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"*Characterizing environment friendly tourists*"

Master's thesis

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University of Stavanger, the Norwegian school of Hotel Management

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MASTER'S THESIS

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"Characterizing environment friendly tourists"

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Abstract

The central aim of sustainable tourism research today is to find tourists that have a low environmental impact on destinations, which can also be defined as environment friendly tourists. The majority of earlier studies on this topic have focused on characteristics of ecotourists, assuming that these are the only tourists that are environment friendly. Few have tried to identify characteristics of environment friendly tourists using a sample from the general tourist population. This thesis aims at answering the research question *"What characterizes environment friendly tourists?"* based on a general tourist sample.

The research question is approached by using a quantitative method in the form of a questionnaire sent out to 1134 international tourists who visited the Fjord Norway region the summer of 2009, of which 381 responded.

Six characteristics of environment friendly tourists; "Age", "Education level", "Income level", "Motivation", "Activity" and "Attitudes", are tested. Based on the findings from the statistical analyses environment friendly tourists are found to be characterized by being middle-aged, have high education levels and moderate income levels. Their prime motivation for travelling is to enjoy nature, and they are interested in "Hard nature-based activities" such as hiking, climbing, kayaking, fishing, glacier walking etc. In addition they have positive attitudes towards the natural environment.

It is concluded that the six characteristics tested explain about 30-40 % of the variance in "Environment friendly behavior". The characteristics "Motivation" and "Attitudes" have the highest influence on environment friendly behavior

Since the characteristics in this thesis have been found based on a general tourist sample, one can say that these characteristics of environment friendly tourists are generalizable to the whole tourist population. This thesis therefore confirms that environment friendly tourists can belong to all different types of tourism, and not only ecotourism.

Foreword

This thesis is the final result of our Master's degree in International Hotel and Tourism Management from the University of Stavanger. The idea for this Master's thesis was taken from a Norwegian research project called Tourism Yield, a project through the University of Stavanger which we worked on the summer of 2009 as student assistants. The past six months have been knowledgeable and a challenging journey, where we have gained a lot of knowledge regarding the topic of the thesis. However, this process has been made easier by much appreciated help from different people:

First and foremost, we would like to give our thanks to our mentor and supervisor, Truls Engstrøm, for his guidance, support and valuable inputs through the whole process. We would also like to thank our methodology supervisor Linda Stromei for her contributions. A special thanks to the students at the UIS, professor Unni Pereira and Olga Gjerald who helped with the translation and pre-testing of the questionnaire in different languages.

We would also like to thank our families and friends for their support during this semester, your consideration and insights have been a source of inspiration during this whole process. At last we would like to thank each other for mutual support and fantastic teamwork throughout this process.

Stavanger, June 2010

Cicilie Reinsberg and Linn Therese Vinje

"One which meets the needs of the present without comprising the ability of the

future generations to meet their own needs"

- Definition of sustainability provided by the Brundtland Commision

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1   Introduction

Due to climate changes, global warming and overuse of the earth's natural resources, there is a need to proceed towards a sustainable development in the society and especially in the tourism industry (Goeldner & Ritchie, 2006; UNTWO, 2005; Wall, 1997; Weaver, 2001; WTTC, 1995, 199, as quoted in Dodds, Graci & Holmes, 2010). The identification of tourism as a contributor to climate changes has become an important driver for efforts to develop more sustainable forms of tourism (Gössling, 2009). Therefore in the recent years research activities have concentrated on the ecotourists and sustainable tourism. In order to achieve a more sustainable development within tourism, the management at destinations needs to consider how all stakeholders influences the sustainability of destinations. The tourists are one of these stakeholder groups; therefore it is important to understand who the tourists are, their perceptions of sustainability issues and their motivations for visiting destinations (Dodds, Graci & Holmes, 2010). The central aim of sustainable tourism research today is to find the tourists that leave small 'ecological footprints', or have a low environmental impact on destinations. These tourists can also be defined as environment friendly tourists (Dolnicar, Crouch & Long, 2008). There is still only limited understanding of who environment friendly tourists actually are, research is therefore needed to find more accurate characteristics of environment friendly tourists.

The idea for this Master's thesis was taken from a Norwegian research project called Tourism Yield. This is a project which aims to create a framework applied to promote sustainable development for the Fjord Norway region in Norway. The tourists and their influence on the natural environment at destinations they travel to is one aspect of the Tourism Yield model.

1.1 Background and purpose of the thesis

Tourism is known to negatively affect the environment due to pollution caused by for instance transportation, overproduction of waste by tourists and physical damages of known tourist attractions and destinations. Therefore in recent years the tourism industry has tried to offer products and alternatives that are less damaging towards the environment, so called "green" alternatives (Gunce, 2003). The tourists that choose "green" alternatives and prefer destinations that limit the negative environmental impacts are typically known as ecotourists (Cavlek, 2002). During the last 10 years the demand of ecotourism has grown into a trend in the tourism industry, and most important it has been one of the major challenges in the field (Diamantis, 1998; Weaver & Lawton, 2002). It is found in a bibliographic study by Dolnicar, Crouch and Long (2008) that a number of studies have examined the characteristics of the environment friendly tourist but there is still a limited understanding of the tourist behavior and if it at all can be considered to be sustainable.

The way the researchers have chosen the samples when studying tourists with environment friendly behavior seems to be from two different points of views. First the general perception of environment friendly tourists is that they are assumed to be individuals that take an interest in nature and impact the environment to a smaller degree than other tourists, namely ecotourists (Dolnicar, Crouch & Long, 2008). On the other hand, a study by Mehmetoglu (2006) focuses on psychographics of the individual and that an environmentally responsible tourist can in a non-ecotourists site (i.e. a non-nature-based site, such as a big city or amusement park) still be an ecotourist, while a tourist in an ecotourist location may equally be a non-ecotourist. This is supported in a subsequent study by Mehmetoglu (2007, as quoted in Andereck, 2009) that environment friendly tourists are not homogenous, and might exist

within several types of tourists. This means that environment friendly tourists might be present across all tourism consumer contexts and not only in the ecotourist segment.

Dolnicar, Crouch & Long (2008) argue that no study has used a general tourist sample in order to find characteristics of environment friendly tourists. It seems to be a pattern among previous studies that they are testing an already known ecotourist population when characterizing the environment friendly tourist. One reason for this might be that in general it has been the ecotourists that are interested in nature and nature-based destinations, and therefore they have been considered to be more environment friendly than other tourists (Dolnicar, Crouch & Long, 2008). In relation to this it is necessary to get more knowledge about other types of tourists by using a general tourist sample when investigating characteristics about environment friendly tourists. By using a sample from the general tourist population, it might be possible to find more accurate characteristics for the environment friendly tourists that might be generalizable for the whole tourist population and not only for ecotourists.

This thesis will contribute to the research field about sustainability and hence contribute to knowledge about tourists' environmental behavior. Research about the tourist's behavior will therefore be the first place to start. As suggested in a study by Mehmetoglu (2006), in order to find the tourists' behavior it is essential to explore psychographic variables since this has an impact on their choice of way of travel or so called travel mode. Different characteristics have been used to profile environment friendly tourists several times through a number of research papers. These are demographic factors such as age, education level and income level, and other characteristics such as tourists' travel motivations, activity preferences, and attitudes towards the natural environment. These types of characteristics have through several studies shown to be the most relevant and significant characteristics when trying to find environment friendly tourists (Dolnicar, Crouch & Long, 2008;

Mehmetoglu, 2006; Weaver & Lawton, 2002; Eagles, 1992; Ballantine & Eagles, 1994; Crossley, Lee & Crossley, 1994; Meric & Hunt, 1998; Wight, 1996b; Kerstetter, Hou & Lin, 2004; Holden, 2003; Baysan, 2001; Roberts & Bacon, 1997; Cavlek, 2002; Andereck, 2009).

1.2 Research question

The authors of this thesis believe that the concept of environment friendly behavior cannot be limited to only ecotourists. In other words, the authors wanted to find out if there are other types of tourists that also have environment friendly behavior. Therefore, it was essential to find the characteristics of environment friendly tourists and test these on a general tourist population. This lead to the following research question:

"What characterizes environment friendly tourists?"

1.3 Hypotheses

Through examining several research papers related to ecotourism and environment friendly tourists it seemed necessary to test some hypotheses (which have previously been tested on an ecotourist population) on a more general tourist population. Demographics such as age, education level and income level have been frequently tested in the majority of the studies concerning this topic. According to a study conducted by Ballantine and Eagles (1994) ecotourists tend to be middle-aged, have quite high education levels and incomes levels. However, age studies examined seem to be contradictory: some studies conclude that environment friendly tourists are middle-aged (Meric & Hunt, 1998; Crossley, Lee & Crossley, 1994) whereas other studies come to the conclusion that ecotourists are older

(Crouch, Dolnicar, & Long, 2008). The three demographic factors age, education level and income level are tested in this thesis on a general tourist population.

Eagles (1992), Ballantine and Eagles (1994) and Weaver and Lawton (2002) found in their studies that ecotourists seem interested in learning about the environment and that "learning about nature" is the prime social motivation for ecotourism travel. This is supported by Kerstetter, Hou and Lin (2004) whose study show that ecotourists' motivation for travelling are first of all their interest in nature. This variable has been tested several times on a narrow population in the past, but in this thesis it is tested using a sample from the general tourist population.

Pennington-Gray and Kerstetter (2002) assume that an interest in outdoor nature-based activities is indicative of pro-environmental behavior; this is also stated by Schumacher & Montada (1999, as quoted in Dolnicar, Crouch & Long, 2008). However, it has been shown through tests of tourists' activities and preferences of general tourists that they might also prefer outdoor nature-based activities (Wight, 1996b; Silverberg, Backman & Backman, 1996). Therefore, it is necessary to test this on a general tourist sample to see whether tourists interested in nature-based activities are more environment friendly than tourists interested in other activities.

