

Aalesund University College

# Master's degree thesis 

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Consumers` perception of quality, attitude and consumption intention: A study of young Spanish students` consumption of Norwegian salmon

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## Dedications

I (Suleka Ali Somo) dedicate this thesis to my mother

- Mrs. Halima Ali Ulusso

I (Farah Naz) dedicate this thesis to my parents - Mr. Masud Akhtar \& Mrs. Nasreen Akhtar


#### Abstract

Purpose - The main purpose of this study is to explore the consumption attitude of young Spanish consumers` towards eating Norwegian salmon. Another purpose is to find out the perception of the people regarding Norwegian salmon as a typical product of Norway. The role of country of origin and brand awareness on perceived quality was also taken into account.

Design/Method/Approach - Theory of reasoned action is used as a framework to explore the consumers` attitude and consumption intention towards Norwegian salmon. Attitude, subjective Norm in the traditional theory is extended with perceived quality, perceived benefits, perceived risks, perceived price, perceived inconvenience and trust in regulatory control in order to explain attitude, behavioral consumption intention and consumption frequency. The role or country of origin image and brand awareness in evaluation of perceived quality is also included in the extended model. The overall model is divided into four submodels. Four regression analyses are applied to get the results. The first regression of model 1 explored the effect of country of origin image and brand awareness on perceived quality. The second regression of model 2 explored the effect of perceived quality, perceived benefits, perceived price, perceived risks, perceived inconvenience and trust in regulatory control on attitude. The third regression of model 3 explored the effect of attitude, subjective norm and consumption frequency on behavioral consumption intention. And the fourth regression of model 4 showed the effect of behavioral consumption intention on consumption frequency. Data from survey of two hundred (200) students from university of Cantabria (Spain) was used.

Findings - The empirical findings shows that country of origin image and brand awareness has a significant positive association with perceived quality. In addition, perceived quality, perceived benefits, and trust in regulatory control have a significant positive effect on attitude. However, perceived inconvenience, perceived price and perceived risks have negative effect on attitude. The effect of perceived inconvenience is significant on attitude but perceived risks and perceived price showed an insignificant negative effect. Attitude, subjective norms and consumption frequency have a significant positive association with behavioral consumption intention. And the association between behavioral consumption intention and consumption frequency is also positive and significant. Hence, findings shows that the attitude of young Spanish consumers towards eating Norwegian salmon is positive and they also perceive 'salmon' as a typical product of Norway.

Limitation of the study- A major limitation of the study is that the results are not the representative for the whole Spanish population, because of the sample size and its sociodemographic characteristics. Because of their age and the fact that the majority lives at home with their parents gives different results regarding perceived price and perceived inconvenience than perhaps consumers with other ages and lifestyles. Living in the coastal areas does not represent the attitude and consumption intention of consumers living further form the coastline. Secondly, the study involved in the exploration of consumption attitude only towards the fish species of salmon.


Managerial Implications- it is advised to the Norwegian seafood council (NSC) to advertise more towards the younger segment regarding country image, nutrition value cooking recipes of Norwegian salmon, emphasizing its health benefits and convenience. The public health authorities and the producers should focus on convincing consumers that salmon not just provide benefits towards health but also convince them why the fish is good and what other tangible benefits they can get from eating of Norwegian salmon other than the nutrition and omega 3 such as pleasure and joy. This can be done through marketing communications.

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Suleka Ali Somo
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## Table of contents

CHAPTER 1: INTRODUCTION. ..... 11
1.1Background of the study. ..... 11
1.2 Purpose of the study ..... 12
1.3 Research Problem ..... 12
1.4 Justification of the study ..... 13
1.5 Scope of the study ..... 14
1.6 Organization of the study ..... 15
1.7 Summary ..... 16
CHAPTER 2: NORWAY AS AN EXPORTER AND SPAIN AS AN IMPORTER OF NORWEGIAN SALMON - AN OVERVIEW
2.1 Introduction ..... 17
2.2 Norway: As an Exporter ..... 17
2.2.1 Geography, Climate and Demographics ..... 18
2.2.2 Politics and Economy ..... 19
2.2.3 Industry structure ..... 19
2.2.4 Production cycle ..... 20
2.2.5 Barriers to entry ..... 21
2.3 The role of the Norwegian Seafood Council ..... 22
2.3.1 Labeling and trademarks. ..... 23
2.3.2 Collaboration between NSC and Norwegian companies ..... 23
2.4. Spain: As an importer of salmon ..... 24
2.4.1 Geography, Climate and Demographics. ..... 25
2.4.2Politics and Economy ..... 26
2.4.3Distribution structure. ..... 26
2.4.4 The consumption patterns on fish in Spain ..... 28
2.4.5 Choice of purchasing place and changes in consumption patterns. ..... 30
2.5 Summary ..... 32
CHAPTER 3 LITERATURE REVIEW ..... 33
3.1 Introduction ..... 33.
3.2 Theory of reasoned action ..... 33
3.3 Perceived Quality ..... 34
3.4 Country of Origin. ..... 35
3.5 Brand Awareness. ..... 36
3.6 Perceived Benefits ..... 36
3.7 Perceived Risks ..... 37
3.8 Trust in regulatory Control ..... 38
3.9 Perceived Price ..... 38
3.10 Perceived Inconvenience ..... 39
3.11 Attitude ..... 40
3.12 Subjective Norms ..... 41.
3.13 Behavioral consumption intention ..... 42
3.14 Summary ..... 42
CHAPTER 4 RESEARCH MODEL AND HYPOTHESES ..... 43
4.1 Introduction ..... 43
4.2 An overview of research model ..... 43
4.2.1 Dependent and independent variables ..... 44
4.3 Relationships between the constructs and corresponding hypotheses ..... 46
4.3.1 Country of origin and perceived quality ..... 46
4.3.2 Brand awareness and perceived quality ..... 47
4.3.3Perceived quality and attitude ..... 47
4.3.4 Perceived benefits, perceived risks and attitude ..... 48
4.3.5 Perceived Inconvenience and attitude ..... 49
4.3.6 Perceived price and attitude. ..... 49
4.3.7 Trust in regulatory control and attitude. ..... 49
4.3.8 Behavioral consumption intention, attitude and subjective norms ..... 50
4.3.9 Behavioral consumption intention and consumption frequency ..... 51
4.4 Summary of Hypotheses ..... 51
4.5 Summary ..... 52
CHAPTER 5 RESEARCH METHODOLOGY ..... 53
5.1 Introduction ..... 53
5.2 philosophical positions ..... 53
5.3 Research design ..... 54
5.4 Empirical setting and Geographical Location of the study ..... 54
5.5 Data Collection ..... 56
5.5.1 Primary and Secondary data ..... 56.
5.5.2Survey and Procedure ..... 56
5.6 Measurement of the constructs' ..... 57
5.6.1Country of origin Image ..... 57
5.6.2Brand awareness ..... 58
5.6.3Perceived quality ..... 58
5.6.4Perceived price .....  .58
5.6.5Perceived inconvenience ..... 58
5.6.6Perceived risk ..... 59
5.6.7Perceived benefits ..... 59
5.6.8Trust in Regulatory control ..... 59
5.6.9 Subjective norms. ..... 60
5.6.10 Attitude ..... 60
5.6.11Behavioral intention towards consumption. ..... 60
5.6.12Consumption frequency ..... 61
5.7 Summary ..... 61
CHAPTER 6 MEASUREMENTS ASSESSMENT AND DATA VALIDATION ..... 62
6.1 Introduction ..... 62
6.2 Data Screening and Cleaning ..... 62
6.3 Descriptive Statistics ..... 62
6.3.1 The Sample ..... 62
6.3.2 Descriptive statistics of univariate and multivariate variables ..... 63
6.4 Reliability of scales ..... 67
6.5 Convergent and discriminant validity ..... 69
6.6 Summary ..... 70
CHAPTER 7 DATA ANALYSIS AND EMPIRICAL FINDING ..... 72
7.1 Introduction ..... 72.
7.2 Model estimation ..... 72
7.3 Correlation matrix and regression analysis ..... 72
7.3.1 Submodel 1 ..... 73
7.3.2 Sumodel 2 ..... 74
7.3.3 Submodel 3 ..... 76
7.3.4 Submodel 4 ..... 77
7.4. Comparison of responses by gender ..... 78
7.4.1 Regression analysis and gender differences ..... 80
7.4.1.1 Submodel 1 Grouped by gender ..... 81
7.4.1.2 Submodel 2 Grouped by gender ..... 81
7.4.1.3 Submodel 3 Grouped by gender ..... 82
7.4.1.4 Submodel 4 Grouped by gender ..... 82
7.4.2 ANOVA and gender differences. ..... 83
7.5 Estimation Results ..... 85
7.5.1 Normality, linearity, homoscedasticity, independence of residuals ..... 86
7.6 Summary of hypotheses ..... 87
7.7 Summary ..... 88
CHAPTER 8 SUMMARY, DISCUSSION, CONCLUSION, IMPLICATION AND LIMITATIONS ..... 89
8.1 Introduction ..... 89
8.2 Summary of findings ..... 89
8.2.1 Factor analysis and reliability ..... 89
8.2.2 Validity ..... 89
8.2.3 Descriptives ..... 90
8.2.4 Regression results ..... 91
8.2.5 Hypotheses ..... 92
8.3 Discussion and conclusion ..... 93
8.4 Limitation and future research ..... 96
8.5 Implications ..... 96
ReferencesAPPENDICES

## List of figures

Figure 1.1 Organization of the study ..... 15
Figure 2.1 Major countries producing Atlantic salmon ..... 17
Figure 2.2 Map of Norway ..... 18
Figure 2.3 Industry structure, top ten players of farmed Atlantic salmo ..... 20
Figure 2.4 Atlantic salmon life/production cycle ..... 21
Figure 2.5 The "Norge" label, the quality label and environmental labeling ..... 23
Figure 2.6 Joint promotion-cooperation, shared materials ..... 24
Figure 2.7 Joint promotion-cooperation, Demonstrations ..... 24
Figure 2.8 Map of Spain ..... 24
Figure 2.9 Mercasa markets in different regions of Spain. ..... 27
Figure 2.10 Fish department of Merca Santander ..... 28
Figure 2.11 Fish supply in Spain ..... 28
Figure 2.12 The fish market "Mercado Esperanza" of Santander ..... 31
Figure 3.1 The theory of reasoned action ..... 33
Figure 3.2 Extrinsic and Intrinsic cues of perceived quality ..... 34
Figure 4.1 The overall model ..... 44
Figure 4.2 Submodel 1: perceived quality as dependent variable ..... 44
Figure 4.3 submodel 2: Attitude as dependent variable ..... 45
Figure 4.4 Submodel 3: Behavioral consumption intention as dependent variable ..... 45
Figure 4.5 submodel 4: Consumption frequency as dependent variable ..... 46
Figure 5.1 The city of Santander-location ..... 55
Figure 8.1 Mean scores of responses ratings by constructs ..... 91
Figure 8.2 Results of structural model (standardized regression coeffecients) ..... 93

## List of Tables

Table 2.1 Top ten producers` of Norwegian ..... 20
Table 2.2 Spanish imports of samlon. ..... 25
Table 2.3 Consumption of fresh and frozen fish in Spain in 2012 ..... 29
Table 2.4 Consumption of other seafood in Spain in 2012 ..... 29
Table 2.5 Changes in fish consumption ..... 32
Table 4.1 Summary of hypotheses ..... 51
Table 6.1 Socio-demographic characteristics and consumption frequency of the respondents ..... 63
Table 6.2 Univariate descriptive statistics ..... 64
Table 6.3 Multivariate descriptive statistics ..... 65
Table 6.4 KMO and Bartlett's test ..... 68
Table 6.5 Results from factor analysis. ..... 69
Table 6.6 Results from reliability analysis ..... 70
Table 6.7 Assessing discriminant validity ..... 70
Table 7.1 Regression equation for submodel 1 ..... 72
Table 7.2 Regression equation for submodel 2 ..... 73
Table 7.3 Regression equation for submodel 3 ..... 73
Table 7.4 Regression equation for submodel 4 ..... 73
Table 7.5 Correlation matrix submodel 1 .....  .74
Table 7.4 Regression analysis submodel 1: Dependent variable perceived quality ..... 74
Table 7.5 Correlation matrix submodel 2 ..... 75
Table 7.6 Regression analysis submodel 2: Dependent variable Attitude ..... 76.
Table 7.7 Correlation matrix submodel 3 ..... 77
Table 7.8 Regression analysis submodel 3: Dependent variable behavioral consumption intention ..... 77
Table 7.9 Correlation matrix submodel 4 ..... 78
Table 7.10 Regression analysis submodel 4: Dependent variable consumption frequency. ..... 78
Table 7.11 Regression analysis submodel 1 grouped by gender: Dependent variable perceived quality ..... 79
Table 7.12 Regression analysis submodel 2 grouped by gender: Dependent variable Attitude ..... 80
Table 7.13 Regression analysis submodel 3 grouped by gender: Dependent variable behavioral consumption intention ..... 80
Table 7.14 Regression analysis submodel 4 grouped by gender: Dependent variable consumption frequency ..... 81
Table 7.15 ANOVA results regarding gender differences ..... 84
Table 7.16 Summary of hypotheses ..... 88

## List of Appendix



## CHAPTER 1. INTRODUCTION

### 1.1 Background of the study

Spain is the largest seafood market in the EU (European Union) and ninety percent (90\%) of the salmon imported into Spain comes from Norway. Spain is therefore an important seafood market for Norwegian exports. The consumption of seafood is so high that the country`s own fish production can only cover one-third of the total demand, and the remaining two-third is covered through imports. The annual consumption and expenditure per capita is 35 kg and the Spanish consumers` have a high fish consumption frequency because of the country's culinary traditions (Polanco et al., 2012).

A challenge in the Spanish market is that the high need for imports attracts many countries that compete with Norway, even though it might not be salmon they offer. Despite the local and international competition, there are still positive numbers showing that the Spanish consumers` do not only choose the fresh local Mediterranean fish, but also have a high consumption of imported cold-water fish such as salmon (Polanco et al., 2012). The sales of Norwegian salmon to Spain reached record levels in 2014, showing that the consumers` purchasing power is recovering from the economic crisis (Innovation Norway, 2014). The consumption of seafood is more traditional in the southern European countries, especially among consumers living near the coast. According to Ueland et al. (2012) consumers` living closer to the coastline will give higher scores regarding the perceived benefits of eating seafood (Jacobs et al., 2015). We are therefore expecting that the consumers living in these areas will give higher scores in attitude towards Norwegian salmon and fish in general. Studies regarding country of origin (COO) show that there is a positive significant relationship between country of origin and perceived quality (Teas and Agarwal, 2000). If a country is perceived as having specific capabilities or attributes, then the COO becomes a factor in the quality measurement of specific products (O'Shaughnessy, 2002) in (Kalicharan, 2014). This is the case in this study regarding Norway, having a long tradition and expertise in producing and exporting salmon. Another study shows that a high level of brand awareness will give higher consumer preferences towards a product because of its higher quality evaluation (Dodds et al., 1991). Several studies have also found a correlation between perceived benefits, perceived risks and attitude (Huang, 1993 and Jarvenpaa et al., 2000) in (Choi et al., 2013). In the study of Verbecke and Vackier (2005), price has a negative effect on the attitude towards seafood consumption. According to Olsen et al. (2007) perceived inconvenience of fish negatively related to both attitude toward fish and fish consumption. It is likely that consumers generally expect that food products are safe (Angulo and Gil, 2007). The study showed a strong relationship between confidence in public authorities and perception of possible food-related risks (Jacobs et al., 2015). There is a positive relationship between attitude and intention to consume seafood (Honkanen et al., 2005). Another variable that affects the consumption intention is subjective norm. Literature shows that higher social pressures from colleagues and one`s own moral responsibility to buy and prepare fish results in a stronger intention to consume fish (Verbeke and Vackier, 2005).

### 1.2 Purpose of the study

The main purpose of this study is to explore young consumers` attitude and consumption intention of Norwegian salmon in the Spanish market and to understand if and how COO image and brand awareness affect perceived quality. Another purpose is to find out if the young Spanish consumers have a positive image of Norway and if they perceive salmon as a typical product of Norway. The conceptual model of this study is the combination of the theory of reasoned action with extended variables of perceived benefits, perceived risks, perceived inconvenience, perceived price and trust in regulatory, COO image, brand awareness and perceived quality. The theory of reasoned action explores the consumers` attitude and intention towards consumption of Norwegian salmon and the COO image and brand awareness will clarify the role of perceived quality and its consequences on the attitude and fish consumption intention in Spain.

### 1.3 Research Problem

Many studies have used different models in explaining consumers` behavior towards seafood consumption. These models include the theory of reasoned action (Olsen, 2001), the theory of planned behavior (Scholderer and Grunert, 2001), and the classical attitudebehavior models (Trondsen et al., 2003 and Trondsen et al., 2004) in (Verbeke and Vackier, 2005). The statement from the Norwegian Seafood Council "The best seafood comes from Norway" is an example of using COO as a marketing technique. The main goal is to inform and convince consumers in other countries that salmon is a typical product of Norway and that this country has an expertise in producing and exporting salmon. Therefore, this product must be associated with high quality, positive attitude, positive consumption intention and a higher consumption frequency.

The main objective of this study is to investigate the young consumers` attitude and consumption intention towards Norwegian salmon in the Spanish market by applying an extended model based on the theory of reasoned action.

More specifically, five research questions are formulated:

1) Do the young Spanish students have a positive image of Norway, and do they know that salmon is a typical product of Norway?
2) Do country of origin image and brand awareness have a positive effect on the perceived quality of the product?
3) Do perceived quality, perceived risks, perceived benefits, trust in the Spanish regulatory control and perceived price affect the consumers' attitude towards Norwegian salmon?
4) Do their attitude, subjective norms and consumption frequency influence their consumption intention in a positive way?
5) Does their consumption intention also affect their consumption frequency?

### 1.4 Justification of the study

Businesses exist to make a profit and in order to succeed, marketers should understand consumers` and their evaluation criteria. This research is basically designed to have practical implications for businesses interested in exploring new market segments.

Marketers can see that by exploring the relationship between COO image, brand awareness, perceived quality and especially perceived benefits and perceived risk regarding food products, it is possible to find out which attribute has a major effect on consumers` attitude and consumption intention towards a certain product, and focus on that particular attribute in their marketing campaigns. For example, if COO is the most important attribute for the evaluation of product quality, then the marketers should focus their advertising on COO image. If factors such as perceived benefits and perceived risks are of major concern, then the marketers can focus on informing the public through ads and labeling that this product is safe and focus on promoting its health benefits. Our chosen segment consists of young Spanish consumers` aged 18 to 35 , and through a survey this study investigates which factors are most significant for their attitude and consumption intention towards Norwegian salmon. In addition, it will investigate if these factors influence their consumption frequency. The aim of the Norwegian Seafood Council (NSC) is to increase the awareness of all consumers' in Spain and all over the world that "The
best seafood comes from Norway". This message is communicated through advertisements on TV, internet, magazines etc. As a consequence these consumers should be aware that salmon is a typical product of Norway and it has a high quality. The main segment of NSC consists of adults with small children, especially the housewives, which are often responsible for the fish purchase and preparation. We see a potential in young Spanish consumers as an unexplored segment and we want to find out if these advertisement have reached this segment as well. If they are aware that salmon is a typical product of Norway, know about its product typicality and have a good attitude and consumption intention towards this product, then this segment can have a market potential that should be investigated further by the NSC. If that is the case, this study could indicate their level of awareness toward the NSC logo and advertisements. In addition, if inconvenience in preparation of fish and price represents a significant problem to them, then advertisements can be customized accordingly, to their perception of benefits, risks, and attitude in general. If the image of Norway is good and has an effect on perceived quality, then they can focus on advertisement based on country of origin image on this segment too. This will show if there is any current interest in salmon among these young consumers. If this segment does not show positive attitude, then the NSC could find out a way to change their behavior. When these young consumers will be adults with children they will enter the segment already reached by the NSC. Probably, the adults with children of the next generation will behave differently than the current generation. By exploring the attitudes among the younger consumer segment, the NSC can see the changes in tastes and preferences of the new generation, and prepare their strategies based on changing behaviors.

### 1.5 Scope of the study

This thesis is basically written to analyze the attitude and the consumption intention of Norwegian salmon in the young Spanish consumer market. The sample is limited to two hundred ( $\mathrm{n}=200$ ) students from the University of Cantabria in Spain. The data was collected through a survey by asking questions about COO image, brand awareness, price perception, perceived quality, and other items related to attitude and consumption intention.

### 1.6 Organization of the study

The study is organized as follows:


Figure 1.1 : Organization of the study

Chapter one is an introduction which includes the background of the study, with some relevant theory and the research problem with the questions of the study. Finally, justification of the study, its practical implications and organization of the study is discussed.

Chapter two is about the supply from Norway and consumption patterns in Spain. The Norwegian fishing industry and its supply chain activities are described here and the work of the NSC for the marketing in the Spanish market is also taken into account. Regarding the Spanish market, we will look at consumption patterns, species preferences and purchasing places.
Chapter three is a review of the literature. It includes the theoretical framework of traditional theory of reasoned action with attitude, subjective norms and consumption intention. For this study the theory of reasoned action is extended with variables such as COO image, brand awareness, perceived price, perceived quality, perceived benefits, perceived risks, trust in regulatory control and perceived inconvenience.

Chapter four is about the basic research model and hypotheses. The overall model is divided into four submodels. These will be analyzed separately with four regression analysis.

Chapter five is about the research methodology. Which includes philosophical position, research design, the empirical setting and geographical location of the study with the survey procedure and the measurements of the constructs.

Chapter six includes data screening, descriptive statistics and the description of the sample. The factor analysis, reliability and validity analysis are also included in this chapter.
Chapter seven includes the model estimation, the correlation analyses and regression analyses of the four submodels. In addition to the empirical findings, the assessment of normality and a comparison of the genders are also investigated.

Chapter eight includes the summary of findings, discussion, conclusion, limitations, future research and implications.

### 1.7 Summary

In this chapter the background of the study is provided. This is followed by the research problem, justification of the study, scope of the study and organization of the study. The organization of the study is divided into eight chapters.

## CHAPTER 2. NORWAY AS AN EXPORTER AND SPAIN AS AN IMPORTER OF NORWEGIAN SALMON: AN OVERVIEW

### 2.1 Introduction

In the previous chapter the background of the study, research problems, justification, scope and organization of the study were discussed. In this chapter, an overview Norway as an exporter of Norwegian salmon, its geography, socio-demographic characteristics, industry structure, supply chain processes of Norwegian salmon and barriers to entry in salmon industry are presented. In addition, Spain as an importer of Norwegian salmon, its geography and socio-demographic characteristics, distribution process and the consumption patterns of fish are discussed. The role of NSC in promoting Norwegian seafood in all of its major market including Spain is also discussed in this chapter.

### 2.2. Norway as an exporter

Norway, as the second largest exporter of seafood products, exports to more than 130 nations all over the world. The value of exports of Norwegian salmon and trout was NOK 42.2 billion in 2013. There was a substantial increase of thirty-five percent ( $35 \%$ ) in the value of exports from 2012 (Harvest, 2014). Salmon plays a significant role in these export figures.

Salmon is the common name for many species of fish belonging to the salmonidae family, such as Atlantic salmon, trout, etc. About sixty percent (60\%) of the salmon available in the market is farmed. Norway is one of the biggest producers of salmon because of its coastal geography and seawater temperatures, which favours salmon production.


Salmon from Norway is a versatile product, which can be presented in various ways, such as smoked, sushi and fresh, as well as for ready-to-eat meals. It provides nutrients such as amino acids, omega-3 fatty acids, vitamin D, vitamin B12, iodine, and many others which are not available in other foods. Spain is the $5^{\text {th }}$ biggest market for salmon.
Figure 2.1 shows the contribution of major countries producing Atlantic Salmon. Norway, Chile and UK dominate the production. Sixty-three percent (63\%) of the total production of Atlantic salmon is produced in Norway.

### 2.2.1 Geography, Climate and Demographics

The Kingdom of Norway has an area of 385,252 square kilometers with a population of $5,109,059$. It comprises the western part of Scandinavia, in Northern Europe. Norway`s rugged coastline includes huge fjords and thousands of islands (Wikipedia, 2015a).


Figure 2.2 Map of Norway (Worldatlas, 2015)

Much of the country's landscape is mountainous. The southern and western parts of Norway are hit by Atlantic storms and the winters are not as cold as in the east and north. There are big seasonal variations. From the end of May to the end of July the sun does not completely set in northern areas such Tromsø and the extreme northern county of

Finnmark (see the map in figure 2.2). This is why Norway is called "The land of the midnight sun". The rest of the country gets twenty hours of daylight per day. In contrast, from late November to late January the sun does not come up in the far north parts and the rest of country has very short days. Daylight hours in the counties of Møre og Romsdal and Nord Trøndelag (in figure 2.2) fall into under this category (Wikipedia, 2015a).

### 2.2.2 Politics and the Economy

Norway has a unitary constitutional monarchy with a parliamentary system of government where the king of the Norway is head of state and the prime minister is head of the government. Power is divided into the legislative, judicial and executive branches of the government, as laid down in the constitution. Norway ranks as the second wealthiest country in the world in monetary terms with the highest capital reserves per capita. It has the second highest GDP per capita and fourth highest GDP (at purchasing power parity) per capita in the world. It has a mixed economy with a wealthy capitalist market as well as a social democracy. The free market and large state ownership co-exist. The country has valuable natural resources such as petroleum, fisheries, forests, etc. In the 1960 s, as a result of the discovery of large reserves of petroleum and natural gas, there was an economic boom. Today, the country has the highest living standard in the world. Salmon farming has grown enormously in Norway since the mid-70s. The Salmon industry has made a significant contribution to the nation's prosperity (Wikipedia, 2015a).

### 2.2.3 Industry Structure

Salmon, which is commercially available, is mostly farmed and table 2.1 shows the top ten companies regarding the production of Norwegian salmon. Marine Harvest is the biggest company, accounting for almost one quarter of the production. Other companies that produce a significant portion of Norwegian salmon are Lerøy Seafood and Salmar. In Norway many small firms make up the salmon industry. The high degree of fragmentation is the result of government policies, which have decentralized structure and local ownership. One hundred and thirty (130) companies have commercial licenses for salmon and trout. However, some are controlled by other companies. The total number of companies producing one-hundred percent ( $100 \%$ ) supply of salmon is seventy-nine (Harvest, 2014).

