

**THE ATTITUDE OF THAI CONSUMERS TOWARD FROZEN  
SEAFOOD**



**A THEMATIC PAPER SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF MANAGEMENT  
COLLEGE OF MANAGEMENT  
MAHIDOL UNIVERSITY  
2014**

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Thematic paper  
entitled  
**THE ATTITUDE OF THAI CONSUMERS TOWARD FROZEN  
SEAFOOD**

was submitted to the College of Management, Mahidol University  
for the degree of Master of Management  
on  
December 21, 2014



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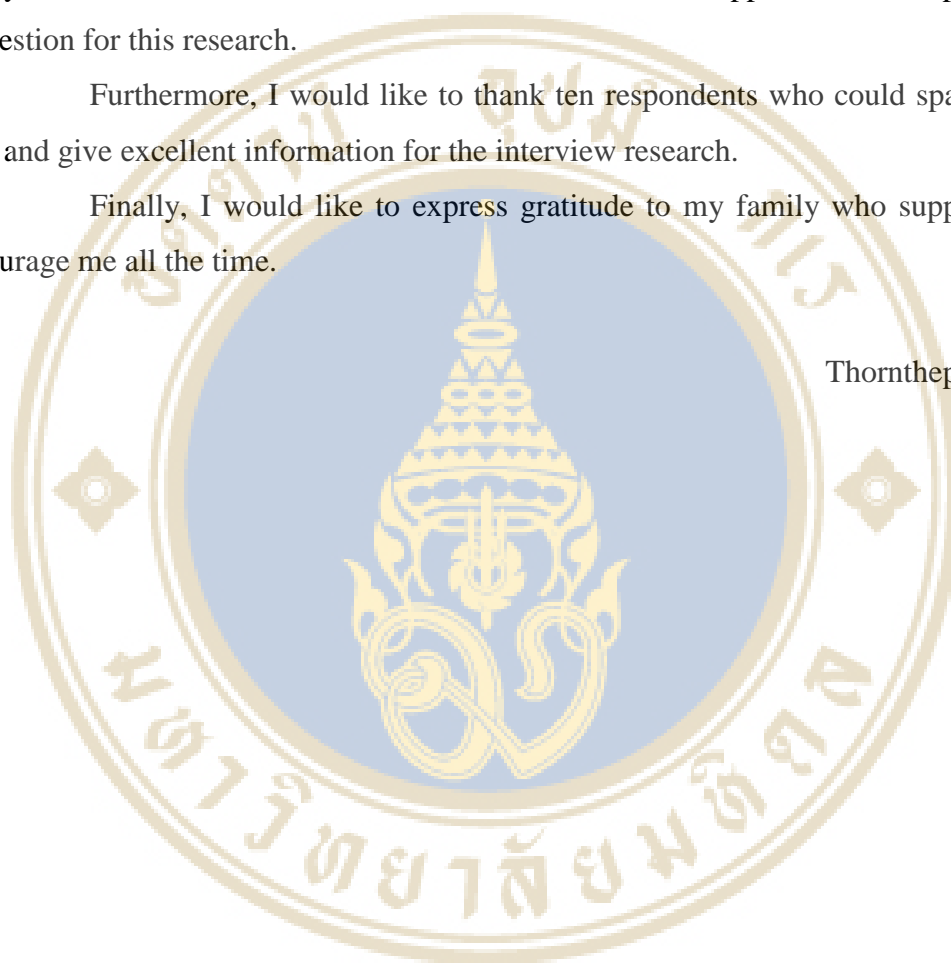
## ACKNOWLEDGEMENTS

To be able to complete this thematic paper, I would like to express gratitude to my advisor, Assoc. Prof. Dr. Nathasit Gerd Sri, who supports me and provides suggestion for this research.

Furthermore, I would like to thank ten respondents who could spare their time and give excellent information for the interview research.

Finally, I would like to express gratitude to my family who support and encourage me all the time.