To comprehend why tourists behave the way they do in relation to the environment it is necessary to have a closer look at the relationship between attitudes and behavior. It is found in the tourism literature that attitudes towards the environment such as affinity towards nature, present and past experiences with nature, emotional resentment about insufficient nature protection and an interest in nature are predictive of pro-environmental behavior (Kals et al, as quoted in Dolnicar, Crouch & Long, 2008). However, according to Dolnicar, Crouch & Long (2008) there is a need for more work associating attitudes with environment friendly behavior, and this needs to be tested on a general tourist sample. Whether attitudes are

elements which influence the environment friendly behavior is tested in this thesis by using

statements which discovers a person's attitudes towards nature (Fairweather, Maslin &

Simmons, 2005; Roberts & Bacon, 1997; Vining & Ebreo, 1992; Lee & Moscardo, 2005).

The following hypotheses are tested:

Hypothesis 1 (H1):

"Middle-aged tourists are more environment friendly than non-middle-aged tourists".

Hypothesis 2 (H2):

"Tourists with higher education are more environment friendly than tourists with lower
education".

Hypothesis 3 (H3):

"Tourists with high income level are more environment friendly than tourists with low income
level".

Hypothesis 4 (H4):

"Tourists motivated by learning about nature are more environment friendly than tourists
motivated by other factors".

Hypothesis 5 (H5):

"Tourists interested in nature-based activities are more environment friendly than tourists
interested in non-nature-based activities".

Hypothesis number 6 (H6):

"Tourists that have positive attitudes towards the natural environment are more environment friendly than tourists with negative attitudes towards the natural environment".

1.4   The structure of the thesis

The thesis is divided into six chapters. A theoretical framework of relevant aspects of the thesis is presented in chapter two. In chapter 3 the methodology applied in the thesis is presented. The design of the study, population and sample used are presented along with the variables that are tested. In addition, an explanation of the data collection process is described and the reliability and validity of the methods utilized. The results of the study are presented in chapter 4. A discussion of the findings, recommendations for further research, and strengths and weaknesses of the research are found in chapter 5. At the end a conclusion are found in chapter 6.

2   Literature Review

2.1   *Fjord Norway as a tourist destination*

Norway is a part of the Scandinavian region, where Norway and countries like Sweden, Denmark, Finland and Iceland are all a part of what is described as countries with extensive natural resources. A more detailed description is explained by Boniface and Coopers (2005):

"Scandinavia's' tourism resources are the un-crowded unpolluted countryside, the spectacular scenery of the mountains and many coastal regions, the islands and holiday beaches, and the Scandinavian culture and outdoor way of life of show in the capitals and major cities of the region", (as quoted in Gössling & Hultman, 2006, p. 4).

The Scandinavian countries have created and maintained similar stereotypes trying to strengthen the perception of Scandinavia as a region with possibilities for nature-based tourism. In relation to this, tour operators, tourism organizations and a majority of Scandinavians are conceptualizing tourism in Scandinavia as ecotourism. Fjord Norway can therefore be considered as a nature-based tourist destination, or eco-destination (Gössling & Hultman, 2006)**.** Today the Fjord Norway region does not formally define itself as an eco-destination. However, the destination management is now working to develop Fjord Norway as an eco-destination by for instance formalizing an indicator system. Nevertheless, until today, Fjord Norway has won several prices related to nature and ecotourism, including "Best cared for UNESCO world heritage site". These elements show that Fjord Norway has a big potential for becoming an eco-destination (K. Finne, NCE Tourism Fjord Norway, personal communication, April 14th, 2010).

As Fjord Norway is offering nature as their prime tourist attraction, it is important for the region to maintain the sustainability of the nature, and prevent it from being ruined from too much tourism. Even though stakeholders in Fjord Norway have had focus on sustainable

tourism for a number of years, Fjord Norway has only been working with a concrete project for the last two years. This project will contribute to an adequate sustainable system that will be used for all the tourism stakeholders in the Fjord Norway region in the future. Until now, Fjord Norway has been marketed towards several segments such as contemporary tourists and theme tourists. In a higher degree than before Fjord Norway are now working to try to reach niche segments through the project NCE Tourism. In addition they are working to develop ecotourism concepts and to easier reach tourists that wish to do more conscious choices regarding environmental sustainability when they are travelling (K. Finne, NCE Tourism Fjord Norway, personal communication, April 14, 2010).

2.2 Tourist attractions in Fjord Norway

Fjord Norway is located in the western part of Norway and contains four regions; Rogaland, Hordaland, Sogn og Fjordane and Møre og Romsdal. Fjord Norway is one of the most popular and visited tourist destinations in Norway, mostly by international tourists but also by many domestic tourists. The four regions are famous for the pure and untouched natural environment which consists of fabulous fjords and mountains, glaciers, waterfalls, national parks, a variety of flora and fauna, and the country sides along the fjords where people is still living on farms and in small villages. The nature in itself is actually the biggest attraction in Fjord Norway. However, the road network and the boat and ferry services are well developed through the whole region (Fjord Norway, "Get ready to explore", 2009).

Norway has several famous fjords called the Lysefjord, Hardangerfjord, Sognefjord, Nærøyfjord, Nordfjord and Geirangerfjord, all of them located in the Fjord Norway region. What makes these fjords special is that they have a natural beauty and untouched nature. Four of UNESCO's World Heritage attractions are also located in Fjord Norway, the Geirangerfjord in Sunnmøre, the Nærøyfjord in Aurland, Bryggen in Bergen and Urnes stave

church in Luster. Norway also has nine of the worlds 20 highest waterfalls most of which are located in Fjord Norway (Fjord Norway, "About the Region", 2009). Fjord Norway has in addition five national park visitor centers; two of the most popular are Breheim glacier centre in Jostedal and the Norwegian glacier museum in Fjærland (Fjord Norway, "Get ready to explore", 2009).

In addition to the scenery and nature Fjord Norway also offers activities, both 'soft' adventures and more challenging activities. There are several guided activities that make challenging nature activities more available for everyone (Fjord Norway, "About the Region", 2009). One very popular activity is round trips, which consist of travelling around in Fjord Norway using regional/local transport such as train, bus and/or boat from one destination to another. This is very popular among tourists (Fjord Norway, "Tour suggestions", 2010).

Another type of attraction which is nearly new in Fjord Norway is 'Green Fjord Experience'. This tourism product offers the tourists to experience the greatest fjords, attractions and several of the UNESCO's world heritage sites. This tourism product also offers low cost accommodation and transport alternatives with off the beaten track opportunities, in addition to being environment friendly. This is a flexible product as the tourists can choose how many days they want to stay at each destination. Furthermore, the transportation with modern buses gives the tourist the possibility to keep the carbon footprint small, which is a very popular topic among environment friendly tourists (Fjord Norway, "Green Fjord Experiences", 2009). In addition, it is possible to explore Fjord Norway as an individual tourist and make individual travel routes. There are numerous activities to explore and experience such as: visiting national parks, summer skiing, spa, fishing, hunting, boat trips, whale safari, day cruises and sightseeing like farm visits, roundtrips, city walks/sightseeing, visiting cultural attractions and fjord sightseeing. Furthermore, there are sports and adventure activities such as climbing mountains, horseback riding, kayaking, river

sports, sailing, yachting, cycling, diving and golf. There are also hiking activities such as glacier walks, guided walks, trekking routes and hiking trails (Fjord Norway, "What to do", 2010).

2.3   Tourism Yield

Tourism Yield can be considered a framework applied to promote sustainable development at a destination. Previously, the term yield has only been used in economic terms in tourism and other fields. Tourism yield is a new point of view where the focus is not only on the economical consequences of strategic decisions made at a tourism destination, but also the social, cultural and environmental consequences. It is a tool for establishing a holistic view of tourism's influence on a destination's economy and society, and it provides ideas on how it increases the tourism sector's performance. Tourism Yield is all about creating sustainability, and this must be done on several levels. The main point with developing Tourism Yield is to create sustainability within not only one but several areas, which in sum will make the sustainability much stronger. This is a complex process, and not many countries have tried to adopt this model. New Zealand has administered the whole Tourism Yield model (Northcote & Macbeth, 2005), and a research project in Norway is now using these findings to try to implement the Tourism Yield framework in the Norwegian tourism industry, specifically for the Fjord Norway region.

2.4   Sustainability

Sustainability can be hard to define. This is because there has always been a lack of conceptual clarity in the literature, while at the same time sustainability has been interpreted in many different ways (Seers, 1996/1997, as quoted in Butcher, 2007). People from different

fields have different concepts, approaches and biases leading the term sustainability to be used in different contexts. It can actually be found over seventy definitions in the literature (Seers & Wade-Gery, 1993, as quoted in Butcher, 2007). However, these definitions can be very broad (Butcher, 2007). In its broadest sense sustainability can be explained to have all the aspects; *economical, social, cultural, political, geographical* and *ecological* (Aronsson, 2000)**.** In this relation Pearce (1988, as quoted in Milne, 1998) proposes that sustainability can be explained as 'making things last', where these 'things' can for instance be ecosystems, an economy, a culture or an ethnic grouping. Nevertheless, the most adequate and most used definition of sustainability might be the definition used by the World Commission on Environment and Development (WCED), the so called Brundtland Commission: *'One which meets the needs of the present without comprising the ability of the future generations to meet their own needs'* (WCED, 1987, as quoted in Gunce, 2003, p. 182). The definition stresses the need for social, institutional and structural change to achieve a more sustainable world, but it can also be said to be a matter of adjustment of lifestyles, values and cultural concepts. In this thesis, the context of sustainability will be to focus on sustainability of the natural environment.

2.4.1   The natural environment

The environment encompasses all the natural and cultural surroundings of people. One definition of the natural environment is the physical environment that consists of natural and built components. The natural environment exists in the following elements; nature-climate and weather, the land, soils, topography, geology, water features, flora, fauna and ecological systems (Inskeep, 1991). The great variety of combination of natural resources can create environments that are attractive to tourism development. The quality of the natural resources must be maintained to sustain tourism demand, and when planning to develop a tourist

destination, proper levels of quality must be considered. In this case ecological and environmental considerations are important in order to maintain sustainability and at the same time keep it attractive for the tourist (Goeldner & Ritchie, 2006).

The tourism industry has had an enormous impact on the natural environment at several destinations where the consequences of tourism have not been considered before the tourism destinations were developed. Nevertheless, there seem to be both positive and negative impacts on the natural environment resulting from the development of the tourism industry (Inskeep, 1991).

