UNIVERSITY OF GOTHENBURG

SCHOOL OF BUSINESS, ECONOMICS AND LAW

An investigation of potential predictors for predicting consumer intentions towards purchasing fish from aquaculture

An application of the theory of planned behaviour, in the region of the west coast of Sweden

Bachelor thesis in business economics and marketing

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Abstract

One of the planets major challenges today are climate change and the fact that we need to find a way to provide food for the estimated 9,5 billion people by 2050 without jeopardizing the environment any further. Almost 90 percent of the world's fish stock is estimated to be either fully exploited or overfished. Using aquaculture as a method is the most efficient and sustainable way to prevent the fish stock from being extinct. Hence, a need for more research on fish consumption and aquaculture is arising, which is the underlying purpose of this study. Moreover, the purpose is to study the relationship between six different variables in order to examine the possibility of predicting purchasing intentions regarding fish from aquaculture, and if so, how. The six variables are subjective norms, perceived behavioural control, attitudes, environmental awareness, involvement and intentions. A model rooted in the theory of planned behaviour was put together and a survey conducted by SWEMARC, consisting of 2154 respondents from the west coast of Sweden was used to gain information in order to be able to analyse the chosen research area. The result proves a significant relationship between purchasing intentions regarding aquaculture fish and the following three variables; subjective norms, attitudes and involvement. Environmental awareness was proved to affect consumer attitudes regarding the concept, but not to a considerable degree. The proposed model and the proven existing relationships hold the possibility, to a certain extent, to predict purchasing intentions regarding fish from aquaculture. The study also discusses and suggests marketing implications and recommendations for further research.

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Abbreviations and definitions

TPB - Theory of planned behaviour

PBC - Perceived behavioural control

SWEMARC - Swedish Mariculture Research Center

SPSS - Statistical Package for the Social Sciences

1. Introduction

1.1. Background and problem statement

By 2050, the planet is expected to provide 9,5 billion people with food. Despite the fact that the planet mostly consists of water, almost all food is produced on land and it is estimated that we are in need for 70 percent more protein than what is available today (Velings, 2015). This proclaims that one of the biggest challenges for our future is being able to produce nutritious food in a sustainable way. Increasing the meat industry would be problematic from many perspectives, especially for the large negative impact on climate change (WWF, 2019). However, as 71 percent of the planet consists of water, the ocean can be seen as an unused resource with the potential to increase food production for our future, in a more sustainable way (SWEMARC 2018).

As of October 2019, almost 90 percent of the world's fish stock was estimated to be fully exploited or overfished (Havs-och vattenmyndigheten, 2019). Due to the negligible space for wild-capture fisheries to expand and increase their harvest, we are in need for aquaculture to bridge the gap in order to reach a long-term sustainable supply and demand (Havs-och vattenmyndigheten, 2019).

Aquaculture is the concept of all farmed plants and animals in water, both sea and lake. The concept has existed in Sweden for many years and today, almost every other fish is farmed from aquaculture (Norge Sjomatrad, 2019). According to a study conducted by Seafood consumer insight, nearly half of the Swedish population who eats fish, prefer salmon over any other type of fish, which to a great extent is farmed from aquaculture (SWEMARC, 2019) (Norge Sjomatråd, 2019). Aquaculture is one of the most sustainable and efficient ways to produce high-quality protein as the industry has a low carbon footprint and high energy retention as well as lower greenhouse gas emissions than any other type of farming (Norge Sjomatråd, 2019). It holds great potential to produce a lot of food for the population, making it an effective way to use less exploited resources (SWEMARC, 2016).

In order to create and sustain a sustainable aquaculture, it is necessary to have an understanding of how and why consumers' general fish consumption look the way it does. This understanding becomes highly important as an increase or decrease in the general fish

consumption indirectly have an effect on aquaculture fish consumption as every other fish is farmed from aquaculture (SWEMARC, 2016).

1.2. Purpose statement and research questions

The purpose of this study is to investigate the relationships between five different factors, listed below in the first research question, and whether or not they have a positive effect on consumer intentions towards purchasing fish. A positive effect, in this study, means that if the factors have a greater influence on purchasing intentions, intentions will thus be strengthened. More specifically we will look into if these five factors, in fact, can be used to predict consumer intentions towards purchasing fish from aquaculture. This will be done by answering the following research questions:

- Is there a positive relationship of influence between environmental awareness, attitudes, subjective norms, involvement, perceived behavioural control and consumer purchasing intentions?

- If there is an existing relationship between the different factors, could they be used when predicting consumer intentions towards purchasing fish from aquaculture?

1.3. Relevance and research contribution

This study contributes to the understanding of the relationship between five different factors and their effect on consumers intentions towards purchasing fish from aquaculture. By using established theories and previous research in a new context as well as proposing an updated model, the study provides a new angle of research.

1.4. Delimitations

This study is based on a survey conducted by SWEMARC, meaning that both the research and survey share the same limitations. The geographical location of SWEMARC's survey was limited to the west coast of Sweden, meaning that the same limitations were applied to this study. Due to given timeframe, there was no possibility to further investigate other potential factors of influence in addition to the ones included in the survey.

2. Literature review and theory

2.1. Theory of planned behaviour

The theory of planned behaviour (TPB) is a theory that focuses on different factors that play a significant role in how humans act. The theory is built upon three independent determining factors of intentions; subjective norms, attitudes and perceived behavioural control, see Figure 1. It is an extension of the theory of reasoned action, where, in addition to attitudes and subjective norms, which compromise the theory of reasoned action, TPB contributes with the concept of perceived behavioural control. Perceived behavioural control deals with the perceived ease and difficulty to act on the behaviour and reflects on past experiences and anticipated obstacles and impediments. Subjective norms refers to the individual's experience of social pressure and norms. Attitudes refers to a person's evaluation and feelings, either positive or negative, towards performing a certain behaviour. The more positive an individual's attitudes and subjective norms are and the greater the perceived behavioural control is, the stronger the intention to perform the behaviour will be (Ajzen, 2002). In the context of this study, an individual with positive attitudes towards fish consumption, positive social surrounding associated with fish consumption and a perception of successfully being able to perform the behaviour, should then result in a more positive and stronger intention to purchase fish.

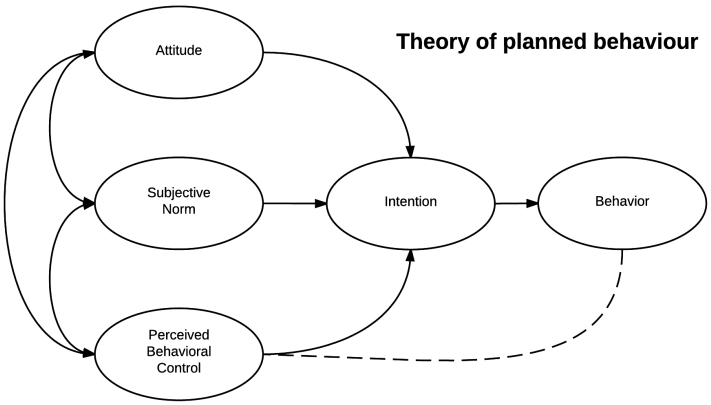

Figure 1: The theory of planned behaviour model (Ajzen, 1991)

2.1.1. Intentions

Sheeran (2002) describes intentions as the instructions that a person gives to themselves to behave in a particular way. It is their motivation to perform on the behaviour where the intentions include both the direction as well as the strength of the decision. In other words, the amount of effort people plan to exert and the likelihood of the behaviour happening. The stronger the intentions are, the bigger is the chance that they act upon the behaviour (Ajzen, 1991).