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**ABSTRACT**

Even though, Thailand is one of the country which export frozen seafood around the world. However, the rate of domestic consumption is relatively low compare to other countries. Hence, the purpose of this research paper is to discover the elements of the attitude that prevent Thai consumers to buy frozen seafood products.

To be able to understand the attitude of Thai consumers regarding frozen seafood, the theory of this research is based on the concept of attitude and The Attitude-Behavior Relation. Hence, the research uses a qualitative method which is depth interview. The interviews were conducted with ten Thai respondents.

The study revealed that the positive factors are “Healthy and Well-being”, “long storage life”, “Modern life style”, “Brand”, “Varieties” and “Family security”. For negative factors, which affect the attitude of Thai consumers are “Fresh”, “Chemical residues on frozen seafood”, “Value of money”, “Taste”, “Social pressure” and “Knowledge/Skill of preparation”.

**KEY WORDS:** Consumer behavior / Attitudes / Frozen Seafood / Thailand

20 pages

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## CHAPTER I

### INTRODUCTION

The rapid changes of technology, economics and lifestyles have heavily affected Thai consumers' attitude and behaviors. People tend to pay attention to their health while they have less time for grocery shopping and food preparation. Furthermore, food processing technology and effective logistic system enable us to have more choices of product from around the world with good quality.

For over twenty years, Thailand could rapidly expand economics. The reason for this is that the growth in many business sectors such as agriculture, tourism and exports etc. Furthermore, as Thailand has many resources and located between two gulfs, commercial fishing and exporting seafood are one of the major sources that could contribute income to the country.

Thailand was ranked number three in exporting countries of fish and fishery products with the value of 8,079 million U.S. dollars in 2012 (<http://www.statista.com/statistics/268269/top-10-exporting-countries-of-fish-and-fishery-products/>). In 2010, the proportions were fish, prawn, squid, shells and crab by 58%, 28%, 11%, 2% and 1% respectively. Furthermore, all of these frozen seafood products were 92.5% exported, while the domestic consumption was 7.5% which is relatively low. The reason for this is that Thai consumers believe that they could obtain fresher and cheaper seafood product at traditional wet market (Division of agricultural business research of Krungthai Bank. (2010). However, in some circumstances, this could not always true as the advance in technology could reduce the price of frozen seafood and also the freshness of seafood. Hence, this leaves the question which is "Why Thai domestic frozen seafood consumption is low compare to other country?"

Another rationale for the study is that I am conducting commercial fishing business in Pattani. Nowadays, the price of seafood and fish at the fish market is relatively low compare to the price of the fish in super market, hyper market or even traditional wet market. Furthermore, the quality of those chilled seafood is awful which

some of them are not fresh. Therefore, I eager move away to the existing products that is commodity and the price is controlled only by demand and supply by adding value to the products.

Therefore, I am interested in finding out the attitude of Thai consumers regarding frozen seafood and which elements prevent Thai consumer to buy frozen seafood product? Hence, I could be able to understand these factors and adjust to the business.





## **CHAPTER II**

### **LITERATURE REVIEW**

To be able to understand consumer behavior, attitude is one of the factors that drive behavioral intention (Ajzen, 2001). Many successful companies could increase their sales and profit thru changing consumer behavior by changing attitude toward the products (Hawkins, Best, & Coney, 2004).

#### **2.1 Attitude**

Ajzen (2001) defined attitude as “a summary evaluation of psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant, and likeable-dislikable”. Furthermore, Attitude is feeling, emotion and evolution of like and dislike. People have attitude toward in everything, for example, religions, politics, cloths, music and foods etc. (Kotler, 1980). Attitudes are shaped by motivation, emotion, perception, and cognitive processes which characterize one’s way of life (Hawkins et al., 2004). It provides guidance to approach or avoid favorable and unfavorable objects. Thus, without this guidance, it would be impossible to survive or live in this complex world (Overwalle & Siebler, 2005).

#### **2.2 Attitude Components**

Hawkins, Best and Coney (2004) divide attitude into three components which are cognitive, affective and behavioral component.