2.4.1.1 Positive impacts from tourism on the natural environment

One positive impact is *conservation of important natural areas*. An example of this is that tourism can help justify and pay for development of parks and reserves, both regionally and nationally. Without tourism, these natural areas might be developed for other uses or allowed to ecologically deteriorate which again results in a loss of environmental heritage. Also, without tourism, there would be little justification from the local viewpoint for this type of conservation (Inskeep, 1991). Another positive impact is *conservation of archaeological and historical sites and architectural character*. Tourism helps pay for the conservation that might otherwise be allowed to deteriorate or disappear, and therefore result in the loss of the cultural heritage of areas. Further, *improvement of environmental quality* does also have a positive impact on the natural environment. Tourism gives an incentive to clean up the environment since everything needs to be appealing to the tourists. This involves control of air, water, and noise pollution, littering and other environmental problems. Another positive impact is *enhancement of the environment*, for instance making sites more attractive and interesting through well-designed tourist facilities. One more positive impact is *improvement of infrastructure*, which means that tourism usually helps pay for local infrastructure such as

airports, roads, water, sewage, solid waste disposal systems and telecommunications. At last, tourism *increases environmental awareness*. This holds true especially for places where residents have limited interest in or concern about the natural environment and therefore do not want to conserve it. By observing the tourists' interest in nature the residents might realize the importance of conservation and that tourism brings economic benefits for the place, hence it might increase the local awareness on this subject (Inskeep, 1991).

2.4.1.2 Negative impacts from tourism on the natural environment

On the other side there are many negative impacts on the natural environment from the tourism development if it is not carefully planned, developed, and managed. One negative impact is *water pollution*, which typically happens if not a proper sewage disposal system has been installed for hotels, resorts and other tourist facilities etc. This might result in pollution of ground water, or the sewage outfall can be constructed into a nearby river, lake or coastal sea water. Another negative impact is *air pollution* that can come from for example excessive use of combustion vehicles such as cars, busses and motorcycles used by tourists in tourist areas. Further, *noise pollution* generated by a concentration of tourists or by tourist roads, airplanes, motor boats etc., is also a negative impact on both residents at tourist destinations and other tourists (Inskeep, 1991).

Another negative impact is *visual pollution* that can come from poorly-designed hotels or tourist facility buildings that are not compatible with the local architectural style or not well included into the natural environment, litter from the tourists, inappropriate landscaping, obstruction of scenic views by tourism development, and poor maintenance of landscapes. *Improper disposal of waste* from hotels, restaurants and resorts is also a negative impact because it can generate both litter and environmental health problems from vermin, pollution

and diseases. Waste disposal problems can also lead to a bad reputation and the tourist destination can therefore become unattractive in the eyes of the tourists (Inskeep, 1991).

Several types of *ecological disruption* can result from uncontrolled tourism development and use. Overuse of fragile natural environments can lead to damage, for example killing the growth of vegetation in parks because of too many tourists walking through them, trees being cut by hikers and campers for use as fuel, and especially the marine environment where endangered species might die out caused by the overuse of tourism. Also, poor land use planning and management of tourist facilities can generate *environmental hazards* such as erosion, flooding, landslides and other problems. Damage caused by such environmental hazards may not be entirely prevented but good planning may certainly reduce the extent of it (Inskeep, 1991).

Another negative impact is that *archaeological and historic sites can be damaged* by tourism, for instance through overuse or vandalism. *Land use problems* can also arise when tourist destinations are not developed according to sound land use planning principles. One example of this is that tourist facilities occupy land areas that are more suitable for agriculture or other industries that are more beneficial for the society. These negative impacts have also been stated in previous tourism literature by several authors, among others Cohen (1978), Pigram (1980), Mathieson and Wall (1982), Cater and Goodall (1992), Jenner and Smith (1992), Boers and Bosch (1994), Cater (1995), Croall (1995) and Wheeller (1991, 1995) (as quoted in Baysan, 2001).

2.4.2 Sustainable tourism and sustainable development

Tourism is one of the least regulated industries in the world which leads to serious implications for ecosystems, communities and cultures around the world. By statistics it is shown that international tourism has increased dramatically during the second half of the

twentieth century, from 25 million arrivals in 1950 to 698 million in 2000 (Bowden, 2003).

As said by Eric Cohen (as quoted in Cavlek, 2002, p.47): "*Tourism, like any other industry contributes in the long term to the destruction of the environment*". It is when the concentration of tourists in particular sites is getting too large that it results in overuse and exploitation of natural resources of the area, that the tourists' attendance will be damaging to the environment. In this case, Spain and the Mediterranean area can be mentioned as examples where overuse of resources and damage of both natural environment and socio-culture have occurred caused by reckless development of areas to tourism destinations, without taking precaution.

In order for tourism to remain over time, it has to be sustainable, which means that the specific sites have to retain the historical and recreational values without changing its natural character (Gunce, 2003). Weaver and Lawton (2006) argue that clean, scenic settings are desirable assets for attracting tourists in most places, which again lead to the motivation to protect and enhance the environmental assets at destinations. On the other hand, Weaver and Lawton (2006) also press that the tourism industry has in the latter half of the twentieth century demonstrated a capacity to intrude on different kinds of natural environments. An example of this is tourism facilities that want to locate as close as possible to nature-based attractions, but they do not realize that this development damages the vulnerable environment. If the tourism stakeholders do not participate in the protection of the attraction or destination, there is a danger of overuse by tourists and the attraction will eventually be destroyed (Weaver & Lawton, 2006). However, it is still important to recognize that tourism, if well planned and controlled, can help maintain and improve the environment in various ways. In addition to protecting the environment, proper tourism management can also result in positive economical consequences since the destinations or attractions will be preserved for tourists in the future (Inskeep, 1991).

A number of stakeholders are involved in the tourism industry and the fact that tourism products are produced by the contribution of various industries makes it complicated to achieve sustainability. Through literature in the tourism field there has been a lack of research on whether tourism can be sustainable at all. Another question is how this is possible to measure (McNamara & Gibson, 2008; Cavlek, 2002). However, it is stated by Milne (1998) that truly sustainable tourism can almost certainly never be achieved, but there is a need to act as sustainable as possible. In order to reach the goals of achieving a sustainable development a large percentage of the world's population must change their attitudes and behavior (Barrow, 1995; Redclift, 1995 as quoted in Milne, 1998).

Even though it seems to be a tendency that tourists are getting more concerned about the environment and starting to think and act "sustainable" (Cavlek, 2002), it is unknown how willing the tourists are to adopt the changes required for the achievement of more sustainable forms of tourism development. To understand this, it is necessary to examine who of the tourists are genuinely concerned about the environment when travelling and who are not (Milne, 2008).

2.4.2.1 Reducing the ecological footprint

At the congress on 'Tourism and Ecology' in 1993, information was given that every tourist produces 5 kg of rubbish per day, which is five times the amount of rubbish they produce when they are at home. It was also calculated that for every tourist's overnight stay, between 10 and 100 kW/h of energy are used, which is much more than the tourist would use at home. This shows that many tourists either are not aware of the consequences of their behavior or they do not care about the impact their travelling has on the environment (Cavlek, 2002).

The central aim of sustainable tourism research has been the challenge with identifying how the tourism industry can be developed and maintained at a destination while minimizing the environmental impacts or the ecological footprint, and at the same time preserving the destination's natural and cultural resources (Dolnicar, Crouch & Long, 2008). Van Vuuren et al. (1999, as quoted in Peeters & Schouten, 2006) define the ecological footprint as a measure that "*intends to provide an overview of the use of resources and the generation of waste that can be attributed to final consumption on the basis of available technology and processes*"(p.158). In other words, the ecological footprint is a useful indicator of environmental impacts.

Many actions to reduce the 'ecological footprint' have been proposed by researchers. Dolnicar (2006, as quoted in Dolnicar, Crouch & Long, 2008) claims that supply-side measures take the tourists as a given and it is therefore necessary to try to modify their behavior once at the destinations. Examples of this are regulations forced on businesses (e.g. minimum distance from animals on whale watching cruises), capacity restrictions (e.g. controlled access to national parks during peak seasons), and initiatives to educate tourists and promote pro-environmental behavior.

Dolnicar, Crouch and Long (2008) wanted to find out what an environment friendly tourist is. However, previous conclusions about environment friendly tourists cannot be generalized since previous studies have not been conducted on a general tourist population. This therefore leaves the field with very little empirical knowledge about tourists with low ecological footprints.

2.5   *Different types of tourism*

There are many definitions of tourism and what a tourist is. The World Tourism Organization defines a tourist as:

"Any person residing within a country, irrespective of nationality, travelling to a place within this country other than his usual place of residence for a period of not less than 24 hours or one night for a purpose other than the exercise of a remunerated activity in the place visited. The motives for such travel may be (1) leisure (recreation, holidays, health, studies, religion); (2) business, family, mission, meeting" (as quoted in Smith, 1988, p.180).

Eric Cohen on the other hand, defines a tourist as: *"a voluntary, temporary traveler, travelling in the expectation of pleasure from the novelty and change experienced on a relatively long and non-recurrent round-trip"* (Cohen, 1974, p. 533). The term *tourism* has also many definitions; among others is Jafari's definition from 1977: *"Tourism is the study of man away from his usual habitat, of the industry which responds to his needs, and of the impacts that both he and the industry have on the host's socio-cultural, economic, and physical environments"* (as quoted in Smith, 1988, p. 180). Further, in today's society the tourists are still developing new needs and desires which create new and different types of tourism.

Tourism has existed for several decades and has evolved through the years. However, modern tourism would not have been possible without the development of early societies such as Mesopotamia and the ancient Greece, and it is necessary to start at the beginning in order to see how tourism has developed into the large industry that it is today (Weaver & Lawton, 2006). Further this thesis will take a closer look at different types of tourism, from the first development of tourism until today's tourism.