2.1.2. Subjective norms

Subjective norms imply how and if people should adhere to a prescribed behaviour. Society's social norms, more often than not, guide a person's behaviour in specific contexts (Biel and Thogersen, 2007) (Jansson, 2010). If adopting the given fact that people are social beings, a person's social surroundings becomes highly important. Social comparison often have considerable impact on individuals, meaning that striving for belonging and acceptance will impact a person's intentions (Gabriel and Lang, 2015) (Jansson, 2010). Solomon et al. (2010) argues that social influence can be explained as the process of when individuals search and analyse the behaviour of others, in order to derive an indication of how oneself should act and behave.

How and what a person eats is a rather controversial subject with many strong and shatter opinions, which should be considered to be a possible source of influence towards a person's behaviour (Gabriel and Lang, 2015). Results from a study conducted by Ham et al. (2015) proved that there is an existing relationship between a person's subjective norms and their intention to purchase green food. Meaning, that the people that individuals consider to be important influence their purchasing intentions, for example, if a close one purchases green food, the individual will most likely consider doing the same.

2.1.3. Perceived behavioural control

Perceived behavioural control is a concept which addresses whether or not an individual feel that he or she has the possibility to carry out a specific behaviour. The greater the perceived behavioural control is, the more likely it is to influence the intention in order to successfully be able to perform the behaviour (Ajzen, 1991).

Godin et al. (1993) studied the interplay between perceived behavioural control and intentions to exercise. It was proven that there exists a significant relationship between the two, meaning that if a person feels that they are in control over their own exercising, the likelihood of them exercising is greater due to the stronger intentions.

2.1.4. Attitudes

Attitudes is the concept which reflects on why people evaluate things in a certain way. These evaluations can be of people, objects, issues etc. Often such evaluations are either positive or negative, but they can also be of mixed feelings meaning that a person can be uncertain about how they feel about a specific object (Ajzen, 1991). Attitudes have been identified as one of the most important predictors of an individual's intentions towards a specific subject (Rucker and Petty, 2006). Ajzen (1991) points out that an attitude is affected by one's beliefs regarding the subject and the possible outcomes from acting on these beliefs.

A study conducted by Koklic et al. (2019) proved a significant relationship between a person's attitude towards organic food and their intentions to purchase it. In other words, if a person has a positive attitude towards organic food, the greater their intention is to purchase it. In conclusion, the more positive attitudes are, the more positive intentions will be (Koklic et al., 2019).

2.1.5. Environmental awareness

According to Ham et al. (2016), one way to define the concept of environmental awareness is the individual’s concern and view of the environmental consequences caused by one's behaviour. It is the tendency to respond to environmental issues and is a factor of an individual’s beliefs and values. Gregory et al. (2003) argues that individuals who engage themselves in environmental actions also tend to be more aware of environmental issues and concerns. However environmentally awareness does not automatically lead to intentions, instead, Gregory et al. (2003) propose that environmental awareness influences intentions with intervening variables.

Mohiuddin et al. (2018) have studied the interplay between environmental awareness and attitudes by investigating if environmental awareness influence business students’ attitudes toward purchasing green vehicles. The results were shown to be positive, meaning that if a

person is concerned about the environment, they are more likely to have a positive attitude towards environmentally friendly vehicles.

2.1.6. Involvement

Gregory et al. (2003) defines involvement as the level of interest or importance of a specific object or situation. According to Mittal (1989), a consumer's purchase involvement measures the degree of motivation a consumer have when making a purchase and how important a specific product or service is to the consumer. Subjects involving food and environmental aspects, often tend to have more highly involved consumers than other subjects (Bruwer and Buller, 2013; Bruwer and Huang, 2012; Lockshin et al., 1997) (Roe and Bruwer, 2017).

Teng and Lu (2016) conducted a study where they investigated the relationship between involvement regarding organic food and the intention to purchase it. They found the relationship to be significant, meaning that if a person has an interest in organic food as well as considers it to be important, their purchasing intentions will be stronger.

2.2. Summary

The theory of planned behaviour explains how individuals' attitudes, subjective norms and perceived behavioural control can lead to intentions towards acting. Connor and Armitage (1998) argue that the TPB-model hardly can be seen as a complete theory as not all variables that influence the components of the TPB-model are described in the process. Therefore, various studies related to consumer behaviour, have instead followed the suggestion of Ajzen (2002); that the model is open for interpretation and of additional predictors. Hence, two more concepts are added in this thesis in order to explain what might positively influence an individual's intentions towards purchasing aquaculture fish. These two concepts are environmental awareness and involvement regarding fish consumption.

Environmental awareness is said to influence intentions through intervening variables (Gregory et al, 2003). Likewise, the involvement of the issue is said to be an important influencer to consumer intentions (Bruwer and Buller, 2013; Bruwer and Huang, 2012; Lockshin et al., 1997). To the best of our knowledge, environmental awareness influencing attitudes as well as involvement influencing intentions has been a field of research, but only in other contexts apart from fish consumption. This unexplored research area is a gap we intend

to fill by proposing and analysing a new updated model where environmental awareness is put as a possible predictor to intentions towards purchasing fish through attitudes and where involvement is put as a possible predictor to intentions towards purchasing fish.

2.3. Hypotheses

If adopting the given fact that people are social beings, a person's social surroundings becomes highly important (Gabriel and Lang, 2015). Solomon et al (2010) propose that an individual's family and close ones, hold great influence over individuals as they tend to be involved in their everyday life. Jansson (2010) also found that subjective norms are an important factor of influence on consumer intentions. Hence, the first and following hypothesis is being proposed:

H1: Subjective norms associated with fish consumption have a positive effect on consumer intentions towards purchasing fish

Perceived behavioural control (PBC) is a concept dealing with the perceived ease and difficulty to act on the behaviour, meaning that the greater the perceived behavioural control is, the more likely it is to influence purchasing intentions (Ajzen, 1991). The study conducted by Godin et al (1993) suggested that perceived behavioural control contributes with an understanding of a person's intentions. To test the relationship between perceived behavioural control and consumer intentions towards purchasing fish, the following, and second hypothesis is formed:

H2: Perceived behavioural control regarding fish consumption has a positive effect on consumer intentions towards purchasing fish

According to previous research attitudes are to be identified as one of the most important predictors of an individual's intentions towards a specific subject (Rucker and Petty, 2006). Koklic et al (2019) propose in their article regarding organic food purchases, that there is a significant positive relationship between consumer attitudes towards organic food and their intentions to purchase it. However, Koklic et al (2019) also encountered some inconsistencies as both weak and strong empirical support were found regarding attitudes influencing organic food purchase intentions. Based on the discussed relationship, the following and third hypothesis is formulated:

H3: Attitudes towards fish consumption have a positive effect on consumer intentions towards purchasing fish

Ham et al. (2016) defines environmental awareness as the concern and view an individual has regarding the environmental consequences caused by their behaviour. In the study conducted by Mohiuddin et al. (2018) the interplay between environmental awareness and attitudes towards green vehicles were investigated. The given result indicated that an individual's environmental awareness had a positive effect on one's attitudes towards the subject. Gregory et al. (2003) argues that environmental awareness affects attitudes but does not necessarily have to affect intentions directly. Based on these empirical findings, we propose that environmental awareness influence attitudes towards fish consumption. Hence, the fourth hypothesis is formulated:

H4: Environmental awareness has a positive effect on attitudes towards fish consumption

Involvement is described as the level of interest or importance of a specific object or situation (Gregory et al, 2003). In the study conducted by Teng and Lu (2016), it was proven that involvement in organic food enhanced the intentions to purchase it. Several conducted studies imply that some subjects tend to have more highly involved consumers, especially regarding food and environmental subjects (Bruwer and Buller, 2013; Bruwer and Huang, 2012; Lockshin et al., 1997) (Roe, D. and Bruwer, J. 2017). Therefore, the last and fifth hypothesis is conducted:

H5: Involvement regarding fish consumption has a positive effect on intentions towards purchasing fish

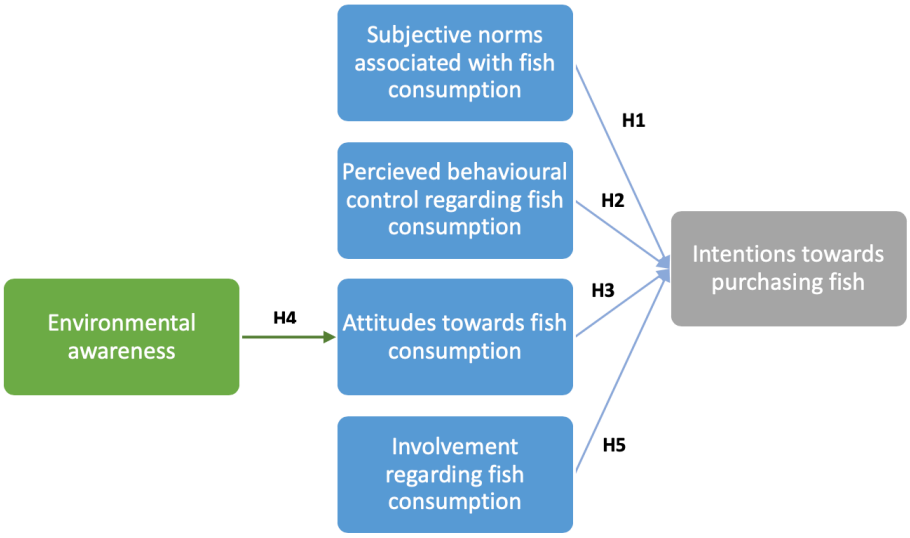

Figure 2: An illustration of the proposed model

The proposed hypotheses and their relationships were sorted and are to be seen in Figure 2.

3. Methods

3.1. Method approach and design

This report was based on a quantitative method with a deductive approach, using a survey conducted by the Swedish Mariculture Research Center (SWEMARC) at the University of Gothenburg. The purpose of SWEMARC ‘s project is to increase aquaculture food in a sustainable way as it possesses the potential to produce a lot of food for the heavily increasing population, making it an effective way to use less exploited resources (SWEMARC, 2018). When using a deductive approach different hypothesis is developed based on previous theories which subsequently is tested and then confirmed or rejected (Bell et al, 2019) (Patel & Davidsson, 2019). Using this approach was appropriate as the purpose of this study is to investigate whether or not previous theories and research is consistent within the context of fish consumption and aquaculture. A hypothesis test is used when determining if the chosen sample is representative to the population. Meaning, if conclusions and results from this study and sample, west coast of Sweden, can be applied onto a greater population.

Using a questionnaire for a survey enables generalizations being drawn from preserved data making it possible to gain a broader perspective and understanding of the area of subject. Another advantage with using a survey is that the interaction between the researcher and the respondent is being avoided, which minimizes the risk of answers being affected by the interaction. Other advantages include the ability to reach out to a lot of people during a relatively short amount of time, it is for the most part inexpensive and not time consuming, as well as offering flexibility for both the respondents and researchers. Some disadvantages with a quantitative method and surveys are that it can lead to misunderstandings since the respondents, in most cases, are not able to communicate with the researcher. Respondents are also often offered answers, which constrains their answers if they do not feel that the proposed answers are sufficient enough (Patel & Davidsson, 2019).

The research area of this study is to some extent covered in SWEMARC’s project about increasing aquaculture food in a sustainable way, as this study aims to investigate potential predictor for purchasing intentions regarding fish from aquaculture. As the purpose of this study was to gain a general perspective on people’s fish consumption and how to potentially

predict their consumption regarding fish from aquaculture, a quantitative method is of preference.

3.2. Sample

In order to test the proposed framework, the results from the survey were collected in order to be able to compile and analyse the data. The questionnaire was sent out by SWEMARC to 3600 individuals, through email, on the west coast of Sweden where they were asked to answer questions about eating habits and fish consumption. In the email, they received an online link to the questionnaire, which was available on a 23-day period, beginning on June 4th, 2019. 2154 of the selected individuals chose to finish the questions and during the time that the questionnaire was open, they received two reminders.

3.3. Measures

The research questionnaire consists of several questions related to fish consumption. All questions were conducted by using a Likert scale, which is a rating scale that measures how people feel about a certain thing (Jamieson, 2004). The respondents had to fill in a score between 1 to 7, measuring how they feel, agree or disagree with the proposed claims. The questionnaire initiates with three intro questions in order to receive basic demographic information. Followed by three questions about intentions, three about subjective norms, four about perceived behavioural control, four about attitudes, three about environmental awareness and lastly four questions about involvement.

3.4. Choice of subject and collection of data

The increasing population's need for nutritious food combined with the environmental challenges the world is facing, results in a need for a sustainable food production. It is a current topic where consumption and consumer behaviour holds an important role, making it an interesting area to study (McGlade, 2012).

In addition to the survey conducted by SWEMARC, a literature research was performed through the University of Gothenburg's search portal supersök, Google scholar, as well as other forums such as journal of consumer research and journal of consumer culture. Some of the search words used were "theory of planned behaviour", "consumer behaviour", "green consumption", "aquaculture" and "purchase intentions and attitudes". Several literature and scientific books were also used in order to collect information.

3.5. Credibility of the study

3.5.1. Reliability

Cronbach's alpha was used when determining the reliability of the study. It is a statistical measurement which measures the internal consistency between two or several items on the same test (Cronbach, 1951). In this study, the items are referring to the questions which were asked in the questionnaire, meaning that Cronbach's alpha describes if the questions in the questionnaire for each category measures the same thing. This is done in order to be able to determine if the results from each category, for example intentions, can be compiled in order to calculate the average value which is necessary for further calculations. The value of Cronbach's alpha can vary from 0 to 1, where a higher value equals a stronger relationship between the items. Implying that a value as high as possible is desirable. It is known that a value of 0,7, or higher, is required before using the instrument as a reliable source (Cronbach, 1951).