**2.2.1 Cognitive component** is the thoughts, knowledge or beliefs about specific attributes or overall object which have positive and negative.

**2.2.2 Affective component** is emotions or feelings about attributes or an object. This feeling could be varied due to one's uniqueness and specific situations. It could be raised without beliefs about products.

**2.2.3 Behavioral component** is behavioral intentions with respect to specific attributes or overall object. It could be driven by beliefs and/or feelings toward the objects and situations.

In addition, these three attitude components are associated to each other. This means that change in one component could lead to change in other components. Consequently, it would change the result of overall orientation toward object.

## **2.3 The Attitude-Behavior Relation**

The Theory of Planned Behavior is a theory which describes how beliefs affect intention and followed by behavior. It was developed from the previous theory which is the theory of reasoned action by introducing other factor which is "Perceived behavior control" (Ajzen, 1991). The theory of reasoned action original consists of two factors which is "Attitude toward the behavior" and "Subjective norm" (Ajzen and Fishbein, 1980). Hence, Ajzen (2001) noted that "according to the theory of planned behavior, people act in accordance with their intentions and perceptions of control over the behavior, while intentions in turn are influenced by attitudes toward the behavior, subjective norms, and perceptions of behavioral control."

### **2.3.1 Attitude towards the behavior**

Attitude towards the behavior is the feeling or emotion of individual which can be positive or negative toward specific behavior (Ajzen and Fishbein, 1980). Attitude towards the behavior is affected by behavioral beliefs (Ajzen 2012). According to Ajzen and Sexton (1999), "beliefs provide the foundation for our current, relatively stable attitudes, but various contextual factors can temporarily make certain belief more readily accessible". Hence, it could guide attitude to positive or negative. Consequently, behavior is based on evaluations which also have positive and negative direction. Positive evaluation tends to move people to gain positive result, whereas, negative

evaluation tends to move people away from negative result (Holland, Vries, Hermesen, & Ad van Knippenberg, 2012).

### **2.3.2 Subjective norm**

Ajzen (2012) noted that “Subjective norm is determined by total set of readily accessible normative beliefs concerning the expectations of important referents”. In addition, subjective norm is based on social pressures which affect the achievement of behavior. It is normative beliefs that these references’ preferences on performing individual behavior (Chang, 1998). Furthermore, according to Ajzen (2012), individual can have more than one reference at the same time. These references could be friends, partner, family, consultant or coworker depending on specific situation.

### **2.3.3 Perceived behavioral control**

Perceived behavioral control refers to the level of difficulties of executing behavior. Perceived behavioral control is also driven by beliefs. These beliefs could be from result of how resources and obstacles could increase or decrease the achievement of the behavior (Ajzen, 2012).

## **2.4 Research Questions**

- What is the attitude of Thai consumers regarding frozen seafood?
- What are the elements that prevent Thai consumer to buy frozen seafood product?

## **2.5 Frozen Seafood Definition**

Frozen Seafood is from the process of freezing seafood within short period of time. This seafood includes any kind of fishes, squids, crabs, shells and prawn. The aim of freezing process is to reduce the temperature below minus thirty Degree Celsius. This could slow down the growth and number of bacteria which could make seafood has longer shelf life (Garthwaite, 1986).

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Depth interview**

Depth interview is qualitative research which could be one-to-one and a small group of people (8 to 15 respondents). Furthermore, there is no formal set of question from interviewer which allows interviewer to freely form questions based on reaction of respondents. In addition, the interviewer must not lead respondents. This means that respondent feels free to answer the questions (Hawkins et al., 2004). Hence, the research will be based on qualitative study which is one-to-one in-depth interview which is face-to-face.

#### **3.2 Data Collection Methodology**

At the start of each interview, respondents will be given the introduction which includes self-introduction of interviewer, objectives of this study and time frame of interview. For instant, “I am a master degree student at the College of Management, Mahidol University. I would like to invite you to participate in a research study, which aims at collecting data for a project as part of Thematic paper which your individual privacy and confidentiality of the information you provide will be maintained in all published and written data analysis resulting from the study. Your participation should take approximately 40 minutes to an hour.”