2.5.1 Pre-modern tourism

Tourism has existed for several centuries and is divided into different eras. The period prior to about AD 1500 is called *pre-modern tourism*, and this era lays the foundation for the modern tourism that exists today. The pre-modern tourism was first experienced in the ancient town of Mesopotamia (approximately situated in modern-day Iraq), which gave rise to civilization due to the availability of a permanent water supply, rich soils, a warm climate and a central location between Asia, Africa and Europe. The emergence of a small leisure class of priests, warriors and others who did not need to worry about their day-to-day survival, lead to the engagement in tourism. Many fundamental inventions and innovations, including the wheel, the wagon, money and roads, introduced both the demand and the ability to travel for tourism-related purposes. However, the motivation for travelling differed to modern tourism and it was only the 'elite' who were privileged to travel, and they often did it to get away from the overcrowded city (Weaver & Lawton, 2006).

The ancient Greece and Rome also give examples of pre-modern tourism. Tourism in ancient Greece is most associated with the Olympic Games. In ancient Rome, the road network extended over 80 000 kilometers, which lead to the Roman 'elite' travelling on pleasure holidays to many new-discovered sites and destinations. Famous Roman resorts were located by the coast where the 'elite' could escape the heat from the big cities, and many of these resorts are popular tourist destinations even today (Weaver & Lawton, 2006).

2.5.2 Early Modern Tourism

The era called *early modern tourism* was between 1500-1950. The Grand Tour is an important link between the Middle Ages and contemporary tourism, which is described in Weaver and Lawton as: "*the extended travel of young men from the aristocratic classes of the United Kingdom and other parts of northern Europe to continental Europe for educational*

and cultural purposes" (Towner, 1996, as quoted in Weaver & Lawton, 2006, p. 61). According to Towner (as quoted in Weaver and Lawton, 2006) about 15 000-20 000 members of the British 'elite' were abroad on the Grand Tour at any time during the mid-1700s.

Other trends in this era as developed in the pre-modern tourism era were spa resorts and seaside resorts. As a result of the industrial revolution, the lower classes of the United Kingdom and parts of Western Europe also had the opportunity to travel. Crowded cities and rough working conditions created a demand for recreational opportunities that could take the workers away from their every-day life. Domestic seaside resorts therefore emerged in the United Kingdom to meet this demand for relaxation (Weaver & Lawton, 2006).

Thomas Cook is associated with the emergence of the modern, large-scale tourism industry. He was a preacher who was tired of the declining moral of the working class. He therefore came up with the idea to charter trains at reduced fares in order to transport the workers to bible camps and self-control meetings (regarding alcohol) in the countryside. The first trip of this kind took place in 1841, and it is described as the symbolic beginning of the contemporary era of tourism. The motivation for travelling changed after a while to include leisure, pleasure and sightseeing. This is what we today know as packaged tours and it is one of the most fundamental symbols of the contemporary tourism industry (Weaver & Lawton, 2006).

2.5.3 Mass tourism

In the early stages of the development process of tourism, the opportunity to engage in tourism was only realistically possible for the rich 'elite'. There was no mass participation in tourism. However, this was before Tomas Cook introduced his travel alternatives for the working class and it was before the industrial revolution made its entrance in society and on the market. Burton (1995, as quoted in Weaver & Lawton, 2006) refers to these pre-industrial

situations as *Phase One* in her tourism participation sequence. In *Phase Two*, the wealth among people spread to a wider population of people as a consequence of the industrialization and urbanization. This happened first in the United Kingdom and then spread to other countries. Since the middle class started to grow, it also lead to a widespread participation in domestic tourism. The 'elite' who had enough money increased their range of international travelling and visited many new places.

In *Phase Three* many countries and cities were almost industrialized and the middle class started to become dominant. This began to occur in the United Kingdom not long after World War II. This lead to an increase in mass domestic travel as well as mass international tourism to nearby countries. The 'elite' on the other hand, turned more and more towards long-haul international tourism (Weaver & Lawton, 2006).

In *Phase Four* most countries were fully developed. There were more wealth among the population, and this phase is characterized by mass domestic and mass international tourism (long-haul and short-haul) amongst the whole population. No restrictions were made on tourism and the mass tourists got to travel in big quantum, most often on packaged tours, to destinations they had never visited before. Mass tourism accounts today for most global tourism activity (Weaver & Lawton, 2006)

2.5.4 Contemporary tourism

The tourism industry experienced rapid growth after World War II (approximately 1950 and onwards). This era is characterized by contemporary tourism, with inbound stayovers and international tourism rapidly increasing. This era has had a consistent growth, only interrupted by the economic downturn in the early 1980s, the 11th of September 2001 terrorist attack, and the combined effects of the Iraq War and diseases such as SARS, the Bird Flu and the Swine Flu. The World Tourism and Travel Council (WTTC) claims that tourism

is the world's single largest industry, accounting for approximately one of every ten jobs and 10 % of all economic activity in 2004 (Weaver & Lawton, 2006). In other words, contemporary tourism is tourism as we know it today.

2.5.5   The development of nature-based tourism and ecotourism

With the growth of mass tourism as a consumer of the natural environment, concern has been voiced over the relationship of the natural environment with tourist activities. In the 1960s, the effects of mass tourism and increasing awareness of the human impact on the environment lead to the realization among people that nature is a resource that can indeed be damaged and exposed for overuse. Many started asking questions whether the tourism industry should grow uncontrolled and use the natural resources available or if restrictions were necessary. Fennel (1999, as quoted in Page & Dowling, 2002) claimed that even though mass tourism may be said to be environmentally unsustainable, there are new developments in the industry that try to encourage more sustainable practices. These developments are also known today as alternative tourism, and are types of tourism that are theoretically sustainable for the natural environment. *Nature-based tourism* is one of these types of tourism. This type of tourism has been popular in the tourism industry and it is continuing to grow. In the tourism literature there have been many contributions to the definition of nature-based tourism. One that can be mentioned here is Valentine (1992) who defines nature-based tourism to be primarily concerned with enjoying nature in a fairly undisturbed setting (Mehmetoglu, 2007; Nyaupane, Morais & Graefe, 2004, as quoted in Andereck, 2009).

Within nature-based tourism the term *ecotourism* has made an entrance in the industry. Wheeller (1991, as quoted din Ryan, Hughes & Chirgwin, 2000) states that originally, ecotourism was offered to tourists with the intention of finding a solution to deal with the negative impacts that mass tourism had on the environment. To understand the term

ecotourism better it is necessary to understand where it is taken from. The term ecotourism is actually taken from ecological tourism which is a subset of alternative tourism and nature-based tourism. One might interpret the meaning of the word in two ways since "eco" can stand for both ecological and economical, which are the two factors that the term is based on. This means that ecotourism leads to both positive effects regarding nature protection and it is supporting the local economy of places that are being visited. Ecotourism is a more deliberate form of nature-based tourism that has to be small-scale and follow given ethical rules (Hanneberg, 1996).

Many tourism businesses call all forms of nature-based tourism for ecotourism in their marketing just because it takes place outside in the nature. This incorrect usage of the word has made ecotourism a popular term, diminishing its true substance and meaning. The boundary where nature-based tourism becomes ecotourism might be a bit blurry, but there is a difference. One can say that ecotourism is a form of nature-based tourism, but not all nature-based tourism is ecotourism (Hanneberg, 1996). An overview of how ecotourism fits into the tourism system is showed in figure 1. According to Innovation Norway (2010), the biggest difference between ecotourism and other types of tourism is the holistic focus on the natural environment in every step of the tourism product. This means that it is not enough to offer nature-based activities, one also has to consider environment friendly solutions regarding recycling of waste, energy use, transport alternatives etc.

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                    ┌──────────┐ ┌──────────┐
                    │   Mass   │ │Alternative│
                    │ tourism  │─│ tourism  │
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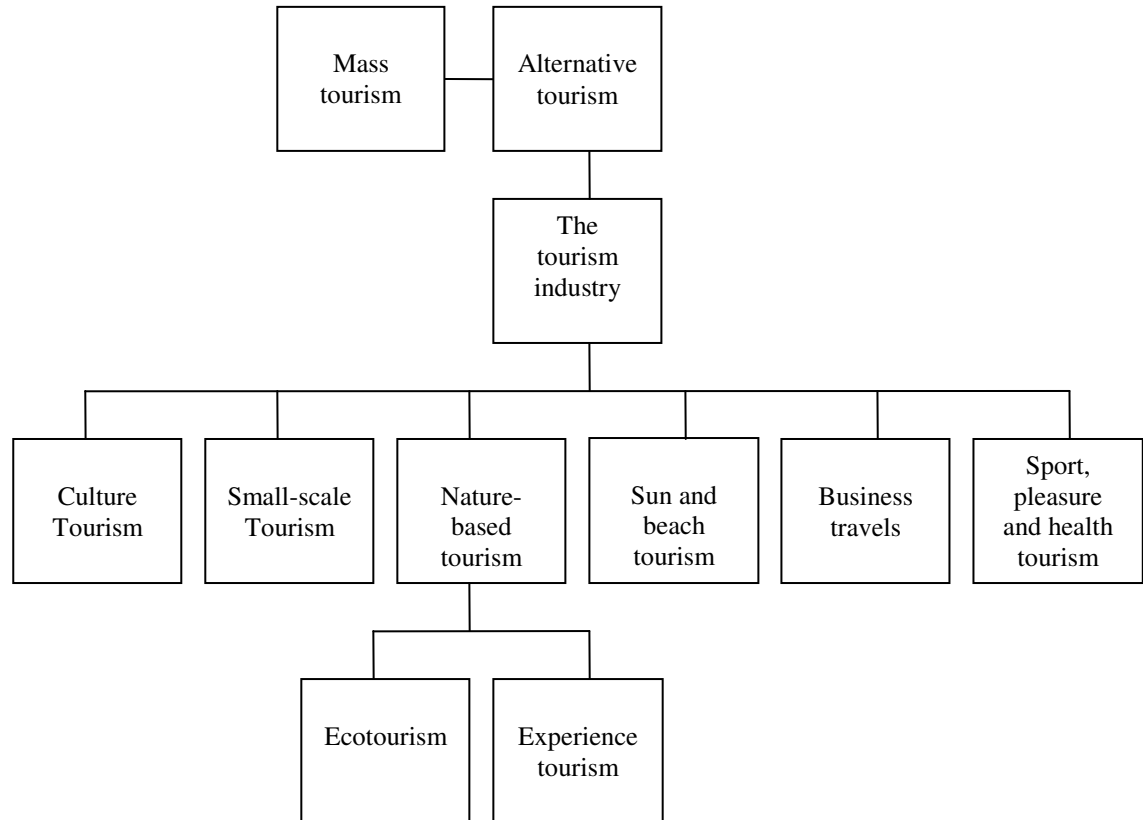
Figure 1: Ecotourism as a market segment (Innovasjon Norge, 2010)

One can also say that ecotourists are a subset of *environment friendly tourists*.