3.5.2. Validity

The result of the study and the answers from the questionnaire is, for the most part, consistent with previous research, which according to Patel and Davidsson (2019) strengthens the validity. In many studies, a pilot survey is conducted in order to become aware of potential faults causing the questions to be misinterpreted and to see what can be improved regarding the questionnaire before sending it out (Patel and Davidsson, 2019). A pilot survey was not conducted by SWEMARC which could be considered to lower the validity. However, the survey was conducted by experienced researchers which could be used as a counterargument.

3.5.3. Research ethics

According to Patel and Davidsson (2019), there are four essential ethical requirements in research ethics which have been developed in order to protect the participating respondents. These are the requirements of information, consent, confidence and use. When SWEMARC sent out the survey, the respondents were informed about the project and the purpose of the research. Completing the questionnaire was voluntary, meaning that the respondents could choose not to answer as well as cancel their participation. Sensitive personal information

about the respondents was not collected which therefore made their personal information confidential towards an unauthorized third party.

3.6. Processing and interpretation of data

3.6.1. Statistical model

Statistical Package for the Social Sciences version 26 (SPSS) is a programme used by many researchers, when analysing complex statistical data. It is a relevant programme to use in this study due to the possibility to make all calculations and statistical measurements needed. SPSS was used in order to analyse the collected data from the survey, moreover it was used to calculate Cronbach's alpha for the chosen variables in order to measure reliability as well as average values for all categories in order to be able to perform a regression analysis (Pallant, 2016).

3.6.2. Multiple regression analysis

A multiple linear regression analysis is a statistical method which examines the relationship between a dependent variable with two or more independent variables, investigating if there exists a statistical association. The obtained results are used when determining whether or not the hypotheses in the hypothesis test are to be accepted or rejected. In order to determine this, a confidence interval, in percentage, for the multiple regression analysis has to be chosen. If a hypothesis is to be accepted, the confidence interval implies with the chosen percentage that the hypothesis is representative for a greater population, with the same probability. In this study a 95 percent confidence interval was chosen. The multiple linear regression analysis were performed using SPSS v.26, in order to calculate the relationship between the studied dependent and independent variables. This study contained several variables, which was the reason to why this particular type of regression analysis was chosen (Jaggia and Kelly, 2016). Derived from the multiple regression analysis correlations, Beta coefficients, p-value, R square and adjusted R square were calculated and interpreted.

The strength of the correlation between two variables are measured on a range from -1 to 1, where the given value indicates on how strong the relationship is. -1 indicates perfect negative correlation, which means that if the independent variable increases the dependent variable decreases with the same amount. 1 indicates perfect positive correlation, which means that if the independent variable increases so will the dependent variable. 0 means no relationship at

all (Pallant, 2016). According to Pallant (2016), a correlation between 0,0 to 0,3 counts for as low, 0,3-0,6 as medium and 0,6-1 as high correlation.

The Beta Coefficient is used when comparing the contribution to each of the dependent variables, intentions and attitudes, of each independent variable (Pallant, 2016). In other words, the Beta Coefficients describes in what order the independent variables affect the dependent variable the most. When looking at Beta, all negative signs in front are to be ignored. As the values of Beta Coefficient measure the contribution of each independent variable, explaining the dependent variable, a negative value would then only indicate that there is a negative relationship and vice versa for positive values (Pallant, 2016).

When performing a multiple regression analysis, the p-value determine the significance of the obtained results. The p-value are to be compared to the significance level of the multiple regression analysis. The significance level is the probability, as a decimal, of rejecting the hypothesis, in other words, the significance level together with the confidence interval will then be equal to 100 percent. In this study, where the confidence interval is 95 percent, the level of significance is automatically 0,05. P-value is compared to the level of significance, and if the p-value is lower than the significance level, which in this study is 0,05, then the relationship between the tested variables are to be considered significant. The hypothesis can therefore be accepted (Jaggia and Kelly, 2016).

R square is a statistical measure, explaining to what extent the fluctuation of the dependent variable can be explained by the independent variables. A general rule is that adjusted R square is to be lower than R square. This, as more independent variables in the model increases the uncertainty to get a false connection which in turn gives a false high R square. Adjusted R square is therefore used to rectify this false connection, which is why a lower value than R square often is provided. In this study, adjusted R square was used to see if the fluctuation of the dependent variables, intentions and attitudes, can be explained by the chosen independent variables (Pallant, 2016). When performing regression analysis, low values are often received. This is due to the fact that it is nearly impossible to know all relevant potential predictors for explaining a dependent variable (Pallant, 2016).

4. Result

In the following chapter, the results from the survey will be presented. This will be done in text and tables in order to make it more understandable.

4.1. Results from survey

Table 1: Summary of demographic data

		Percentage	Frequency
Gender			
	Male	49,5	1060
	Female	50,8	1094
	Total	***100***	***2154***
Age			
	Younger than 30	11,6	249
	30-39 Years	14,8	318
	40-49 Years	17,6	380
	50-59 Years	15,9	342
	60-69 Years	22,8	493
	70 or older	17,3	372
	Total	***100***	***2154***
Education			
	No completed primary education	0,1	3
	Completed primary education	4,8	103
	Secondary education, less than 3 years	13	279
	Secondary education, 3 years or more	21,5	463
	Secondary and additional education, less than 3 years	13,6	294
	Secondary and additional education, 3 years or more	3,4	73
	University, less than 3 years	18,8	406
	University, 3 years or more	23,3	499
	PhD. Studies	1,5	34
	Total	***100***	***2154***

A total of 2154 persons responded on the demographic questions regarding gender, age and education. The results from the demographic data indicates on a representative sample as nearly half of the respondents are male contra female and the ages are spread quite evenly among all ages. The majority of the respondents are shown to have a higher level of education, as most of them have finished three years of secondary education and more, see Table 1.