Subsequently, after the respondents agree with the interview, respondents will be shown by pictures of frozen seafood to make sure that respondents understand what the terms frozen seafood (e.g., fillet, whole piece, ready-to-cook or ready-to-eat). Then, respondents will be given questions which include as following examples;

- What are the advantages of frozen seafood?
- What are the disadvantages of frozen seafood?
- Which seafood do you prefer?

- How often do you purchase or consume frozen seafood?
- How hard to obtain frozen seafood?
- How to promote frozen seafood?

Additionally, respondents will be questioned for further details, for example, why? What else? This could provide more depth of the information to the study. Moreover, the key topics will be based on attitude components which are shown in following table 3.1

**Table 3.1 Depth interview topics and Keywords which are based on attitude components**

Topic	Keywords
Cognitive Component	Healthy and Well-being
Affective Component	Fresh
	Chemical residues on frozen seafood
	Long storage life
	Value of money
Affective Component	Taste
Affective Component	Modern Life Style
Behavioral Component	Brand
	Convenient
Subjective Norm	Varieties
	Social pressure
Perceived Behavioral control	Family security
	Knowledge/Skill of preparation

### 3.3 Data sampling

There will be ten respondents as qualitative studies require small number of participants and could be able to focus on detail and depth of the data and information. Consequently, target participants would be main grocery shoppers who are resident in Bangkok and Pattani province. Furthermore, these participants would be questioned

about past experience of purchasing and consuming frozen seafood to enhance accuracy of obtained data and information. Moreover, interviews will be taken place at flea markets, wet markets and chilled/frozen food shops to be able to reach the main grocery shopper.



## CHAPTER IV

### DATA ANALYSIS

#### 4.1 Demographic Data

There were ten respondents who participated in this survey. The ages and income of these respondents are illustrated in the following table.

**Table 4.1 Respondents Descriptions**

<b>Respondent</b>	<b>Gender</b>	<b>Age</b>	<b>Occupation</b>
A	Female	38	House wife
B	Female	40	Employee
C	Female	29	Employee
D	Male	35	Government officer
E	Female	60	House wife
F	Female	50	Business owner
G	Male	52	Business owner
H	Female	52	House wife
I	Female	35	House wife
J	Male	36	Restaurant owner

#### 4.2 Findings

According to the conceptual framework which is explained in chapter III, the findings and discussions would be divided based on attitude components which are Cognitive Component, Affective Component, Behavioral Component and Subjective Norm.

##### 4.2.1 Cognitive Component

#### **4.2.1.1 Healthy and Well-being**

Respondents could understand that there are many benefits of eating frozen seafood such as low fat, high protein and contain mineral and good fat which they believe that eating frozen seafood would keep them healthy by eating them.

“I prefer frozen seafood especially salmon and white meat fish as they provide high protein and necessary minerals and vitamins. Moreover, it contain less saturated fat and have more good fat such as omega 3 compare to other protein sources, for instant, chicken or pork. Furthermore, when I am on diet, I mainly have fish as a main dish and it makes me in good shape.” (Respondent A)

“By having seafood regularly, I do not need to take supplement pills to keep me healthy and I believe that those supplement pills are chemical made, not natural unlike seafood.” (Respondent G)

#### **4.2.1.2 Fresh**

There are conflicts for this issue as eight respondents believe that chilled seafood is fresher than frozen seafood. However, others know that with the right freezing methods, frozen seafood is fresher than chilled seafood.