Environment friendly tourists are explained by Dolnicar, Crouch & Long (2008) to be tourists

with a low environmental impact at destinations. Mehmetoglu (2007) claims that tourists with

interest in nature-based destinations are not homogenous and might exist within several types

of tourists (as quoted in Andereck, 2009). This is supported by Dolnicar, Crouch and Long

(2008) who claim that ecotourists are defined by their interest in nature-based activities, while

environment friendly tourists can belong to all different types of tourism (Dolnicar, Crouch &

Long, 2008). However, because most of the previous research on characteristics of the

environment friendly tourists has been conducted on ecotourists, this literature also provides

the main source of knowledge within the research on environment friendly tourists (Dolnicar,

Crouch & Long, 2008). The ecotourism literature is therefore used as foundation and sources for this thesis.

2.5.6 Definitions of ecotourism

Cater and Lowmann (1994, as quoted in Page & Dowling, 2002) claim that the motivation for travelling for ecotourists is to use, see, and experience the natural environment. However, a more thorough description of what characterizes ecotourism is given by the Canadian Environmental Advisory Council (1991):

> *"It must promote positive environmental ethics, it does not degrade natural resources, it concentrates on intrinsic rather than extrinsic values (facilities never become attractions in their own right), it is ecocentric rather than anthropocentric in orientation, it must benefit the wildlife and the environment (socially, economically, scientifically, managerially or politically), it is a first-hand experience with the natural environment, it includes a component of education or appreciation and it has a high cognitive and affective experiential dimension"* (as quoted in Page & Dowling, 2002, p. 26).

A similar description is given by Weaver and Lawton (2002) who suggest that ecotourism involves three fundamental criteria; ecotourism should involve attractions that primarily include the natural environment, with associated cultural attractions constituting a secondary component. Further, the interaction between the ecotourists and the environmental attraction should be based on education, learning and appreciation. Important here is to understand the differences between ecotourism and other types of nature-based tourism such as 3S tourism (sea, sand and sun tourism) and adventure tourism. For these tourists, the natural environment is just a suitable setting for realizing other motivations such as thrill or

pleasure seeking. The third criterion of ecotourism is that it is expected to be environmentally, socio-culturally, and economically "sustainable". Still, there have been many discussions about the meaning of this term, and it is questionable whether any tourism product can definitely meet this third criterion.

The International Ecotourism Society defines ecotourism as: *"responsible travel that conserves natural environs and sustains the well-being of local people"* (as quoted in Kersetter, Hou & Lin, 2004, p. 491). Further, Sirakaya and McLellan (1998, as quoted in Kersetter, Hou & Lin, 2004) propose that ecotourism or tourism to natural areas, continues to be of interest to tourism professionals because it is considered a sustainable alternative to mass tourism or other forms of economic development. It can also be defined as ecologically sustainable tourism with a primary focus on experiencing natural areas that foster environmental and cultural understanding, appreciation and conservation (Lee & Moscardo, 2005).

Ecotourism is also explained as a specific travel market. This market is searching for nature-oriented travel experiences at destinations that are in unspoiled natural environments (Eagles, 1992). In addition, it can be said that it is centered on leisure travel to observe and experience nature (Laarman & Durst 1987; Valentine, 1990, as quoted in Eagles, 1992). Ecotourism has become more and more popular in the modern society leading to an increase in this type of tourism (Fairweather, Maslin & Simmons, 2005). During the past 15 years ecotourism has therefore become one of the most widely discussed and debated concepts within the tourism industry (Weaver & Lawton, 2002).

Innovation Norway (2010) states in their report "Markedsstrategi for Norsk Økoturisme" from 2007 that ecotourists are interested in nature-based vacations in general and that they want to enjoy the nature and feel close to nature while they are travelling. The report also claims that ecotourists want to learn about the nature, culture and local residents at

places they visit, they prefer authentic experiences and they want to participate in activities. Another finding in this report is that ecotourists have a more holistic view on the impact from tourism on the environment and culture. The report also claims that ecotourists want to continue to travel in the future and they do not want to let environmental issues set boundaries for their travel activities (for example avoid using airplane as a transport alternative) . Instead they want to take considerations when they have arrived at the destinations.

2.5.7   Characteristics of ecotourists

There are many opinions regarding ecotourists, but there is no standard definition (Meric & Hunt, 1998). In order to be an ecotourist one has to behave like one during a visit to a destination. In relation to this there has been made some associations with the ecotourist to make it easier to measure what makes them ecotourists. Mostly, the ecotourist has been associated with activities related to nature, outdoor, and cultural experiences (Wight, 1996b; Meric & Hunt, 1998). Other authors for instance Eagles (1992) and Wight (1996a) argue that ecotourists are individuals who spend a predetermined number of days engaged in nature-based activities and they have unique motives for visiting natural areas (as quoted in Kerstetter, Hou & Lin, 2004). They are, indeed, *"travelling with the intent of observing, experiencing and learning about nature"* (Eagles & Cascagnette, 1995, as quoted in Kerstetter, Hou & Lin, 2004, p. 491).

Weaver and Lawton (2002) conducted a study by using questionnaires on 1180 individual tourists that had stayed at an eco-lodge in Australia (they assumed that tourists who stayed there are ecotourists). They conducted a cluster analysis to segment the ecotourists in groups to find out if there were different levels of being an ecotourist. They found that there were *harder*, *softer* and *structured* ecotourists, where the *hard* ecotourist had the highest commitment to the natural environment, and the *soft* and *structured* had less commitment to

the natural environment. *Harder ecotourists* have a strong environmental commitment, they enhance sustainability, they like to go on specialized, long trips (preferably in small groups), they want to be physically active, they prefer physical challenges, they do not expect services, they have an emphasis on personal experience, and they prefer to make their own travel arrangements. *Softer ecotourists* on the other hand, have a moderate environmental commitment, prefer multi-purpose, short trips (preferably in larger groups), they are physically passive, they prefer physical comfort, they expect services when they travel, and they rely on travel agents and tour operators for arranging the trip. *Structured ecotourists* are those tourists who are in the middle of the two ends of the continuum. Most of the respondents in the study turned out to be *structured* and *harder ecotourists* (Weaver & Lawton, 2002).

Meric and Hunt (1998) state that enthusiastic nature travelers do not want to harm the environment and will therefore most likely be willing to hike to a destination rather than using for instance a car, and when it comes to accommodation they will somewhat choose tents or cabins instead of a five star hotel.

In a study by Eagles (1992), it is found that ecotourists hold their travel motivations more strongly, and therefore they may seem as enthusiastic tourists who know exactly what is desirable when traveling. Eagles found that ecotourists are interested in attractions and motivations of wilderness, water, mountains, parks, and rural areas. In addition, the population in the study seemed interested in the social motivations of being physically active, new lifestyles, meeting people of similar interest, adventure, and seeing as much as possible in the time available. On the other hand, it was found that ecotourists are less interested in travel attractions and motivations such as gambling, amusement parks, nightlife, big cities, watching sports, doing nothing, indoor sports, shopping and resort areas. However, it has to

be considered that this study was not conducted on a general tourist population, and that the answers may be different using sample from the general tourist population.

2.6   Tourists' demographics

Demographics are commonly used to differentiate between diverse types of tourists. Several studies (Dolnicar, Crouch & Long, 2008) have used age, gender, education, work situation/occupation and household income to try to characterize the ecotourist. It seems to be a tendency that ecotourists are defined to be outdoor enthusiasts who are well-off financially, well-educated and older people who have the free time to travel (Ballantine & Eagles, 1994). Nevertheless, age studies conducted on environment friendly tourists are contradictory, which is shown in several studies concluding that they are middle-aged, while other studies come to the conclusion that they are older tourists (Dolnicar, Crouch & Long, 2008).

Life stages in families are affecting the family's travel pattern. While families with mature children increase their travel activities, married couples without children are those with the best travel prospects. Married people with children who have moved out are couples in a life stage that are more likely to have more discretionary income, and are financially able to travel more. A major trend in the tourism industry is the growth of the senior citizen (65+ years) and the semi senior citizen (55+ years) segments. The senior citizen segment increased from 25 million travelers in 1980 to 34.8 million travelers in 2000 on a worldwide basis. In 2030 it is expected to increase to 70 million travelers. Definitions of age groups vary in the tourism literature from test to test according to the age of the sample groups; further some also define their own age groups (Meric & Hunt, 1998; Mehmetoglu, 2006; Kerstetter, Hou & Lin, 2004; Ballantine & Eagles, 1994; Crossley, Lee & Crossley, 1994).

Concerning education level, it is indicated through tourism literature that there are differences between the education levels of the different types of tourists. Through a study by

Weaver and Lawton (2002) trying to identify the characteristics of ecotourists travelling to Australia, it was found that the majority of the sample had a Bachelor's degree or postgraduate degree. The same is found in another study of the ecotourist, which shows that the majority have at least a Bachelor's degree or higher (Kerstetter, Hou & Lin, 2004; Crossley, Lee & Crossley 1994). Other studies have found that the typical ecotourist have at least college or higher education, which is also mostly the same as other studies have indicated (Meric & Hunt, 1998). It therefore seems to be a tendency that the majority of the ecotourists' have Bachelor's degrees or Masters' degree or higher education, while most of the general or mass tourists have college and some Bachelors' degrees but not higher.