Table 2: Summary of descriptive data

	Total respondents	1	2	3	4	5	6	7
Environmental awareness								
When I go shopping for food I choose the most environmentally friendly product (%)	**2112**	9,33	10,61	12,78	17,76	26,37	15,58	7,58
I avoid food products with extensive packaging (%)	**2109**	7,73	10,72	14,6	17,35	21,34	16,83	11,42
If there are certified alternative, they are usually my first choice (%)	**2109**	9,1	9,2	9,82	19,06	18,4	19,58	14,84
Attitudes		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Eating fish regularly is stupid <--> smart (%)	**1975**	1,47	1,42	1,47	6,68	12,3	21,11	55,54
Eating fish regularly is boring <--> exciting (%)	**1906**	1,63	2,57	5,51	30,8	25,24	17,89	16,37
Eating fish regularly is uncomfortable <--> comfortable (%)	**1917**	1,46	1,51	1,98	14,5	20,03	26,5	34,01
Eating fish regularly is unsatisfactory <--> satisfactory (%)	**1954**	1,94	1,33	1,79	11,82	18,58	25,54	39
Subjective norms		**1**	**2**	**3**	**4**	**5**	**6**	**7**
People who are important to me expect that I eat fish regularly (%)	**2019**	29,42	10,9	8,87	22,93	12,48	5,95	9,46
People who are important to me wish that I eat fish regularly (%)	**2010**	26,69	10,88	10,54	22,22	13,02	6,76	9,89
People who are important to me encourage me to eat fish (%)	**2014**	28,15	12,26	11,42	20,66	12,46	6,36	8,69
Perceived behavioural control		**1**	**2**	**3**	**4**	**5**	**6**	**7**
How much control do you have over eating fish regularly (%)	**2039**	1,52	1,67	4,95	7,16	13,63	17,07	54
For me, eating fish regularly is difficult <--> easy (%)	**2035**	1,28	2,6	6,93	12,97	19,51	17,35	39,36
If I would like to, I would choose fish as meal as often as I want (%)	**2034**	2,9	3,2	6,44	10,08	15	15,34	47,05
Eating fish regularly is up to me (%)	**2034**	0,84	2,06	4,92	7,96	12,88	16,72	54,62
Involvement		**1**	**2**	**3**	**4**	**5**	**6**	**7**
In general, I have a strong interest in this food category (%)	**2112**	4,12	8,8	11,93	17,32	21,39	18,13	18,32
Food products are very important to me (%)	**2111**	2,23	7,06	9,14	17,24	23,78	21,22	19,33
Food products matters a lot to me (%)	**2105**	2,8	8,6	10,78	19,38	21,81	19,33	17,29
Food products are very relevant to me (%)	**2095**	3,44	7,11	9,26	22,1	22,53	18,62	16,95
Intentions		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Intention to eat fish the next month: I want to eat more fish (%)	**2040**	7,25	6,08	7,45	22,65	22,25	13,58	20,74
Intention to eat fish the next month: I am planning to eat more sustainably produced fish (%)	**2030**	7,39	6,95	10,44	23,35	17,09	13,69	21,08
Intention to eat fish the next month: I will probably eat fish more often (%)	**2036**	9,53	10,12	13,36	30,5	17,53	9,28	9,68

Looking at the results measuring intentions, the majority of respondents wants to eat more fish as well as are planning to eat more sustainable produced fish. Still, the majority are indecisive regarding whether or not they actually will eat more fish, see Table 2. This seems to be indicating that a person's will and plan might not always reflect upon one's intentions.

Studying the results measuring subjective norms, the majority of respondents over all questions, believe that people who are important to them do not try to affect their fish consumption, see Table 2. The result solely indicates that the respondents do not believe that they are under the effect of their surroundings. However, according to Gabriel and Lang (2015), people are subconsciously striving for belonging, as part of the social beings they are which consequently will affect their intentions.

The result regarding perceived behavioural control imply that the great majority feel that they have control over their own actions, see Table 2. This is a matter of a perceived feeling, meaning that the feeling may not always be representative to reality. If adopting the statement by Ajzen (1991), the high perceived behavioural control held by the respondents, are most likely to positively influence their intentions. On average the respondents seemed to have positive attitudes towards eating fish on a regular basis, see Table 2. Based on previous

research and theory, these positive attitudes would lead to more positive intentions (Koklic et al., 2019) (Mohiuddin et al., 2018).

When looking at the results from the questions regarding environmental awareness, the respondents tend not to choose the most environmentally friendly products nor the least, see Table 2. This could be indicating that the environment and sustainability are not the respondent's highest priority when shopping for food, however it seems to still be taken into account.

The respondent's involvement are relatively high when it comes to food products, see Table 2, which according to Bruwer and Buller (2013) is fairly common as subjects regarding food tend to have more highly involved consumers. According to previous research, the degree of involvement depends on the importance of the issue which enhances one's intentions (Teng and Lu, 2016). Adopting this, it would mean that food products are an important category for the respondents, due to their high level of involvement, resulting in enhanced intentions.

4.2. Descriptive statistics

Table 3: Descriptive statistics of all variables

	Valid N	Missing N	Mean	Median	Minimum	Maximum
Environmental awareness	2114	40	4.317	4.3333	1	7
Attitudes	2005	149	5.6494	5.3333	1	7
Intentions	2043	111	4.4504	4.3333	1	7
Subjective norms	2023	131	3.3641	3.3333	1	7
Percieved behavioural control	2041	113	5.7936	6.0000	1	7
Involvement	2113	41	4.7946	5.0000	1	7

The table above shows the descriptive statistics of all variables where valid N is the average amount of responses and missing N is the average amount of missing responses for each and every variable. The mean value and the median for all variables are quite similar, see Table 3, indicating that all variables are relatively normally distributed and symmetric (Pallant, 2016).

4.3. Cronbach's alpha

The following Cronbach's alpha measurements were computed in SPSS, see Table 4.

Table 4: Cronbach's alpha for all variables

	Cronbach's alpha
Environmental awareness	0,833
Attitudes	0,854
Intentions	0,728
Subjective norms	0,932
Percieved behavioural control	0,767
Involvement	0,947

After calculating Cronbach's alpha for all variables, two of the values were called into question. Intentions with a Cronbach's alpha at 0,728 and perceived behavioural control with a Cronbach's alpha at 0,767, see Table 4.

Regarding Cronbach's alpha for intentions, it could be increased from 0,728 to 0,812 by excluding one of the questions, see Appendix 1. The result of 0,728 is however acceptable and considered reliable as the value is higher than 0,7, therefore it is used in this paper (Cronbach, 1951). This, despite the fact that all three questions regarding intentions do not measure the same thing, as one question asks about sustainable fish and the other two about fish in general, see Table 2.

Regarding the questions about perceived behavioural control, a Cronbach's alpha of 0,767 was retrieved, see Table 4. The value of 0,767 is as high as possible and is to be considered reliable as excluding any other questions did not result in a higher Cronbach's alpha, see Appendix 1 (Cronbach, 1951).

4.4. Correlations results

Table 5: Correlation for all variables at a significance level of 0,05

	Intentions	Subjective norms	Percieved behavioural control	Involvement	Attitudes	Environmental awareness
Intentions	1.000					
Subjective norms	.283	1.000				
Percieved behavioural control	.097	.058	1.000			
Involvement	.212	.081	.170	1.000		
Attitudes	.345	.230	.229	.199	1.000	
Environmental awareness					.078	1.000

Correlations were calculated in order to see if and by how much the dependent variables correlates with the independent variable/variables, see Table 5. Attitudes regarding fish consumption as the dependent variable and the independent variable environmental awareness have a correlation of 0.078, which indicates almost no correlation at all (Pallant, 2016). This is controversial with previous research as environmental awareness and its influence on attitudes often have a more distinct and comprehensive result with higher correlation. In the study conducted by Mohiuddin et al. (2018), environmental awareness and attitudes were found to share a correlation of 0,425, which is considerably higher than the correlation 0,078 received in this study. This result indicates that environmental awareness has a very small positive effect, almost a non-existing, on attitudes towards fish consumption (Pallant, 2016).

