food Journal*, 104(8), 643-53.
- Zeinab, S. S., Seyedeh, M. S. (2012). The main factors influencing purchase behavior of organic products in Malaysia. *Interdisciplinary Journal of Contemporary Research in Business*, 4 (1).
- Zeithaml, V.A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52 (3), 2-22.

Zepeda, L. and Li, J. (2007). Characteristics of organic food shoppers. *Journal of Agricultural Applied Economics*, 39(1), 17-28.

**Links:**

[www.dictionary.reference.com](http://www.dictionary.reference.com)

[www.medical-dictionary.the freedictionary.com](http://www.medical-dictionary.the freedictionary.com)

[www.thaiorganicfood.com](http://www.thaiorganicfood.com) (Thai organic farm)

# Appendices

## Appendix A: Questionnaire Survey



**Prince of Songkla University (Hat Yai Campus)  
Faculty of Management Science**

Dear Sir/ Madam

My name is Mahamat Abdourrahmane. I am a graduate student of iMBA (International Master of Business Administration) under the supervision of Assoc. Prof. Sasiwemon Sukhabot. This questionnaire has been developed for the educational purpose only and the information provided will be treated with high confidentiality. For your information, I am conducting a research on “An International Consumer’s Perception and Attitudes towards the Purchase Intentions of OTOP Snacks Food Products”.

Access to the questionnaire is restricted to my supervisor and me. Completion of the questionnaire is voluntary. I appreciate your help and thank you very much for your cooperation.

Yours sincerely

**Mahamat Abdourrahmane**  
**Master of iMBA**  
**Faculty of Management Science**  
**Prince of Songkla University (Hat Yai Campus)**  
e-mail address: [mahamatabdourrahmane@yahoo.com](mailto:mahamatabdourrahmane@yahoo.com)

## A. Demographic Background

*Please kindly tick (✓) your answers to the given questions/statements.*

1. What is your GENDER?  
 Male                       Female
  
2. What is your AGE group?  
 18-25 Years old                       26-34 Years                       35-44 Years old  
 44-54 Years old                       Above 55 Years old
  
3. To which category does your country of origin fall in?  
 Europe                       Americas                       Asia  
 Australia/ New Zealand                       Africa                       Others (please specify.....)
  
4. Educational Level  
 Certificate                       Diploma                       Bachelor Degree  
 Master Degree                       PhD Degree                       Others (please specify.....)
  
5. Occupation  
 Student,                       Professionals (doctor, lawyer, engineer, lecturer)  
 Government employees,                       self-employed,  
 Company employee                       Unemployed/ Retired  
 Others (please specify.....)
  
6. Household Members  
 1-2                       3-4                       5-6  
 7-8                       9 or more
  
7. Monthly Gross Income (\$ i.e USD- US Dollar)  
 \$1000 and less                       \$1001-\$2000  
 \$2001-\$3000                       \$3001-\$4000  
 \$4001-\$5000                       \$5000 and above

Please read each statement and tick the right box to the response indicating how much you agree or disagree with the statement as a description of you. You should only tick one box per statement to disclose how agreed have you each of the following 5-Likert scales. Indicate your response by ticking one of the ranking from “strongly agree” coded **5** to “strongly disagree” coded **1**

### B. Subjective Norms

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Not Sure</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	My close friends and family consume OTOP snacks food products.					
2.	Nowadays, OTOP snacks food products are widely regarded as a better alternative to conventional food.					
3.	The people in my life whose opinions I value would approve me to buy OTOP snacks food products.					
4.	The people in my life whose opinions I value buy OTOP snacks food products.					
5.	Most people who are important to me think that I should buy OTOP snacks food products.					
6.	Most people who are important to me buy OTOP snacks food products.					
7.	It is expected of me that I purchase OTOP snacks food products.					
8.	Many people like me buy OTOP snacks food products.					

### C. Behavioral Control

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Not Sure</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	OTOP food products are too expensive.					
2.	Only consumers with higher income can afford OTOP snacks food products.					
3.	OTOP food products are beyond my budget.					
4.	Buying OTOP snacks food products is highly inconvenient.					
5.	OTOP snacks food products are only available in limited stores/ markets.					
6.	The stores that I frequently shop do not sell a variety of OTOP snacks food products.					
7.	Whether I will eventually purchase OTOP					

	snacks food products is entirely up to me.					
8.	I have complete control over whether I will eventually buy OTOP snacks food products.					