“I believe that frozen seafood is kept for long time, perhaps more than a month, there is no way that frozen seafood will be fresher than chilled seafood on the shelf.” (Respondent E)

“I cannot identify frozen seafood whether they are fresh or not, as they all are kept in package, hence, I cannot smell or touch them. Therefore, I do not believe in frozen foods that they are fresh.” (Respondent F)

“I have noticed that frozen seafood is often on sales, so I believe that they cannot sell well. Hence, these products must be kept for long time till they are out of date.” (Respondent C)

“To be able to sell in well-known super or hyper market, I believe that those frozen seafood is well quality checked. Besides, those Japanese foods which are popular these days, most fish are frozen anyway, so I believe that frozen seafood is fresh.” (Respondent G)

#### **4.2.1.3 Chemical residues on frozen seafood**



Most frozen seafood is processed in manufacturer plants. Hence, this makes consumers feel conscious that frozen seafood would be added some chemical for some processes. Even though, there are certificates to ensure the food safety.

“When I think of frozen seafood, they definitely come from some manufacturing plants. And when I think about these plants, I can think nothing but chemical added to the food.” (Respondent E)

“I do not trust in food safety certificates which label on package. You know some of them are easily obtained. Plus, there is a lot of news that even famous brands have defects.” (Respondent D)

#### **4.2.1.4 Long storage life**

All participants agree that frozen seafood is able to be kept for long time. However, some does not know how long they could be kept to maintain their nutrition and flavor.

“Of course, frozen seafood can be kept for long time but I do not know how long I can keep them, so I usually cook them within two weeks after I purchased.” (Respondent I)

#### **4.2.1.5 Value of Money**

For the issue, value of money, all respondents perceive that frozen seafood is relatively expensive compare to chilled seafood. Some could understand that there are more cost of production such as freezing and storage process. Furthermore, they tend to purchase frozen seafood during promotion or discount.

“The price of frozen seafood is very expensive compare to chilled food which I could buy from wet market. For example, I could buy shrimp at wet market for a kilogram whereas with the same amount of money, I could only get two hundred fifty grams for frozen one.” (Respondent I)

“The reasons which make the price of frozen higher than chilled seafood are its processes such as freezing and inventory process, also transportation cost, if they are imported. Hence, I often purchase frozen seafood during they are on sales or when they have promotion like buy one get one free.” (Respondent G)

## **4.2.2 Affective Component**

### **4.2.2.1 Taste**

All respondents concern about the quality of frozen seafood which is the taste or flavor of frozen seafood could be changed by long storage time. In addition, some mention about the atmosphere where the frozen seafood is eaten. The other issue concerning the taste of seafood is that manufacturers add some chemical to seafood which makes the taste different than the original.

“When I purchase frozen seafood and cook for my family, it seems that they do not complain anything about the taste, but for myself, I feel that it does not have that flavor of fresh seafood.” (Respondent B)

“It really depends on where I eat frozen seafood. The taste is same as chilled seafood when I have them at restaurants. Even I know that it used to be frozen, I cannot be different. However, if we purchase and have them at home, I feel like they have less taste.” (Respondent E)

“I do not use frozen seafood at my restaurant, it just tastes different. For example, the frozen shrimp would taste like plastic or rubber. They must add something to these shrimps during their processes. I do not want my customers experience that kind of taste.” (Respondent J)

#### **4.2.2.2 Modern Life style**

These days, many people have less time to go to shopping for food or meal planning. Therefore, they tend to buy frozen seafood and store in the freezer.

“I could only shop for food once a week or maybe less. Therefore, the reason I buy frozen seafood is that I could keep them for long which match with my life style. So, I do not need to go for food shopping often and have time to do something else.” (Respondent C)

#### **4.2.2.3 Brand**

Brand is one of the most important factors that help consumer feel that the frozen seafood is reliable to eat. By comparing famous brand to unknown brand, consumers tend to purchase famous brand.

“Every time when I buy frozen seafood, I always go for famous brand, even though the price is more expensive than other brand. It just makes me feel more confident that I could get fresh and safe product.” (Respondent F)

### **4.2.3 Behavioral Component**

#### **4.2.3.1 Convenient**

Most frozen seafood is only sold in super market or hyper market, hence it is not convenient to travel and purchase very often. Another reason is that the size of a frozen seafood package is large which makes it heavy to carry.