The correlation of intentions, as the dependent variable, and attitudes is 0,345 which indicates on a moderate level of correlation (Pallant, 2016), see Table 5. Previous research confirms that there is a significant relationship between a person's attitudes towards organic food and their intentions to purchase it (Koklic et al., 2019). In the study conducted by Koklic et al. (2019), the two variables shared a correlation of 0,474, which indicates that the correlation of 0,345 bears a resembles with previous research. This result indicates that attitudes towards fish consumption have a moderate positive effect on intentions towards purchasing fish (Pallant, 2016).

Subjective norms and intentions share a correlation of 0,283 which is considered to be low according to Pallant (2016), see Table 5. This is somewhat consistent with the study conducted by Ham et al. (2015). In their study they proved a relationship between a person's subjective norms and their intention to purchase green food, and received a correlation of 0,665, which is considerably higher than the two variables in this study. Even though the correlations differ, the result indicates that social surroundings are important as they possess

influence over an individual's intentions. This result indicates that subjective norms associated with fish have a small positive effect on intentions towards purchasing fish (Pallant, 2016).

Involvement and intentions share a correlation of 0,212, see Table 5, which according to Pallant (2016) is considered to be classified as a low. This correlation is controversial to the study conducted by Teng and Lu (2016), where they proved a relationship between involvement regarding organic food and the intention to purchase it with a correlation of 0,788. Despite the major difference between the two correlations, the result in this study indicates that involvement regarding fish has a small positive effect on intentions towards purchasing fish (Pallant, 2016).

Perceived behavioural control proved to have almost no correlation with intentions, due to the very low value of 0,097, see Table 5 (Pallant, 2016). According to Ajzen (1991), the greater an individual's perceived behavioural control is, the more likely it is to influence one's intentions. More than 50% of the respondents said that they were in full control over eating fish regularly, see Table 2, which indicates on high perceived behavioural control. Even though the respondents in this study felt like they are in control over their fish consumption, perceived behavioural control was proven not to affect their intentions. This result indicates that perceived behavioural control towards purchasing fish has a very small, almost a non-existing, positive effect on intentions towards purchasing fish (Pallant, 2016).

4.5. Regression analysis

4.5.1. Beta Coefficient and p-value

Table 6: Beta Coefficient and p-value with intention as the dependent variable with a significance level of 0,05

Depedent variable: Intentions		
	Beta Coefficient	**P-value**
Attitudes	0,272	0,000
Subjective norms	0,184	0,000
Involvement	0,088	0,000
Percieved behavioural control	-0,006	0,769

Table 7: Beta Coefficient and p-value with attitudes as the dependent variable with a significance level of 0,05

Dependent variable: Attitudes		
	Beta Coefficient	**P-value**
Environmental awareness	0,078	0,001

Beta Coefficients describe which of the independent variables have the highest effect on the dependent variable. The results, see Table 7, indicates that attitudes are the independent variable with the greatest contribution, with a Beta of 0,272, when explaining intentions (Pallant, 2016). The independent variables are ranked from the highest contribution to the lowest, where attitudes are followed by subjective norms with a Beta of 0,184, involvement with 0,088 and perceived behavioural control with -0,006. The Beta Coefficient for environmental awareness as the independent variable and attitudes as the dependent variable is 0,078, see Table 7. This value cannot be compared with the rest of the values as they are measuring the relationships of different dependent variables.

P-value determine the significance of the obtained results, where in this study, the p-value for each variable has to be lower than the significance level of 0,05, in order to be significant (Pallant, 2016). The results indicates that all but one of the independent variables are significant as they have a p-value lower than 0,05. Perceived behavioural control has a p-value of 0,769 making it the only variable with a value higher than the significance level of 0,05, allowing the conclusion of insignificance to be drawn.

4.5.2. R square and adjusted R square

Table 8: R square and adjusted R square for the model with intentions as the dependent variable

Dependent variable: Intentions	
Independent variables: Attitudes, Subjective norms, Involvement, Percieved behavioural control	
R square	0.188
Adjusted R square	0.186

Table 9: R square and adjusted R square for the model with attitudes as the dependent variable

Dependent variable: Attitudes	
Independent variable: Environmental awareness	
R square	0.006
Adjusted R square	0.006

Adjusted R square was used in order to explain how much of the fluctuation of the dependent variable could be explained by the independent variables (Pallant, 2016). The adjusted R square, for the dependent variable intention, see Table 8, has a value of 0,186 which means that the fluctuation can be explained with an 18,6 percent certainty by the independent variables. The adjusted R square for attitudes, see Table 9, as the dependent variable, can only be explained with 0,6 percent by the independent variable environmental awareness. In this particular study, R square and adjusted R square is adjoining to each other which can be explained by that the number of explanatory variables is relatively low. This is also proved by the calculated R square and adjusted R square for attitudes as the dependent variable, which resulted in the same value. A reason for this is that only one independent variable was used when performing the regression analysis.

The low degree of explanation, 0,186, conducted in this study is considered to be acceptable as all relevant predictors in order to explain the dependent variable are not known and therefore not included in the model (Pallant, 2016). However, one should keep in mind that 81,4 percent of the fluctuation in the dependent variable, intentions, cannot be explained by this model. This means that other factors besides the studied variables have an effect on intentions regarding fish consumption.

The adjusted R square for attitudes as the dependent variable proved to be very low, 0,006, making it a question of consideration if environmental awareness at all can be used as an explanatory variable. The adjusted R square value further proves that, in this study, 99,4 percent of the fluctuation in attitudes cannot be explained by this model.

4.6. Result of Hypotheses

H1: Subjective norms associated with fish consumption has a positive effect on consumer intentions towards purchasing fish

Subjective norms associated with fish consumption and intentions towards purchasing fish have a correlation of 0,283, see Table 5, indicating that subjective norms has a low, yet positive effect on intentions. This is in line with the theory of planned behaviour, although a higher value was expected. The p-value for subjective norms is 0,000, see Table 6, which is lower than the significance level of 0,05. This proves it being significant and that the hypothesis is supported and are therefore to be accepted.

H2: Perceived behavioural control regarding fish consumption has a positive effect on consumer intentions towards purchasing fish

Perceived behavioural control regarding fish consumption and intentions towards purchasing fish have a correlation of 0,097, see Table 5, indicating on an almost non existing relationship. Furthermore, the p-value for perceived behavioural control provided in the regression analysis, see Table 6, indicates on insignificance as the p-value is 0,769 which is higher than the level of significance of 0,05. This means that the hypothesis of perceived behavioural control having a positive effect on consumers intentions towards purchasing fish must be rejected.

H3: Attitudes towards fish consumption have a positive effect on intentions towards purchasing fish

Attitudes towards fish consumption and intentions towards purchasing fish have a correlation of 0,345, see Table 5, which proves that attitudes has a moderate positive effect on intentions, consistent with the theory of planned behaviour. As the calculated p-value for attitudes is 0,000, see Table 6, which is lower than the significance level of 0,005, the conclusion of significance can be drawn, and the hypothesis is considered to be supported.

H4: Environmental awareness has a positive effect on attitudes towards fish consumption

Environmental awareness and attitudes towards fish consumption share a low significant relationship with a correlation of 0,078, see Table 5. The p-value for environmental awareness is calculated to be 0,001, see Table 7, which is lower than the significance level of 0,05, meaning that the hypothesis is significant and accepted. However, the correlation indicates on almost no correlation at all, meaning that environmental awareness has a very small positive effect on attitudes towards fish consumption.