Table 2.1 Top ten producers` of Norwegian salmon (Harvest, 2014)

| Top Ten Companies | Tonnes <br> HOQ |
| :--- | ---: |
| Marine Harvest | 264000 |
| Lerey Seafood | 157000 |
| Salmar | 128000 |
| Cermaq | 56000 |
| Greig Seafood | 55000 |
| Nordlaks | 37000 |
| Nova Sea | 34900 |
| Alsaker Fjordbruk | 29000 |
| Norway Royal | 29000 |
| Salmon | $\mathbf{2 5 0 0 0}$ |
| Bremnes Seashore | $\mathbf{8 1 4 9 0 0}$ |
| Total |  |

The price of salmon varies. It is a perishable product and what is produced needs to be consumed in the same period. The demand also shifts somehow with the season. The factors affecting the price of salmon are its supply, demand, quality and disease outbreaks, etc. These factors have a large impact on price volatility (Harvest, 2014).

### 2.2.4 Production Cycle

The production cycle of salmon takes almost three years. Figure 2.4 shows the steps in the production/ life cycle of farmed salmon. In steps 1 and 2 in the figure the eggs are fertilized in the controlled fresh water and the fish grows up to 100 grams in 10-16 months. In steps 3 and 4, the fish are transported in the cages in the seawater where they grow approx. $4-5 \mathrm{~kg}$ in 14-24 months. Seawater temperature is a major element for the growth of salmon, which varies at times of the year and at different regions. When the salmon reaches a harvestable size, it is then transported to the primary processing plants where it is slaughtered and cleaned (steps 5 and 6).


Figure 2.4: The Atlantic salmon Life/Production Cycle (Harvest, 2014)

### 2.2.5 Barriers to Entry

Because of favorable natural conditions, such as a cold climate, clear waters and optimal seawater temperatures, Norway is able to produce a significant amount of salmon. In Norway production of salmon started at an experimental level in 1960`s but in the 1980`s it became an industry. Salmon production required a license. The relevant authorities have rules for granting licenses. The license specifies the level of maximum production for the company and the industry as a whole. Fish farming companies are subject to two important acts (1) The Aquaculture Act June 17, 2005 and (2) The Food Safety Act December 19, 2003. The salmon farming gives a right to the licensee to produce either in fresh water or in the sea. The number of licenses for the seawater production is limited ( 959 licenses in 2013) but such limitation does not require production in fresh water. Production licenses in seawater are granted by the Norwegian Ministry of Trade, Industry and Fisheries and controlled by the fishery authorities. New licenses have been awarded in a number of years since 1982. In 2013 it was announced that 45 new licenses were to be awarded. 35 have already been awarded and 10 of them were awarded in 2014. The maximum allowed biomass or maximum quantity of fish a company can keep at sea is limited by regulatory authorities. One license gives the right to have 780 tons at sea (Harvest, 2014).

### 2.3 The Role of the Norwegian Seafood Council (NSC)

The NSC works to promote Norwegian seafood in all of its major seafood markets. Its function is to create the international perception that the best seafood in the world comes from Norway. It has offices in Spain (Madrid) as well. It is a public company which is owned by the fisheries, the Norwegian seafood industry and the Ministry of Trade. It is financed by the Norwegian seafood industry. The NSC has five advisory marketing groups.

- Norwegian salmon and Norwegian fjord trout
- Ground fish (cod, saithe, haddock etc.)
- Prawns and shellfish
- Conventional products (salted fish, clip fish and stock fish)
- Pelagic products (herring, mackerel and capelin) (Council, 2015b)

The NSC works in three areas:

## -Market Information

NSC continuously monitors the trends and increments in the global seafood market, but with a special focus on Norwegian seafood. The NSC publishes each month the statistics related to exports of Norwegian seafood. It keeps all the current information about trade quotas, tariffs and terms and export conditions in other markets. It advises Norwegian exporters on necessary conditions and terms (Council, 2015b).

## -Communications and Risk management

NSC has a focus on continuously strengthening the reputation of Norwegian seafood with topical information. For the purpose of increasing Norwegian seafood awareness and also stakeholders' knowledge about the NSC, press releases, corporate communications, press grants and PR activities are used. For the purpose of reputational risk management, NSC provides accurate information about seafood, the Norwegian seafood industry and the NSC. It is important to strengthen and safeguard the image of seafood from Norway.

## -Joint Marketing

NSCs` main purpose is to increase the demand for Norwegian seafood. It assists Norwegian exporters with their own sales efforts and helps them with joint marketing activities. Through the marketing efforts, NSC creates an awareness that is summed up in the slogan "The best seafood comes from Norway". In this way, new exporters are provided with a 'solid platform' for the international market. For the purpose of increasing the demand of Norwegian seafood, NSC implements around 500 marketing plans in 25 different countries every year. This is possible because of the NSC's expertise in consumers` analyses, international marketing, brand establishment and PR activities (Council, 2015b).

### 2.3.1 Labeling and Trade Marks

The NSC is focused on the "Norge" brand, quality labeling and environmental labeling. The "Norge" brand gives a mutual value to the Norwegian seafood industry. The guidelines, which are developed by the NSC assist the exporting companies to use the brand and to use this brand together with other brands of the producers and suppliers. Regarding the quality of the brand, there are many quality standards developed by the NSC and the Norwegian seafood industry for the purpose of providing the best quality products all around the world. Many different standards are developed for different species of fish such as skrei (Spawning cod), Norwegian white halibut, Norwegian Fresh Cod, and Norwegian frozen, cooked and peeled prawns, Norwegian arctic char, Norwegian fjord trout and Norwegian wet salted Cod. For environmental labeling the NSC uses the "MSC" brand. This brand is the certification of the Norwegian fisheries. It helps them to use the MSC logo for the purpose of marketing as well as branding of their products. seventy-three percent ( $73.6 \%$ ) of the largest fisheries companies are MSC certified and Figure 7 shows the logo of the certification (Council, 2015).


Figure 2.5 The "Norge"label, the quality label and environmental labeling (Council, 2015)

### 2.3.2 Collaboration between NSC and Norwegian Companies

NSC works together with exporters and assists them to be successful in their markets by using the "Norge" brand along with their own brand. It also gives the chance to use free images, materials and many other aids developed by the NSC to make their product a reputed one.

The NSC also helps companies in conducting joint marketing activities such as :

- Shared Materials: The NSC helps companies in developing the shared materials, but the materials should convey the message of the Norwegian origin and the brand "Norge" label comes with the logo of their own brands. The NSC helps companies in co-financing up to $50 \%$ of the expenses in the production, total design and distribution costs.


Figure 2.6: Joint Promotion-cooperation, Shared materials (Council, 2015)
-Demonstrations and Media Assistance: NSC also help companies in co-financing up to fifty percent $(50 \%)$ of demonstration cost in stores such as cooking competitions, food fairs etc. It also helps companies in co-financing in the purchase of media time in magazines and also helps them in broadcasting media (Council, 2015).


Figure 2.7: Joint Promotion-cooperation, Demonstrations (Council, 2015)

### 2.4 Spain as an importer of salmon

In the early 1980's, there were two main markets for salmon in the world, namely Japan and the US. The European market was negligible. However, after the mid 1990's Europe became the largest salmon market. The EU market is heterogeneous because of the different consumption traditions, and today Spain is the largest seafood market in the EU, France is the largest importer and Portugal has the highest per capita consumption (Asche and Bjorndal, 2011, p. 90).

Because of its size, the Spanish seafood market is an important market for the Norwegian export companies. Ninety percent ( $90 \%$ ) of the salmon imported to Spain comes from Norway and the salmon is imported as fresh or frozen, as whole fish and as fillets. As shown in table 2.2 , most imported salmon is fresh, because the majority of Spanish consumers prefer fresh salmon to frozen (Asche and Bjorndal, 2011, p.91).

Table 2.2: Spanish imports of salmon (Asche and Bjørndal, 2011,p.91)

## Spanish imports of salmon (thousand tonnes product weight)

|  | Fresh Atlantic | Frozen Atlantic | Fresh fillets | Frozen fillets |
| :--- | :---: | :---: | :---: | :---: |
| 1985 | 1.5 |  |  |  |
| 1990 | 14.5 | 0.3 |  |  |
| 1995 | 16.5 | 2.6 | 0.1 | 0.4 |
| 2000 | 21.7 | 5.0 | 0.3 | 0.3 |
| 2001 | 32.2 | 5.5 | 0.3 | 0.5 |
| 2002 | 32.0 | 4.7 | 0.2 | 1.0 |
| 2003 | 33.5 | 5.6 | 0.3 | 1.0 |
| 2004 | 24.9 | 4.8 | 0.5 | 1.5 |
| 2005 | 28.9 | 4.3 | 0.4 | 1.5 |
| 2006 | 26.6 | 7.5 | 1.2 | 1.9 |
| 2007 | 28.1 | 1.5 | 2.1 | 3.6 |
| 2008 | 26.9 | 0.9 |  | 2.3 |

There has been an increase in salmon imports to Spain from 1990 until 2007. In 2008 the economic crisis caused a small decrease, but imports were still significant, with 44500 tones purchased at a value of Euros 134 million, see table 2.2 (Asche and Bjorndal, 2011, p.91).

### 2.4.1 Geography, climate and demographics

Spain is a country in southwestern Europe, situated on the Iberian Peninsula. It borders France and the small principality of Andorra to the north and Portugal to the west. Spain is the 51st largest country in the world and second largest in the European Union after France.


Spain is divided into 50 provinces and 17 autonomous regions. The country has a subtropical and Mediterranean climate. Spain had in July 2014 a total population of 47737941 inhabitants, the capital is Madrid and the currency is the Euro (Wikipedia, 2015).

### 2.4.2 Politics and economy

Spain is a constitutional monarchy, with a hereditary monarch and a bicameral parliament. The head of state is King Felipe VI while the government is led by the Prime minister Mariano Rajoy Brey (Wikipedia, 2015). Spain has a strong economy that is considered a mixed capitalist. The major industries of Spain are textiles and clothes, food and beverages, metals and metal manufacture, chemicals, shipbuilding, automobiles, machine tools, clay and refractory products, footwear, pharmaceuticals and medical equipment. Agriculture is also important in many areas of Spain and the main products produced are grain, vegetables, olives, wine grapes, sugar beet, citrus, beef, pork, poultry, dairy products and fish. Tourism and the related service sector is also a major part of Spain's economy (About.com, 2015).

### 2.4.3 Distribution Structure

Thanks to globalization, Spain has many different options regarding the choice of channels of distribution. A traditional distribution channel is the "Red de Mercas", which is a
complex organization made of wholesalers and logistics companies with the aim of distributing goods to all the regions of the country. The "Red de Mercas" is called also Mercasa, and consists of 23 "mercas" or "wholesale markets" situated in 23 cities. They are huge markets in which some 3650 firms collaborate. 2200 of these are wholesalers of fruit and vegetables, fish, flowers and meat, while the remainder work with logistics and distribution. In these wholesale markets the Spanish importers can meet up, buy and pick up the imported goods directly, or one of the logistic firms from this market can deliver the order to the desired destination. There are in total 65000 vehicles transiting through these 23 markets every day. This is a meeting point for wholesalers, owners of larger or smaller shops, suppliers for restaurants and hotels and firms related to food supply for noncommercial institutions (Alimentación, 2015).

Figure 2.9 shows the different regions of these wholesalers` markets, and figure 2.10 shows a picture of the fish department at "Merca Santander", the wholesalers" market of Santander, the city chosen for the data collection.

The Mercasa wholesaler markets


Figure 2.9: Mercasa markets in different regions of Spain (Alimentación, 2015)

The producers and the B2B customers are very focused on finding the most direct channel options, so as to avoid too many intermediary agents and thus reduce costs and increase final margins. Thus, an alternative channel for Spanish B2B consumers can be to have vertical integration with the suppliers situated in the country of origin of the product.


Figure 2.10: Fish department of Merca Santander (Polanco et al, 2012)

The harbors are the most important places for the first sale between the producer and the B2B customer. Regarding the imported fish, there are "dry harbors" such as airports with terminals specialized in the transport of these types of goods. The main points for the first distribution are the Barajas Airport in Madrid, and the Victoria Airport in the north of Spain. Here the major importers buy the goods as wholesalers and sell them to distributors who serve the rest of Spain or to agents that export to other parts of the EU (Polanco et al., 2012).

### 2.4.4 Consumption patterns of fish in Spain

The consumption of seafood in Spain is so high that the country's own fish production can only cover one third of the total demand, and the remaining two thirds are therefore covered through imports, see figure 2.11 (Polanco et at., 2012).


Figure 2.11: Fish supply in Spain. Adapted from (Polanco et al, 2012)

According to a study from Innovation Norway, the annual consumption and expenditure per capita is 35 kg at a value of 250 Euros, and eighty percent ( $80 \%$ ) of the consumption takes place at home (Norway, 2014). Innovation Norway also states that the Spanish consumers` have a high frequency of consumption of fish, where sixty-seven (67\%) of consumers eat fish two or three times a week. In our empirical research we have a question item related to consumption frequency to see if the frequency is high also for the younger consumers in our sample. In Spain the most consumed fresh fish type is the hake, followed by anchovy, salmon, sole fish, sardines, bream, tuna and cod. Regarding the sale of frozen fish, the consumption is ranked by the hake in first place, followed by cod, sole fish and salmon, see Table 2.3 (Polanco et al., 2012).

Table 2.3: Consumption per year of fresh and frozen fish (2012) . Adapted from (Polanco et al., 2012)
Consumption of fresh and frozen fish in Spain (2012)

|  | Tons | $\%$ Total catch |  |
| :--- | :--- | ---: | ---: |
| FRESH FISH | Hake | 133054,30 | $12,20 \%$ |
|  | Anchovy | 45200,24 | $4,10 \%$ |
|  | Salmon | 34068,82 | $3,10 \%$ |
|  | Sole | 31613,50 | $2,90 \%$ |
|  | Sardines | 29000,24 | $2,70 \%$ |
|  | Gilt-head bream | 25508,15 | $2,30 \%$ |
|  | Tuna | 24457,88 | $2,20 \%$ |
|  | Cod | 19702,94 | $1,80 \%$ |

Spanish consumers like also to eat different kinds of seafood such as mussels, squid and octopus, clams and shrimps. See Table 2.4 (Polanco et al., 2012).

Table 2.4: Consumption per year of other fresh and frozen seafood (2012). Adapted from (Polanco et al., 2012)

Consumption of other seafood in Spain (2012)

|  | Tons | $\%$ Total catch |  |
| :--- | :--- | ---: | ---: |
| FRESH | Mussel | 50988,71 | $4,70 \%$ |
|  | Squid and octopus | 40621,15 | $3,70 \%$ |
|  | Clam and cockle | 22138,66 | $2,00 \%$ |
|  | Shrimps and prawns | 19450,01 | $1,80 \%$ |
|  | Shrimps and prawns | 54703,15 | $5,00 \%$ |
|  | Squid | 11232,46 | $1,00 \%$ |
|  | Octopus | 3743,65 | $0,30 \%$ |
|  | Clams | 3741,02 | $0,30 \%$ |
|  | Mussel | 1851,74 | $0,20 \%$ |

Fresh and frozen fish such as hake and sardines and sea bream are caught in Spain and there is aquiculture production of trout, mussel and bream (Polanco et al., 2012).

The high need for imports attracts many countries that compete with Norway, even if they sell other types of fish. Some major exporters of other species are China, Argentina, Vietnam, Morocco and Ecuador. Table 2.3 shows that in 2012 salmon was ranked at third place in the consumption of fresh fish and fourth place in the consumption of frozen fish (Polanco et al., 2012). These are positive numbers showing that the consumers do not only choose the fresh local Mediterranean fish, but also have a high consumption of imported cold-water fish such as salmon. According to Innovation Norway, the sales of Norwegian salmon had a record year in 2014, showing that consumers' purchasing power is recovering from the economic crisis (Norway, 2014). Norwegian seafood and the "Norge" brand seemed to have a high reputation in Spain, because during the crisis the fresh and frozen salmon and cod still had a higher sale than sardines, hake and sole. Both salmon and cod had a decrease, but this decrease was lower than in these other species (Polanco et al., 2012). In this thesis there are also questions asking the students if they have seen the "Norge" brand, to confirm if the "Norge" brand has high brand awareness among younger consumers as well.

### 2.4.5. Choice of purchasing place and changes in consumption patterns

The favorite place to purchase fish for Spanish consumers is the traditional channel of distribution that is the fish market or the specialized fish shop. Figure 2.12 shows the Esperanza market of Santander, the city of the sample. Most Spanish consumers prefer fresh fish to frozen. They have the conviction that fresh fish is better, and they prefer to buy it fresh and put it in the freezer later. A reason why the fish markets are so popular is that it is very important for the Spanish consumers` to see the whole fresh fish at the fish counter, and to make the seller cut it in front of them at the moment of purchase. This is why the import of fresh salmon has usually been higher than the import of frozen salmon (Sjømatråd, 2014). The consumer buying from the fish market is usually very faithful to that purchasing place, and has the habit of using the same vendor. The typical fish market purchaser is very interested in the interaction with the vendor, who he or she actually knows because of the constant visits (Polanco et al., 2012).


Figure 2.12 The fish market "Mercado Esperanza" of Santander

When choosing the purchasing point, the main motives for this type of customer is to find a high quality fish market that is situated close to home (Polanco et al., 2012). Even if the fish market is still considered as the best alternative, in the last decade, there has been a substantial increase of visits to supermarkets, especially among the younger generations. Today it seems like the typical fish market consumer is an older person, especially the "older lady" over 50 with a basic education, a high concern for quality and a high motivation to find a purchasing point close to home. The typical supermarket consumer is younger, with a higher level of education and a greater interest in finding quality at a lower price. The older consumer still prefers wild fish while the younger consumers of the supermarkets are more open to farmed fish (Polanco et al., 2012). The older consumer of the fish market is concerned about the COO of the fish, and sometimes prefers to buy local seafood or a product with a COO that sounds familiar. In supermarkets, the COO labeling is used as a marketing tool to differentiate one brand from another (Polanco et al., 2012). During the data collection we have been in some supermarkets in the city of Santander, and have seen that salmon products in the counters had signs saying "Norwegian Salmon" or "This Salmon is rich in Omega 3" and "Without bones". All these signs were supposed to be used as marketing tools to differentiate the products and attract customers. Usually the consumers of fish are adults with small children, and the government wants to promote seafood in schools to increase young consumers` consumption frequency (Polanco et al., 2012).

During the crisis the consumers have started to change preferences, and due to price comparisons there has been an increase of sales in the supermarket instead of the fish
market. There has also been a decline in the sale of fresh fish and increase in sale of frozen and canned fish, because of the lower price. Table 2.5 shows a decline of consumption of fresh fish $(6.86 \%)$ from 2004 to 2011 and an increase of the sale of frozen fish ( $35.52 \%$ ). There has also been a decline in consumption of fish outside the homes, such as in cafés, where small sandwiches and snacks are more popular, and salmon is mostly sold in family restaurants (Polanco et al., 2012.)

Table 2.5: Changes in fish consumption. Adapted from (Polanco et al., 2012)

Changes in fish consumption from 2004 to 2011 (tons)

|  | Fresh Fish | Frozen Fish |
| :--- | ---: | ---: |
| 2004 | 547331 | 84697 |
| 2005 | 546278 | 86113 |
| 2006 | 542289 | 86416 |
| 2007 | 535681 | 91314 |
| 2008 | 569923 | 96408 |
| 2009 | 574898 | 98785 |
| 2010 | 518186 | 110265 |
| 2011 | 509809,36 | 114785 |
| Change from 2004 to $\mathbf{2 0 1 1}$ | $\mathbf{- 6 , 8 6 \%}$ | $\mathbf{+ 3 5 , 5 2 \%}$ |

### 2.5 Summary

Norway is the second wealthiest country in the world and exports its seafood products to almost 130 nations all around the world. Norwegian seafood council has its own Spanish office, and helps Norwegian companies in joint marketing in the Spanish market. The aim is to convince Spanish consumers through advertising that "the best seafood comes from Norway". Spain is an important market for Norwegian salmon exports in Europe because one third of the Spanish consumption is covered from domestic production and remaining two third need to be covered through imports. Because of its long tradition of eating fish where, about sixty-seven percent ( $67 \%$ ) of the population prefer to eat fish two or three times a week. Here salmon ranked at the third place among the most consumed fish species in 2012 (Polanco et al., 2012). The preferred point of purchase is the traditional fish market, but lately the supermarkets have gained popularity especially after the economic crisis. The consumers prefer to consume fresh fish instead of frozen, which is usually not pre-packaged. The logo from the NSC disappears in the distribution chain from the wholesaler to the final consumer, and for pre-packaged salmon, the supermarkets use their own logo, and country of origin references as a marketing technique.

## CHAPTER 3. LITERATURE REVIEW

### 3.1 Introduction

In the prior chapter an overview of Norway as an importer and Spain as an exporter of Norwegian salmon was presented. In this chapter relevant literature regarding country of origin image, brand awareness as well as theory of reasoned action are reviewed. All the constructs of theory of reasoned action with the additional constructs are also discussed.

### 3.2 Theory of Reasoned Action

Fishbein first proposed the theory of reasoned action in 1967. It focuses on the relation between beliefs, both "behavioral and normative", attitude and intention behaviors. The theory of reasoned action claims that a person's intention to perform or not to perform a behavior is the direct determinant of that behavior. It is proposed that the person's intention is the function of the person's attitude toward performing that behavior and its subjective norm (Fishbein, 1967; Fishbein and Ajzen, 1975). The theory of reasoned action explains the effect of attitude and subjective norm on intention towards behavior. Intention towards behavior determines the desired action or behavior. The theory of reasoned action has commonly been used in health promotion programs such as HIV/AIDS. The variables of the theory of reasoned action, namely attitude and subjective norms, predict small to moderate intention to change HIV/AIDS health behavior (Tlou, 2009).


Figure 3.1 The theory of Reasoned Action (Shiffman et al., 2008,p.181)

In accordance with many other studies in the area of food consumption behavior this study will use the theory of reasoned action (Fishbein, 1965) as a conceptual framework to explore the consumer attitude and consumption of Norwegian salmon in Spain. In addition
to attitude and subjective norms, the traditional theory of reasoned action will be extended in this thesis by also taking in to consideration variables, such as COO image, brand awareness, perceived quality, perceived risk, perceived inconvenience, perceived benefits, perceived price and trust in regulatory control.

### 3.3. Perceived Quality

Perceived quality is defined as a consumer's appraisal of a product's overall excellence or superiority (Zeithaml, 1988) in (Gotlieb et al., 1994). Figure 3.2 illustrate how the consumers` evaluate brand and COO as a cue of the overall perceived quality (Shiffman et al., 2008, p. 181). Consumers often judge the quality of a product or service based on a variety of informational cues that they associate with the product. Some of these cues are intrinsic to the product or service, whereas others are extrinsic. Such cues can provide the basis for perceptions of product and service quality. Intrinsic cues concern physical characteristics of the product itself, such as size, color, flavor and aroma. Consumers like to believe that they base their evaluations of product quality on intrinsic cues, because that enables them to justify their product decisions as being "rational" or "objective" product choices.


Figure 3.2: Extrinsic and Intrinsic cues of perceived quality. Information adapted from theory (Shiffman et al., 2008 p.181)

More often than not, however, they use extrinsic characteristics to judge quality. In the absence of actual experience with a product, consumers often evaluate quality on the basis of extrinsic cues such as price, brand image, manufacturer's image, retail store image and the country of origin (Shiffman et al., 2012 p.181). For consumers, one important characteristic in determining the quality of fish products is its freshness. They regard fresh seafood as having high quality, and perceive frozen seafood as having lower quality.

Consumer studies indicate that frozen fish is associated with "bad quality", it is "tasteless", "watery" and "boring". Consumers feel more confident in evaluating fresh fish, because of the easy access to cues like appearance, texture and smell, making them rate higher perceived quality to fresh fish and lower to the frozen (Olsen, 2008).
Labels play an important role in marketing for food quality and consumers use brands and labels to predict the quality of pre-packaged food. Other food is largely not pre-packaged, and the cues to establish a reliable signal of quality are restricted. Here, brands and labels have minor importance and cues such as "place of purchase" and "country of origin" become the main signals for product quality (Becker, 1999).

### 3.4 Country of origin

In marketing research, COO is regarded as an extrinsic cue that forms a part of a positive or negative frame in consumer decision making (Grewal et al., 1994 and Maheswaran, 1994) in (D`Alessandro and Pecotich, 2013). There are three main periods in the development of COO literature. In the first period (1965-1982) Schooler stated that the COO of a product can have effect on a consumers` opinion. A similar study was carried out by Reierson (1966) in (Dinnie, 2004), in which national stereotypes were considered. Schooler's (1974) in (Dinnie, 2004), study introduced new considerations, such as the finding that younger consumers with a higher education were more open to foreign products, while older consumer preferred local products. One of the most cited studies in the COO literature is Han's (1989) in (Dinnie, 2004), in examining the the role of COO in consumer evaluations of TV sets and cars. The findings showed that those consumers with most knowledge about the product would focus on the product attributes (intrinsic cues), while the consumer with less knowledge about the product would evaluate it by thinking about an extrinsic cue such as COO. Here COO may become a construct that summarized consumers` beliefs about product attributes. Han`s (1990) in (Dinnie, 2004), findings showed that consumers may give positive ratings to countries with a highly developed economy or with countries with a similar cultural, political or economic environment. Another important finding was that of Roth and Romeo (1992) in (Dinnie, 2004), showing that customers were willing to buy products from countries that had a favorable productcountry match. They concluded that product-country match information should be used by managers as a marketing technique. Then in 1993 Papadopoulos in (Dinnie, 2004), introduced the term product-country image saying that a product could be designed in one
country but produced in another. Another new direction was taken by Nebenzahl and Jaffe (1997) in (Dinnie, 2004), who explored the relationship between COO and brand management. Their findings showed that a brand can generate brand popularity even without positive country name equity, and that a country name such as Japan can give positive value to brands originating from that country.
The third period between 1993 and 2004 was characterized by new streams of research. Thakor and Kohli introduced the concept "brand origin" in 1996, which is defined as the place, region or country to which the brand is perceived to belonging to by its target consumers. Another new angle was provided by Schaefer in 1997, whose research showed that for low involvement products, even the experienced consumer will focus on the COO rather on the product attributes. For high involvement products the experienced consumer will focus more on the product attributes (Dinnie, 2004).