“I can purchase frozen seafood in super market or hyper market and I go there like once a week. It is so far my place.” (Respondent A)

“I only buy frozen seafood if I go shopping with my family as I do not have a car. I would not want to buy a huge pack of frozen seafood and carry on BTS or a bus back home. It is just too heavy.” (Respondent C)

#### **4.2.3.2 Varieties**

Frozen seafood offers more varieties of products which could come from other regions or countries.

“This is the best thing for frozen seafood. I could eat other seafood that is not available in Thailand such as New Zealand muscle or Salmon. I have more choices to choose!” (Respondent D)

### **4.2.4 Subjective Norm**

#### **4.2.4.1 Social Pressure**

When respondents purchase frozen seafood, they tend to think about the preferences of family members. This is also another main issue that affects the purchasing decision of the buyer.

“Every time before I go for grocery shopping, I would ask family member what they would like to eat, then I would plan what to buy according to their requests.” (Respondent I)

“One of my sons has allergy from shrimp, so I do not buy any shell fish product.” (Respondent H)

#### **4.2.4.2 Family Security**

All respondents agree that by having frozen seafood store at home could make their family always have food to eat and able to keep for long period. This makes them feel more carefree from lack of food.

“I always have frozen seafood in my fridge, so when we want to eat seafood, I just can cook them anytime.” (Respondent F)

“During raining season, I would not want to go for grocery shopping, I can just cook frozen seafood that I keep at home.” (Respondent A)

#### **4.2.5 Perceived Behavioral Control**

##### **4.2.5.1 Knowledge and Skill of Preparation**

Most frozen seafood in the market are fillet and do not add any other ingredients which make more difficulties to prepare the meal. Therefore, it requires knowledge and skill to cook frozen seafood. Moreover, as frozen seafood is required the process of thawing before cooking, hence, it takes time to defrost.

“I do not know how to cook well; hence, I cannot cook many menus from this seafood. Therefore, I can cook only very basic meal like steam or boil fish.” (Respondent C)

“When I prepare the meal of frozen seafood, I need to wait for longtime until it is defrosted. I know that I could use microwave to help them defrost faster but sometimes it is cooked! It makes me frustrated every time when I cook them.” (Respondent E)

## CHAPTER V

### DISSCUSSION

#### 5.1 Conclusion

After analyze all data which obtain from depth interview, each attitude components have positive and negative dimensions in its own factors. Since Ajzen (2001) defined attitude as “a summary evaluation of psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant, and likeable-dislikable”. I would like to illustrate these factors in positive and negative aspects for each component.

For cognitive component, the positive factors are “Healthy and Well-being” and “long storage life”. Respondents perceive that frozen seafood has high nutrition which contains low saturated fat, high protein and minerals which could make them healthy. In addition, they agree that they could keep them for long period. Whereas, for negative factors, they believe that frozen seafood are not fresh compare to chilled seafood as they cannot understand the processes and benefits of freezing technology. Furthermore, respondents believe that manufacturers add some chemical to frozen seafood and they feel conscious about the issue. Furthermore, the price is one of the main issues that consumers believe that frozen seafood is too expensive compare to chilled seafood.

There are arguments for Taste factor in affective component. Some respondent cannot tell the differences between frozen seafood and chilled seafood. However, the expert, who is restaurant owner, could tell the difference in some products and does not use frozen seafood. However, others cannot tell the differences if they do not know that they are originally frozen. Furthermore, frozen seafood could fit to modern lifestyle where people do not have much time to go for grocery shopping; hence, they can keep the products at home for long time. Moreover, consumers feel that famous brands have more reliability for food safety.

For behavioral component, consumers perceive that it is difficult to obtain frozen seafood as they are only sold in few places such as super market or hyper market. Besides, their packages are too heavy to carry. However, consumers could have more choices of seafood either from other countries or regions.

As Thai people are collectivism, for subjective norm, social pressure and family security are heavily affects the decision making. Therefore, they care about their family members' preferences and also want to provide family security by always having food at home.