In a study accomplished by Meric and Hunt (1998) trying to define motivation and demographics by the ecotourist it is shown that the household income of the ecotourist tend to be over 35.000 dollar. Another study shows that the average household income by ecotourists is less than 30.000 dollar (Kerstetter, Hou & Lee, 2004). The low average income can be explained by that the majority of the sample were local people in Taiwan, and it might be assumed that the average income level in Taiwan is lower than for instance European countries or other countries located in the western parts of the world, where most of the samples in other studies about demographics are taken from. Another study has found that the majority of ecotourists have an individual income level between 35.000-70.000 Australian Dollars (Weaver & Lawton, 2002). One reason for this high individual income level might be because Australia can be considered a country with very high income levels compared with for instance other European countries. Furthermore in a study comparing demographics between the ecotourists and mass tourists for tour companies in USA, it is shown that the majority of ecotourists had a household income of over 65.000 dollars, while the mass tourist had between 20.000 and 49.000 (Crossley, Lee & Crossley, 1994). However, most of the studies have used scales between approximately 20.000 and 100.000 dollars (Weaver and

Lawton, 2002; Crossley, Lee & Crossley, 1994). In relation to this it has also been found that the ecotourist has much higher income than the common general or mass tourist. A large and increasing percentage of the population today has sufficient discretionary income to finance business and pleasure travel (Goeldner & Ritchie, 2006). It is shown through several studies from travel research that as the income increases, the frequency of travel and the degree of travel expenditures increase rapidly (Goeldner & Ritchie, 2006).

All three demographic characteristics age, education level and income level are variables that are commonly tested when trying to differentiate between the ecotourist and the general or mass tourist (Crossley, Lee & Crossley, 1994; Meric & Hunt, 1998; Dolnicar, Crouch & Long, 2008).

2.7   *Activity preferences when travelling*

It shows from a study by Wight (1996b) trying to discover ecotourists' preferences, that ecotourists seem to prefer outdoor related activities, while general tourists tend to be more interested in culture related activities. Though, it appears that the consumers' preferences tend to move in the direction of what types of activities that the ecotourists prefer.

The ecotourists' activity preferences mostly found in previous studies are that the ecotourists want to be physically active, view wildlife and be close to and enjoy scenery and nature (Meric & Hunt, 1998; Weaver & Lawton, 2002). Hiking is also an activity that is found to be popular amongst ecotourists (Wight, 1996b). Other popular activities are visiting national parks, seeing wildlife and being close to nature (Weaver & Lawton, 2002; Wight, 1996b).

However, there are also differences in the tourism literature regarding what activities are considered to be ecotourist activities. As no one is said to be an ecotourist before one behaves like one at a travel destination, it has been necessary to associate and measure

ecotourism by activities related to nature, outdoor and cultural experiences (Meric & Hunt, 1998).

2.8   *The psychology of tourist behavior*

Factors influencing travel behavior are becoming more and more complex. Even though socio-demographics and travel characteristics are descriptive and can provide an understanding of various types of tourists, they cannot fully describe why people travel or select specific travel modes (Mathieson & Wall, 1982; Hsieh, OLeary, Morrison & Chang, 1993, as quoted in Mehmetoglu, 2006). It is therefore important to explore psychographic variables since they have a recognized impact. Nevertheless, there are no standard psychographic categories of defining people (Plog, 1994, as quoted in Mehmetoglu, 2006). The most common psychographic variables that are found in the literature are; travel motives, personality, personal values, benefit sought, travel philosophy and travel product preferences (Madrigal, 1995; Mazanec, 1995; Morrison, Hsieh & O'Leary, 1994 as quoted in Mehmetoglu, 2006). All these variables are influencing what tourists are motivated by, how they make decisions, what tourists think about the products they buy, how much they enjoy and learn during their holiday experiences, how they interact with the local people and environment, and how satisfied they are with their holiday (Goeldner & Ritchie, 2006).

To find answers to such questions, there is a need to examine the different variables. The fundamental psychographic variables that will be focused on in this paper are tourists' travel motivation, tourists' attitudes and tourists' behavior.

2.8.1 Tourists' travel motivation

Motivation can be described as a force that makes an individual do something to fulfill a biological need or psychological desire. Motivation can be related to both primary needs and secondary needs. Primary needs are explained as biological needs like water and food, and secondary needs are social and psychological desires like achievement, success, socialization and recognition. It is important to specify that these two types of motivations can also be functioning at the same time (Fridgen, 1996).

Maslow's *hierarchy of needs* is a model for describing motivation. He suggests that needs are ordered in levels of priorities. There are five levels; *Physiological* which is food, water, air, shelter and reproduction, *Safety* which is stability security and structure, *Love* which is affiliation, affection and sense of belonging, *Esteem* which includes success, self worth and achievement, and *Self-actualization* which includes self-fulfillment and personal growth. Maslow suggests that a person will only fulfill a higher level of need if lower levels are already fulfilled. However, it has been found that tourists can experience, express and pursue needs from several of the levels of needs at the same time. This means that the theory does not present a practical framework that can characterize motivations, though it shows that travel permits numerous needs to be fulfilled at the same time (Fridgen, 1996).

It is found that travel motivation and tourist behavior is very difficult to discover, as there often are so many unforeseen intangible elements that influence the choices the tourists make. For instance, if a family is on vacation they may have to compromise when travelling on different types of holidays (Ryan, 2003). Motivations are also very personal and subjective and difficult to measure. Further, the tourists may not always want to or will not always be able to find their true motivation for a specific travel/holiday. Moreover, not all reasons for travel are motivation. Some reasons for travelling may for instance be descriptions of the destination, its image, amenities and characteristics. It is therefore important to differentiate

between *stated reasons* for travel and *motivations* for travel (Fridgen, 1996). Furthermore, culture and language can also be obstacles to making the tourists express their travel motivation with others. An example can be that a family going on vacation may say that the motivation is to visit the ocean, to see the great views and live in luxury for a few days, while the actual motivation might be to re-establish family bonds. In addition, it is found that motivation for travelling covers a broad variety of human behaviors and human experiences. A short list of travel motivation can be; relaxation, status, excitement, social interaction with friends, adventure, social interaction with family, physical challenges, and escape from routine or stress (Fridgen, 1996).

Eric Cohen (1979) claims that every society has a 'center', which means that the people living in this society has common norms and values that apply to everyone. This 'center' is also the tourist's home place where he/she feels at home and safe, also known as 'the familiar'. 'The other/the strangerhood' is outside of the tourist's normal environment. However, a lot of modern people do not feel that they belong in their 'center' or that they do not find the purpose or meaning of their life within their usual surroundings. They want to find their 'center' or the meaning of life elsewhere, and therefore they become tourists and travel beyond the boundaries of their usual environment. This implies that there are experiences outside of the tourist's everyday life that are different and exiting. This may then become their *motivation* for travelling.

Cohen distinguishes between five main modes of touristic experiences that are the motivation behind travelling. *The recreational mode* is a mode that focuses on recreation for the tourist. The trip is a way to 'charge the batteries' and can be recreation in the form of for instance going to the theatre or the cinema. The tourist has fun and moves away from his usual 'center' but comes back after the 'trip'. *The diversionary mode* focuses on tourists who do not feel that they belong in their 'center' and who feel that their lives are meaningless.

Travelling becomes their escape, but it does not give them recreation since it does not give them motivation to go back to their everyday life. It is only a way to hold on a bit longer. *The experiential mode* consists of tourists who seek experiences and authenticity elsewhere and realizes that they can only get 'true' experiences by travelling outside of their 'center'. They want to observe what is different from their lives but they are not willing to change their 'center' and become a part of a new culture. *The experimental mode* is characterized by tourists who no longer can identify themselves with their 'center' and are interested in finding alternatives to it. They are willing to try different lifestyles and therefore travel to different places searching for the meaning of life. However, they do not commit themselves to one particular way of life. *The existential mode* is characterized by people who have turned away from their original society or 'center' and found an alternative 'center' elsewhere. The tourist might move to the new center where he finds true meaning of life or decide to stay in the old 'center' but travel to the 'elected center' as often as possible (Cohen, 1979).

Both Iso-Ahola (1982) and Pearce (1988, 1992) have added some more specific perspectives to the tourist motivation field. Iso-Ahola argues that: "*tourist and leisure behavior takes place within a framework of optimal arousal and incongruity*" (as quoted in Goeldner & Ritchie, 2006, p. 254). This means that while individuals search for diverse levels of stimulation, they will share the need to avoid either overstimulation (mental and physical exhaustion) or boredom (too little stimulation). It is also found that leisure needs change during the life period and across places and social company (Goeldner & Ritchie, 2006).

Many of the previous research studies regarding motivation conclude that ecotourists seem interested in learning about the environment and the prime travel motivation for ecotourists is "learning about nature" (Weaver & Lawton, 2002; Ballantine & Eagles, 1994). This is supported by Eagles (1992) who found in his study that ecotourists are travelling to learn about nature within wilderness. Another aspect found is that ecotourists are motivated

by meeting other people they can learn from and with, but also to share an appreciating of the richness of nature. In addition, cultural features such as museums, cultural attractions and historical places are also motivation factors for ecotourists (Eagles, 1992). This "motivation" variable has been tested several times in the past on ecotourists, but in this thesis it is tested on a general tourism sample.

2.8.2 Tourists' Attitudes

Central to attitudes is preferences, feelings and actions. In daily use attitudes may be well-known, but the meaning of attitudes is complex (Fridgen, 1996). Attitudes can be seen as intellectual, emotional and behavioral responses to events, things and persons which people learn over time. There are many definitions on what attitudes are, but seen from a psychologists' view, attitudes are cognitive structures for organizing peoples' experience of the world. These can be categorized in three main components (Fridgen, 1996):

1) Knowledge of or beliefs about an object or topic

2) A positive or negative evaluation of that object or topic

3) A direction on how to behave when the object or topic is encountered

These components can be exemplified by using other terms such as *affective* (emotional), *cognitive* (beliefs, assumed facts) and *behavioral* (actual behavior or intended behavior). The *cognitive* component relates to our perception. For instance a cognitive expression could be 'mountains areas are beautiful'. Furthermore the *affective* response builds upon the cognitive expression and develops feelings associated with the object. An example of an affective expression might be that 'the mountains are beautiful and it makes me happy to look at them'. At last the behavioral response relate to intensions towards the object based upon the cognitive and affective response. An example here can be 'I intend to go walking in the mountains as they are beautiful and make me happy' (Fridgen, 1996; Holden, 2003).