### 3.5 Brand awareness

Brand awareness is defined as the customer's ability to recall and recognize the brand when provided with a cue (Berry, 2000). To increase brand awareness the firm can brand itself by marketing the company's name and logo and their visual presentation will have with advertising theme lines and symbolic associations (Berry, 2000). Brand awareness is essential in buying decision-making as it is important that consumers recall the brand in the context of a given specific product category. In low involvement decision settings, a minimum level of brand awareness may be sufficient for the choice to be final. Laurent, Kapferer and Roussel (1995) in (Moisescu, 2009) suggest three classical measures of brand awareness in a given product category: (i) spontaneous (unaided) awareness (ii) top of mind awareness (iii) aided awareness. Brand awareness is an important dimension of brand equity and, according to another researcher (Farquhar, 2000) in (Moisescu, 2009) there is a correlation between brand awareness and attitude. Brand awareness can also minimize consumer's perceived risk and be a driver for brand loyalty (Aaker, 1991) in (Moisescu, 2009).

### 3.6 Perceived benefits

A large number of studies have examined the benefits for human health resulting from the consumption of seafood (Frewer et al., 2015 and Hellberg et al., 2012) in (Jacobs et al, 2015). Regarding the benefits, research shows that seafood is a source of essential
nutrients such as protein, retinol, vitamin D, vitamin E, iodine, selenium and omega-3. (Mozaffarian and Rimm, 2006 and Sumner and Ross, 2002) in (Jacobs et al., 2015).

Benefit perception scores are rather high in general. Possible explanations are (1) that seafood is known and consumers are familiar with seafood as a healthy product category, (2) that health authorities and organizations have strongly advocated seafood as a healthy product in their communication activities and dietary recommendations (Olsen, 2003). Consumption of seafood is more traditional in the southern European countries, especially among consumers living on the coast. This gives a higher perceived benefit score among consumers from these countries (Ueland et al., 2012) in (Jacobs et al., 2015). The perceived benefits scores of seafood may often be higher among older consumers, because according to Grunert et al. (2012) in (Jacobs et al., 2015) they are more health conscious and more interested in healthy eating than younger consumers. A high score in perceived benefits will give a higher consumption frequency. Subsequently, a high correlation exists between consumption frequency of seafood and seafood involvement (Olsen, 2001).

### 3.7 Perceived risks

Perceived risk can be defined as a subjective expectations of loss, where the more certain one is of this, the greater is the risk perceived by the individual (Ross, 1975). It is very important to divide risk into objective and subjective risk, where objective risk is the "real world" risk and the subjective risk is the perceived risk (Bauer, 1960) in (Mitchell, 1999). In 1960 Bauer, who focused more on the subjective (perceived risk), stated that consumer behavior is considered an instance of risk-taking and risk-reducing behavior. According to Bauer (1960) risk is made of two components: uncertainty and consequences. Here, uncertainty means the likelihood of possible outcomes and consequences mean the importance of a loss (Laroche et al., 2004). Most scholars have claimed that consumers' perceived risk is a kind of a multi-dimensional construct, where there are six types of risk: financial, performance, social, physical, privacy, and time-loss (Jacoby and Kaplan, 1972; Kaplan et al., 1974; Roselius, 1971) in (Lee, 2009). All these dimensions are productspecific and in the quoted study by Jacoby and Kaplan (1972) some risk aspects will be more prevalent in some purchasing situations than in others (Ross, 1975). For example, for fish products consumers will have a perceived physical risk, where they are afraid of getting sick. Regarding the physical risks, consumers are very concerned about food safety. Since it is difficult for consumers to assess risks using traditional methods such as
smell, taste or other physical attributes of food, they have to rely on the trust they have towards producers, retailers and regulators to ensure that the potential health impacts are minimized (Lobb et al., 2007). According to research regarding real (objective) risks, seafood may be contaminated with components present in the aquatic environment such as micro-organisms, algae biotoxins, and chemicals (for example methyl mercury, dioxins and polychlorinated biphenyls) (Mozaffarian and Rimm, 2006; Sumner and Ross, 2002) in (Jacobs et al., 2015). Another risk in purchasing bad seafood could be perceived financial risk, which is the potential loss of money associated with the item purchased. Overall perceived risk is obtained by adding together all the six dimensions. It is therefore important for marketers to understand these six dimensions, and focus on the dimension that is more important for a specific product, in order to inform the consumers in the right way and diminish their perceived risk (Laroche et al., 2004).

### 3.8 Trust in regulatory control

There is a strong relationship between confidence in public authorities and perception of possible food-related risks in (Jacobs et al., 2015). Since it is prohibited to place unsafe food on the market (The European Union, 2002) in (Angulo and Gil, 2007), it is likely that consumers generally expect that food products are safe (Angulo and Gil, 2007). Therefore, in the absence of food scares, we can say that food safety in general is taken for granted by consumers. In any case, the literature indicates that, overall, consumer confidence in food safety differs according to demographic and socio-economic factors such as age, educational level and economic status; consumer trust in regulatory institutions and participants in the food supply chain; the occurrence of food safety incidents and consumer knowledge about food safety issues through labels or media coverage (Jonge et al., 2004).

### 3.9 Perceived price

According to Zeithaml (1988), price is what that is given away or sacrificed for getting a product. This definition of price as "sacrifice" is compatible with the research of Mazumdar, 1986; Monroe and Krishnan 1985. In the study of Zeithaml (1988) he proposed a model where he has characterized price as i) objective price ii) perceived nonmonetary price iii) sacrifice. Objective price is the actual price of the product and perceived price is the price that consumers encode by themselves (Jacoby and Olsen, 1977). This distinction of objective and actual prices is consistent with the findings of
other researchers (Allen et al., 1976; Gabor and Grangar 1961). It is also proved by many of the researchers that consumers cannot remember the exact or actual prices of the product, and this is why they encode the prices the way they want and in a way that makes sense to them (Zeithmal 1982, 1983; Dickson and Sawyer 1986). Fish and seafood products include a variety of products that are sold in different markets with different prices; for example, cheap bluefish and expensive lobsters vary a lot in price in different markets. Despite that there is a lot of variation in prices of fish and seafood, they are considered to be more expensive than meat. Spanish and Belgian consumers perceived that there fish is not cheap compared to meat (Brunsø et al., 2009). A study of Olsen (2003) indicated that price level affects the intention of consumers to buy seafood products. However a study conducted in Finland by Honkanen et al. (1988) indicated that the discrepancy in the purchase of seafood/ fish is not due to price. Other researchers have made similar findings in the UK (Leek et al., 2000) and in Norway (Olsen, 2003).

### 3.10. Perceived inconvenience

Convenience is about saving time and effort (Olsen, 2004). In the exploration of consumer attitude, convenience is a complex phenomenon, one that many researchers have explored in different studies (Jaeger and Meiselman, 2004; Mahon et al., 2006; Scholderer and Grunert, 2005). An investigation regarding the consumption of fish was carried out by a number of researchers in Denmark, Iceland, Italy, Norway and Belgium. Although consumers want to eat fish more frequently, they all were concerned about the time and effort taken in preparing it (Altintzoglou et al., 2010; Brunsø et al., 2009; Cosmina et al., 2012). According to Olsen (2007) consumers need many facilities and much time in preparing fish. Therefore, several studies have concluded that seafood/fish is considered to be inconvenient to prepare (Olsen, 2007). Furst et al. (1996) argued that convenience is a matter of an individual's ability to prepare food such as the use of household resources, special skills or experience or their combination with other ingredients. Thus, meal convenience is about planning, acquiring, preparing, cooking, consuming and disposal. This statement is also supported by Olsen (2007), who says that convenience plays an important role at each stage (planning, acquiring, preparing, cooking, consuming, and disposal. A study carried out in the UK by Olsen, (2007) about food consumption behavior has concluded out that consumers perceived fish as an inconvenient food because of its complex needs in every stage regarding time and effort. Thus, there has not been seen any
significant relationship between convenience and seafood consumption (Olsen, 2003). Olsen, (2003) also argued that this is because fish fingers and fishcakes might not be perceived as an inconvenient food. In our study, we have to find out whether Norwegian salmon is an inconvenient food for Spanish consumers or not, and if there is any connection between inconvenience and attitude towards Norwegian salmon.

### 3.11. Attitude

Attitude is the degree to which a person has a favorable or unfavorable assessment or judgement of the behavior in question (Bogers et al., 2004). To understand consumer behavior, attitude is an important concept that marketers use. Thus, it can be concluded that consumers' overall evaluation of the concept is called Attitude (Olson and Zanna, 1993; Monirul and Han, 2012). Another researcher describes an attitude as an interaction in memory about an object (Norwegian Salmon, Hamburger) and an evaluation of that object (Fazio, 1995). The view of Ajzen about Attitude is that it is a "summary of the evaluation of a psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant, and likable-dislikable" (Ajzen, 2001). Hence the literature has described the attitude as psychological propensity with a certain amount of divergence such as favorable-unfavorable, Good- bad, satisfied - unsatisfied, PositiveNegative etc. (Olsen, 2004). Earlier studies give ideas regarding only one attitude towards an object, but in contrast Ajzen (2001) reported that people can have more than one attitude towards an object. They may have a different attitude towards different things or all things in the surroundings (Fabrigar et al., 2005). But Fabrigar et al. (2005) also mentioned that if someone measures attitude, then just try to focus on a single object instead of all objects and other things related to it. Ajzen (2001) identified three components of attitude, i.e. affective or emotional, cognitive and behavioral components of attitude. The affective or emotional component is about compassionate anxious responses. The cognitive component refers to the perception phenomenon about an object and the behavioral component of attitude is about actions or performing something clearly (Fishbein and Ajzen, 1975). The theory of reasoned action is based on attitude, subjective norm, behavior intention and at last but not least behavior. According to Ajzen (1991), "behavior is a function of salient information or beliefs that are consistent with that behavior".

Fishbein and Ajzen (1995) proposed that salient beliefs are the main determinant in the formation of attitude towards an object. Salient beliefs are defined as "the subjective probability of a cognation between the object of the credence and some other object, value, concept, or attribute (Fishbein and Ajzen, 1975). They have three different groups, i.e. Normative Beliefs, Behavioral Beliefs and Control Beliefs'. Normative beliefs are the determinant of Subjective Norms. Behavioral beliefs lead towards attitudes that determine the behavior and last but not least Control Beliefs influence the insight of behavior control (Ajzen, 1991). In the consumption of seafood behavioral attitude is very important (Olsen, 2004, Tuu et al., 2008). The most important factor influencing attitude towards seafood among young consumers is "Taste". This contrasts with the importance of nutritional value and health for older consumers (Shepherd, 1989; Olsen, 2001; Olsen, 2004; Roininen et al., 1999). Other attributes such as COO, Price, Convenience/ inconvenience, value for Money, etc. are also a determinant of attitude. But price, and income are not considered to be a problem in the consumption of seafood products (Oslen, 2004). However, the study of Verbeke and Vackier, (2005) reported that price negatively influences the attitude towards seafood consumption. Another researcher also argued that fish as an inconvenient food item because of the difficult procedure of cooking it (Gofton, 1995). This study will focus on the beliefs that influence attitude, such as price, perceived risks, perceived quality, inconvenience, country of Origin image, brand awareness perceived benefits and the general evaluation of attitudes and their effect on the consumption intention behavior.

### 3.12 Subjective Norm

Social Norms are defined as the perceived social pressure or expectation from the society or a particular group or individuals (Fishbein and Ajzen, 1975; Olsen, 2004). Many researchers have called subjective norms as injuctive norms (Rivis and Sheeran, 2003; Louis et al., 2007; Larimer and Neighbors, 2003). Some other researchers have proposed that subjective norms are the function of normative beliefs that is about the perception of others` preferences about whether one should perform a behavior or not (Conner and Armitage, 1998). Olsen (2001) proposed that the family exerts a significant pressure on the food choice. In another study, Rolls (1988) argued that friends are the important determinant in the food choices of "teenagers" and "children". Colleagues and business partners also influence norms, especially when it is a matter of consumption (Marcoux et al., 1997). In seafood consumption other researchers' opinion is that family expectations,
health involvement and moral obligations are the determinants of subjective norms. (Olsen, 2001; Olsen, 2004, Verbeke and Vackier, 2005).

### 3.13 Behavioral consumption intention

Intentions are the motivational factors that influence behavior (Ajzen, 1991; Armitage and Conner, 2001). In the theory of reasoned action, intention has two antecedents. i) Subjective Norms and ii) Attitude, which leads to behavior (Fishbein and Ajzen, 1975). Ajzen (1991) argued that the stronger the intention, the stronger will be the desire to perform that behavior (Ajzen, 1991). In the field of marketing and consumer behavior, intention is often used as an alternative to buying behavior, choice and loyalty (Honkanen et al., 2006).The term "intention" is mostly measured as "want", "desire", "intend", "will", "expect", "should" (Armitage and Conner, 2001; Sparks et al., 1992; 1995; Verbeke and Vackier, 2005). One researcher has found a correlation of 0.53 between behavior and intention (Honkanen et al., 2006). In one study, Tuu et al., (2008) found out that intention and behavioral frequency are positively related. According to the studies of Olsen (2001) and Verbeke and Vackier, (2005) reported that intention is positively related to the frequency of fish consumption and that it is 0.65 . Thus, our studies describe intention as a motivation to consume Norwegian salmon in the future. Another assumption is that the intention and consumption of Norwegian salmon are positively correlated.

### 3.14. Summary

Regarding the construct of country of origin image (COOI), the literature suggests that consumers give positive ratings to countries with a high developed economy. Consumers with less knowledge about a product will also focus more on extrinsic cues for quality assessment such as country of origin. Brand awareness is also essential in buying decisionmaking. Regarding the trust in regulatory control, in absence of food scares, it is likely that consumers will take food safety for granted. Fish is perceived by previous literature as an inconvenient kind of food, because of its complex preparation. It is also considered more expensive compared to other meat products. Regarding the construct of subjective norms, friends and family are considered an important influencing factor. Previous studies resulted in higher ratings in perceived benefit scores when the respondent came from a region of southern Europe and lived next to the coastline. Another study relevant for our research shows that the factor that most influences attitude towards fish is the taste.

## CHAPTER 4. RESEARCH MODEL AND HYPOTHESES

### 4.1 Introduction

In the previous chapter relevant literature regarding theory of reasoned action and extended constructs was presented. In this chapter the research model on which the research hypotheses are developed for the study is presented. All the constructs used in the model generation are also defined and discussed. Theory of reasoned action, which was reviewed in preceding chapter, is applied in developing the various hypotheses in the study. Based on the hypotheses the empirical analysis is presented in chapter 7.

### 4.2 An overview of research model

Food consumption behavior is a complex human behavior that is influenced by many interrelated factors, like physical properties of the food (flavor, texture, odor), characteristics of the individual (personality, preferences, attitudes, perceptions, knowledge) or characteristics with the environment (availability, season, situation, culture) (Olsen, 2001). There have been a number of models proposed which seek to delineate the effects of likely influences (Furst et al., 1996; Shepherd, 1989). For understanding food consumption behavior, many studies have used attitude models. This started with the theory of reasoned action in the 1980s and extended to the theory of planned behavior in the 1990s`(Shepherd and Sparks, 1994). Some recent studies have also tested these models with some extensional variables like food neophobia and direct experience (Arvola et al., 1999), self identity (Dennison and Shepherd, 1995), moral obligation and negative affect or feelings (Shepherd and Raats, 1996), and perceived difficulty (Sparks et al., 1997). The theory of reasoned action with the extended variables such as product interest, importance or involvement as motivational mediating constructs instead of behavioral intention in explaining seafood consumption behavior is used by Olsen (2001).

Based on the theoretical view, the theory of reasoned action is used as fundamental framework for this study. In this thesis, the theory of reasoned action explored consumers' attitude on consumption intention of Norwegian salmon (main purpose). Before the regression analysis, we will use the descriptive analysis to find out if the young Spanish consumers perceive Norwegian salmon as a typical product of Norway (research question nr.1). Regarding the regression analyses, the first part of the model explored the effect of COO image and brand awareness on perceived quality (research question nr.2), and then the influence of this perceived quality, perceived inconvenience, perceived price,
perceived benefits, perceived risks and trust in regulatory control on attitude (research question nr.3). The third part of the model explored the effect of attitude, subjective norms and consumption frequency on behavioral consumption intention (research question nr.4). Finally, the effect of consumption frequency on behavioral consumption intention is also included (research question nr.5).


Figure 4.1
:The overall model

### 4.1.2 Dependent and independent variables

The overall model is broken up into four submodels as follows:

## SUBMODEL 1



Figure 4.2 Submodel 1: Perceived quality as dependent variable

## SUBMODEL 2



Figure 4.3 Submodel 2: Attitude as dependent variable

## SUBMODEL 3



Figure 4.4 Submodel 3: Behavioral consumption intention as dependent variable

## SUBMODEL 4



Figure 4.5 Submodel 4: Consumption frequency as dependent variable

### 4.3 Relationships between the constructs and corresponding hypotheses

### 4.3.1 COO and perceived quality

There are many authors that agree there is a correlation between COO and perceived quality. According to Agarwal and Teas (2000) in (Kalicharan,2014), there is a significant positive correlation between COO and perceived quality when the countries with product manufacturing expertise are used (Kalicharan, 2014). Roth and Romeo (1992) in (Kalicharan, 2014) argued that consumers rate a product higher in perceived quality if it is produced in an economically developed country. There are many studies confirming this theory, but also confirm the fact that a country must have a high expertise in producing that particular product (Kalicharan ,2014). When the country is skillful in producing a product, then the correlation between COO and perceived quality is high. In the case of low-involvement products such as food, it may be difficult for consumers to evaluate intrinsic cues, particularly when goods are pre-packaged. Therefore, greater reliance may be made on extrinsic cues such as country of origin (Zeithaml, 1988) in (Knight and Gao, 2005). We hypothesize that:
$\mathrm{H}_{1}$ : Country of origin has a positive effect on perceived quality

### 4.3.2 Brand awareness and perceived quality

Previous literature reviews brand awareness as a component of brand equity. According to Aaker (1991), the concept of brand equity is made of perceived quality, brand awareness, brand associations, brand loyalty and other proprietary assets. Aaker (1991) calls this theory the brand equity model, and since brand equity is made up of these different components, these variables have a relationship with each other . Aaker's (1991) brand equity model says that brand equity will rise as perceived quality increases and then will brand awareness, brand loyalty, and brand associations increase, becoming stronger (positive correlations). Brand associations with country imply that the brand is of higher quality because the country has a reputation of producing the best within its product class (Amine et al., 2005) in (Kalicharan, 2014). As far as food products are concerned, one of the issues most strongly influencing the perceived quality of a product is its brand awareness (Aaker, 1991, Aaker, 1996, Buil et al., 2013 and Dawar and Parker, 1994; Keller and Lehman, 2003) in (Rubio et al., 2014). Consumers assign high quality to prestigious brands. Such brands therefore enjoy greater credibility for the consumer and ultimately greater value (Erdem and Swait, 1998; Erdem et al., 2002) in (Rubio et al., 2014). A study of Aker (1996) stresses the importance of advertising in brand awareness and the importance of this variable on perceived product quality (Rubio et al., 2014). Both for durable products and food products, research shows that one of the elements that most strongly conditions perception of a product's quality is the brand name (Dawar and Parker, 1994) in (Rubio et al., 2014). Quality-conscious consumers are more brand conscious and place more trust in the performance of recognized and advertised brands (Rubio et al., 2014). We hypothesize that:
$\mathrm{H}_{2}$ : Brand awareness has a positive effect on perceived quality

### 4.3.3 Perceived quality and attitude

According to Homer (2008) there is a relationship between perceived quality and attitude. In that study this relationship is explored thoroughly and the results show that utilitarian attitude/formation processes are dominated by quality. This study also says that attitudebased beliefs are strong predictors of utilitarian attitudes across quality levels (Homer, 2008). Ahamed (2009) also showed that perceived quality was one of the determinants of consumers' attitude. Given that foods are «experience goods» in the sense that most of their characteristics cannot be evaluated until after they have been bought, consumers must
use quality cues to make their purchasing decisions. These intrinsic end extrinsic quality cues play an important role in the evaluation of the product. In this phase, the consumer forms an attitude towards a product based on the integration of perceptions or beliefs. According to (Vázquez Casielles et al., 2002) in (Tolosana et al., 2005) there is a relationship between the evaluation made of a product and attitude. Another study regarding evaluation of meat in Spain says that attitude depends on the consumer's perceptions of quality (Alonso Rivas, 1999) in (Tolosana et al., 2005). We hypothesize that:

## $\mathrm{H}_{3}$ : Perceived quality has a positive effect on attitude

### 4.3.4 Perceived benefits, perceived risks and attitude

Attitude is shaped by both perceived risks and benefits as people engage in behavior that determines behavioral intention (Ajzen, 1985, 1988) in (Choi et al., 2013). Low levels of risk perception and/or high levels of benefit perception toward an object accelerate the attitudinal orientation of a consumer and his/her behavior (Jarvenpaa et al., 2000) in (Choi et al., 2013) .The linkage between risk/benefit perception and attitude was empirically found in previous studies. Huang (1993) concluded that perceived risks toward pesticide uses significantly affect consumer attitudes. Further, it is confirmed that low risk perception related to online purchases affects consumers' favorable attitude toward the Internet store (Jarvenpaa et al., 2000) in (Choi et al., 2013). In the area of food choice, individuals may need to base consumption decisions on their assessment of both risks and benefits ( Van Dijk et al., 2008) in (Fisher and Frewer, 2009). This happens also in the case of fish, where consumption of some fish products can give consumers health benefits from the omega 3-fatty acids or risks caused by high levels of toxins having a negative impact on human health (Fisher and Frewer, 2009). Attitudes relevant to specific food choices are likely to be informed by risk perceptions and benefit perceptions and the complex interaction between these. If a person perceives a situation as beneficial, the risks are simultaneously perceived as lower; and vice versa (Fisher and Frewer, 2009). This has led to the following hypotheses:
$\mathrm{H}_{4}$ : Perceived benefits have a positive effect on attitude
$\mathrm{H}_{5}$ : Perceived risks have a significant negative effect on attitude

### 4.3.5 Perceived convenience and attitude

Consumers` attitudes towards food consumption are important factors to explain the variations in food consumption behavior (Shepherd and Raats, 1996). According to Scholderer and Grunert (2005) attitude towards convenience products plays a role of mediator between perceived time budget and convenience product use. Consumers` perceptions regarding fish as an inconvenience product showed significantly lower attitudes towards fish also the inconvenience of fish has the negative effect on fish consumption (Olsen, 2007). It is also concluded by the study of Olsen (2007) that inconvenience had a direct effect on attitude, but the effects are comparatively low or perceived inconvenience is negatively related to both attitude and consumption of fish. We hypothesized that,
$\mathrm{H}_{6}$ : Perceived inconvenience has a significant negative effect on attitude

### 4.3.6 Perceived price and attitude

Price is an important factor influencing consumers` intention to consume an object. A study done by Verbeke et al. (2008) in Belgium found that women aged between 20-50 perceived fish as expensive overall and this effected negatively on attitudes towards consumption of fish. A study conducted in Australia revealed that 53\% of the respondents for general fish consumption, $42 \%$ respondents for chilled fish and $36 \%$ respondents for frozen fish regard price as a most cited barrier to consuming of fish (Birch and Lawley, 2012). For the consumers with a low income, higher prices can be a hurdle in purchasing organic food products (Shepherd and Raats, 1996). We hypothesize that:
$\mathrm{H}_{7}$ : Perceived price has a significant negative effect on attitude

### 4.3.7 Trust in regulatory control and attitude

Food choice is often influenced more by the psychological interpretation of product properties than the physical properties of products themselves (Rozin et al., 1986) in (Angulo and Gil, 2007). Perception of food safety risk is one such psychological interpretation (Morris, 2001) in (Angulo and Gil, 2007). Trust in food depends on an implicit mix of trust in how the food market functions and how the public authorities control this food market. Fisher (1988) in (Berg, 2004) stated that an increasingly sophisticated food sector means that we literally know less and less about what we are
eating. This means that in modern and urban societies the lack of traditional knowledge about the food we eat needs to be compensated by pure trust. Often the chain of actors and institutions involved in the cultivation and distribution of foods is rather abstract to the consumer (Fisher, 1988); trust is unconscious and first of all based on lack of bad experiences (Fisher, 1988) in (Berg, 2004). There is overall consumer confidence on food safety, since it is prohibited to place unsafe food on the market (The European Parliament and The Council of The European Union, 2002) Thus it is likely that consumers in Spain generally expect that food products are safe. Therefore, in the absence of food scares, food safety in general is taken for granted by consumers. The literature indicates that consumer confidence in food safety differs according to demographic and socio-economic factors such as age, educational level and economic status, consumer trust in regulatory institutions and participants in the food supply chain. According to a study made in Spain, consumers had more trust in food safety regarding fish products than meat such as beef and chicken, also because food scares related to fish are less covered by the media (Jonge et al., 2004) in (Angulo and Gil, 2007). We hypothesize that:

## $\mathrm{H}_{8}$ : Trust in regulatory control have a positive effect on attitude

### 4.3.8 Behavioral Consumption Intention, attitude and subjective norms

A study done by Scholderer and Grunert (2001) investigated determinants of the intention to consume fish before and after an advertisement campaign. Before the campaign, no significant relationship was found between behavioral intention and its determinants. However, after the campaign, one component that significantly affected intention to consume fish was the subjective norm from the family. Another study by Olsen (2007) revealed a significant effect on intention towards consumption, through both positive and negative attitudes, subjective norm and moral obligations. The relationship between attitude and intention towards consumption is positive and significant (Tarkiainen and Sundquist, 2005). An individual`s intention to perform a behavior would be high if he/she has a favorable attitude towards that behavior (Ajzen, 1991). The relationship between subjective norms and intention behavior seemed to be weak in a food choice context (Saba and di Natale, 1998, Sapp, 1991 and Stafleu et al., 1992). According to Bogers et al. (2004), subjective norm is a weak predictor of the intention to consume. Many studies showed subjective norm as a weak factor determining behavioral intention towards seafood. However, Bonne et al. (2007) found out in his study of attitude towards halal meat that subjective norms were significant predictors of intention.