The last topic is perceived behavioral control which emphasis on how hard to obtain or achieve the task. The main concern for consumers is that frozen seafood takes more time to prepare as it needs to be defrosted. Another reason is that some people lacks of preparation skill.

By understanding positive and negative aspects about attitude toward Thai consumers, consequently, we could know which factors drive their behavioral intention and try to change their attitude.

## **5.2 Recommendations**

The major issue for frozen seafood is that consumers believe that frozen seafood is not fresh compare to those chilled seafood. However, it is not always true as these days, the technology and logistic system are far more advance. Therefore, it is best to educate consumers that frozen seafood is fresh. For example, the package should be labeled that it is fresh like from the sea. Another example is to offer free trial meals which cooked from frozen seafood and chilled seafood, then, let consumers know that frozen seafood is fresher or same as chilled seafood. Furthermore, the package should have chemical-free labeled to remove the nervousness for consumers.

To improve the convenient for consumers, the size of the package should be varies from small to large size to reach more consumers such as couple or family with children. Furthermore, the company should develop products that are ready to cook as some consumer lack of knowledge and skills of food preparation. Moreover, cooking recipes should be labeled to help this kind of consumers could make more varieties of meal. Additionally, to be able to reach more buyers, company should place their frozen

seafood product via other channels such as convenient store or traditional wet market. However, those frozen seafood should be different from the existing products that are sold in the wet market as Thai people still believe that chilled seafood are fresher.

### 5.3 Limitations

As this survey was conducted in Bangkok and Pattani which are located next to the sea, hence, the attitude of respondents could be different from people who live in northern and north eastern part of Thailand.





## REFERENCES

- Ajzen, I. (2001). Nature and Operation of Attitudes. *Annual Review Psychology* (52), 27-58.
- Ajzen, I. (2011). The theory of planned behavior: Reactions and reflections. *Psychology & Health*, 26(9), 1113-1127.
- Ajzen, I. (2012). Martin Fishbein's Legacy: The Reasoned Action Approach. *The ANNALS of the American Academy of Political and Social Science*, 640(1), 11-27.
- Fishbein, M., & Ajzen, I. (2005). Theory-based Behavior Change Interventions: Comments on Hobbis and Sutton. *Journal of Health Psychology*, 10(1), 27-31.
- Garthwaite, T. (1986). The Frozen Fish Chian. *An Open Learning Module for the Seafish Open Tech Project*.
- Henry, G. T., & Mark, M. M. (2003). Beyond Use: Understanding Evaluation's Influence on Attitudes and Actions. *American Journal of Evaluation*, 293.
- Holland, R. W., Vries, M. d., Hermsen, B., & Knippenberg, A. v. (2012). Mood and the Attitude-Behavior Link: The Happy Act on Impulse, the Sad Think Twice. *Social Psychological and Personality Science*, 3(3), 356-364.
- Division of agricultural business research of Krungthai Bank. (2010). อุตสาหกรรมอาหารทะเล  
แช่เย็นแช่แข็ง. สารวิจัยธุรกิจ 14, 21 (กันยายน) 1-2.
- Lea, E., Worsley, A., & Crawford, D. (2005). Australian Adult Consumers' Beliefs About Plant Foods: A Qualitative Study. *Health Education & Behavior*, 32(6), 795-808.
- Li, J., Mizerski, D., Lee, A., & Liu, F. (2009). The relationship between attitude and behavior: an empirical study in China. *Asia Pacific Journal of Marketing and Logistic*, 21(2), 232-242.
- Overwalle, F. V., & Siebler, F. (2005). A Connectionist Model of Attitude Formation and Change. *Personality and Social Psychology Review*, 9(3), 231-274.



Statista. (2014). Fish and fisheries products top 10 exporting countries 2012. Retrieved October 2, 2014, from <http://www.statista.com/statistics/268269/top-10-exporting-countries-of-fish-and-fishery-products/>