H5: Involvement regarding fish consumption has a positive effect on consumer intentions towards purchasing fish

Involvement regarding fish consumption and intentions towards purchasing fish have a significant relationship with a correlation of 0,212, see Table 5. The p-value for involvement is 0,000, see Table 6, which is lower than the significance level of 0,05, meaning that the hypothesis is significant and therefore accepted.

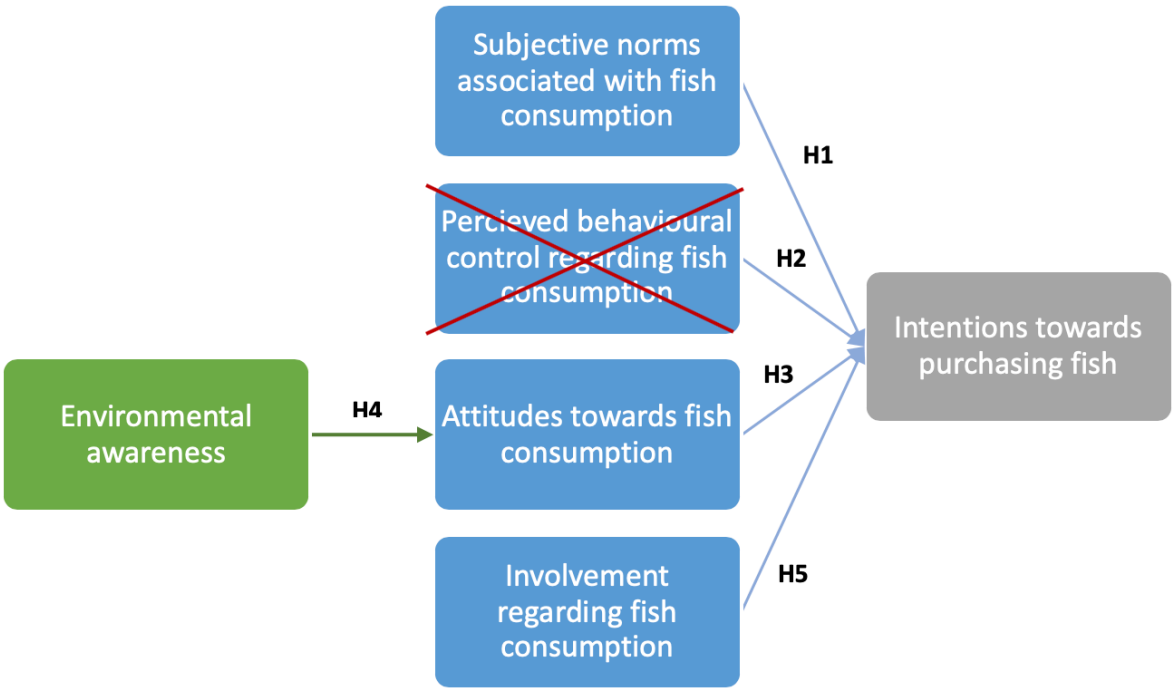

Figure 3: An illustration of all accepted hypotheses

5. Analysis and discussion

The purpose of this study was to examine the relationship between the dependent variables, consumer intentions towards purchasing fish and attitudes towards fish consumption, with the independent variables. Furthermore, if there exists a relationship between the variables, could it be used to predict consumer intentions towards purchasing fish from aquaculture to successfully be able to apply the proposed model into the context of aquaculture fish, a significant relationship between the independent variables and intentions has to exist.

All the hypotheses were shown to be significant and therefore accepted, except for hypothesis 4 about perceived behavioural control regarding fish consumption. The strongest relationship was the one between attitudes towards fish consumption and consumer intentions towards purchasing fish, with a correlation of 0,345 followed by the correlation between subjective norms associated with fish consumption and consumer intentions towards purchasing fish, at 0,283 and the correlation between involvement regarding fish consumption and consumer intentions towards purchasing fish, at 0,212. The last significant hypothesis showed some uncertainty due to the low correlation at 0,078 between environmental awareness and attitudes towards fish consumption, see Table 5. However, the calculated p-value proved it to be significant, which concluded that the hypothesis could be accepted, see Figure 3.

Beta coefficient values were calculated in the regression analysis, see Table 6, used to compare and rank all the variables, except environmental awareness, to see which of the variables affected intentions the most. The given results is consistent with the order of correlation, meaning that the highest Beta coefficient is found to be attitudes towards fish consumption, which also possess the highest correlation with consumer intentions towards purchasing fish and is therefore, in this case, proven to affect consumer intentions towards purchasing fish the most.

The model developed in this study has an adjusted R square of 0,186, see Table 8, when consumer intentions towards purchasing fish are used as the dependent variable. The model proposes that 18,6 percent of the fluctuation in the dependent variable can be explained by the independent variables. This could also be related to the given results from hypothesis one,

two, three and five, due to their low correlations, see Table 5. The adjusted R square for attitudes towards fish consumption as the dependent variable, has an extremely low value, at 0,006, see Table 9. This low value of adjusted R square combined with the very low correlation of 0,078 demonstrates that environmental awareness presumably can be considered having a very small, almost no, positive effect on attitudes towards fish consumption. A possible explanation to why the adjusted R square values are as low as they are, could be because there are many other factors that might hold great influence over the dependent variables. Another possible explanation could be that the study itself is not comprehensive enough.

When comparing the results from the survey and the outcomes from the regression analysis, we can conclude that the respondents have positive attitudes towards consuming fish as well as their attitudes having the strongest positive effect on their intentions towards purchasing fish. Subjective norms associated with fish consumption is the variable that has the second largest effect on consumer intentions towards purchasing fish, even though the respondents seemed not to be under such high influence by their surroundings. If adopting the fact that people are social beings, it would imply that subjective norms affect individuals. The given results from this survey, see Table 2, show that the subject in question matters when it comes to how much of an effect subjective norm possess on individuals. In this case, fish consumption seems to be a subject without much effect. However, according to the results from the regression analysis, see Table 6, subjective norms associated with fish consumption do have a positive effect on consumer intentions towards purchasing fish. This could be indicating that when people care less about their social surroundings and the opinions of others, will lead to greater intentions towards the subject in question.

The model in this study, see figure 1, was proposed in accordance with what Conner and Armitage (1998) claimed about the TPB-model and its inability to be seen as a complete theory. In line with the suggestion made by Ajzen (2002), the model can be extended with additional predictors in order to adjust the model to better fit the context. The additional predictors in this study were environmental awareness and involvement regarding fish consumption. However, the received results demonstrated that perceived behavioural control regarding fish consumption, hypothesis two, was not significant and does not fit the model. Meaning that, in this case, perceived behavioural control cannot be used when predicting consumer intentions towards purchasing fish.