Hence, we hypothesize the following relationships:
$\mathrm{H}_{9}$ : Attitude has a positive effect on behavioral consumption intention
$\mathrm{H}_{10}$ : Subjective norms have a positive effect on behavioral consumption intention

### 4.3.9 Behavioral Consumption Intention and consumption frequency:

Frequency of past consumption may be an important determinant of food choice behaviors (Cha et al., 2010). Olsen (2001) reported a positive relationship between intention and consumption frequency. A significant effect of availability of fresh fish, fish preparation and intention on the consumption frequency was found before the campaign of Scholderer and Gtunert (2001) but after the campaign which was regarding lowering the negative impact of availability of fresh fish and preparation skills, only intention to consume fish was the determinant of consumption frequency. A study of Tuu et al. (2008) found out that intention and behavioral frequency are positively related. Vackier (2005) also reported that intention is positively related to the frequency of fish consumption and that is 0.64 . He also stated that consumption frequency is positively related with the intention to consume fish We hypothesize that:
$\mathrm{H}_{11}$ : Consumption frequency has a positive effect on behavioral consumption intention
$\mathrm{H}_{12}$ : Behavioral consumption intention has a positive effect on consumption frequency.4.4

## Summary of hypotheses

Table 4.1: Summary of hypotheses

| $\mathbf{H}_{\mathbf{1}}$ | Country of origin image has a positive effect on perceived quality |
| :--- | :--- |
| $\mathbf{H}_{2}$ | Brand awareness has a positive effect on perceived quality |
| $\mathbf{H}_{3}$ | Perceived quality has a positive effect on attitude |
| $\mathbf{H}_{4}$ | Perceived benefits have a positive effect on attitude |
| $\mathbf{H}_{\mathbf{5}}$ | Perceived risks have a significant negative effect on attitude |
| $\mathbf{H}_{6}$ | Perceived inconvenience has a significant negative effect on attitude |
| $\mathbf{H}_{7}$ | Perceived price has a significant negative effect on attitude |
| $\mathbf{H}_{8}$ | Trust in regulatory control has a positive effect on attitude |
| $\mathbf{H}_{9}$ | Attitude has a positive effect on behavioral consumption intention |
| $\mathbf{H}_{10}$ | Subjective norm has a positive effect on behavioral consumption intention |
| $\mathbf{H}_{11}$ | Consumption frequency has a positive effect on behavioral consumption <br> intention |
| $\mathbf{H}_{12}$ | Behavioral consumption intention has a positive effect on consumption <br> frequency |

### 4.5. Summary

In this chapter, the research model and hypotheses for the study have been presented. In total twelve hypotheses were generated. The overall model is divided into four submodels, where submodel 1 shows the hypothesized effect of country of origin image and brand awareness on perceived quality. The submodel 2 showing the hypothesized effect of perceived quality, perceived price, perceived benefits, perceived inconvenience, perceived risks and trust in regulatory control on attitude. The third submodel presented, shows the hypothesized effect of attitude, subjective norm and consumption frequency on behavioral consumption intention. In addition, the fourth submodel presenting the effect of behavioral consumption intention on consumption intention was formulated and discussed.

## CHAPTER 5. RESEARCH METHODOLOGY

### 5.1 Introduction:

The previous chapter discussed the research model and the hypotheses. This chapter addresses the methodological procedures. It provides an overview of philosophical position, research design, empirical research setting and geographical location of the study. In addition, data collection strategies, sampling procedures and the measurements of the items are also discussed.

### 5.2 Philosophical position

The exploration of philosophical position or paradigms assists researchers in specifying their overall research design and strategy. This defines how they will proceed from research design to the conclusions (Eriksson and Kovalainen, 2008). Punch (2013) identified two main paradigm positions in social sciences, (i) Positivism (ii) interpretivism. Positivism methodology explains relationships. Their aim is to formulate laws, thus result is to make the base for the prediction and generalizability. A deductive approach is undertaken by the positivist paradigms (Scotland, 2012). The deduction process is linear following the logic of proceeding from theory to empirical study. The consistency in the theory development is gained by testing the hypotheses in the empirical study (Eriksson and Kovalainen, 2008). Positivism is likely to be associated with quantitative methods (Punch, 2013). On the other hand, Interpretivism is directed towards understanding a phenomenon from an individual's perspective. It investigates the interaction among individuals, as well as the cultural and historical context which people occupy. An inductive approach is undertaken by the interpretivist. In Inductive reasoning the research process starts from empirical materials not from theoretical propositions (Eriksson and Kovalainen, 2008). Example of methodology includes case study (in-depth study of event on prolong time) and ethnography (the study of cultural group over a prolonged time period) (Scotland, 2012). interpretivism are likely to be associated with qualitative methods (punch, 2013). The philosophical position followed in this study is positivism. The work is based on the established theory (theory of reasoned action). The variables were identified to be measured based on the hypotheses formed and responses were collected from the students in the University of Cantabria to be analyzed based on the established theoretical framework in chapter 7. This study is quantitative in nature and it uses research technique that allows the application of statistical analysis procedure.

### 5.3 Research design:

A design or structure is needed in social research before data collection or analysis is initiated. A research design is not just a work plan. A work plan describes what needs to be done to complete the project but the work plan flows from the research design`s projects. Hence, the function of research design is to ensure that the obtained evidences enables to answer the initial question (DeVaus and de Vaus, 2001). Two broad categories of research design are identified by Malhotra et al. (2006) (i) Exploratory research design includes quantitative and qualitative research (ii) Conclusive design includes descriptive and causal research.This study uses a descriptive research design, a form of conclusive research. Descriptive studies likely to expose a chain of causes and effects, connecting influencing factors with the criterion. Methods developed in the preparation steps directly address one or more influencing factors in this chain, which are then expected to affect the rest of the chain. Descriptive studies are characterized by the options which researchers need in designing the research studies i.e. nature of the study, subjects, data collection methods, the specific research questions, hypotheses model and theory. It also focuses on the various constraints that are outside the researcher`s control (Blessing and Chakrabarti, 2009). This study uses a survey (questionnaire) to check the consumption attitude of Norwegin salmon in Spanish market. The purpose to use the survey method at a single point in time was that it is less expensive than the other methods such as longitudinal survey. The purpose of choosing the descriptive research was that the research questions and the hypotheses were formulated beforehand; and data is collected afterwards through survey and an appropriate statistical analyses is then conducted to test the hypotheses. The hypotheses are then accepted or rejected based on the results from the statistical analyses. The accepted hypotheses support the empirical results from previous literature.

### 5.4 Empirical setting and geographical location of the study

The fieldwork for this masters' research was conducted at the University of Cantabria situated in the city of Santander, which is located in Cantabria in the north of Spain.


Figure 5.1: The city of Santander-Location (wikipedia, 2015)

Santander is a port city and it is the capital of the region of Cantabria situated on the north coast of Spain. The city is located west of Bilbao and has a population of 178,465 (2013).

The city was founded in 1755 and owes its existence to the harbor of the Bay of Santander. Santander has been an important port since the late middle ages, and was known for the trade with the new world. In the $20^{\text {th }}$ century, Santander was an important economic center, with one of the biggest harbors in the country and connected by train to the rest of Spain. Today the city is a service center at the regional level, and contains important institutions and private organizations with a large number of employees, such as the University of Cantabria and the Santander Group. The Santander Group is a Spanish banking group and has in 2013 been ranked 43rd in the Forbes Global 2000 list of the world's largest companies. Because of its position on the coast, tourism is an important part of the city's economy, with cultural festivals and cruises.As a port city, Santander's cuisine is mainly based on fish. The city has a high reputation in the Iberian peninsula because of its selection of seafood and its typical fish dishes (Wikipedia, 2015).

The sample consists of two hundred (200) students from the University of Cantabria and that the presence of seafood markets and the local culinary traditions give the sample a certain experience and familiarity with fish products.

A large majority of young people in Spain, of the order of eighty percent (80\%), declare that the family is the most important element in their lives, and Spain has one of the lowest rates in Europe of single-person households, indicating that the young remain longer in the parental home than is the case in other countries (Rogers, 2002) in (Minguez, 1998). This delay in the independence of young Spaniards depends on cultural and economic factors such as the family and the welfare system (Sgritta, 2001) in (Minguez, 1998). Spanish families show a strong sense of solidarity, as they offer shelter to young people faced with
the uncertainties and risks of the socio-economic climate in an environment in which the welfare state has implemented a limited family care policy to cater for dependent groups (the young, the elderly and children). (Sgritta, 2001) in (Minguez,1998).

In Spain the average age of adult independence is 28.6 year for the women and 30.7 year for the men. Before that age the majority lives with their parents (Minguez, 1998).

### 5.5 Data collection

There are two methods for the data collection, primary or secondary. In this study both primary data and secondary data are used. Through primary data it is possible to collect data specific to the problem under study. The work related to the collection of primary data consists of getting authorization from the respondents and also from the faculty authorities. After the decision of Why, What, How and When to collect, the next step was to get the data personally and ensure that the data collected was of a high standard. It is also required to check that unnecessary and fake data must not be included. Secondary data is that which is already available from different sources. In this study, secondary data is used to assist the primary data, providing the authors with background information from previous literature.

### 5.5.1 Primary and secondary data

Primary data was collected through a survey from two hundred (200) students (Department of Business Management) from the University of Cantabria in the city of Santander in northern Spain. The data was collected in February 2015.
The secondary data has been used to find out information about industry regarding the import and export of salmon fish, Spanish consumers` consumption patterns. The literature has also assisted in hypotheses generation. Other secondary data was used from the internet web pages e.g. The NSC and online sources such as Science Direct, Google Scholar and Pro-quest to get knowledge about the subject.

### 5.5.2 Survey and procedure

As mentioned above, the research was conducted in the University of Santander with a sample of two hundred students. With the support of Professor Polanco, the motive and importance of the research has been explained to the respondents. The questionnaire was distributed among students and while explaining the questionnaire the researchers were careful about not being biased to influence the respondents. The students were available
during school time because the professors dedicated 15 minutes of their lecture for this activity. It was not difficult to collect the information because of the support of professors form this department and there was also no language barrier because the questionnaire was in Spanish and with the help of Professor Polanco it has been modified in order to be more clear to the selected sample. Because the sample consisted of young students with a limited amount of time during the lectures, it was necessary to shorten the questionnaire and make other changes before handing it out to them. Some demographic information such as income had to be removed and the construct of purchase intention has been changed into consumption intention in order to avoid missing data regarding questions about this construct. The main reason was that the majority of young Spanish students from this sample live with their parents during their study period and all purchase decisions of such products are taken by their parents. The students' willingness to consume is therefore more relevant than their willingness to purchase. Hence, their purchase intention is controlled by their parents. The construct of consumption intention is important in this model because the authors think that the students` willingness to consume will affect the purchase intention of their parents.

### 5.6 Measurements of the constructs

The measurement is defined by Townsend and Ashby (1984) as a process of assigning numbers to the objects in such a way that the interesting qualitative relations among the objects are reflected in the numbers themselves as well as in the important properties of the number system. The measurement items of the different constructs for this study used, were taken or adopted from the previous scientific research. In most of the cases the 7point Likert scale developed by Renis Likert was used. The Likert scale requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements. For each construct in the next paragraphs the items of the questionnaire are also listed.

### 5.6.1 Country of origin image

Negashima (1970) in (Pappu et al., 2007) defines country of origin image as 'the picture, the reputation, the stereotype that consumers attach to a product of a specific country. This image is created by such variables as representative products, national characteristics, economic and political background, history and traditions.' In this study a 7-point Likert scale was used. As parallel to previous studies, the respondents were asked to rate the
perception regarding COO image (Norway); COO associations may refer to the economic status of the country (macro) or product produced in a country (micro) (Pappu et al., 2007). Questions related to the macro dimension were the level of industrialization and economic development of Norway. Regarding micro dimension the questions were whether salmon is a typical product of Norway and whether the product has a higher quality than other countries'. The scale ranges from 1 (strongly disagree) to 7 (strongly agree) (Shirin and Kambiz, 2011). In this study the dimensions of micro and macro were merged together into one construct called "country of origin image".

### 5.6.2 Brand Awareness

Berry (2000) defined brand awareness as the customers` ability to recall, recognize the brand when provided a cue. The respondents were asked about familiarity of Norge brand i.e. the sentence of "Salmon noruego" comes to their mind quickly. To see if the selected sample recognize the Norge brand and pay attention to the advertisements from the Norwegian Seafood Council there was one question that asked if they have seen different advertisements for "salmon noruego" in TV, magazines, the internet etc. (Khan et al., 2014). A 7 point Likert scale was used from which 1 is (strongly disagree) and 7 (strongly agree).

### 5.6.3 Perceived Quality

Perceived quality is defined by Zeithaml (1988) as a consumer's appraisal of a product's overall excellence or superiority. For the construct of perceived quality, respondents were asked to answer the question from Likert scale 1 (strongly disagee) and 7 (strongly agree) with the statement saying Norwegian salmon has a good taste and the perception that the quality of Norwegian salmon is generally good (Tuu et al., 2008).

### 5.6.4 Perceived price

Perceived price represents the perceived amount of money that must be given up to get a product (Lichtenstein et al., 1993). The respondents were asked if they think that Norwegian salmon has a high price (Zeithaml, 1988).The Likert scale 1(strongly disagee) and 7 (strongly agree) was used.

### 5.6.5 Perceived inconvenience

A product or service is considered to be convenient when it saves time for a user. It is also considered to be convenient when it lowers the cognitive, emotional and physical burdens
for a user (Berry et., 2002). A study of Olsen (2007) stated that consumers perceived fish as an inconvenient food because of its complex needs in every stage regarding time and effort. Perceived inconvenience of salmon is measured by two items by asking the questions "Norwegian salmon is time consuming to prepare" and "it takes a lot of time to plan, provide and prepare Norwegian salmon" (Olsen, 2006). A 7 point Likert scale was used, from 7 (strongly agree) to 1 (strongly disagree). These items refer to the time and ease/difficulty.

### 5.6.6 Perceived risks

Perceived risk is the combined effects of probabilities, uncertainty involved in a purchase decision and the consequences of taking an undesired able action (Arndt, 1968). Perceived risk towards eating Norwegian salmon is measured by items asking "If they are concerned about getting ill from eating Norwegian salmon" and "if they think that Norwegian salmon has a higher risk of food poisoning form both chemical and bacterial contamination than other kinds of food" (Pieniak et al., 2008). A "7 point Likert" scale was used, from 7 (strongly agree) to 1 (strongly disagree).

### 5.6.7 Perceived benefits

Perceived benefit is the consumer`s belief about the extent to which he/she will become better off from the purchase and/ or use of an object (Kim et al., 2008). Perceived benefits were measured by 5 items. Respondents were asked the questions "Eating Norwegian salmon prevents heart disease" and "Reduces the risk of developing cancer and "Eating Norwegian salmon is healthy" and "Eating Norwegian salmon is safe" (Pieniak et al., 2008). These items refer to the physical health benefits. The authors decided to add social benefits as well as asking "Eating Norwegian salmon makes the consumers feel more elegant". All items were measured on a "7 point Likert" scale, from 7(strongly agree) to 1(strongly disagree).

### 5.6.8 Trust in regulatory control

In relation to the overall consumers` confidence in food safety, since it is prohibited to place unsafe food on the market, it is likely that consumers` generally expect that food products are generally safe, especially in the absence of food scares (Angulo and Gil, 2007).

Regulatory control was measured by two items by asking the respondents about "Spanish regulatory agencies ensure that the control procedures concerning fish imports are done correctly" and "the fish imported from Norway fulfill the requirements imposed by the Spanish regulatory agencies". A "7 point Likert" scale was used, from 7 (strongly agree) to 1 (strongly disagree).

### 5.6.9 Subjective norms

Subjective norms are perceived pressures on a person to perform a given behavior and the person`s motivation to comply with those pressures. Perceived pressures are related to the expectations of a person`s family or friends, supervisors or the society at large (Fishbein and Ajzen, 1975). Subjective norms were measured by two items by asking the questions from respondents "The families encourage them to eat Norwegian salmon" and "The friends encourage them to eat Norwegian salmon" (Fishbein and Ajzen, 1975). A seven point Likert scale was used, from 7(strongly agree) to 1(strongly disagree).

### 5.6.10 Attitude

Attitudes are defined and measured as psychological tendencies that are expressed by evaluating a given food product or category with some degree of favor or disfavor (Eagly and Chaiken, 1993) in (Olsen et al., 2007). Attitudes were measured by two items. Respondents were asked questions "Eating Norwegian salmon is good" and "Norwegian salmon is pleasant food"(Borgers et al., 2004). A " 7 point Likert" scale was used, from 7 (strongly agree) to 1 (strongly disagree).

### 5.6.11 Behavioral consumption intention

Intention is defined as an indication of how much effort people are planning to exert in order to perform the behavior (Ajzen, 1991).

Intention towards consumption is measured by four items. Respondents were asked questions such as " My willingness to consume Norwegian salmon is high" and "I intend to consume more Norwegian salmon in the future" "I will try to consume more Norwegian salmon for my long-term health benefits" and "I would like to eat more Norwegian salmon" . (Bogers et al., 2004). A "7 point Likert" scale was used, from 7 (strongly agree) to 1 (strongly disagree).

### 5.6.12 Consumption frequency

Consumption frequency is measured by one item. The respondents were asked, "How often do you eat Norwegian salmon (Oslen, 2007; Verbecke et al., 2005). A " 5 point" scale was used where $1=$ less than once a month; $2=$ several times a month'; $3=$ weekly; $4=$ several times a week; 5= daily.

### 5.7 Summary

The study focused on the quantitative research by adopting a deductive reasoning approach. The data is collected through survey of two hundred young Spanish students from the University of Cantabria. The items used for the operationalization of constructs were adapted from the previous literature. An investigation of the sample showed that the majority of the students in the research setting lived at home with their parents. This sociodemographic characteristic is common among young consumers in their twenties from Spain and from other south European countries, such as Italy and Greece. The regional location of the sample is also interesting. The sample is located in the city of Santander, an ancient harbor city famous in all Spain for its culinary traditions related to fish. The location next to the coastline and the vast amount of fish species available in the region of Cantabria means that most of the respondents are experienced consumers regarding fish taste.

## CHAPTER 6. MEASUREMENTS ASSESSMENTS AND DATA VALIDATION

### 6.1 Introduction

In the preceding chapter, the research methodology of the study and the measurement of variables were discussed. In this chapter an examination of preliminary data assessment is presented. It includes the data screening and cleaning, descriptive statistics (univariate and multivariate), factor analysis and the reliability and validity analysis.

### 6.2 Data screening and cleaning

Before starting to analyze the data, it is important to check the data sets for errors i.e. missing data and outliers. Missing data are annoyance to researchers and primarily result from errors in data collection or data entry or from the omission of answers from respondents. Outliers, or extreme responses, may excessively influence the outcome of the any multivariate analysis. For the regression analysis, it is important to assess the assumptions of Normality, homoscedasticity, independence of errors and linearity (Hair et al., 2010, p. 35). Data screening and cleaning are important to ensure that the results obtained from the regression or other multivariate analyses are truly valid and accurate (Hair et al, 2010, p. 35). The authors decided to eliminate all the questionnaires with missing data and to keep two hundred questionnaires including full information. The statistical technique of regression analysis assumes that the distribution of scores on the dependent variable is "normal" (Pallant, 2013 p.61). The analysis of the outliers and the testing of normality and other assumptions of regression analysis are done in chapter seven.

### 6.3 Descriptive statistics

### 6.3.1 The sample

The statistics obtained by the descriptive analysis can be used as an illustration of the sample. The sample consists of 81 males ( $40.5 \%$ ) and 119 females ( $59.5 \%$ ), ranging in age from 18 to 35 years, with a mean of 21.5 years and a standard deviation of 3.35 . The majority of the sample consists therefore of women. Most of the students available for the empirical research were between 20 and 23 years (mean 21.5 years), mostly from the bachelor level. The median age is of 20.5 years. The young age and the fact that most of
the sample is not married ( $96 \%$ ) and lives with their parents ( $76 \%$ ) is an interesting sociodemographic characteristic that is going to show the attitude and consumption intention of a young segment of the Spanish society. The consumption frequency is also interesting and quite high, with forty-two percent ( $42 \%$ ) of the respondents saying that they are eating fish several times a week. Table 6.1 depicts the socio-demographic information (gender, age, marital status, education, accommodation) and consumption frequency of the sample.
Table 6.1 Socio-demographic characteristic and consumption frequency of the respondents (\% of respondents, $\mathbf{n}=\mathbf{2 0 0}$ )

| Gender | Male | 40.5\% | Age | 18-19 | 23\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female | 59.5\% |  | 20-21 | 44.5\% |
|  |  |  |  | 22-23 | 13\% |
|  |  |  |  | 24-25 | 7.5 \% |
| Marital | Single | 56\% |  | 26-27 | 5\% |
| status | In a relationship | 40\% |  | 28-35 | 6.5 \% |
|  | Married | 4\% |  | Mean 21.5 | years |
|  |  |  |  |  |  |
|  |  |  | Consumption | Less than once a month | 9.5\% |
| Educational level | First year of Bachelor level | 28.5\% | frequency | Several times a month | 14.5\% |
|  | Second year of Bachelor level | 8\% |  | Weekly | 31\% |
|  | Third year of Bachelor level | 47\% |  | Several times a week | $42 \%$ |
|  | Fourth year of Bachelor level | 4\% |  | Daily | 3\% |
|  | First year of Master level | 10\% |  |  |  |
|  | First year of PHD level | 0\% | Accomodation | Living with parents | $76 \%$ |
|  | Second year of PHD level | 2.5\% |  | Not living with parents | 24\% |

Looking at the Inter-Quartile Range of the age, here the $25^{\text {th }}$ percentile is of 20 , the $50^{\text {th }}$ percentile (median) is of 20.5 , and the $75^{\text {th }}$ percentile is of 22.5 (Pallant, 2013 p .60 ). The descriptive statistics of these socio-demographic variables were carried out using SPSS (see appendix 1).

### 6.3.2 Descriptive statistics of univariate and multivariate variables

The descriptive statistics of country of origin image, brand awareness, perceived quality, perceived benefits, perceived risks, and trust in regulatory control, consumption behavioral intention and attitude from the research model are presented in table 6.2 and table 6.3.

Table 6.3 depicts the univariate descriptive analysis, which is the analysis of each of the items used in the questionnaire, while table 6.4 contains the multivariate descriptive analysis with the mean scores for each of the constructs. All the question items had a Likert scale with a minimum of one for "Strongly disagree" and a maximum value of seven for "Strongly agree".

Table 6.2 Univariate descriptive statistics

| Items |  | N | Min | Max | Mean | SD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COOMA1 | Norway has a high level of industrialization | 200 | 1 | 7 | 4.89 | 1.122 |
| COOMA2 | Norway has a highly developed economy | 200 | 1 | 7 | 5.56 | 1.119 |
| COOMC1 | Salmon is a typical product of Norway | 199 | 1 | 7 | 6.09 | 1.213 |
| COOMC3 | Salmon from Norway has a higher quality level than salmon from other countries | 199 | 1 | 7 | 5.5 | 1.333 |
| BRAND1 | The sentence of «Salmon Noruego/Norwegian salmon» comes to my mind quickly | 200 | 1 | 7 | 5.25 | 2.044 |
| BRAND2 | I have seen different advertisements for «Salmon Noruego» | 199 | 1 | 7 | 4.28 | 2.142 |
| PERCQ1 | Norwegian salmon has a good taste | 200 | 1 | 7 | 5.15 | 1.640 |
| PERCQ2 | The quality of Norwegian salmon is generally good | 200 | 1 | 7 | 5.48 | 1.307 |
| PRICE1 | Norwegian salmon has a high price | 200 | 1 | 7 | 5.10 | 1.222 |
| INCONV1 | Preparing Norwegian salmon is very time consuming | 199 | 1 | 7 | 4.28 | 1.231 |
| INCONV2 | It takes a lot of time to plan, provide and prepare Norwegian salmon | 200 | 1 | 7 | 4.31 | 1.346 |
| RISK1 | I am very concerned about the possibility of getting ill from eating Nor.salmon | 200 | 1 | 7 | 2.49 | 1.680 |
| RISK2 | Norwegian salmon has a high risk of food poisoning from chemical contamination | 200 | 1 | 7 | 2.84 | 1.631 |
| RISK3 | Norwegian salmon has a higher risk of food poisoning frombacterial contamination | 200 | 1 | 7 | 2.89 | 1.437 |
| BENEFIT1 | Eating Norwegian Salmon prevents heart disease (coronary disease) | 200 | 1 | 7 | 5.17 | 1.445 |
| BENEFIT2 | Eating Norwegian Salmon reduces the risk of developing cancer | 200 | 1 | 7 | 4.64 | 1.457 |
| BENEFIT3 | Eating Norwegian Salmon makes me more "elegant" | 200 | 1 | 7 | 3.44 | 2.004 |
| BENEFIT4 | Eating Norwegian salmon is healthy | 200 | 1 | 7 | 5.36 | 1.311 |
| BENEFIT5 | Eating Norwegian salmon is safe | 199 | 1 | 7 | 5.25 | 1.216 |
| SUBNORM1 | My family encourages me to eat Norwegian salmon | 200 | 1 | 7 | 3.49 | 1.944 |
| SUBNORM2 | My friends encourage me to eat Norwegian salmon | 200 | 1 | 7 | 2.64 | 1.728 |
| RCONTROL1 | Spanish regulatory agencies control procedures concerning fish imports are done correctly | 200 | 1 | 7 | 4.78 | 1.426 |
| RCONTROL2 | Fish from Norway fulfills the requirements imposed by the Spanish regulatory agencies | 200 | 1 | 7 | 5.30 | 1.219 |
| CBEHAVIOR1 | My willingness to consume Norwegian salmon is high | 200 | 1 | 7 | 4.44 | 1.861 |
| CBEHAVIOR2 | I intend to consume more Norwegian salmon in the future | 200 | 1 | 7 | 4.34 | 1.803 |
| CBEHAVIOR3 | I will try to consume more Norwegian salmon for my long-term health benefits | 200 | 1 | 7 | 4.34 | 1.781 |
| CBEHAVIOR4 | I would like to eat more Norwegian salmon | 200 | 1 | 7 | 5.01 | 1.760 |
| ATTITUDE1 | I think it is very good to eat Norwegian salmon | 200 | 1 | 7 | 4.60 | 1.371 |
| ATTITUDE2 | I think that Norwegian salmon is a very pleasant food | 199 | 1 | 7 | 5.20 | 1.554 |

By looking at table 6.2, it is interesting to see that the item with the highest positive mean score was the statement "Salmon is a typical product of Norway", with a mean score of 6.09 out of 7 in the Likert scale of the questionnaires. The majority of the respondents agree to most of the statements. The following description focuses on the items with the highest mean scores of agreement (mean>5) and the lowest scores of agreement (mean<4). The statements between four and five are mostly from items related to perceived inconvenience and behavioral consumption intention.

## Statements with the lowest loading of agreement (Mean<4)

They agree for all statements except for the following items: RISK1, RISK2, RISK3; BENEFIT3, SUBNORM1,SUBNORM1 and SUBNORM2 (mean<4).

They are not concerned by the possibility of getting ill by eating Norwegian salmon (RISK1, mean=2.49) and do not think that Norwegian salmon gives a higher risk of food poisoning from chemical contamination (RISK2, mean=2.84) or bacterial contamination (RISK3, mean=2.89) than other types of food. Some kinds of food are associated with
status, but the majority these young respondents do not think that eating Norwegian salmon makes them more "elegant" (BENEFIT3, mean=3.44). Their family does not encourage them to eat fish (SUBNORM1, mean=3.49) and neither do their friends (SUBNORM2, mean=2.64).