Please read each statement and tick the right box to the response indicating how much you agree or disagree with the statement as a description of you. You should only tick one box per statement to disclose how agreed have you each of the following 5-Likert scales. Indicate your response by ticking one of the ranking from “strongly agree” coded **5** to “strongly disagree” coded **1**

#### D. Attitudes Items

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Health and Environmental Consciousness</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Not Sure</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	I am concerned about the type and amount of nutrition in the food that I consume daily.					
2.	I am concerned about the presence of OTOP snacks food products additives.					
3.	I am concerned about how OTOP snacks food product is processed.					
4.	When making OTOP snacks food products purchase, I pay attention to whether the product contains unhealthy substances.					
5.	Health issues play an important role when I make decision to purchase OTOP snacks food products.					
6.	OTP food products are more environmentally friendly.					
7.	My family and I know that OTOP snacks food products have the anti-sickness effects					
8.	It frightens me to think that much of the food I eat is contaminated with pesticides.					
9.	I am greatly concerned about the harm being done to plant and animal life by pollution.					
	<b>Product Trust</b>					
10.	I trust that OTOP food products providers are honest about the organic nature of their products.					
11.	I trust that OTOP snacks food products producers are practicing organic farming.					
12.	I trust the information on OTOP snacks food products labels.					
13.	I think labels of OTOP snacks food products are worth buying.					
14.	I think advertisement is important when I buy					

	OTOP snacks food products.					
15.	My decision to purchase OTOP snacks food products is influenced by advertisement.					
16.	The message on advertisement attempts to persuade me to buy OTOP snacks food products.					
17.	I trust on the message given by the advertisement of OTOP snacks food products provider.					
18.	I trust the organic certification logo on OTOP snacks food products labels.					
19	I trust OTOP snacks food products labels of organic food products.					
	<b>Products Attributes</b>					
20.	OTOP snacks food products smell nice and taste good as well.					
21.	OTOP snacks food products have a pleasant texture.					
22.	OTOP snacks food products are free from genetic modifications.					
23.	OTOP snacks food products do not contain additives and artificial flavouring.					
24.	OTOP snacks food products are free from pesticides.					
25.	I think OTOP snacks food products are fresher than other brands.					
26.	I think OTOP snacks food products have clearly stated their ingredients such as how much the percentage of each ingredient contain in the food product.					



Please read each statement and tick the right box to the response indicating how much you agree or disagree with the statement as a description of you. You should only tick one box per statement to disclose how agreed have you each of the following 5-Likert scales. Indicate your response by ticking one of the ranking from “strongly agree” coded **5** to “strongly disagree” coded **1**

#### **E. Intention to purchase OTOP food products Items**

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Purchase intention factors</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Not Sure</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	I would buy OTOP snacks food products in order to save money.					
2.	I will consider purchasing OTOP snacks food products.					
3.	I'm willing to buy OTOP snacks food products even though the choices are limited.					
4.	I'm willing to buy OTOP snacks food products because the benefits outweigh the cost.					
5.	I don't mind spending more time sourcing for OTOP snacks food products.					
6.	I would still buy OTOP snacks food products even though conventional alternatives are on sale.					

*Thank you for your time and cooperation!*

**Appendix B:** Level of Agreement Statistics

<b>Kappa</b>	<b>Interpretation of Kappa</b>					
	Poor	Slight	Fair	Moderate	Substantial	Almost Perfect
	0.0	0.20	0.40	0.60	0.80	1.0
Kappa	Agreement					
< 0	Less than chance agreement					
0.10-0.20	Slight agreement					
0.21-0.40	Fair agreement					
0.41-0.60	Moderate agreement					
0.61-0.80	Substantial agreement					
0.81-0.99	Almost perfect agreement					

## VITAE

**Name** Mahamat Abdourrahmane

**Student ID** 5410520516

### **Educational Attainment**

<b>Degree</b>	<b>Name of Institution</b>	<b>Year of Graduation</b>
Bachelor's Degree	Selangor International Islamic University (Malaysia)	2011
Diploma	Selangor International Islamic University (Malaysia)	2009

### **List of Publication and Proceeding (If Possible)**

International Conference on Business and Industrial Research (ICBIR 2014), held at Thai-Nichi Institute of Technology, Bangkok, Thailand, May 15-16, 2014.

**Proceedings:** An International Consumer's Perception and Attitudes towards the Purchase Intentions of OTOP Snacks Food Products (**best awarded paper**).