The reason to why the second hypothesis is rejected could be depending on several different factors. According to the calculated Cronbach's alpha, all the questions about perceived behavioural control regarding fish consumption, are measuring the same thing. From the theory explained in this study, perceived behavioural control is defined as the perceived feeling and experience a person has regarding their own ability to control their decisions and actions. The results from the survey indicates that the vast majority of the respondents feel like they are in control of their own decision making when it comes to fish consumption. Nevertheless, the high perceived behavioural control among the respondents does not, according to this study and result, effect their consumer intentions towards purchasing fish. A reason for this could be the fact that food consumption is measured in the survey, which could be considered to be one of the basic things that people are in control of in their everyday life. Since consuming food is something a lot of people do subconsciously, other factors might have a larger impact on their decision making and intentions. On the other hand, if another concept was measured and studied, where individuals do not feel the same high perceived behavioural control, it might possess a greater effect on their intentions and decision making, since their ability to act might be limited. The remaining parts of the model can to some degree be used in order to explain what effects consumer intentions towards purchasing fish, due to the hypotheses being supported.

The question which follows after proven that it exists a positive relationship of influence between the variables, except for perceived behavioural control, is; could the relationships be used when predicting consumer intentions towards purchasing fish from aquaculture?

It could be assumed that increasing the overall fish consumption would lead to an increase in consumption of fish from aquaculture. This assumption is based on previous research where it is established that every other fish is farmed from aquaculture as well as that the vast majority of the fish-eating population in Sweden, prefer salmon, which to a great extent is farmed from aquaculture. If assuming that positive attitudes towards fish consumption leads to a positive effect on consumer intentions towards purchasing fish, it would essentially mean that positive attitudes towards consuming fish from aquaculture, would lead to a positive effect on consumer intentions regarding purchasing fish from aquaculture. Based on that high involvement regarding fish consumption leads to greater consumers intentions towards purchasing fish, involvement regarding fish consumption from aquaculture, should then have

a positive effect on consumer intentions towards purchasing fish from aquaculture. Based on the respondent's beliefs that people who are important to them do not try to affect their fish consumption, has been shown to positively affect their intentions towards purchasing fish. This should then mean that, the less affected people believe they are by their social surroundings associated with consuming fish from aquaculture, the more positive should their intentions towards purchasing fish from aquaculture be. However, knowing that people are social beings and that social influence and norms play a considerable part in forming consumer intentions, the respondent's beliefs might be accurate, but it could also be a matter of them being subconsciously affected by their social surroundings. Environmental awareness, on the other hand, does not have a noticeable effect on attitudes towards fish consumption, which then should imply that neither will it have a noticeable effect on attitudes towards fish consumption from aquaculture.

In line with the accepted hypotheses, an adjusted version of the model seen in Figure 3, could be proposed as perceived behavioural control was insignificant. The given results and the adjusted model indicates that perceived behavioural control does not fit the studied context. It is also demonstrated that environmental awareness does not have a significant positive effect on attitudes regarding fish consumption. It could be discussed if this predictor should be excluded or tested through another variable or directly with intentions. By this, the three remaining variables which can be used to predict consumer intentions towards purchasing fish from aquaculture are subjective norms, attitudes and involvement.

6. Conclusion

One of the biggest challenges of the future is to be able to produce nutritious food in a sustainable way. There is a constant ongoing discussion of how this should be done and how to reduce the impact of climate change. Our ocean as well as lakes are estimated to be almost fully exploited or overfished, meaning that we are in need for another standardised way to access the resource. Farming fish from aquaculture is said to be a more sustainable way to produce protein than any other type of farming and holds great potential to increase food production in an efficient way.

The purpose of this study is to examine and combine the existing parts of the TPB-model as well as attempting to address whether or not environmental awareness and involvement has a positive effect on the model. This, in order to discuss if these variables have a positive impact on consumer intentions purchasing fish from aquaculture.

The result of the study is, to a certain extent, consistent with previous research where intentions to purchase fish and attitudes towards fish consumption have been shown to be affected by the independent variables and variable. However, this study cannot draw the same conclusion as opposed to previous research and the TPB-model, as perceived behavioural control proved not to be significant. The adjusted R square value indicates that the model alone, solely can explain 18,6 percent of the fluctuation of the dependent variable intentions towards purchasing fish and only 0,6 percent of the fluctuation of the dependent variable attitudes towards consuming fish. This implies that other factors influence and affect the dependent variables, which are not taking into consideration in this study.

The findings further demonstrate that subjective norms, attitudes and involvement have the greatest significant impact on consumer intentions towards purchasing fish and therefore in turn fish from aquaculture. To receive the greatest impact on consumer purchasing intentions regarding fish from aquaculture, the focus should therefore be on targeting subjective norms as concept, consumer attitudes and involvement.

By excluding environmental awareness, due to its almost non-noticeable impact on attitudes, will result in the regression analysis with attitudes as the dependent variable, automatically being removed. This would then result in the regression analysis with intentions towards

purchasing fish, as the dependent variable, being the only remaining part explaining the proposed model. This would then mean that the final version of the proposed model can be explained by the independent variables with 18,6 percent. However, as perceived behavioural control towards fish consumption proved to be insignificant and cannot be used in this study, the degree of explanation of the model might then be improved with a higher percentage.

This being said, the final proposed model and the proven existing relationships hold the possibility, to a certain extent, to be able to predict purchasing intentions regarding fish from aquaculture.

7. Marketing implications and recommendations for future research

The results from this study, indicates that it is essential, as a marketer, to focus and study consumer attitudes, social norms and the degree of involvement, if interested to predict consumer purchasing intentions regarding fish from aquaculture.

Based on the study's results and conclusions, a few ideas and recommendations have been made for future preferences. As perceived behavioural control proved not to be significant, it would be of interest to examine whether or not that is common when it comes to food purchasing intentions and consumption, and why that is.

The study only focused on the Swedish west coast, meaning that it would also be of interest to study if the responses and results differs depending on geographic location. Do people living closer to the ocean have a different fish consumption pattern compared to people living inland? If so, is there a need to differentiate the marketing approach and need of information when it comes to fish farmed from aquaculture?

As involvement proved to be an important factor influencing purchasing intentions, understanding how to be able to influence consumers involvement is of importance. It would also be interesting to further study how consumer involvement in the context of fish consumption and aquaculture can be increased. According to our result, environmental awareness proved to affect involvement the most, see Table 5. This relationship would be interesting to further investigate.

In line with previous research and studies, price, packaging, display etc. are also important factors influencing consumer purchasing intentions. Therefore, it would be of interest to study their influence and importance when launching and increasing fish from aquaculture on the market.

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Appendix 1

Raw data of calculated Cronbach's alpha

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	2024	94.0
	Excluded[a]	130	6.0
	Total	2154	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.728	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Intention to eat fish the next month: I want to eat more fish	8.64	8.656	.592	.588
IIntention to eat fish the next month: I am planning to eat more sustainably produced fish	8.73	10.005	.404	.812
Intention to eat fish the next month: I will probably eat fish more often	9.31	8.492	.675	.492

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	2025	94.0
	Excluded[a]	129	6.0
	Total	2154	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.767	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PBC: How much control do you have over eating fish regularly	17.20	13.092	.590	.701
For me, eating fish regularly is...	17.60	13.115	.538	.727
If I would like to, I could choose fish as meal as often as I want.	17.51	11.952	.581	.707
Eating fish regularly is up to me	17.18	13.443	.568	.713