It is also relevant to understand how new and different information influences both what we believe and the attitudes we hold. Attitudes can actually be changed through persuasion. Media, personal communication or advertising can be examples of attempt to influence someone's attitudes toward an object, a person or an event. How effective the persuasive message is depends upon the source. It is proved that persuasive messages from family and friends usually are stronger than from strangers, which can be explained by the fact that personal sources are more trustworthy and believable (Fridgen, 1996).

2.8.2.1 The New Environmental Paradigm (NEP-scale)

In previous research relationships has been found between attitudes and behavior. To comprehend why tourists' behave in the way they do in relation to environment friendly behavior it can be interesting to have a closer look at the NEP-scale to find out how this can be measured. The New Environmental Paradigm (NEP) in one measure of environmental concern or attitudes that is used extensively, which was developed by Dunlap and Van Liere in 1978. This measure is a comparison of attitudes that represent the respondents' adherence to a worldview of the relationship between humanity and the environment (Vining & Ebreo, 1992).

In earlier studies on ecotourists' behavior there are numerous of authors who have used the NEP-scale when trying to understand the tourists' environmental behavior (Fairweather, Maslin & Simmons, 2005; Roberts & Bacon, 1997; Vining & Ebreo, 1992; Lee & Moscardo, 2005). The NEP-scale has emerged from the DSP (Dominant Social Paradigm) which is related to the Western civilization's strong anthropocentric tradition whereas humans historically have been seen as being separated from nature and immune to ecological constraints and consequences (Albrecht, Bulena, Hoiberg & Nowak, 1982, as quoted in Roberts & Bacon, 1997). In spite of these beliefs and values, there has been a growth in

caring about the environment, and this has created a new set of beliefs and values that can be said to be the opposite of the DSP. This is called the New Environmental Paradigm (NEP) (Roberts & Bacon, 1997), and these values have focus on restricting growth, protecting the integrity of ecosystems and living in harmony with nature. In relation to this, it is implied that individuals with a higher level of environmental concern should be more likely to engage in ecologically conscious consumer behavior (Antil, 1984; Roberts, 1991; Shetzer et al., 1991, as quoted in Roberts & Bacon, 1997).

Several studies have been conducted to understand the complex relationship between environmental concern and consumer behavior (Lee & Moscardo, 2005; Roberts & Bacon 1997; Fairweather, Maslin & Simmons, 2005). The NEP-scale measures a variety of attitudes that represent the respondent's adherence to the ecologically integrative view explained through the three components (Geller and Lasley, 1985, as quoted in Robert & Bacon, 1997):

1) Humans are a part of nature.

2) There are limits to the carrying capacity of the ecosystem.

3) The ability of technological progress to solve environmental problems.

Furthermore, high scores on the Nep-scale indicate pro-environmental attitudes, which mean that the respondents have a worldwide view where humans must adapt to the changing limits of the environment. The NEP-scale has been found to have predictive power with regard to actual environmental behavior, and it is after empirical use said to be both reliable and valid (Vining & Ebreo, 1992; Lee & Moscardo, 2005). It is also a well documented standard measure of general environmental concern (Jurowski et al., 1995, as quoted in Lee & Moscardo, 2005; Roberts & Bacon, 1997).

2.8.3 Tourists' Environmental Behavior

Tourism is a behavior that is purposeful, planned and motivated, where the tourist is the person travelling and therefore the central character. The travel decision process is subject to psychological, social, cultural, and environmental forces. Internal factors are those forces considered to be a part of the person and consist of attitudes, values, perception, learning, personality and motives. Travel decisions are most directly influenced by internal factors. On the other side, external forces exist outside the person. The external factors that shape travels are social and family roles, social class, environmental conditions, the surrounding culture and subculture, and reference groups. It is supposed that both internal and external forces can influence the traveler and the subsequent decision. In a complex way, all these factors interact and shape travel and tourist behavior (Fridgen, 1996).

When it comes to the relationship between attitudes and behavior it is found in early research that behavior is not always consistent with attitudes and that this may reflect the relevance or importance of a topic to individuals (Pearce, Moscardo & Ross, 1996). There have been done several studies to investigate environmental values and environmentally responsible behavior in tourism, such as recycling and energy conservation. Researchers have noted a relationship between tourists' behavior and attitudes toward the environment. However, the relationship has not been described as perfect, but it has been proven by Hines, Hungeford and Tomera (1986) to have a moderate relationship (as quoted in Vining & Ebreo, 1992). It is explained by several authors that general conservation attitudes influence attitudes toward specific conservation issues (Black, Stern & Elworth, 1985; Dunlap & Van Liere, 1984; Stern, Dietz & Black, 1985-1986, as quoted in Vining and Ebreo, 1992). What is described here seem to be consistent with the Fishbein and Ajzen theory of reasoned action (1975), which suggests that broad attitudes affect the behavioral intension indirectly through their influence on behavioral beliefs and compliance with social norms (as quoted in Vining

& Ebreo, 1992). It is also found by Jackson (1986/1987, as quoted in Andereck, 2009) that people who engage in 'appreciative' outdoor activities such as hiking and bicycling have had more positive environmental attitudes than those who engaged in more 'consumptive' activities such as snowmobiling or boating. Moreover, it is stated by Stern (2000, as quoted in Kaiser & Schultz, 2009) that attitudes are stronger predictors of behavior when the external influences to a person are minimized. Through one of their studies examining the relationship between attitudes and behavior it was found that external conditions facilitate and impede behavior similarly for all people. Influences external to a person must therefore be considered as main effects and not as interaction effects (Kaiser & Schultz, 2009).

Regarding environmental behavior against environmental initiatives, concern for the conservation of natural resources is to be the most important motive for recycling, even among non-recyclers (De Young, 1984; Vining & Ebreo, 1990, as quoted in Vining & Ebreo, 1992). Other motives for recycling are shown through other research (De Young, 1986, as quoted in Vining & Ebreo, 1992), like for instance community service, thriftiness, self-sufficiency and efficacy. Recycling seem to be a behavior that is not only influenced by one's personal motives, attitudes and beliefs, but also other elements like social and societal factors (Vining & Ebreo, 1992). However, it seems that recycling behavior can be indirectly governed by social norms, and directly influenced by personal moral norms (Vining & Ebreo, 1992).

Concerning this, it is found in research done by Pickett et al, (1993, as quoted in Robert & Bacon, 1997) that different types of people show different types of ecologically conscious consumer behavior. Therefore, other researchers have tried to investigate the power of different variables that separate the different types of environmental behavior (Roberts & Bacon, 1997). It is further suggested by Dunlap and Van Liere (1981, as quoted in Vining & Ebreo, 1992) that different people choose to show their concerns for the environment in

different ways depending on the specific environmental problem. Some may be more concerned about water conservation while others might be more concerned about wildlife habitats.

According to Kerstetter, Hou & Lin (2004) there is a need to know more about the behavior of ecotourists. To understand the tourists' behavior, it has to be investigated through studies. Earlier research about environmental behavior have used behavioral statements that focus among others on responsible behavior, which means to actually behave responsible such as recycle the waste or save energy (Lee & Moscardo, 2005). Other ways of measuring environmental behavior have been statements about interest in nature, such as an interest in nature-based destinations when travelling and interest in observing nature in a wild and unrestricted setting (Weaver & Lawton, 2002). Another way of measuring environmental behavior is through statements about environmental awareness, such as being aware of the vulnerability of the nature thus gaining knowledge about the natural environment of the places visited (Weaver & Lawton, 2002). Statements about non-responsible behavior are also a way to measure environmental behavior, such as negative behavior towards the environment (Fairweather, Maslin & Simmons, 2005). Such behavioral statements are tested in this thesis.

3   Method

The purpose of research is to increase our knowledge of humans. According to Clark-Carter (1997), research is generally seen as having one of four aims or stages: to describe, to understand, to predict or to control. One can also say that research is seen as trying to intervene in order to improve human life.

There are two approaches to research; *inductive* and *deductive*. An inductive study starts by evidence, which means that the researchers know things for certain before going more general and building towards generalizations, patterns, or summary ideas. A deductive study on the other hand starts by a summary idea or an "educated guess" of what the researcher thinks might occur and then moves toward specific, observable evidence to verify the ideas (Neuman, 2009).

In this thesis an educated guess has been made regarding what characterizes environment friendly tourists and environment friendly behavior before evidence was gathered using a questionnaire. In other words, a deductive approach has been utilized.

3.1   Research design

Before one starts a research survey it is important to select a proper research design. The research design is a description of how the researcher structures the process of analysis in order to solve the problem under study (Gripsrud, Olsson & Silkoset, 2007).

3.1.1   Qualitative and quantitative research methods

Within social research there are two main types of evidence that is utilized. These are *quantitative data* and *qualitative data*. Quantitative data contain evidence in the form of

numbers while qualitative data holds evidence in the form of visual images, words or sounds (Neuman, 2009).

The qualitative research method explores the process that underlie human behavior, by using exploratory techniques such as interviews, surveys, case studies and other relatively personal techniques. This method has been around for numerous of years as people have shared ideas and traditions verbally. Several of different types of sources can be used when utilizing qualitative research as a method, such as: documentation, archival records, physical artifacts, direct observation, participant observation and focus groups (Salkind, 2009).

The quantitative research method consists of four different types of collection techniques. The first is called *experiments*, a technique that requires a well-focused research question and has to include two or more groups. The second collection technique is called *surveys* and is performed by asking people questions in a written questionnaire either by handing it out, sending it by email, or during an interview. This means that one asks people several questions during a short period of time. The answers to the questions can be presented as percentages, tables and graphs. It is common to select a sample i.e. a smaller group, of the total population, and to generalize results obtained on the sample to the whole population. The third technique is called *content analysis*. This technique is collecting information or content in a written or symbolic material, such as pictures, movies or song lyrics. The purpose of this is to record specific aspects of it. The fourth technique is called *existing statistical sources, which* is a collection of previously collected information (Neuman, 2009).