## Statements with the highest loadings of agreement (Mean>5)

They agree with most of the statements in the questionnaire, and especially to the following items: COOMA2, COOMC1,COOMC3, BRAND1, PERCQ1, PERCQ2, PRICE1,BENEFIT1, BENEFIT4, BENEFIT5, RCONTROL2, ATTITUDE2, CBEHAVIOR4.They agree that salmon is a typical product of Norway (COOMC1, mean= 6.09), that Norway has a highly developed economy (COOMA2, mean=5.56) and that Norwegian salmon has a higher quality level than salmon from other countries (COOMC3, mean $=5.5$ ). The majority of the respondents agrees also that the sentence "Salmon Noruego" (Norwegian salmon) comes to their mind quickly (BRAND1, mean= 5.25). Norwegian salmon has a good taste (PERCQ1, mean=5.15) and the quality of Norwegian salmon is generally good (PERCQ2, mean=5.48). They agree that eating Norwegian salmon is healthy (BENEFIT4, mean= 5.36), safe (BENEFIT5, mean=5.25) and it prevents heart disease (BENEFIT1, mean=5.17). They think that fish from Norway fulfills the requirements imposed by the Spanish regulatory agencies (RCONTROL2, mean $=5.30$ ), and that Norwegian salmon is a very pleasant food (ATTITUDE2, mean=5.20) .They agree that they would like to eat Norwegian salmon (CBEHAVIOR4, mean $=5.01$ ). However, they think that it has a high price (PRICE1, mean=5.10).

Table 6.3 Multivariate descriptive statistics

| Item |  | N | Min | Max | Mean | SD |
| :--- | :--- | ---: | ---: | ---: | ---: | :--- |
| COOI | Country of origin image | 198 | 1 | 7 | 5.51 | 0.823 |
| BRANDAWAR | Brand awareness | 199 | 1 | 7 | 4.76 | 1.860 |
| PERCQUA | Perceived quality | 200 | 1 | 7 | 5.31 | 1.369 |
| PERCBENEFIT | Perceived benefits | 199 | 1 | 7 | 4.77 | 1.025 |
| PERCRISK | Perceived risks | 200 | 1 | 7 | 2.74 | 1.335 |
| PERCINCONV | Perceived inconvenience | 199 | 1 | 7 | 4.29 | 1.174 |
| PERCPRICE | Perceived price | 200 | 1 | 7 | 5.10 | 1.222 |
| TRUSTREGCONTROL | Trust in regulatory control | 200 | 1 | 7 | 5.04 | 1.195 |
| ATTITUDE | Attitude | 199 | 1 | 7 | 5.11 | 1.328 |
| CONBEHAVINT | Behavioral consumption intention | 200 | 1 | 7 | 4.43 | 1.579 |
| SUBNORM | Subjective norm | 200 | 1 | 7 | 3.06 | 1.643 |

The following description focuses on the constructs with the highest mean scores of agreement (mean>5) and the lowest scores of agreement (mean<4).

The constructs with a mean score between four and five are brand awareness (BRANDAWAR, mean=4.76), perceived benefits (PERCBENEFIT, mean=4.77), perceived inconvenience (PERCINCONV, mean=4.29) and behavioral consumption intention (CONBEHAVINT, mean=4.43).The majority of the respondents agree to the statements in these constructs.

## Constructs with the lowest loading of agreement (Mean<4)

They agree for most of the constructs except for PERCRISC and SUBNORM (mean<4). This means that the majority of the sample has a low risk perception related to Norwegian salmon (PERCRISK, mean=2.74) and that friends and family do not encourage them to eat Norwegian salmon (SUBNORM, mean=3.06).

## Constructs with the highest loadings of agreement (Mean>5)

The responses with the highest levels of agreement belong to the constructs of COOI, PERCQUA, PERCPRICE, TRUSTREGCONTOL and ATTITUDE.

This means that the respondent have a positive image of Norway (COOI, mean=5.51), that the quality of Norwegian salmon is good (PERCQUA, mean $=5.31$ ), but that it has a high price $($ PERCPRICE, mean $=5.1)$. They have trust in the Spanish regulatory control (TRUSTREGCONTROL, mean=5.04) and have a positive attitude towards Norwegian salmon (ATTITUDE, mean= 5.11).

In conclusion, by looking at the univariate and multivariate descriptives, it is visible that the respondents agreed to most of the statements, showing that they have a good image of Norway and a positive attitude towards Norwegian salmon in general. It is positive to see that they have a low perception of risk related to Norwegian salmon, and that the perception of quality is good. It is interesting that the subjective norm scores are low showing little encouragement from friends and family. However, the consumption frequency resulted to be high, with the majority of the respondents consuming fish several times a week.

The mean scores in the univariate and multivariate descriptives depict these positive responses, and in the next chapter, the regression analyses show how the different constructs affect each other.

### 6.4 Reliability of the scales

In this section the reliability of the scales that used in this study is discussed. According to Cronbach (1951) 'any research based on measurement should be anxious with the accuracy or dependability, usually call it reliability of measurement'. Hence, a reliability coefficient reveal whether the test designer was correct in expecting a certain collection of items to result interpretable statements about individual differences (Kelley, 1942) in (Cronbach, 1951). Gabrenya (2003) identified four types of reliability. Test-retest reliability; parallel forms; internal consistency and inter rater. Test-retest reliability coefficients' are the correlation coefficients' calculated between two periods on same sample the correlation between the two administrations is an indicator of instrument's reliability. Parallel forms are forms that really measure the same thing that are, equivalent. These forms are used when it is necessary to obtain same information from people from different time but close together time period. Internal consistency the most commonly used method based on Cronbach alpha. This is the degree to which to which the items made up of the scale measure the same underlying phenomenon. Inter rater reliability is measured percentage agreements among the judges or the correlation- coefficients' called Kappa.

Before assessing the reliability, the first step was undertaking an exploratory factor analysis. It is also recommended to do a confirmatory factor analysis. A factor analysis takes a large set of variable and looks for a way the data may be reduced or summarized using a smaller set of factors or components (Pallant, 2013; p 188). The term factor analysis covers variety of different but related techniques i.e. principal component analysis and factor analysis. They are same in many ways they both produce smaller number of linear combinations of the original variables. They differ in number of ways. In principal component analysis, variables are transformed in smaller linear combinations and all the variance in the variables is being used. In factor analysis, factors are estimated using mathematical model, where only the shared variance is analyzed (Pallant, 2013; p 189). In this study the technique of principal component analysis is used.

Two statistical measures are checked to help assess the factorability of the data. Bartlett's sphericity and Kaiser-Meyer-Olkin (KMO). Bartlett's test of sphericity should be significant ( $\mathrm{p}, 0.05$ ) for the factor analysis to be considered appropariate. The KMO index ranges from 0 to 1 , with 0.6 suggested as minimum value for a good factor analysis (Pallant, 2013,p. 190). The table 6.4 showing the KMO index value and Bartlett's test of sphericity. KMO is greater than the suggested value of $0.6, \mathrm{KMO}=0.857$. The Bartlett's
test of sphericity is also significant $0.000<0.05$. These two values are according to the criterion hence, factor analysis is approopariate.

Table 6.4 KMO and Bartlett's test

KMO and Bartletf's Test

| Kaiser-Meyer-Olkin Measure of Samplirg Adequacy. | 857 |  |
| :--- | :--- | ---: |
| Bartlefts Test of Spheriaity | Approx Ch-Square | 2881,724 |
|  | df | 378 |
|  | Sig. | , 000 |
|  | shows the |  | results using principal component analysis technique with the Varimax rotation. Ten factors were identified namely factor 1 ; Country of origin image (COOI), factor 2; Brand awareness (BRANDAWAR), factor3; Perceived quality (PERCQUA), factor 4; Perceived inconvenience (PERCINCONV), factor 5; Perceived benefits (PERCBENEFIT), factor 6; Subjective norm (SUBNORM), factor 7; Trust in regulatory control (TRUSTREGCONTROL), factor 8; Attitude (ATTITUDE), factor 9; Behavioral consumption intention (CONBEHAVINT), factor 10; Perceived risks (PERCRISK). All the factors loadings were above 0.3.

Table 6.5 Results from the factor analysis


In this study the Cronbach's alpha coefficient is used, as it is the most commonly used indicator for internal consistency (Pallant, $2013 \mathrm{p}, 101$ ). Internal consistency describes that all items in a construct measures the same concept and they are connected to the interrelatedness of the item in a test or the degree to which the items that makeup the scale "hang together" (Tavakol and Dennick., 2011). Internal consistency should be determined before a test can be employed for examination purposes to ensure validity. Reliability of an instrument is closely related to its validity. An instrument cannot be valid unless it is reliable (Tavakol et al., 2011). Ideally, the coefficient of Cronbach's alpha for a scale should be above 0.7 (Pallant, 2013; p101). Table 6.6 shows the Cronbach's alpha coefficients of all constructs. Almost all indicators designates an internal consistency greater than 0.7 as mentioned by Pallant (2013; p101) except country of origin image construct having least with $\dot{\alpha}=0.631$. The perceived price is considered a singlefactor with just one indicator. In this study the effect of price will also be seen using one question. The items COOMC2 (salmon from Norway is produced in an innovative and environmentally friendly way) has been removed from the construct because of making the Cronbach's alpha coefficient lower.

Table 6.6 Results from the reliability analysis

| Constructs | Items | No. of Items | Chronbach's Alpha |
| :--- | :--- | :---: | :---: |
| Country of origin image | COOMA 1,$2 ;$ COOMC1,3 | 4 | 0.631 |
| Brand awareness | BRAND 1,2 | 2 | 0.732 |
| Perceived quality | PERCQ 1,2 | 2 | 0.827 |
| Perceived inconvenience | CONV 1,2 | 2 | 0.791 |
| Perceived benefits | BENEFIT $1,2,3,4,5$ | 5 | 0.707 |
| Perceived risks | RISK $1,2,3$ | 3 | 0.794 |
| Subjective norms | SUBNORM 1,2 | 2 | 0.748 |
| Trust in regulatory control | RCONTROL 1,2 | 2 | 0.768 |
| Attitude | POSITIVEA 1,2 | 2 | 0.780 |
| Behavioral consumption intention | CBEHAVIOR $1,2,3,4$ | 4 | 0.900 |
| Perceived Price | PRICE 1 | 1 | - |

### 6.5 Convergent and discriminant validity

Convergent validity assesses the degree to which two measures of the same concept are correlated. High correlations indicate that the scale is measuring its intended concept and also if most of the items/ indicators loadings, loads highly in one factor than other factors. (Hair et al., 2010, p.124). In our study, convergent validity is achieved.

Discriminant Validity is the extent to which a construct is truly distinct from other constructs both in terms of how much it correlates with other constructs and how distinctly measured variables represent only this single construct (Hair et al 2010, p.601). Table 6.7 shows the AVE (Average variance explained) and the shared variance (Squared correlations) among the constructs.

Table 6.7 Assessing discriminant validity

| Factors | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country of origin image | 1 | 0.116 | 0.227 | 0.079 | 0.176 | 0.068 | 0.168 | 0.173 | 0.103 | 0.027 | 0.029 |
| Brand awareness |  | 1 | 0.201 | 0.067 | 0.077 | 0.107 | 0.071 | 0.112 | 0.088 | 0.003 | 0.013 |
| Perceived quality |  |  | 1 | 0.125 | 0.300 | 0.145 | 0.210 | 0.378 | 0.274 | 0.019 | 0.051 |
| Perceived price |  |  |  | 1 | 0.020 | 0.020 | 0.005 | 0.008 | 0.029 | 0.025 | 0.083 |
| Perceived benefits |  |  |  |  | 1 | 0.173 | 0.204 | 0.364 | 0.274 | 0.0002 | 0.044 |
| Subjective norm |  |  |  |  |  | 1 | 0.059 | 0.121 | 0.249 | 0.011 | 0.000001 |
| Trust in regulatory control |  |  |  |  |  |  | 1 | 0.213 | 0.111 | 0.026 | 0.033 |
| Positive attitude |  |  |  |  |  |  |  | 1 | 0.440 | 0.035 | 0.001 |
| Behavioral consumption Intention |  |  |  |  |  |  |  |  | 1 | 0.002 | 0,0001 |
| Perceived risks |  |  |  |  |  |  |  |  |  | 1 | 0.053 |
| Perceived inconvenience |  |  |  |  |  |  |  |  |  |  | 1 |
| AVE | 0.473 | 0.789 | 0.861 | 1 | 0.493 | 0.801 | 0.815 | 0.676 | 0.771 | 0.711 | 0.828 |

To assess discriminant validity the test is done by comparing the average extracted values (AVE) for any two constructs with the square correlation estimate between these two constructs (Hutcheson and Sofroniou, 1999) in (Hair et al 2010, p. 620). The Average variance extracted (AVE) is defined as a summary measure of convergence among a set of items representing a latent construct. It is the average percentage of variation explained (variance extracted) among the items of a construct (Hair et al 2010 p.601). The varianceextracted estimates should be greater than the squared correlation estimate. Here a latent construct should explain more of the variance in its item measures that it shares with another construct (Hair et al., 2010 p.620).The AVE must be larger than the shared variance. All the remaining constructs are valid according to the criteria mentioned in discriminant validity. For example the AVE for COO image is 0.473 and the AVE for Brand Awareness is 0.789 , the squared correlation between them is 0.116 , AVE for COO image is $>0.116$ and AVE for Brand Awareness is $>0.116$. Hence, discriminant validity was established between these two constructs. Since AVE for each construct is greater than the squared correlation, the discriminant validity is achieved.

### 6.6 Summary

The data screening showed that there were no major problems of outliers and missing data. The descriptives of the socio-demographic characteristics showed that the sample consists
of 81 males and 119 females. Most of them are aged 20-21 years and the majority lives with their parents. Their consumption frequency is quite high with the majority consuming fish several times a week. The univariate and multivariate descriptive result in a positive overall attitude and consumption intention. The students are aware that salmon is a typical product of Norway, and have a positive image of the country. They perceive the quality of the salmon as being generally good, recognize its health benefits and think that Norwegian salmon fulfills the requirements imposed by the Spanish regulatory agencies. However, the product is seen as difficult to prepare and with a high price. The encouragement from family and friends is also low but the consumption frequency is still high. The constructs mean scores show an overall positive COO image, brand awareness and perceived quality. The perceived benefits are high, while the perceived risks are low, but the respondents are not as positive regarding perceived inconvenience and perceived price. The next chapter will investigate the relationships among these constructs. Regarding the reliability, the Cronbach's alpha value for all the constructs were above 0.70 except COOI. The validity (both convergent and discriminant) is also confirmed.

## CHAPTER 7. DATA ANALYSIS AND EMPIRICAL FINDINGS

### 7.1 Introduction

In the previous chapter the data screening and cleaning, the descriptive, reliability and validity of the constructs have been discussed. In this chapter we present the model estimation, estimation results, empirical testing of hypotheses and results found from empirical regression analysis.

### 7.2 Model estimation

The four submodels are analyzed separately through four regression analyses. The regression model used the ordinary least square estimation technique. Table 7.1, 7.2, 7.3 and 7.4 show the regression equations for the four submodels.

Table 7.1 Regression equations for submodel 1


Table 7.2 Regression equations for submodel

| Submodel $2 \quad$ ATTITUDE $=b_{0}+b_{1}$ PERCQUA $+b_{2}$ PERCBENEFIT $+b_{3}$ PERCRISK |  |
| :--- | :--- |
|  | $+b_{4}$ PERCINCONV +b 5 PERCPRICE +b 6 TRUSTREGCONTROL $+\varepsilon$ |

Table 7.3 Regression equations for submodel 3

| Submodel 3 CONVBEHAVINT $=60+\mathrm{blATTITUDE}+\mathrm{b} 2$ SUBNORM +b 3 CONFREQ $+\varepsilon$ |  |
| :---: | :---: |
| $\mathrm{b}_{0}=$ Constant |  |
| Dependent rariable |  |
| CONVBEHAVINT $=$ Behavioral consumption |  |
| intention |  |
| Independent Variables |  |
| ATTITUDE= Attitude |  |
| SUBNORM= Subjective norm |  |
| CONFREQ $=$ Consumption frequency |  |
| Control variable |  |
| $\varepsilon=$ Error term |  |

Table 7.4 Regression equations for submodel 4


### 7.3. Correlation matrix and regression analysis

The correlation matrix and regression analysis of the four submodels are presented in the tables 7.5 to table 7.11.

### 7.3.1 Submodel 1

Table 7.5 Correlation matrix submodel 1

| Factor | 1 | 2 | 3 |
| :--- | ---: | ---: | ---: |
| COOI | 1 | $0.341^{* *}$ | $0.476^{* *}$ |
| BRANDAWAR |  | 1 | $0.449^{* *}$ |
| PERCQUA |  |  | 1 |
| Mean | 5.31 | 5.51 | 4.76 |
| SD | 1.369 | 0.823 | 1.860 |

**. Correlation is significant at the 0.01 level (2-tailed).
The correlation matrix presented in table 7.5 shows results from the correlation analysis (see appendix 4.1) and the corresponding means and standard deviations. The obtained results shows that country of origin image (COOI) and brand awareness (BRANDAWAR) are significantly positively related to perceived quality (PERCQUA).

Table 7.4 Regression analysis submodel 1: Dependent variable Perceived quality

| Linear <br> Multiple <br> Regression <br> Model | Independent variables | Unstandardized <br> Coeffecients | Standardized <br> Coeffecients | t-value | Tolerance <br> (VIF) |
| :--- | :--- | :---: | :--- | :--- | :--- |
|  |  |  |  |  |  |
| $R^{2}=0.320$ | $\mathrm{~b}_{0}$ Constant | 0.822 |  | 1.495 |  |
| Adj $R^{2}=$ <br> 0.312 | $\mathrm{~b}_{1}$ COOI | 0.609 | 0.366 | $5.807^{* * *}$ | 0.883 |
| $F=45.545$ | $\mathrm{~b}_{2}$ BRANDAWAR | 0.238 | 0.324 | $5.137^{* * *}$ | 0.883 |
| $(1.132)$ |  |  |  |  |  |

The standard multiple regression of submodel 1 was conducted by using perceived quality (PERCQUA) as dependent variable and country of origin image (COOI)and brand awareness (BRANDAWAR) as independent variables. Results from the linear multiple regressions are shown in Table 7.4. The table also included the tolerance and the VIF (variance inflation factor) values to examine multicollinearity. The values showed that the independent variables are not highly inter-correlated. The VIF values are less than 10 and the tolerance values are above 0.1 , which means that we did not violated the multicollinearity assumptions. An overall assessment of submodel 1, based on "p value" from ANOVA (see the Appendix 5.1) is significant at $\mathrm{p}<0.001$, $\left(\mathrm{R}^{2}=0.320, \mathrm{R}^{2} \mathrm{Adj}=0.312\right.$, $\mathrm{F}=45.545$ ) means that $31.2 \%$ of the variance PERCQUA is explained by the independent variables (COOI and BRANDAWAR), and the rest is represented by non-included variables. $R^{2}=0.32$ is the degree of variation of the dependent variable PERCQUA explained by covariance of independent variables. In dependent variables with $t$ values greater than 3.291 , significant at 0.001 (two tailed) are country of origin image (COOI) with a $\mathfrak{t}$ values of 5.807 and brand awareness (BRANDAWAR) with $\mathfrak{t}$ value of 5.137. Standardization of the coefficient is done to answer the question of which of the independent variables have a greater effect on the dependent variable in a multiple regression analysis. Country of origin image (COOI) has a standardized coefficient of 0.366 and brand awareness (BRANDAWAR) has a standardized coefficient of 0.324.The independent variable of Country of origin image (COOI) have a greater effect on the dependent variable of perceived quality (PERCQUA).

### 7.3.2 Submodel 2

Table 7.5 Correlation matrix submodel 2

| Factor | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| PERCQUA | 1 | , $548^{* *}$ | - |  |  |  |  |
| PERCBENEFIT |  |  | , $140^{*}$ | , $226^{* *}$ | , $354^{* *}$ | , $459^{* *}$ | , $615^{* *}$ |
| PERCRISK |  | 1 | ,- 16 | , $211^{* *}$ | , $142^{*}$ | , $452^{* *}$ | , $604^{* *}$ |
| PERCINCONV |  |  | 1 | , $230^{* *}$ | , $158^{*}$ | ,$- 162^{*}$ | ,$- 187^{* *}$ |
| PERCPRICE |  |  |  | 1 | , $288^{*}$ | , $184^{* *}$ | ,- 037 |
| TRUSTREGCONTROL |  |  |  |  |  | 1 | 0,075 |
| ATTITUDE |  |  |  |  |  |  | 0,094 |
|  |  |  |  |  |  |  |  |
| Mean | 5,31 | 4,77 | 2,74 | 4,29 | 5,10 | 5,04 | 5,11 |
| SD | 1.369 | 1.024 | 1.335 | 1.174 | 1.222 | 1.195 | 1.328 |

[^0]The correlation matrix presented in table 7.5 shows results from the correlation analysis (see Appendix 4.2) and the corresponding means and standard deviations. The obtained results shows that perceived quality (PERCQUA), perceived benefits (PERCBENEFIT), trust in regulatory control (TRUSTREGCONTROL) are significantly positively related to attitude (ATTITUDE). Perceived risk (PERCRISK) is significantly negatively related to attitude (ATTITUDE).

Table 7.6 Regression analysis submodel 2: Dependent variable Attitude

| Linear <br> Multiple <br> Regression <br> Model | Independent variables | Unstandardized Coeffecients | Standardized Coeffecients Beta | t-value | Tolerance (VIF) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{b}_{0}$ Constant | 1.335 |  | 3.046 |  |
|  | $\mathrm{b}_{1}$ PERCQUA | 0.393 | 0.405 | 6.154*** | $\begin{gathered} 0.546 \\ (1.833) \end{gathered}$ |
| $R^{2}=0.549$ | $\mathrm{b}_{2}$ PERCBENEFIT | 0.475 | 0.367 | 6.014*** | $\begin{gathered} 0.636 \\ (1.573) \end{gathered}$ |
| $\begin{aligned} & \text { Adj } R^{2}= \\ & 0.535 \end{aligned}$ | $\mathrm{b}_{3}$ PERCRISK | -0.046 | -0.046 | -0.877 | $\begin{gathered} 0.860 \\ (1.163) \end{gathered}$ |
| $F=38.732$ | $\mathrm{b}_{4} \mathrm{PERCINCONV}$ | -0.236 | -0.208 | $-3.903^{* * *}$ | $\begin{gathered} 0.829 \\ (1.206) \end{gathered}$ |
|  | $\mathrm{b}_{5}$ PERCPRICE | -0.050 | -0.046 | -0.835 | $\begin{gathered} 0.790 \\ (1.266) \end{gathered}$ |
|  | $\mathrm{b}_{6}$ TRUSTREGCONTROL | 0.160 | 0.144 | 2.490** | $\begin{gathered} 0.705 \\ (1.419) \end{gathered}$ |

The standard multiple regression of submodel 2 was conducted by using attitude (ATTITUDE) as dependent variable and perceived quality (PERCQUA), perceived risk (PERCRISK),perceived benefit ( PERCBENEFIT), perceived price ( PERCPRICE), perceived inconvenience(PERCINCONV) and trust in regulatory control(TRUSTREGCONTROL) as independent variables. Results from the linear multiple regression are shown in the table 7.6.The table also included the tolerance and the VIF (variance inflation factor) values to examine multicollinearity. The values showed that the independent variables are not highly inter-correlated. The VIF values are less than 10 and the tolerance values are above 0.1 , which means that we didn't violated the multicollinearity assumptions. An overall assessment of submodel 2 , based on "p value" from ANOVA (see the Appendix 5.2) is significant at $p<0.001$, $\left(R^{2}=0.549, R^{2} \operatorname{Adj}=0.535\right.$, $\mathrm{F}=38.732$ ) means that $53.5 \%$ of the variance attitude (ATTITUDE) is explained by the independent variables perceived quality (PERCQUA), perceived risk (PERCRISK), perceived benefit (PERCBENEFIT), perceived price (PERCPRICE), perceived inconvenience (PERCINCONV) and trust in regulatory control (TRUSTREGCONTROL) and the rest is represented by non-included variables. $\mathrm{R}^{2}=0.549$ is the degree of variation of the dependent variable ATTITUDE explained by covariance of independent variables. Independent variables with $t$ values greater than 3.291 , significant at 0.001 (two tailed) are perceived quality (PERCQUA), with a $t$ value of 6.154, perceived benefit (PERCBENEFIT) $\mathrm{t}=6.014$ and perceived inconvenience (PERCINCONV) $\mathrm{t}=-3.903$. Independent variables with $t$ value greater than 1.96, is significant at 0.05 level (two tailed) is trust in regulatory control (TRUSTREGCONTROL) with t value 2.490 . Perceived risk (PERCRISK) $\mathrm{t}=-0.877$ and perceived price (PERCPRICE), $\mathrm{t}=-0.835$ are not significant both at 0.001 and 0.05 (both one and two tailed) level. In addition to the $t$-values, the standardized coefficients also show that the variable having a greater positive effect on the dependent variable of attitude (ATTITUDE) is perceived quality (PERCQUA) with a standardized coefficient of 0.405 . The variable with the strongest negative effect on attitude (ATTITUDE) is perceived inconvenience (PERCINCONV) with a standardized coefficient of -0.208.

### 7.3.3 Submodel 3

Table 7.7 Correlation matrix submodel

| Factor | 1 | 2 | 3 | 4 |
| :--- | ---: | ---: | ---: | ---: |
| CONBEHAVINT | 1 | , $664^{* *}$ | , $499^{* *}$ | , $267^{* *}$ |
| ATTITUDE |  | 1 | , $348^{* *}$ | , $211^{* *}$ |
| SUBNORM |  |  | 1 | $221^{* *}$ |
| CONFREQ | 4.43 | 5.11 | 3.06 | 3.15 |
| Mean | 1.579 | 1.328 | 1.643 | 1.024 |
| SD | $\mathbf{3}^{* *}$. Correlation is significant at the 0.01 level (2-tailed). |  |  |  |

The correlation matrix presented in table 7.7 shows results from the correlation analysis (see Appendix 4.3) and the corresponding means and standard deviations. The obtained results shows that attitude (ATTITUDE), subjective norm (SUBNORM) and consumption frequency (CONFREQ) are significantly positively related to behavioral consumption intention (CONBEHAVINT).

Table 7.8 Regression analysis submodel 3: Dependent variable Behavioral consumption intention

| Linear <br> Multiple <br> Regression <br> Model | Independent variables | Unstandardized Coeffecients | Standardized Coeffecients Beta | t-value | Tolerance (VIF) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Constant $\mathrm{b}_{0}$ | -0.159 |  | -0.445 |  |
| $R^{2}=0.530$ | $\mathrm{b}_{1}$ ATTITUDE | 0.648 | 0.545 | 10.294*** | 0.860 (1.163) |
| $\begin{aligned} & \text { Adj } R^{2}= \\ & 0.523 \end{aligned}$ | $\mathrm{b}_{2}$ SUBNORM | 0.278 | 0.290 | 5.455*** | 0.856 (1.169) |
| $F=73.268$ | $\mathrm{b}_{3}$ CONFREQ | 0.135 | 0.088 | 1.721* | 0.931 (1.075) |

The standard multiple regression of submodel 3 was conducted by using behavioral consumption intention (CONBEHAVINT) as dependent variable and attitude (ATTITUDE), subjective norm (SUBNORM), consumption frequency( CONFREQ ), as independent variables. Results from the linear multiple regression are shown in table 7.8. The table also included the tolerance and the VIF (variance inflation factor) values to examine multicollinearity. The values showed that the independent variables are not highly inter-correlated. The VIF values are less than 10 and the tolerance values are above 0.1, which means that we didn't violated the multicollinearity assumptions. An overall assessment of submodel 3, based on "p value" from ANOVA (see the Appendix 5.3) is significant at $\mathrm{p}<0.001,\left(\mathrm{R}^{2}=0.530, \mathrm{R}^{2} \mathrm{Adj}=0.523, \mathrm{~F}=73.268\right)$ means that $52.3 \%$ of the variance behavioral consumption intention (CONBEHAVINT) is explained by the independent variables attitude (ATTITUDE), subjective norm (SUBNORM), consumption frequency (CONFREQ ), and the rest is represented by non-included variables. $\mathrm{R}^{2}=0.530$
is the degree of variation of the dependent variable CONBEHAVINT explained by covariance of independent variables. Independent variables with $t$ values greater than 3.291, significant at 0.001 (two tailed) are attitude (ATTITUDE), with a t value of 10.294 and subjective norm (SUBNORM) $t=5.455$. Independent variables with $t$ value greater than 1.645 , is significant at 0.05 level (one tailed) is consumption frequency (CONFREQ) with $t$ value 1.721 . The standardized coefficients also prove that the variable having a greater positive effect on the dependent variable of behavioral consumption intention (CONBEHAVINT) is attitude (ATTITUDE) with a Beta value of 0.545 .

### 7.3.4 Submodel 4

Table 7.9 Correlation matrix submodel 4

| Factor | 1 | 2 |
| :--- | :---: | ---: |
| CONBEHAVINT | 1 | $267^{* *}$ |
| CONFREQ |  | 1 |
| Mean | 4.43 | 1.579 |
| SD | 3.15 | 1.024 |
| $* *$ Corrlation is |  |  |

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

The correlation matrix presented in table 7.9 shows results from the correlation analysis (see Appendix 4.4) and the corresponding means and standard deviations. The obtained results shows that behavioral consumption intention (CONBEHAVINT) is significantly positively related to consumption frequency (CONFREQ).
Table 7.10 Regression analysis submodel 4: Dependent variable Consumption frequency

| Linear <br> Multiple <br> Regression <br> Model | Independent <br> variables | Unstandardized <br> Coeffecients | Standardized <br> Coeffecients | t-value | Tolerance <br> (VIF) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $R^{2}=0.071$ |  |  |  |  |  |
| Adj $R^{2}=0.066$ | b 0 Constant | 2.379 |  | 11.398 |  |
| $F=15.157$ | $\mathrm{~b}_{1}$ CONBEHAVINT | 0.173 | 0.267 | $3.893^{* * *}$ | $1.000(1.000)$ |

The standard multiple regression of submodel 4 was conducted by consumption frequency (CONFREQ) as dependent variable and behavioral consumption intention (CONBEHAVINT) as independent variable. Results from the linear multiple regression are shown in table 7.10. The table also included the tolerance and the VIF (variance inflation factor) values to examine multicollinearity. The values showed that the independent variables are not highly inter-correlated. The VIF values are less than 10 and
the tolerance values are above 0.1 , which means that we didn't violated the multicollinearity assumptions. An overall assessment of submodel 4, based on "p value" from ANOVA (see the Appendix 5.4) is significant at $p<0.001,\left(R^{2}=0.071, R^{2} \operatorname{Adj}=0.066\right.$, $\mathrm{F}=15.157$ ) means that $6.6 \%$ of the variance consumption frequency (CONFREQ) is explained by the independent variable behavioral consumption intention (CONBEHAVINT) and the rest is represented by non-included variables. $\mathrm{R}^{2}=0.071$ is the degree of variation of the dependent variable CONFREQ explained by covariance of independent variables. The independent variable of behavioral consumption intention has a $t$ value of 3.893. This $t$ value is greater than 3.291, so it is significant at 0.001 (two tailed). The standardized coefficients also show that the independent variable of behavioral consumption intention (CONBEHAVINT) has a significant positive effect on the dependent variable of consumption frequency (CONFREQ) with a standardized coefficient of 0.267 .

### 7.4 Comparison of responses by gender

The sample of 200 students consists of 81 males ( $40.5 \%$ ) and 119 females ( $59.5 \%$ ). The following tables 7.11 to 7.14 show the regression analysis of submodels $1,2,3$ and 4 to find out if there were differences between the responses from males and females.

### 7.4.1 Regression analysis and gender differences

Table 7.11 Regression analysis submodel 1 grouped by gender: Dependent variable Perceived quality

| Linear <br> Multiple <br> Regression <br> Model | Independent <br> variables | Unstandardized <br> Coeffecients | Standardized <br> Coeffecients | t-value | Tolerance <br> (VIF) |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Male |  |  |  |  |  |
| $N=81$ |  | 0.082 |  | 0.086 |  |
| $R^{2}=0.319$ | $\mathrm{~b}_{0}$ Constant | 0.807 | 0.440 | $4.268^{* * *}$ | 0.832 <br> $(1.201)$ |
| Adj $R^{2}=$ <br> 0.301 | $\mathrm{~b}_{1}$ COOI |  |  |  |  |
| $F=18.020$ | $\mathrm{~b}_{2}$ BRANDAWAR | 0.178 | 0.217 | $2.105^{* *}$ | 0.832 <br> $(1.201)$ |
| Female |  |  |  |  |  |
| $N=119$ |  |  |  |  |  |
| $R^{2}=0.337$ | $\mathrm{~b}_{0}$ Constant | 1.169 |  | 1.749 |  |
| Adj $R^{2}=$ <br> 0.325 | $\mathrm{~b}_{1}$ COOI | 0.511 | 0.328 | $4.101^{* * *}$ | 0.909 <br> $(1.100)$ |
| $F=28.97$ | $\mathrm{~b}_{2}$ BRANDAWAR | 0.268 | 0.390 | $4.880^{* * *}$ | 0.909 <br> $(1.100)$ |

Table 7.12 Regression analysis submodel 2 grouped by gender: Dependent variable Attitude

| Linear <br> Multiple <br> Regression <br> Model | Independent variables | Unstandardiz ed Coeffecients | Standardize <br> d <br> Coeffecients | t-value | Toleranc e (VIF) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Male | $\mathrm{b}_{0}$ Constant | 1.839 |  | 3.114 |  |
| $N=81$ | $\mathrm{b}_{1}$ PERCQUA | 0.076 | 0.080 | 0.0828 | $\begin{gathered} 0.453 \\ (2.209) \end{gathered}$ |
| $R^{2}=0.691$ | $\mathrm{b}_{2}$ PERCBENEFIT | 0.788 | 0.644 | $7.812^{* *}$ | $\begin{gathered} 0.623 \\ (1.605) \\ \hline \end{gathered}$ |
| $\begin{aligned} & \operatorname{Adj} R^{2}= \\ & 0.666 \end{aligned}$ | $\mathrm{b}_{3}$ PERCRISK | -0.121 | -0.121 | -0.877 | $\begin{gathered} 0.811 \\ (1.234) \end{gathered}$ |
| $F=27.217$ | $\mathrm{b}_{4} \mathrm{PERCINCONV}$ | -0.451 | -0.359 | -1.680* | $\begin{gathered} 0.784 \\ (1.276) \end{gathered}$ |
|  | $\mathrm{b}_{5}$ PERCPRICE | -0.005 | -0.005 | -0.059 | $\begin{gathered} 0.703 \\ (1.423) \end{gathered}$ |
|  | $\mathrm{b}_{6}$ TRUSTREG CONTROL | 0.280 | 0.257 | $3.232 * *$ | $\begin{gathered} 0.670 \\ (1.492) \end{gathered}$ |
| Female | $\mathrm{b}_{0}$ Constant | 0.960 |  | 1.648 |  |
| $N=119$ | $\mathrm{b}_{1}$ PERCQUA | 0.576 | 0.583 | $7.175 * *$ | $\begin{gathered} 0.612 \\ (1.635) \end{gathered}$ |
| $R^{2}=0.556$ | $\mathrm{b}_{2}$ PERCBENEFIT | 0.248 | 0.182 | 2.243** | $\begin{gathered} 0.611 \\ (1.638) \end{gathered}$ |
| $\begin{aligned} & \operatorname{Adj} R^{2}= \\ & 0.532 \end{aligned}$ | $\mathrm{b}_{3}$ PERCRISK | -0.019 | -0.019 | -0.272 | $\begin{gathered} 0.850 \\ (1.177) \end{gathered}$ |
| $F=22.981$ | $\mathrm{b}_{4} \mathrm{PERCINCONV}$ | -0.144 | -0.136 | -1.953* | $\begin{gathered} 0.832 \\ (1.202) \end{gathered}$ |
|  | $\mathrm{b}_{5}$ PERCPRICE | -0.028 | -0.026 | -0.366 | $\begin{gathered} 0.810 \\ (1.235) \end{gathered}$ |
|  | $\mathrm{b}_{6}$ TRUSTREGCO NTROL | 0.143 | 0.126 | 1.64* | $\begin{gathered} 0.680 \\ (1.470) \end{gathered}$ |

Table 7.13 Regression analysis submodel 3 grouped by gender: Dependent variable Behavioral consumption intention

| Linear <br> Multiple <br> Regression <br> Model | Independent <br> variables | Unstandardized <br> Coeffecients | Standardized <br> Coeffecients <br> Beta | t-value | Tolerance <br> (VIF) |
| :--- | :--- | :--- | :---: | :--- | :---: |
| Male | Constant $\mathrm{b}_{0}$ | 0.125 |  |  |  |
| $N=81$ | $\mathrm{~b}_{1}$ ATTITUDE | 0.614 | 0.530 | $6.630^{* * *}$ | 0.907 <br> $(1.103)$ |
| $R^{2}=0.559$ | $\mathrm{~b}_{2}$ SUBNORM | 0.407 | 0.397 | $4.972^{* * *}$ | 0.911 <br> $(1.098)$ |
| Adj <br> $R^{2}=0.542$ | $\mathrm{~b}_{3}$ CONFREQ | -0.018 | -0.012 | -0.159 | 0.984 <br> $(1.016)$ |
| $F=32.162$ |  |  |  |  |  |
| Female | Constant $\mathrm{b}_{0}$ | -0.419 |  | -0.922 |  |


| $N=119$ | $\mathrm{~b}_{1}$ ATTITUDE | 0.666 | 0.550 | $7.868^{* * *}$ | 0.822 <br> $(1.217)$ |
| :--- | :--- | :---: | :---: | :---: | :---: |
| $R^{2}=0.539$ | $\mathrm{~b}_{2}$ SUBNORM | 0.184 | 0.198 | $2.808^{* *}$ | 0.806 <br> $(1.241)$ |
| Adj $R^{2}=$ <br> 0.527 | $\mathrm{~b}_{3}$ CONFREQ | 0.289 | 0.182 | $2.679^{* *}$ | 0.868 <br> $(1.152)$ |
| $F=44.767$ |  |  |  |  |  |

Table 7.14 Regression analysis submodel 4 grouped by gender: Dependent variable Consumption frequency

| Linear Multiple <br> Regression <br> Model | Independent <br> variables | Unstandardize <br> d <br> Coeffecients | Standardized <br> Coeffecients <br> Beta | t -value | Tolerance <br> (VIF) |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Male |  |  |  |  |  |
| $N=81$ | $\mathrm{~b}_{0}$ Constant | 2.978 |  | 8.509 |  |
| $R^{2}=0.007$ | $\mathrm{~b}_{1}$ CONBEHAVINT | 0.056 | 0.083 | 0.742 | 1.000 <br> $(1.000)$ |
| Adj $R^{2}=-0.006$ <br> $F=0.551$ |  |  |  |  |  |
| Female |  |  |  |  |  |
| $N=119$ | $\mathrm{~b}_{0}$ Constant | 1.960 |  | 7.755 |  |
| $R^{2}=0.162$ | $\mathrm{~b}_{1}$ CONBEHAVINT | 0.254 | 0.402 | $4.753^{* * *}$ | 1.000 |
| Adj $R^{2}=0.155$ <br> $F=22.587$ |  |  |  |  | $(1.000)$ |

### 7.4.1.1 SUBMODEL 1 GROUPED BY GENDER

The standard multiple regression of submodel 1 was conducted by using perceived quality (PERCQUA) as dependent variable and country of origin image (COOI) and brand awareness (BRANDAWAR) as independent variables. Results from the linear multiple regression are shown in the table 7.14 and (appendix 6.1).
Males:-Regarding the independent variables of the male respondents, country of origin image (COOI) has a $t$ value of 4.268 and brand awareness (BRANDAWAR) has a $t$ value of 2.105 .

Females:For the female respondents,Country of origin image (COOI) has a t-value of 4.101, and brand awareness (BRANDAWAR), with a t-value of 4.880.

By comparing two groups it is visible that country of origin has a stronger effect on perceived quality according to the male respondents. However, brand awareness has stronger effect on perceived quality in the females` responses. Standardization of the
coefficient is usually done to answer the question of which of the independent variables have a greater effect on the dependent variable. For the group of male respondents, the variable having a greater positive effect on the dependent variable of perceived quality (PERCQUA) is country of origin (COO) with a standardized coefficient of 0.440 . For the group of female responses, the variable with the strongest positive effect on the dependent variable is brand awareness (BRANDAWAR), with a standardized coefficient of 0.390 .

### 7.4.1.2 SUBMODEL 2 GROUPED BY GENDER

The standard multiple regression of sub-model 2 was conducted by using attitude (ATTITUDE) as dependent variable and perceived quality (PERCQUA), perceived risk (PERCRISK), perceived benefit (PERCBENEFIT), perceived price (PERCPRICE), perceived inconvenience(PERCINCONV) and trust in regulatory control (TRUSTREGCONTROL) as independent variables. Results from the linear multiple regression is shown in the table 7.8 and (appendix 6.2).

Males: The t -values for the independent variables are: Perceived benefit (PERCBENEFIT) $\mathrm{t}=7.812$, trust in regulatory control (TRUSTREGCONTROL) $\mathrm{t}=3.232$, perceived inconvenience (PERCINCONV) $\mathrm{t}=-1.680$. Perceived quality (PERCQUA) $\mathrm{t}=0.0828$, Perceived risk (PERCRISK) $t=-0.877$ and perceived price (PERCPRICE), $t=-0.059$,
Females: The $t$-values for the independent variables are perceived quality (PERCQUA) $t=$ 7.175, perceived benefit (PERCBENEFIT) $\mathrm{t}=2.243$. perceived inconvenience (PERCINCONV) $\mathrm{t}=-1.953$, Perceived risk (PERCRISK) $\mathrm{t}=-0.272$ and perceived price (PERCPRICE), $\mathrm{t}=-0.366$ and trust in regulatory control $($ TRUSTREGCONTROL $) \mathrm{t}=1.64$. By comparing two groups it is visible that perceived quality has a stronger effect on attitude according to the female respondents, while for the male respondents perceived quality is not significant at all. However, the males rated perceived benefits as well as trust in regulatory control as the most important indicators to affect attitude. Trust in regulatory control for the male respondents has a significant effect on attitude because the $t$-value is of 1.64 , reaching significance at the 0.05 level (one-tailed). The standardized coefficients also confirm that perceived benefit is the strongest variable affecting attitude positively with a standard coefficient of 0.644 . The strongest negative variable is also shown to be perceived inconvenience with a standard coefficient of -0.359 . For the females, strongest independent variable with a positive effect on attitude is confirmed to be perceived quality (Beta=0.583) and the strongest variable with a negative effect on attitude is also perceived inconvenience $(B e t a=-0.136$.

### 7.4.1.3 SUBMODEL 3 GROUPED BY GENDER

The standard multiple regression of sub-model 3 was conducted by using (behavioral consumption intention) CONBEHAVINT as dependent variable and attitude (ATTITUDE), subjective norm (SUBNORM), consumption frequency (CONFREQ), as independent variables. Results from the linear multiple regression is shown in the table 7.18 (appendix 6.3).

Males: The t values of the independent variable are attitude (ATTITUDE) $\mathrm{t}=6.630$,


Females: The t values of the independent variable are, attitude (ATTITUDE) $\mathrm{t}=7.868$, subjective norm (SUBNORM) $\mathrm{t}=2.808$. Consumption frequency (CONFREQ) $\mathrm{t}=2.679$. The variable having the greatest positive effect on the dependent variable of behavioral consumption intention (CONBEHAVINT) is attitude (ATTITUDE) for both male and female respondents with standardized coefficients of 0.530 and 0.550 respectively. For the male respondents, consumption frequency (CONFREQ) as a negative effect on attitude (ATTITUDE), with a standardized coefficient of -0.159 , while for the females the consumption frequency (CONFREQ) has a positive effect on the dependent variable, with a standardized coefficient of 0.182 . Subjective norm has a stronger positive effect on behavioral consumption intention for the male respondents.

### 7.4.1.4 SUBMODEL 4 GROUPED BY GENDER

The standard multiple regression of sub-model 4 was conducted by using CONFREQ (consumption frequency) as dependent variable and CONBEHAVINT (behavioral consumption intention) as independent variable. Results from the linear multiple regression is shown in the table 7.19 (appendix 6.4).

For the male respondents, the independent variable of behavioral consumption intention has a $t$ value of 0.742 and the females have at-value of 4.753.

Comparison shows that behavioral consumption intention has a stronger positive effect on consumption frequency for the female respondents. However, the effect of behavioral consumption intention on consumption frequency is insignificant for the male respondents. This is also shown by the standardized coefficient values of behavioral consumption intention (CONBEHAVINT). The standardized coefficient for the female respondents is 0.402 while the value for the male respondents is of 0.083 .

### 7.4.2 ANOVA and gender differences

Table 7.15 Anova results regarding gender differences

| Construct | Levene's Test for Homogeneity of variances | ANOVA |
| :--- | :--- | :--- |
| Perceived quality (PERCQUA) | Sig. 0.559 | Sig. 0.984 |
| Attitude (ATTITUDE) | Sig. 0.832 | Sig. 0.876 |
| Behavioral consumption intention (CONBEHAVINT) | Sig. 0.878 | Sig. 0.725 |
| Consumption frequency (CONFREQ) | Sig. 0.676 | Sig. 0.380 |

Perceived Quality: Levene`s test for homogeneity of variances tests whether the variance in scores is the same for each of the two groups. The significance value must be greater than 0.05 . In this way, the assumption of homogeneity of variances is not violated. By referring the test of homogeneity of variances of the dependent variable of perceived quality (PERQUA) the sig. value is 0.559 . As this value is greater than 0.05 the homogeneity of variance assumption is not violated. ANOVA table showing if the significance value is less than or equal to 0.05 then there is a significant difference somewhere among the mean scores on the dependent variable for the two groups. Here the sig. value is 0.984 . As this value is greater than 0.05 meaning that there is not a significance difference of means scores on the variable perceived quality for the two groups.

Attitude: By referring the test of homogeneity of variances of the dependent variable of attitude (ATTITUDE) the sig. value is 0.832 . As this value is greater than 0.05 the homogeneity of variance assumption is not violated. Looking at the ANOVA table the sig. value is 0.876 . As this value is greater than 0.05 meaning that there is not a significance difference of means scores on the variable Attitude (ATTITUDE) for the two groups.
Behavioral consumption intention: By referring the test of homogeneity of variances of the dependent variable of behavioral consumption intention, (CONBEHAVINT) the sig. value is 0.878 . As this value is greater than 0.05 the homogeneity of variance assumption is not violated. Looking at the ANOVA table the sig. value is 0.725 . As this value is greater than 0.05 meaning that there is not a significance difference of means scores on the variable behavioral consumption intention (CONBEHAVINT) for the two groups.
Consumption frequency: By referring the test of homogeneity of variances of the dependent variable of consumption frequency (CONFREQ) the sig. value is 0.676 . As this value is greater than 0.05 the homogeneity of variance assumption is not violated. Looking at the ANOVA table the sig. value is 0.380 . As this value is greater than 0.05 meaning that
there is not a significance difference of means scores on the variable consumption frequency (CONFREQ) for the two groups.
In conclusion, the results from ANOVA show that there are no significant differences between males and females concerning the mean values of those factors. However, the different regression models for the subsamples of males and females shows where those differences are found. Country of origin has a stronger positive effect on perceived quality for the male respondents. Regarding attitude, perceived quality has the strongest positive effect on this variable for the females, while perceived benefits have the strongest positive effect for the male respondents.

### 7.5 Estimation Results

## Hypothesis H1

A look at the statistics ( $\mathrm{b}_{1}=0.609, \mathrm{t}=5.807, \mathrm{p}<0.001$ ) shows a positive association between country of origin image (COOI) and perceived quality (PERQUA) as suggested. This shows hypothesis 1 in submodel 1 is supported by the estimates of the statistical regression and it is significant (table 7.4).

## Hypothesis H2

Hypothesis 2 is supported by the statistical results from the regression estimates ( $\mathrm{b}_{2}=$ $0.238, \mathrm{t}=5.137, \mathrm{p}<0.001$ ). A positive association was hypothesized between brand awareness (BRANDAWAR) and perceived quality (PERQUA) in submodel 1 and it is supported (table 7.4).

## Hypothesis H3

In submodel 2 Hypothesis 3 with the regression estimates ( $b_{1}=0.393, t=6.154, p<0.001$ ) is supported. A positive association between perceived quality (PERQUA) and attitude (ATTITUDE) towards eating Norwegian salmon was maintained and it was also significant (table 7.6).

## Hypothesis H4

A look at the statistics in submodel $2\left(\mathrm{~b}_{2}=0.475, \mathrm{t}=6.014, \mathrm{p}<0.001\right)$ shows a positive relationship between perceived benefit (PERCBENEFIT) and attitude (ATTITUDE). This shows that hypothesis 4 is supported by the estimates of the statistical regression and is supported (table 7.6).

## Hypothesis H5

A negative association between perceived risk (PERCRISK) and attitude (ATTITUDE) was hypothesized in submodel 2. The estimate is summarized as ( $b_{3}=-0.046, t=-0.877$ ). The estimate shows a negative association but is insignificant (table 7.6).

## Hypothesis H6

The results of regression analysis in submodel 2 support this hypothesis. The estimate is summarized as ( $\mathrm{b}_{4}=-0.236, \mathrm{t}=-3.903, \mathrm{p}<0.001$ ) shows a negative association between perceived inconvenience (PERCINCONV) and attitude (ATTITUDE) and is significant (table 7.6).

## Hypothesis H7

A look at the statistics in submodel $2\left(\mathrm{~b}_{5}=-0.050, \mathrm{t}=-0.835\right)$ shows a negative relationship between perceived price (PERCPRICE) and attitude (ATTITUDE) but it is not significant either 0.001, 0.05 level (table 7.6).

## Hypothesis H8

The relationship between trust in regulatory control (TRUSTREGCONTROL) and attitude (ATTITUDE) in submodel 2 is supported by the regression estimates with significance at 0.05 (two-tailed) levels. The estimates are summarized as $\left(\mathrm{b}_{6}=0.160, \mathrm{t}=2.490, \mathrm{p}<0.05\right.$ ) (table 7.6).

## Hypothesis H9

A look at the statistics in submodel $3\left(\mathrm{~b}_{1}=0.648, \mathrm{t}=10.294, \mathrm{p}<0.001\right)$ shows a positive association between attitude (ATTITUDE) and behavioral consumption intention (CONBEHAVINT). This shows hypothesis 9 is supported by the estimates of the statistical regression and it is significant (table 7.8).

## Hypothesis H10

The relationship between subjective norms (SUBNORM) and behavioral consumption intention (CONBEHAVINT) in submodel 3 is supported by the regression estimates with significance at 0.001 (two-tailed) levels. The estimates are summarized as $\left(b_{2}=0.278\right.$, $\mathrm{t}=5.455, \mathrm{p}<0.001$ ) (table 7.8).

## Hypothesis H11

The results of regression analysis in submodel 3 support this hypothesis. The estimate is summarized as $\left(\mathrm{b}_{3}=0.135, \mathrm{t}=1.721, \mathrm{p}<0.05\right.$ (one-tailed) shows a positive association consumption frequency (CONFREQ) and behavioral consumption intention (CONBEHAVINT) and is significant (table 7.10).

## Hypothesis H12

The impact of behavioral consumption intention (CONBEHAVINT) on consumption frequency (CONFREQ) in submodel 4 is supported by the regression estimates with
significance at 0.001 (two-tailed) levels. The estimates are summarized as $\left(b_{1}=0.173\right.$, $\mathrm{t}=3.893$, $\mathrm{p}<0.001$ ) (table 7.10).

### 7.5.1 Normality, linearity, homoscedasticity, independence of residuals:

The overall model has been divided in four submodels, and to assess if the assumptions of the regression analysis are met, we have looked at the dependent variables for each of the submodels:

- Submodel 1 had perceived quality as dependent variable
- Submodel 2 had attitude as dependent variable
- Submodel 3 had behavioral consumption intention as dependent variable
- Submodel 4 had consumption frequency as dependent variable

Residuals are the differences between the obtained and the predicted dependent variable scores. The residuals scatter plots are used to check normality, linearity and homoscedasticity. One of the ways that the assumption of normality, linearity, homoscedasticity can be checked is by inspecting the normal probability plot of the regression, standardized residuals and the scatter plots. In the normal probability plot the points must lie in a straight diagonal line from bottom left to top right (Pallant, 2013, p. 157).

The Kolmogorov-Smirnov statistics is used to assess the normality of the distribution of scores. A non significant result (Sig. value of more than 0.05) indicates normality. In the case of dependent variables of the four sub-models, namely perceived quality (PERCQUA), attitude (ATTITUDE), behavioral consumption intention (CONBEHAVINT) and consumption frequency (CONFREQ) the sig. value is 0.000 , suggesting violation of the assumption normality. But this is quite common in larger samples (Pallant, 2013, p.66).
On the other hand, the normal probability plot in the dependent variables of the four submodels namely, perceived quality (PERCQUA), attitude (ATTITUDE), behavioral consumption intention (CONBEHAVINT) and consumption frequency (CONFREQ) are following a reasonably straight line suggesting a normal distribution, see Appendix 2(1) to 2(4).

The actual shape of the distribution can also be seen in the histogram. The scores appear to be reasonably normally distributed in the histograms of the four dependent variable (see Appendix 2(1) to 2(4).). The Detrended Normal Q-Q plots are obtained by plotting the
actual deviation of the scores from the straight line. This is also called the scatter plot and for the dependent variables of the four sub-models most points are collected around the zero line and not over 3 or less than 3, see Appendix 2(1) to 2(4).

### 7.6 Summary of hypotheses:

In chapter 4, we presented eleven hypotheses. These hypotheses were tested by using the regression analysis in SPSS. The eleven hypotheses are summarized in table 7.16.

Table 7.16 Summary of hypotheses

| Hypotheses | Association between variable | Hypothesized Effect | Findings |
| :---: | :---: | :---: | :---: |
| H1 | Country of origin image has a positive effect on perceived quality | +*** | Supported |
| H2 | Brand awareness has a positive effect on perceived quality | $+^{* * *}$ | Supported |
| H3 | Perceived quality has a positive effect on attitude | +*** | Supported |
| H4 | Perceived benefits have a positive effect on attitude | $+^{* * *}$ | Supported |
| H5 | Perceived risks have a negative effect on attitude | ${ }^{\alpha}{ }^{+}$ | Not supported |
| H6 | Perceived inconvenience has a negative effect on attitude | +*** | Supported |
| H7 | Perceived price has a negative effect on attitude | ${ }^{\alpha}{ }^{\alpha}$ | Not supported |
| H8 | Trust in regulatory control has a positive effect on attitude | $+^{* *}$ | Supported |
| H9 | Attitude has a positive effect on behavioral consumption intention | $+^{* * *}$ | Supported |
| H10 | Subjective norm has a positive effect on behavioral consumption intention | $+^{* * *}$ | Supported |
| H11 | Consumption frequency has a positive effect on behavioral consumption intention | +* | Supported |
| H12 | Behavioral consumption intention has a positive effect on consumption frequency | $+^{* * *}$ | Supported |

### 7.7 Summary:

The hypotheses were tested based on the results of the regression analysis. The findings shows that out of twelve, ten hypotheses were supported significantly Country of origin
image and brand awareness positively affects perceived quality. Perceived quality, perceived benefits, trust in regulatory control positively and significantly affect attitude. Whereas, the effect of perceived inconvenience on attitude is negative and significant. Attitude, subjective norms and consumption frequency have significant positive effect on behavioral consumption intention. In addition, behavioral consumption intention has significant positive effect on consumption frequency. However, the effect of perceived risk and perceived price on attitude was negative but insignificant.

## CHAPTER 8. SUMMARY, DISCUSSION, CONCLUSION, IMPLICATIONS AND LIMITATIONS

### 8.1 Introduction

In the previous chapter the empirical tests, and the results found from the empirical tests were discussed i.e. estimation of models; testing of hypotheses and the estimation results. This chapter presents the conclusion of the study, which starts with the summary of findings, a detailed discussion, practical implications and suggestion for the future research as well as the limitation of the study.

### 8.2 Summary of findings

The basic purpose of this study was to explore the young consumers` attitude and consumption of Norwegian salmon in Spanish market and to understand if and how country of origin image and brand awareness affect perceived quality. To accomplish these objectives this study applies theory of reasoned action as a conceptual framework. The extended model included the constructs of theory of reasoned action model and an inclusion constructs of perceived quality, perceived price, perceived benefits, perceived inconvenience, and trust in regulatory control. This study takes a different approach by integrating country of origin image and brand awareness effect on the extended model`s construct perceived quality. The items designed to measure the constructs were taken from
the previous literature. The analysis is based on a sample of 200 students. The empirical methods employed were descriptive analysis, factors analysis, principal component analysis and regression analysis.

### 8.2.1 Factor analysis and reliability

Exploratory component analysis using principal component was used for the constructs of the extended model of the theory of reasoned action. The factors loadings, variance explained and Cronbach's Alpha of all the constructs were reasonably good. The Cronbach`s alpha value of each of the constructs was above 0.7 as specified by (Pallant, 2010, p.101) except the construct of country of origin image i.e. \(\dot{\alpha}=0.631\). The items regarding country of origin image i.e. 'salmon from Norway is produced in an innovative and environmentally friendly way' has been removed from the construct because of its inverse effect on Cronbach`s alpha value. In total ten constructs were produced namely, country of origin image (COOI), brand awareness (BRANDAWAR), perceived quality (PERCQUA), perceived benefits (PERCBENEFIT), perceived risks (PERCRISK), perceived inconvenience (PERCINCONV), trust in regulatory control (TRUSTREGCONTROL), attitude (ATTITUDE), subjective norm (SUBNORM) and behavioral consumption intention (CONBEHAVINT). The perceived price construct having only one item is also included in the model as perceived price (PERCPRICE).

### 8.2.2 Validity

To estimate discriminant validity test is done by comparing the average extracted values (AVE) of the constructs with the square correlation estimates between the constructs as mentioned in (Hair et al., 2010, p.620). As for the discriminant analysis the AVE should be greater than the squared correlation estimate. AVE for each construct is greater than the squared correlation as mentioned in table 6.7. Regarding convergent validity Hair et al. (2010) stated that convergent validity is achieved when the items/indicators loads highly on one factor than another factor. The table 6.5 in chapter six shows the loadings of each factor, showing that the measure describes same factor hence, convergent validity.

### 8.2.3 Descriptives

The results from descriptive analysis showed the summaries about the sample and the measures. The sample consists of two hundred respondents, with 81 males ( $40.5 \%$ ) and

119 females (59.5\%), ranging in age from 18 to 35 years. $96 \%$ of the sample is not married and $76 \%$ lives with their parents.


Figure 8.1: Mean scores by construct

The descriptive analysis shows that the majority of the students have a positive image of Norway (country or origin, mean= 5.5), are aware that salmon is a typical product of Norway (brand awareness, mean=4.7), and that the quality of Norwegian salmon is generally good (perceived quality, mean=5.3). They also agree that Norwegian salmon gives health benefits (perceived benefits, mean=4.7), has low risks of food poisoning (perceived risks, mean $=2.7$ ), but it is an inconvenient food because it is difficult and time consuming to prepare (perceived inconvenience, mean=4.2). They also think that it has a high price (perceived price, mean= 5.1), and trust that Norwegian salmon fulfills the requirements imposed by the Spanish the regulatory agencies (trust in regulatory control, mean $=5.03$ ). The majority has a positive attitude saying that Norwegian salmon is a pleasant food (attitude, mean=5.1), and is willing to consume more Norwegian salmon in the future (behavioral consumption intention, mean=4.4). Friends and family do not really encourage them to eat fish (subjective norm, mean= 3.06), but the consumption frequency is still quite high with an average consumption of several times a week.

### 8.2.4 Regression results

In the first regression with perceived quality (PERCQUA) as dependent variable, the results based on significant $P$ value from ANOVA presented in appendix 5(1) shows that country of origin image (COOI) at $t=5.807, R^{2}=0.320$, $\operatorname{Adj} R^{2}=0.312, F(2,194)=45.545$, can be considered as significant at 0.001 two-tailed. Brand awareness (BRANDAWAR) at
$\mathrm{t}=5.137, \mathrm{R}^{2}=0.320, \operatorname{Adj} \mathrm{R}^{2}=0.312, \mathrm{~F}(2,58.72)=45.545$ can be considered as significant at 0.001 two-tailed.

The second regression has Attitude (ATTITUDE) as dependent variable. Results based on significant P value from ANOVA presented in appendix 5 (2), shows that perceived quality (PERCQUA) at $\mathrm{t}=6.154, \mathrm{R}^{2}=0.549$, $\operatorname{Adj} \mathrm{R}^{2}=0.535, \mathrm{~F}(6,191)=38.732$, can be considered as significant at 0.001 two-tailed. Perceived benefit $($ PERCBENEFIT $)$ at $\mathrm{t}=$ $6.014, \mathrm{R}^{2}=0.549$, Adj $\mathrm{R}^{2}=0.535, \mathrm{~F}(6,191)=38.732$ can be considered as significant at 0.001 two-tailed. Perceived risk (PERCRISK) at $t=-0.877, R^{2}=0.549$, Adj $R^{2}=0.535$, $F(6$, 191) $=38.732$ cannot be considered as significant. Perceived inconvenience (PERCINCONV) at $\mathrm{t}=-3.903, \mathrm{R}^{2}=0.549$, Adj $\mathrm{R}^{2}=0.535, \mathrm{~F}(6,191)=38.732$ is significant at 0.001 two-tailed. Perceived price (PERCPRICE) at $\mathrm{t}=-0.835, \mathrm{R}^{2}=0.549$, $\operatorname{Adj} \mathrm{R}^{2}=0.535$, $\mathrm{F}(6,191)=38.732$ is not significant. Trust in regulatory control (TRUSTREGCONTROL) at $\mathrm{t}=2.490, \mathrm{R}^{2}=0.549$, Adj $\mathrm{R}^{2}=0.535, \mathrm{~F}(6,191)=38.732$ can be considered as significant at 0.05 two-tailed.

Regarding the third regression with behavioral consumption intention (CONBEHAVINT) as dependent variable, the results based on significant $P$ value from ANOVA presented in appendix 5 (3) shows that attitude (ATTITUDE) at $\mathrm{t}=10.294, \mathrm{R}^{2}=0.530$, $\operatorname{Adj} \mathrm{R}^{2}=0.523, \mathrm{~F}$ $(3,195)=73.268$, is significant at 0.001 two-tailed. Subjective norm $(S U B N O R M)$ at $t=$ 5.455, $\mathrm{R}^{2}=0.530$, $\operatorname{Adj} \mathrm{R}^{2}=0.523, \mathrm{~F}(3,195)=73.268$, is significant at 0.001 two-tailed. Consumption frequency (CONFREQ) at $t=1.721, \mathrm{R}^{2}=0.530$, $\operatorname{Adj} \mathrm{R}^{2}=0.523, \mathrm{~F}(3,195)=$ 73.268, can be considered significant at 0.05 one-tailed.

The fourth regression has consumption frequency (CONFREQ) as dependent variable. The results based on significant $P$ value from ANOVA presented in appendix 5(4), shows that behavioral consumption intention (CONBEHAVINT) at $\mathrm{t}=3.893, \mathrm{R}^{2}=0.071$, Adj $R^{2}=0.066, F(1,198)=15.157$, is significant at 0.001 two-tailed.

### 8.2.5 Hypotheses

The empirical results supported ten hypotheses out of twelve. Figure 8.2 illustrates the overall model with the standardized coefficients.

Figure 8.2 Results of structural model (standardized regression coefficients)


The first regression shows support for the effect of country of origin image $\left(\mathrm{H}_{1}\right)$ and brand awareness $\left(\mathrm{H}_{2}\right)$ have a significant effect on perceived quality.

The second regression shows support or the significant effect that perceived quality $\left(\mathrm{H}_{3}\right)$, perceived benefits $\left(\mathrm{H}_{4}\right)$ and trust in regulatory control $\left(\mathrm{H}_{8}\right)$ have on attitude. Perceived inconvenience $\left(\mathrm{H}_{6}\right)$ is also confirmed having a significant negative effect on attitude. On the other hand, perceived risks $\left(\mathrm{H}_{5}\right)$ and perceived price $\left(\mathrm{H}_{7}\right)$ do have a negative effect on attitude, but they are insignificant. Because of their insignificance, they are therefore rejected.

The third regression confirms that attitude $\left(\mathrm{H}_{9}\right)$, subjective norm $\left(\mathrm{H}_{10}\right)$ and consumption frequency $\left(\mathrm{H}_{11}\right)$ have a significant positive effect on behavioral consumption intention.

The fourth regression also confirms that behavioral consumption intention $\left(\mathrm{H}_{12}\right)$ has a significant positive effect on consumption frequency.

### 8.3. Discussion and Conclusion

In this study it is interesting to see that the young Spanish consumers have a positive image of Norway in general. They agree that Norway has a highly developed economy with political stability, and this macro conditions affects consumers' perception of a product in a positive way (Pappu et al., 2007).The respondents are also aware that salmon is a typical product of Norway, and awareness of product typicality is having a positive effect on consumers product evaluations (Pappu et al., 2007). This is confirmed in the first
regression, where the positive country of origin image has a positive and significant effect on consumers' perception of quality. Country of origin is one cue among other intrinsic cues, on which consumers base their quality perception of the food product (Verbeke and Vackier, 2005). The respondents in the sample are quite young, with an age ranging from 18 to 35 years, where seventy-nine percent ( $79 \%$ ) lives at home with their parents. Spain has one of the lowest rates in Europe of single-person households, indicating that the young remain longer in the parental home than is the case in other countries (Rogers, 2002) in Minguez (1998).

The youngest age groups have a lower involvement towards fish, because they do not do most of the food shopping by themselves (Verbeke and Vackier, 2005). They are therefore considered "non-experts". The non-experts seem to rely more on extrinsic cues and here in particular country of origin (Verbeke and vackier, 2005). These young consumers are not experienced with the purchase and preparation of fish. The results from our regression show that the effect of perceived price on attitude is negative but insignificant.

In the descriptive analysis, it is shown that the majority of the respondents agree that Norwegian salmon has a high price, but the effect of perceived price on attitude was insignificant, perhaps because by living with their parents, they are not involved in the purchasing process. The remaining three percent not living with their parents, still don't see price as a barrier, because price is considered as a less barrier among highly educated consumers (Trondsen et al., 2003) in (Verbeke and Vackier, 2005).In addition to the accommodation status and their age, the location of the sample is also important. The sample is situated in the city of Santander, an ancient harbor city famous in Spain for their culinary traditions based on fish. This is shown in our results in the high consumption frequency, where the majority answered that they consume fish several times a week. The sample is exposed to a large variety of fish, and is therefore an expert regarding taste, even if not expert regarding purchase and preparation. Taste is considered to be the most important factor influencing attitude towards seafood (Shepherd, 1989).Intention to eat fish has a highly significant positive influence on fish consumption frequency (Verbeke and Vackier, 2005). This is confirmed by our analysis and also in our results; consumption frequency affects behavioral consumption intention as well. The fact that they are living at home; they can also have increased their expectations towards perceived quality, because of the tradition of eating fresh fish at home. Regarding perceived quality's relationship with attitude, the effect is positive and significant. This result is consistent with previous
findings. Attitude depends on the consumers` perception of quality (Alonso Rivas, 1999) in (Tolosana et al., 2005).

The parents also affect their risk perceptions, because they would not let them to eat unsafe food. The perceived risk has therefore a low mean score, and its effect on attitude is negative but insignificant. Our hypothesis is rejected because we expected the effect of perceived risk on attitude to be significant. Contrary to this, perceived benefits had a positive significant effect on attitude. If a person perceives a situation as beneficial, the risks are simultaneously perceived as lower and vice versa (Fisher and Frewer, 2009). Another factor that increases the sample's perceived benefits is their location. According to Ueland et al. (2012) there must be a higher benefit score among consumers from southern Europe, especially those living next to the coast line (Jacobs et al., 2015). This hypothesis is confirmed by this study and previous literature. Attitude is shaped by both perceived risk and perceived benefit (Ajzen, 1985, 1988) in (Choi et al., 2013). Trust in regulatory control is also positive and significant, and in our opinion it sounds logical since the same sample has a low risk perception. An empirical study in Spain proved that in absence of food scares, the consumers take food safety for granted. In the same study, consumers had more trust in food safety regarding fish products than meat such as beef and chicken (Angulo and Gil, 2007). Perceived inconvenience has a negative effect on attitude and this hypothesis is supported by our study and from previous literature (Olsen, 2007). It is also suggested that consumers` need many facilities and much time in preparing fish. Therefore, seafood is considered as inconvenient in all ways of cooking (Olsen, 2007). In our results, brand awareness has a positive significant influence on perceived quality. Regarding food products, one factor most strongly influencing the perceived quality of a product is its brand awareness (Aaker, 1991; Aake, 1996; Buil et al., 2013; Dawar and Parker, 1994; Keller and Lehman, 2003) in (Rubio, 2014). The item with the lowest mean scores showed that they did not recall the advertisements from the Norwegian seafood council, but that they still associated Norway with salmon. The brand awareness construct was positive and significant in the regression because of their association of Norway with salmon, but not because they remembered any logo. The logo is not recognized because it disappears in the distribution process from the wholesaler to the final consumer. The supermarkets use their own brand names and in the fish markets, the fish is not labeled or pre-packaged. The advertisement from the NSC takes place only
in September. Since, the consumers are not exposed to enough advertisements, and can therefore not recall the logo.

Attitude towards eating fish has a significant positive impact on intention to eat fish (Verbeke and Vackier, 2005). The hypothesis is therefore supported by the results of our study.

The majority of the respondents answered that the encouragement from family and friends to eat Norwegian salmon was quite low. In our opinion this is caused by the young age of the friends, not encouraging to eat fish due to their low involvement with fish. Subjective norm has a significant positive impact on the intention to eat fish among consumers (Verbeke and Vackier, 2005). Our findings are consistent with previous literature.
Regarding the genders, the ANOVA analysis shows no significant differences between male and females, but through the regression analysis there are small differences, where the male respondents evaluated salmon quality through country of origin image, while the female respondents looked more at brand awareness. Regarding attitude, the women focused more on perceived quality, and the men more on benefits. Consumption frequency was higher among females and encouragements from friends and family had more effect on consumption intention for males than for females. Behavioral consumption intention was significant on consumption frequency for both genders, especially from female respondents. In our opinion, living with the parents could influence most of the responses.

Hence, it can be concluded that country of origin image and brand awareness both are important factors affecting quality. The factors such as perceived quality, perceived benefits trust in regulatory control, low risk perception, and price as a low barrier increases the attitude towards consumption intention of Norwegian salmon. In addition, a high behavioral consumption intention increases the consumption frequency and vice versa.

### 8.4 Limitation and future research:

This study makes important contribution to the literature on 'salmon' attitude and consumption intention behaviors. Due to the cost and time investment for the larger sample, this study used a limited sample of two hundred ( $\mathrm{n}=200$ ) students from the university of Cantabria Spain, as mentioned in previous chapters. Future researchers should include representative sample size to show the real picture of salmon consumption is Spain. The focus of this study was only on one species of fish such as 'salmon'. Further researchers` can focus on the detailed and extensive species-specific consumption differences. One of the demographic information such as income was difficult to collect. The first reason was that the sample consisted of students and students mostly have very limited amount of money and mostly don`t work during studies. Most of the students from the sample live with their parents. Another reason was the people` aversion in exposing their income levels. It is advised for future researchers to take this issue into consideration. Using survey method at one point in time cannot generalize the result for longer period because people attitude and habits change overtime. Hence, it is advised for future researchers to focus on longitudinal research methods to portray the consumption patterns over time. This will result in the better understanding of fish consumption attitudes and the factors that influence their attitudes to change.
The use of moderators in the model will be a further step for the future researchers. We checked the interaction effect of age it was insignificant therefore, we remove it since there was no need in further analysis of an insignificant interaction effect.

It would be interesting for the future research to compare models such as theory of reasoned action with theory of planned behavior or some other theories (i.e. habit theory) with the same food category or with different other categories of food.

### 8.5 Implications

The frequency of eating Norwegian salmon in Spanish market is very high that it around twice a week. The results suggested that people have positive attitude toward Norwegian salmon. As Spain is one of the biggest markets of seafood consumption and salmon in particular in Europe, therefore some practical suggestions are as follows.
The Spanish sample showed that they have good image of Norway as a country. The one issue that is seen in the Spanish fish market is, that the logo of Norwegian salmon is removed when the fish is distributed in the fish market. And the sellers put a tag by themselves as Norwegian salmon; consumers believe anyway that it is a typical product of Norway. It is recommended to the NSC (Norwegian seafood council) to package the salmon in such a way that they directly reach to the final consumers. There should be more advertisements including the country image, nutrition value and the cooking ways because people considered Norwegian salmon as an inconvenient product in all ways of cooking. The sales promoter of Norwegian salmon should be selected with due care, only the highly experienced people should be selected who have knowledge about fish. The concern of food safety gained importance in recent years. In Spain in particularly fish is considered a safe food than other kind of meats such as beef and chicken. But it is important for the industry to increase consumers' subjective knowledge instead of just increasing their
objective knowledge (e.g. salmon is healthy). The public health authorities and the producers should focus on convincing consumers of salmon not just the benefits towards health but also convince them why the fish is good and what other tangible benefits they can get from the eating of Norwegian salmon other than the nutrition and omega 3 benefits ( such as pleasure and joy). It is recommended for the public health authorities to work out in improving the self-confidence of consumers regarding evaluation of fish attributes in general, and should focus on making them more knowledgeable towards salmon; because what the people believe to know is more important what they exactly know (Peiniak et al., 2010). This can be done by use of appropriate marketing communication and promotional strategies.

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## APPENDIX

Appendix 1: DESCRIPTIVES OF SOCIO-DEMOGRAPHIC
CHARACTERISTICS

| Age |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 18 | 27 | 13,5 | 13,5 | 13,5 |
|  | 19 | 20 | 10,0 | 10,0 | 23,5 |
|  | 20 | 53 | 26,5 | 26,5 | 50,0 |


| 21 | 36 | 18,0 | 18,0 | 68,0 |
| :--- | ---: | ---: | ---: | ---: |
| 22 |  | 14 | 7,0 | 7,0 |


| Sex |  |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
| Valid | Frequency | Percent | Valid Percent | Cumulative Percent |  |  |  |  |


| Marital status |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|  | 1 SINGEL | 112 | 56,0 | 56,0 | 56,0 |
|  | 2 RELATIONSHIP | 80 | 40,0 | 40,0 | 96,0 |
|  | 3 MARRIED | 8 | 4,0 | 4,0 | 100,0 |
|  | Total | 200 | 100,0 | 100,0 |  |


|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | 1 barchelor1 | 57 | 28,5 | 28,5 | 28,5 |
|  | 2 bachelor2 | 16 | 8,0 | 8,0 | 36,5 |
|  | 3 bachelor3 | 94 | 47,0 | 47,0 | 83,5 |
|  | 4 bachelor4 | 8 | 4,0 | 4,0 | 87,5 |
|  | 5 master1 | 20 | 10,0 | 10,0 | 97,5 |


|  |  | 5 | 2,5 | 2,5 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | 7 phd2 |  |  |  |  |
|  | Total | 200 | 100,0 | 100,0 |  |


| Accommodation |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid |  | Frequency | Percent | Valid Percent | CumulativePercent |
|  | 1 NO | 48 | 24,0 | 24,0 | 24,0 |
|  | 2 YES | 152 | 76,0 | 76,0 | 100,0 |
|  | Total | 200 | 100,0 | 100,0 |  |


| Consumption frequency |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|  | 1 less thanmonthly | 19 | 9,5 | 9,5 | 9,5 |
|  | 2 more times a month | 29 | 14,5 | 14,5 | 24,0 |
|  | 3 weekly | 62 | 31,0 | 31,0 | 55,0 |
|  | 4 more times a week | 84 | 42,0 | 42,0 | 97,0 |
|  | 5 daily | 6 | 3,0 | 3,0 | 100,0 |
|  | Total | 200 | 100,0 | 100,0 |  |

## Appendix 2: Assessing the Normality

Appendix 2 (1) Submodel - 1 (Dependent variable Perceived quality)
Histogram, p-p Plot, Scatter Plot

Histogram


Normal P-P Plot of Regression Standardized Residual



## Appendix 2 (2) Submodel - 2 (Dependent variable Attitude)

Histogram, p-p Plot, Scatter Plot

Histogram


Normal P-P Plot of Regression Standardized Residual



Appendix 2 (3) Submodel-3 (Dependent variable Behavioral consumption intention) Histogram, p-p Plot, Scatter Plot

Histogram


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: CONBEHAVINT



Appendix 2 (4) Submodel - 4 (Dependent variable behavioral consumption intention)

## Histogram, p-p Plot, Scatter Plot



Normal P-P Plot of Regression Standardized Residual


Scatterplot


## Appendix 3: Reliability

Scale 1: Country of Origin Image (COOI)
Reliability Statistics

|  | Cronbach's <br> Alpha Based on <br> Cronbach's <br> Alpha | Standardized <br> Items |
| :---: | :---: | :---: |


| , 631 | , 637 | 4 |
| ---: | ---: | ---: |

Scale 2: Brand Awareness (BRANDAWAR)

| Reliability Statistics |  |  |
| :---: | :---: | ---: |
| Cronbach's <br> Alpha | Crona Based on <br> Standardized <br> Items | N of Items |
| , 732 | , 733 | 2 |

Scale 3: Perceived Quality (PERCQUA)

| Reliability Statistics |  |  |  |
| :--- | :---: | ---: | :---: |
| Cronbach's <br> Alpha | Cronbach's <br> Alpha Based on <br> Standardized <br> Items |  |  |
| , 827 | , 840 | N of Items |  |

Scale 4: Perceived Benefits (PERCBENEFITS)

| Reliability Statistics |  |  |  |  |
| :---: | :---: | ---: | :---: | :---: |
| Cronbach's <br> Alpha | Cronbach <br> Alpha Based on <br> Standardized <br> Items |  |  |  |
| , 707 | , 736 | N of Items |  |  |
|  |  |  |  |  |

Scale 5: Perceived Risks (PERCRISKS)
Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based <br> on Standardized Items | N of Items |
| ---: | ---: | ---: |
| , 794 | , 795 | 3 |

Scale 6: Perceived Inconvenience (PERCINCONV)

| Cronbach's <br> Alpha | Cronbach's <br> Alpha Based on <br> Standardized <br> Items | N of Items |
| ---: | ---: | ---: |
| , 791 | , 793 | 2 |

Scale 7: Trust In Regulatory Control (TRUSTREGCONTROL)

| Reliability Statistics |  |  |
| ---: | :---: | ---: |
| Cronbach's Alpha | Cronbach's Alpha Based <br> on Standardized Items | N of Items |
| , 768 | , 774 | 2 |

## Scale 8: Attitude (ATTITUDE)

Reliability Statistics

|  | Cronbach's <br> Alpha Based on <br> Cronbach's <br> Standardized <br> Alpha | Items |
| ---: | ---: | ---: |
| , 780 | , 784 | $N$ of Items |

Scale 9: Subjective Norms (SUBNORM)

| Reliability Statistics |  |  |  |
| :---: | :---: | ---: | :---: |
|  Cronbach's <br> Cronbach's <br> Alpha Based on <br> Standardized <br> Items  <br> , 748 , 751 N of Items |  |  |  |

Scale 10: Behavioral Consumption Intention (CONBEHAVINT)

| Reliability Statistics |  |  |  |  |
| ---: | :---: | ---: | :---: | :---: |
| Cronbach's Alpha | Cronbach's Alpha Based <br> on Standardized Items | N of Items |  |  |
| , 900 | , 900 |  |  |  |

## Appendix 4 : Correlation

## Appendix 4 (1) Submodel - 1

Correlations

|  |  | PERCQUA | COOI | BRANDAWAR |
| :---: | :---: | :---: | :---: | :---: |
| Pearson Correlation | PERCQUA | 1,000 | ,476 | ,449 |
|  | COOI | ,476 | 1,000 | ,341 |
|  | BRANDAWAR | ,449 | ,341 | 1,000 |
| Sig. (1-tailed) | PERCQUA |  | ,000 | ,000 |
|  | COOI | ,000 |  | ,000 |
|  | BRANDAWAR | ,000 | ,000 |  |
| N | PERCQUA | 200 | 198 | 199 |
|  | COOI | 198 | 198 | 197 |
|  | BRANDAWAR | 199 | 197 | 199 |

Appendix 4 (2) Submodel - 2

| Correlations |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ATTITUDE | PERCQUA | $\underset{\mathrm{V}}{\mathrm{PERCIINCON}}$ | PERCBENEFI | TRUSTREGC ONTROL | PERCRISK | Ithink that the salmon imported from Norway has a high price |
| Pearson Correlation | ATTITUDE | 1,000 | . 615 | -. 037 | . 604 | . 462 | -.,187 | . 094 |
|  | PERCOUA | . 615 | 1.000 | . 226 | . 548 | . 459 | -.,140 | . 354 |
|  | PERCINCONV | -.,037 | . 226 | 1.000 | . 211 | . 184 | . 230 | . 288 |
|  | PERCBENEFIT | . 604 | . 548 | . 211 | 1.000 | . 452 | -. 016 | . 142 |
|  | TRUSTREGCONTROL | . 462 | . 459 | . 184 | . 452 | 1.000 | -. 162 | . 075 |
|  | PERCRISK | -. 187 | -., 140 | . 230 | -. 016 | -. 162 | 1.000 | . 158 |
|  | I think that the salmon imported from Norway has a high price | . 094 | . 354 | . 288 | . 142 | . 075 | . 158 | 1.000 |
| Sig. (1-tailed) | ATTITUDE | - | . 000 | . 303 | . 000 | . 000 | . 004 | . 094 |
|  | PERCOUA | . 000 | - | . 001 | . 000 | . 000 | . 024 | . 000 |
|  | PERCINCONV | . 303 | . 001 |  | . 001 | . 005 | . 001 | . 000 |
|  | PERCBENEFIT | . 000 | . 000 | . 001 |  | . 000 | . 409 | . 023 |
|  | TRUSTREGCONTROL | . 000 | . 000 | . 005 | . 000 | . | . 011 | . 145 |
|  | PERCRISK | . 004 | . 024 | . 001 | . 409 | . 011 |  | . 013 |
|  | 1 think that the salmon imported from Norway has a high price | . 094 | . 000 | . 000 | . 023 | . 145 | . 013 |  |
| N | ATTITUDE | 199 | 199 | 198 | 198 | 199 | 199 | 199 |
|  | PERCOUA | 199 | 200 | 199 | 199 | 200 | 200 | 200 |
|  | PERCINCONV | 198 | 199 | 199 | 198 | 199 | 199 | 199 |
|  | PERCBENEFIT | 198 | 199 | 198 | 199 | 199 | 199 | 199 |
|  | TRUSTREGCONTROL | 199 | 200 | 199 | 199 | 200 | 200 | 200 |
|  | PERCRISK | 199 | 200 | 199 | 199 | 200 | 200 | 200 |
|  | I think that the salmon imported from Norway has a high price | 199 | 200 | 199 | 199 | 200 | 200 | 200 |

Appendix 4 (3) Submodel - 3

Correlations

|  |  | CONBEHAVI <br> NT | ATTITUDE | SUBNORM | Consumption <br> frequency |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Pearson Correlation | CONBEHAVINT | 1,000 | , 664 | , 499 | , 267 |
|  | ATTITUDE | , 664 | 1,000 | , 348 | , 211 |
|  | SUBNORM | , 499 | , 348 | 1,000 | , 221 |
|  | Consumption frequency | , 267 | , 211 | , 221 | 1,000 |
| Sig. (1-tailed) | CONBEHAVINT |  | , 000 | , 000 | , 000 |
|  | ATTITUDE | , 000 | . | , 000 | , 001 |
|  | SUBNORM | , 000 | , 000 | . | , 001 |
|  | Consumption frequency | , 000 | , 001 | , 001 |  |
| N | CONBEHAVINT | 200 | 199 | 200 | 200 |
|  | ATTITUDE | 199 | 199 | 199 | 199 |
|  | SUBNORM | 200 | 199 | 200 | 200 |
|  | Consumption frequency | 200 | 199 | 200 | 200 |

## Appendix 4 (4) Submodel - 4

## Correlations

|  |  | Consumption <br> frequency | CONBEHAVI <br> NT |
| :--- | :--- | ---: | ---: |
| Pearson Correlation | Consumption frequency | 1,000 | , 267 |
|  | CONBEHAVINT | , 267 | 1,000 |
| Sig. (1-tailed) | Consumption frequency | . | , 000 |
|  | CONBEHAVINT | , 000 | . |
| N | Consumption frequency | 200 | 200 |
|  | CONBEHAVINT | 200 | 200 |

## Appendix 5. Regression Analysis

## Appendix 5 (1) Submodel - 1

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | , $565^{\mathrm{a}}$ | , 320 | , 312 | 1,136 |

a. Predictors: (Constant), BRANDAWAR, COOI b. Dependent Variable: PERCQUA

ANOVAa

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 117,450 | 2 | 58,725 | 45,545 | , $000^{\circ}$ |
|  | Residual | 250,142 | 194 | 1,289 |  |  |
|  | Total | 367,592 | 196 |  |  |  |

a. Dependent Variable: PERCQUA
b. Predictors: (Constant), BRANDAWAR, COOI

Coefficients ${ }^{3}$

| Nodel |  | Unstandardiogd Coefficients |  | Standardiced <br> Coeficients <br> Beth | t | Sig. | 95,0\% Confisence interal for B |  | Correlations |  |  | Collinearity Statistics |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Sta. Emor |  |  |  | Lower Bound | Upper Bound | Zero-order | Paftal | Pat | Tolarance | VF |
| 1 | (Constant) | . 822 | , 550 |  | 1,495 | , 137 | $\cdot \cdot 262$ | 1,906 |  |  |  |  |  |
|  | COOI | ,609 | , 105 | , 366 | 5,807 | , 000 | , 402 | . 816 | , 476 | , 385 | ,344 | ,883 | 1,132 |
|  | BRANDANR | .238 | . 046 | . 324 | 5.137 | , 000 | , 147 | 330 | . 49 | , 346 | , 304 | .883 | 1,132 |

a. Dependent Variable: PERCOUA

Appendix 5 (2) Submodel - 2

Model Summaryb

| Model | R | R Square | Adjusted R Square | Std. Error of the <br> Estimate |
| :--- | ---: | ---: | ---: | :---: |
| 1 | , $741^{\mathrm{a}}$ | , 549 | , 535 | , 906 |

a. Predictors: (Constant), I think that the salmon imported from Norway has a high price, TRUSTREGCONTROL, PERCRISK, PERCINCONV, PERCBENEFIT, PERCQUA
b. Dependent Variable: ATTITUDE

| ANOVAa |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | Sum of Squares | df | Mean Square | F |
| 1 | Regression | 190,748 | 6 | 31,791 | 38,732 |
|  | Residual | 156,772 | 191 | , 821 |  |
|  | Total | 347,520 | 197 |  |  |
|  |  | $000^{\circ}$ |  |  |  |
|  |  |  |  |  |  |

a. Dependent Variable: ATTITUDE
b. Predictors: (Constant), I think that the salmon imported from Norway has a high price

TRUSTREGCONTROL, PERCRISK, PERCINCONV, PERCBENEFIT, PERCQUA
Coefficients ${ }^{3}$

| Mos: 1 |  | Unstandardaed Coefficients |  | Standardord <br> Cotficients <br> Beta | $t$ | Sig. | 95,0\% Confdence interal fre B |  | Comelations |  |  | Collinearit Staistics |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 8 | Std. Eroor |  |  |  | Lower Bound | Upper Bound | Zero-order | Pafal | Pat | Tolerance | VF |
| 1 | (Constant) | 1,335 | , 438 |  | 3,046 | ,003 | , 470 | 2,200 |  |  |  |  |  |
|  | PERCOUA | , 393 | . 064 | . 405 | 6,154 | ,000 | 267 | ,519 | ,615 | ,407 | ,299 | ,546 | 1,833 |
|  | PERCINCONN | $\cdot 236$ | ,060 | -208 | -3,403 | ,000 | -355 | -,117 | -,037 | $\cdot ; 272$ | -190 | ,829 | 1,206 |
|  | PERCBENEFTT | 475 | . 079 | ,367 | 6,014 | ,000 | ,319 | ,631 | ,604 | ,399 | ,292 | ,636 | 1,573 |
|  | TRUSTPEGCONTROL | , 160 | . 064 | , 144 | 2,490 | , 014 | 033 | 287 | . 452 | , 177 | , 121 | ,705 | 1,419 |
|  | PERCRISK | -,046 | , 052 | -046 | . 877 | , 362 | -149 | , 057 | -,187 | . 065 | . 043 | ,860 | 1,163 |
|  | Ithinkthat the salmon imported from Noway has a high price | . 050 | . 059 | -046 | $\cdot 835$ | . 405 | -167 | ,068 | ,094 | -060 | . 041 | ,790 | 1,266 |

[^1]
## Appendix 5 (3) Submodel - 3

| Model Summary $^{\text {b }}$ |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: |
| Model | R | R Square | Adjusted R <br> Square | Std. Error of the <br> Estimate |  |  |
| 1 | , $728^{\mathrm{a}}$ | , 530 |  | , 523 |  |  |

a. Predictors: (Constant), Consumption frequency, ATTITUDE, SUBNORM
b. Dependent Variable: CONBEHAVINT
ANOVAa

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 261,745 | 3 | 87,248 | 73,268 | , $000^{\text {b }}$ |
|  | Residual | 232,209 | 195 | 1,191 |  |  |
|  | Total | 493,954 | 198 |  |  |  |

a. Dependent Variable: CONBEHAVINT
b. Predictors: (Constant), Consumption frequency, ATTITUDE, SUBNORM

Coefficients ${ }^{3}$

| Undel | Unstantaried Cozicicierts |  | Standaricord <br> Covfricits <br> Beta | 1 | Sif | 95,08 Configme intralfor8 |  | Corialins |  |  | Colinaritifetisitis |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | Stid Elot |  |  |  | Loner Buond | Upper Bound | 2er0.0089 | Partial | Pat | Toliance | VF |
| 1 (Canstanf) | ; 159 | 337 |  | . 445 | ,657 | . 8862 | . 545 |  |  |  |  |  |
| ATITUDE | ,648 | , 683 | . 545 | 10,294 | ,, 000 | . 24.4 | ,712 | , 664 | 598 | , 505 | ,880 | 1,163 |
| SUBNOPV | 278 | 0.051 | 200 | 5,455 | ,000 | ,178 | 379 | 198 | 3.64 | 268 | , 856 | 1,68 |
| Consumpbinfrepuency | ,135 | , 078 | , 18 | 1,721 | , 087 | . 0200 | 290 | , 267 | 122 | ,085 | 931 | 1,075 |

a. DependeniVaridel: CONBEHYNTT

## Appendix 5 (4) Submodel - 4

| Model Summaryb |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Rodel R R Square Adjusted R <br> SquareStd. Error of the <br> Estimate |  |  |  |  |
| 1 | , $267^{\text {a }}$ | , 071 | , 066 | , 990 |

a. Predictors: (Constant), CONBEHAVINT
b. Dependent Variable: Consumption frequency

ANOVAa

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | :--- |
| 1 | Regression | 14,847 | 1 | 14,847 | 15,157 | , $000^{\text {b }}$ |
|  | Residual | 193,948 | 198 | , 980 |  |  |
|  | Total | 208,795 | 199 |  |  |  |

a. Dependent Variable: Consumption frequency b. Predictors: (Constant), CONBEHAVINT

Coufficints ${ }^{3}$

| Hodel |  | Unstandariced Coificients |  | Standariced <br> Coeficients | 1 | Sig. | 95,0\% Confencel Itieralior ${ }^{\text {a }}$ |  | Conelatins |  |  | Colineait Staistis |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 8 | Sti Eror | Beth |  |  | Lower Buand | Upper Buand | Zeroorder | Patial | Pat | Tolerance | VF |
| 1 | (Constint) | 2,379 | ,209 |  | 11,398 | ,000 | 1,988 | 2791 |  |  |  |  |  |
|  | CONBEHANTT | , 173 | , 04.4 | 267 | 3,883 | ,000 | , 485 | 261 | 267 | 267 | 267 | 1,000 | 1,000 |

a. Dependent/Variale: Consimplon tepuenery

## Appendix 6 : Regression analysis (Gender differences)

## Appendix 6 (1): Submodel 1

| Model Summary ${ }^{\text {b }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| MALE | 1 | ,565 ${ }^{\text {a }}$ | ,319 | ,301 | 1,207 | 1,915 |
| FEMALE | 1 | ,581 ${ }^{\text {a }}$ | ,337 | ,325 | 1,087 | 2,104 |

a. Predictors: (Constant), BRANDAWAR, COOI
b. Dependent Variable: PERCQUA

ANOVA ${ }^{\text {a }}$

| Sex | Model | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| MALE | 1 | Regression | 52,490 | 2 | 26,245 | 18,020 |
|  | Residual | 112,148 | 77 | 1,456 |  | , $000^{\mathrm{b}}$ |
|  | Total | 164,638 | 79 |  |  |  |
| FEMALE | 1 | Regression | 68,407 | 2 | 34,204 | 28,971 |

a. Dependent Variable: PERCQUA b. Predictors: (Constant), BRANDAWAR, COOI

| Coefficients ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | Model |  | Unstandardized Coefficients |  | Standardized <br> Coefficients <br> Beta | t | Sig. | 95,0\% Confidence Interval for B |  | Correlations |  |  | Collinearity Statistics |  |
|  |  |  | B | Std. Error |  |  |  | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| MALE | 1 | (Constant) | ,082 | ,955 |  | ,086 | , 932 | -1,819 | 1,983 |  |  |  |  |  |
|  |  | COOI | ,807 | , 189 | , 440 | 4,268 | ,000 | , 430 | 1,183 | ,529 | , 437 | , 401 | , 832 | 1,201 |
|  |  | BRANDAWAR | , 178 | ,085 | ,217 | 2,105 | ,039 | , 010 | , 346 | , 397 | ,233 | , 198 | ,832 | 1,201 |
| FEMALE | 1 | (Constant) | 1,169 | ,669 |  | 1,749 | ,083 | -,155 | 2,493 |  |  |  |  |  |
|  |  | COOO | , 511 | , 125 | , 328 | 4,101 | ,000 | ,264 | ,758 | , 446 | , 359 | , 313 | ,909 | 1,100 |
|  |  | BRANDAWAR | ,268 | , 055 | , 390 | 4,880 | ,000 | , 159 | , 377 | , 489 | , 416 | , 372 | ,909 | 1,100 |

a. Dependent Variable: PERCQUA

## Appendix 6 (2): Submodel 2

Model Summaryb

| Sex | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MALE | 1 | ,831 ${ }^{\text {a }}$ | ,691 | ,666 | ,790 | 1,994 |
| FEMALE | 1 | ,746 ${ }^{\text {c }}$ | ,556 | ,532 | ,895 | 1,574 |

a. Predictors: (Constant), I think that the salmon imported from Norway has a high price , PERCRISK, PERCBENEFIT, PERCINCONV, TRUSTREGCONTROL, PERCQUA
b. Dependent Variable: ATTITUDE
c. Predictors: (Constant), I think that the salmon imported from Norway has a high price , TRUSTREGCONTROL, PERCRISK, PERCINCONV, PERCQUA, PERCBENEFIT

a. Dependent Variable: ATTITUDE
b. Predictors: (Constant), I think that the salmon imported from Norway has a high price , PERCRISK, PERCBENEFIT, PERCINCONV, TRUSTREGCONTROL, PERCQUA c. Predictors: (Constant), I think that the salmon imported from Norway has a high price , TRUSTREGCONTROL, PERCRISK, PERCINCONV, PERCQUA, PERCBENEFIT

## Appendix 6 (3): Submodel 3

| Sex | Model | R | R Square | Adjusted R Square | Stl . Error of the Estimate | Durbin-Watson |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MALE | 1 | . $748^{*}$ | . 559 | . 542 | 1,070 | 1,831 |
| FEMALE | 1 | $734^{\text {c }}$ | . 539 | . 527 | 1,090 | 1,758 |

a. Predictors: (Constant). Consumption frequency, SUBNORM, ATTITUDE
b. Dependent Variable: CONBEHAVINT
c. Predictors: (Constant). Consumption fequency, ATTITUDE, SUBNORM

| ANOVA* |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| MALE | 1 | Regression | 110,486 | 3 | 36,829 | 32,162 | .000 |
|  |  | Residual | 87.027 | 76 | 1,145 |  |  |
|  |  | Total | 197.514 | 79 |  |  |  |
| FEMALE | 1 | Regression | 159,524 | 3 | 53,175 | 44,767 | .000 |
|  |  | Residual | 136.599 | 115 | 1.188 |  |  |
|  |  | Total | 296,123 | 118 |  |  |  |

a. Depen dent Variable: CONBEHAVINT
b. Predictors: (Constant). Consumption frequency, SUBNORM, ATTIT UDE
c. Predictors: (Constant), Consumption fequency, ATTITUDE, SUBNORM

| Coefficients ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unstandardized Coefficients |  | $\begin{gathered} \hline \begin{array}{c} \text { Standardized } \\ \text { Coefficients } \end{array} \\ \hline \text { Beta } \end{gathered}$ | t | Sig. | 95,0\% Confidence Interval for B |  | Correlations |  |  | Collinearity Statistics |  |
|  | Model |  | B | Std. Error |  |  |  | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VF |
|  | 1 | (Constant) | . 125 | ,568 |  | , 221 | , 826 | -1,006 | 1,257 |  |  |  |  |  |
|  |  | SUBNORM | . 407 | . 082 | . 397 | 4,972 | , 000 | ,244 | . 570 | , 551 | . 495 | , 379 | , 911 | 1,098 |
|  |  | attitude | . 614 | , 093 | . 530 | 6,630 | , 000 | . 429 | ,798 | , 645 | , 605 | . 505 | ,907 | 1,103 |
|  |  | Consumption frequency | -. 018 | . 114 | -.012 | -. 159 | , 874 | -,246 | ,210 | , 083 | -,018 | -.012 | ,984 | 1,016 |
| FEMALE | 1 | (Constant) | -.419 | . 455 |  | -,922 | , 359 | -1,320 | , 482 |  |  |  |  |  |
|  |  | SUBNORM | , 184 | , 065 | . 198 | 2,808 | ,006 | , 054 | , 313 | . 467 | ,253 | , 178 | ,806 | 1,241 |
|  |  | attitude | ,666 | . 085 | . 550 | 7,868 | , 000 | , 498 | , 833 | ,678 | , 592 | . 498 | , 822 | 1,217 |
|  |  | Consumption frequency | . 289 | . 108 | . 182 | 2,679 | . 008 | , 075 | . 502 | . 402 | ,242 | . 170 | ,868 | 1,152 |

a. Dependent Variable: CONBEHAVINT

## Appendix 6 (4): Submodel 4

| Model Summary ${ }^{\text {b }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| MALE | 1 | ,083a | ,007 | -,006 | 1,064 | 2,117 |
| FEMALE | 1 | ,402 ${ }^{\text {a }}$ | ,162 | ,155 | ,919 | 1,710 |

a. Predictors: (Constant), CONBEHAVINT
b. Dependent Variable: Consumption frequency

ANOVA ${ }^{a}$

| Sex | Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| MALE | 1 | Regression | , 623 | 1 | , 623 | , 551 | , $460^{\text {b }}$ |
|  |  | Residual | 89,377 | 79 | 1,131 |  |  |
|  | Total | 90,000 | 80 |  |  |  |  |
| FEMALE | 1 | Regression | 19,091 | 1 | 19,091 | 22,587 | , $000^{\text {b }}$ |
|  |  | Residual | 98,892 | 117 | , 845 |  |  |
|  |  | Total | 117,983 | 118 |  |  |  |

a. Dependent Variable: Consumption frequency
b. Predictors: (Constant), CONBEHAVINT

## Introduction

We are two students from the Aalesund University College of Norway and we are conducting a scientific study where we would like to know what people think about Norwegian Salmon and the image of Norway.

The results will be used for our master thesis regarding the country of origin effect on attitude and purchase intention where the main product is Norwegian Salmon and the import country is Spain. Your opinion will be of great importance, and we highly appreciate your participation.

The answers are anonymous and the results will only be used for a statistical analysis.

Thank you very much for agreeing to participate in this study.

Farah Naz,
SulekaSomo

Aalesund University College
Larsgaardsvegen 2
6009 Aalesund
NORWAY

Please circle the number that represents your views regarding the following statements. Choose somewhere in between 1= Strongly Disagree and 7= Strongly Agree

StronglyDisagree StronglyAgree
1.Norway has a high level of industrialization
2.Norway has a highly developed economy
1.Salmon is a typical product of Norway
2.Salmon from Norway is produced in an innovative and enviromentally friendly way
3. Salmon from Norway has a higher quality levelthan salmon from other countries (f.exampleAlaska,Chile,Scotland)
1.The sentence of «Salmon Noruego» comes to my mind quickly
2. I have seen different advertisements for «Salmon Noruego» in TV, Magazine, Internet and etc.

1.I think that Norwegian salmon has a good Taste
2. I think that the quality of Norwegian salmon is generally good

1234567
$\begin{array}{llllll}1 & 2 & 3 & 4 & 5 & 7\end{array}$

1234567
1234567
1234567

1234567

Please circle the number that represents your views regarding the following statements. Choose somewhere in between 1= Strongly Disagree and 7= Strongly Agree

|  | StronglyDisagree StronglyAgree |
| :---: | :---: |
| 1.I think that the salmon imported from Norway has a high price | 1234567 |
| 2. Preparing Norwegian salmon is very time consuming | 1234567 |
| 3.It takes a lot of time to plan, provide and prepare Norwegian salmon | $1 \begin{array}{lllllll}1 & 3 & 4 & 5 & 7\end{array}$ |
| 1.Eating Norwegian salmon prevents the heart Disease (coronary disease) | $t \quad \begin{array}{llllll}1 & 2 & 3 & 4 & 5 & 7\end{array}$ |
| 2.Eating Norwegian salmon reduces the risk to develop cancer | $1 \begin{array}{lllllll}1 & 2 & 4 & 5 & 6\end{array}$ |
| 3.Eating Norwegian salmon makes me more "elegant" | 12345667 |
| 4. I am very concerned about the possibility of getting ill from eating Norwegian salmon | $1 \begin{array}{lllllll}1 & 2 & 3 & 5 & 6\end{array}$ |
| 5. Norwegian Salmon has a higher risk of food poisoning from chemical contamination than other kinds of food | $1 \begin{array}{lllllll}1 & 2 & 3 & 4 & 5 & 6\end{array}$ |
| 6.Norwegian salmon is more risky to eat | 12344567 |

with respect to food poisoning from
bacterial contamination than other kinds of food

Please circle the number that represents your views regarding the following statements. Choose somewhere in between 1 = Strongly Disagree and $7=$ Strongly Agree


Please circle the number that represents your views regarding the following statements. Choose somewhere in between 1 = Strongly Disagree and 7= Strongly Agree
1.I think that the Spanish regulatory agencies ensure that the control Procedures concerning fish imports are done correctly
2.I think that the fish imported from Norway

1234567
$1 \begin{array}{llllll}1 & 3 & 4 & 5 & 7\end{array}$
fulfill the requirements imposed by the Spanish regulatory agencies.

Please circle the number that represents your views regarding the following statements. Choose somewhere in between 1= Strongly Disagree and 7= Strongly Agree

## StronglyDisagree

## StronglyAgree

1.I think it is very good to eat Norwegian salmon
2.I think that Norwegian salmon is a very pleasart Food /it's very pleasant to eat Norwegian salmon salmon in the future
3.1 will try to consume more Norwegian

Salmon for my long term health
Benefits
4.I would like to eat more Norwegian salmon
$\begin{array}{lllllll}1 & 2 & 3 & 4 & 5 & 6\end{array}$

1234567
$1 \begin{array}{llllll}1 & 3 & 4 & 5 & 6\end{array}$

1234567

1234567
$\begin{array}{lllllll}1 & 2 & 3 & 4 & 5 & 7\end{array}$

Please write your age, and answer the following questions with an $X$
1.How old are you? (in years) $\qquad$
2.Male $\qquad$ Female $\qquad$ (Please answer with an X )
3.What is your marital status? (Please answer with an $X$ )

Single $\qquad$
In a relationship $\qquad$
Living with a partner $\qquad$
Married
Other $\qquad$ -> $\qquad$
4. What is your educational level? (Please answer with an $x$ on the courses you are taking this year)
First year of Bachelor level $\qquad$
Second year of Bachelor level $\qquad$
Third year of Bachelor level $\qquad$
First year of Master level $\qquad$
First year of PHD level $\qquad$
Second year of PHD level $\qquad$
5) Do you live at home with your parents? (Please answer with an $x$ ) Yes $\qquad$ No $\qquad$
6)How frequently you eat fish at home? (Please answer with an $X$ ) 1.Daily
2.Several times a week
3.Weekly
4.Several times a month $\qquad$
5.Less than once a month $\qquad$

You have reached the end of the questionnaire.
Thank you very much for participating in this study.
Your assistance is greatly appreciated


[^0]:    *. Correlation is significant at the 0.05 level (2-tailed).
    **. Correlation is significant at the 0.01 level (2-tailed).

[^1]:    a. Dependent Variatle: ATTIUDE