The most common way to perform quantitative studies is by utilizing questionnaires. A questionnaire is based on specific questions structured on paper. It can be completed as part of a one-to-one interview, but it can also be completed in a less personal manner by for example distribution by e-mail. When using a questionnaire the appearance of the instrument is important, and if the instrument is precise it increases the reliability. It is important to

remember that it takes a lot of time and effort to develop such questionnaires. There are five stages to follow in order to get a high-quality questionnaire: first of all the design of the questionnaire has to be reasonable related to time, expense and effort. In relation to this it is also important not to ask inappropriate questions or questions that are too personal. Secondly, the questions have to be directed to the topic that is studied, not just related. Thirdly, it is important to assure that the respondents have knowledge on the topic in the question. Furthermore, it is important to use interesting questions to keep the respondents interested in answering the questions. Finally, it is always wise to complement a good questionnaire with information from other sources such as for instance interviews (Salkind, 2009).

3.1.2   Different types of research

There are two general categories of research, *non-experimental research* and *experimental research*. Non-experimental research examines the relationship between variables without any attention to cause-and-effect relationship. This type of research is used in for instance a study that gives information about habits, but does not say anything about why the habit is as it is. Non-experimental research is explanatory and does not include a treatment or a control group, and the research consists of methods that describe relationships between variables. These are *descriptive, historical, correlational and qualitative methods* (Salkind, 2009).

When conducting descriptive research, there is a need to understand events that are occurring in the present and how they are relating to other factors. Descriptive research describes the current state of some phenomenon where the outcome of research will give a picture of a situation (Salkind, 2009). It is possible to either examine one variable or the relationship between several variables. The most common data collection technique within

descriptive research is quantitative methods, due to the fact that one can reach bigger samples of a population (Gripsrud, Olsson & Silkoset, 2007).

To study events that have occurred in the past is called historical research, and this gives the same results as the descriptive research.

Correlational research describes the linear relationship between two or more variables. This is a technique that examines whether variables share some common characteristics. If they do so the variables are correlated with one another. The last method is qualitative research. This research method examines human behavior in the social, cultural, and political contexts in which they occur. Examples of tools used are interviews, historical methods, case studies and ethnography (Salkind, 2009).

Experimental research studies the cause-and-effect relationship between variables. In a simple way experimental design can be explained as when two groups are randomly chosen from a population, where one group (the experiment group) gets a treatment, while the other group (the control group) does not receive any treatment. Afterwards, both groups are tested to find out if there is a difference on a specified test score (Salkind, 2009).

The research conducted in this thesis is non-experimental with a descriptive design. The reason for using this design is that this describes relationships between variables and it does not include any treatment or control group. Another reason for using this design is that there is a need for more information about a current state of a phenomenon, which in this case is the characteristic's of environment friendly tourists. This is because the tourism literature needs a more worldwide view of what types of tourists are environment friendly. Therefore the authors examined several variables that are assumed to enhance environment friendly behavior. These are "age", "education level", "income level", "motivation", "activities" and "attitudes". These variables will be further discussed in the following chapter

3.2   *Sampling and generalizability*

A population is a group of potential participants of a study, and a subset of that population is described as the sample. The sample is just a small collection of units taken from a larger collection. Either using qualitative or quantitative data, it is always important with a good sample. Moreover, when accomplishing a quantitative study it is very important to get a genuinely representative sample as possible. A proper sample makes it possible to study features of the sample and produce highly precise generalizations about the whole population (Neuman, 2009). Generalizable results can be applied to different populations with the same characteristics in different settings. If the results are not generalizable, they will only be valid to the people participating in the original study. Therefore, it is significant to be aware of whom and how many participants that are chosen for the study, to make sure that the results are generalizable (Salkind, 2009). However, it is not possible to get a sample that represents the population perfectly. The size of the sample should be big enough to answer the research question precisely, but it should not be so big that the process of sampling becomes uneconomical and inefficient.

There are two general sampling strategies, which are called *probability sampling and non-probability sampling*. In the probability sampling the selection of participants is determined by chance and the determination of who will end up in the sample is determined by random and nonsystematic rules, while non-probability sampling is not determined by chance and therefore a member of a population do not have an equal and independent chance of being selected to be part of the sample. It is crucial to follow some guidelines to assure that the sample will be correct (Salkind, 2009).

3.2.1 Probability sampling

There are several ways of doing probability sampling strategies. *Simple random sampling* is the most common strategy. Here every member of the population has an equal and independent chance of being selected as a part of the sample. There are four steps to follow when using random sampling; first of all there is a need for a definition of the population one want to select a sample from, second there is a need to list all of the members of the population, thirdly it is crucial to assign numbers to each member of the population, and finally it is necessary to use a criterion to select the sample that is whished for. A table of random numbers is a tool that is preferred when selecting participants from a population; this is also the most unbiased way of doing it. A result is that the characteristics of the sample are very close to that of the population (when sampling randomly) so one can say that the sample is representative of the population (Salkind, 2009).

Systematic sample is another tool that can be used when defining the sample. The way this is done is by choosing every 'kth' name on the list, where the term '*kth*' means the number between 0 and the size of the sample that you want to select. To find this 'kth', the size of the population is divided on the size of the desired sample, and the answer is the number that will decide the frequency of the selection of who will be chosen for the sample. This systematic sampling method is preferred over the random sampling because of the ease of use. However, when selecting for instance every 5th participant, the rest of the participants do not have the same chance as being selected as every 5th participant. This is less precise than random sampling and therefore more biased (Salkind, 2009).

Another probability sampling technique is called *stratified sampling*. This is a sampling technique that is used if a specific characteristic of the population (such as religion, gender, race, social class or degree of intelligence) differentiate population members from each other. In this case there is a need to create a sample that is patterned after the population.

By using stratified sampling one ensures that the layers (or strata) of the population are fairly represented in the sample. Furthermore, another way of probability sampling is called *cluster sampling*. Here units of individuals are selected rather than individuals themselves. All the individuals in each unit are assigned to one of the treatments conditions. To avoid biases it is essential that the units are homogeneous. Cluster sampling is easy and quick to accomplish (Salkind, 2009).

3.2.2   Non-probability sampling

Non-probability sampling strategies are used when the probability of selecting a single individual is not known. This sampling strategy contains two different sampling techniques. The first one is called *convenience sampling;* this is when the researcher just picks out a group of participants which is most convenient to study. A benefit by utilizing a convenient sample is that it is easy to accomplish. However, this is not random, and the group might not represent the whole population. Another way of sampling in a non-probable way is *quota sampling*. This technique helps selecting people with the characteristics that is needed, but it does not randomly select a subset of all kinds of people with exactly the characteristics that were whished for (Salkind, 2009).

3.2.3   The sample in this study

The sample used for this study is selected from 2925 international tourists who participated in a survey in Fjord Norway the summer of 2009. The sample was more or less randomly selected by the researchers, as they travelled around the Fjord Norway region asking random international tourists to answer the questionnaire. The sample was not randomly chosen through a table of random numbers, rather it was practically and

conveniently chosen when at the destination. The sampling method had certain convenience characteristics, since the researchers did not have any control over which international tourists that were willing to participate in the follow-up survey.

As the exact number of the tourist population visiting Fjord Norway during the summer (2009) is not known, the authors did research in advance to find out what places within Fjord Norway the majority of the international tourists would visit. Therefore, it is assumed that this sample as far as possible represent the population. One can argue that tourists visiting Fjord Norway are ecotourists because the natural environment is such an important element, but on the other hand it can also be argued that also other types of tourists can be interested in a vacation to Fjord Norway. In addition, Fjord Norway is not marketed as an eco-destination which gives reason to believe that different types of tourists visit the region (K. Finne, NCE tourism Fjord Norway, personal communication, April 14, 2010). The sample used in this thesis is therefore considered to be a sample from the general tourist population.

The sample for the survey conducted in this thesis is 1134 out of the total 2925 respondents who wrote down their e-mail addresses and agreed to participate in a follow-up survey. However, of the 1134 e-mail addresses 341 of them came back as failed deliveries, leaving the valid sample with a size of 793. Of this sample 381 replies were received, which gives a return rate of approximately 48 %. How this sample was found is elaborated in the chapter "the process of data collection".

3.3   *Dependent and independent variables*

A variable can be compared with the words *changeable* or *unsteady*. It can represent a group of outcomes that can take on more than one value, for example eye color, weight and age. There are two types of variables; *dependent variables* and *independent variables.* The dependent variable signifies what the study aims to measure, or the outcomes of a research

study. The independent variables represent the treatment that the researcher has direct or indirect control over to test their effects upon the dependent variable, which means that the independent variable is manipulated or changed to examine its effect upon the dependent variable. The independent variable is also known as the treatment variable. A good dependent variable is one that is sensitive to changes in the different levels of the independent variable, thus if it is not sensitive to changes it will not be possible to measure the effects, even though the treatment had an effect (Salkind, 2009).

The variables are tested through a hypothesis. In this thesis six different hypotheses are tested. The dependent variable that is tested in all of the hypotheses is "*environment friendly behavior*". The reason why this dependent variable is selected is because there is a lack of information and understanding of characteristics of environment friendly tourists. The independent variables that are believed to influence the dependent variable are: "*age*", "*education level*", "*income level*", "*motivation*"," *activities*" and "*attitudes towards the natural environment*". As found in the literature review the independent variables have already been tested several times by many researchers, but mostly on ecotourists and not a general tourist population. By finding out how the different independent variables influence the dependent variable it might be possible to find characteristics of environment friendly tourists that can be generalizable to a general tourist population.

3.4   Data collection

This section establishes what information was required to assess the main research problem in this study and how the information was obtained. The data collection process consists of four steps: 1) The construction of data collection form used to organize the data collected, 2) The designation of the coding strategy used to represent data on a data collection

form, 3) The collection of the actual data, and 4) Entry onto the data collection form. After completing these steps it will be possible to start analyzing the data (Salkind, 2009).

3.4.1   The measurement instrument utilized in this study

Because of the short time limit on this thesis and the fact that the thesis is written in the spring semester and not during the peak tourist season in Norway, it was not possible to utilize qualitative methods such as face-to-face interviews. It was therefore chosen to use a quantitative method in the shape of a questionnaire. In order to get a good data collection it was decided to send a questionnaire as a follow-up survey on international tourists that were surveyed in Fjord Norway during the summer of 2009. This follow-up questionnaire was sent out through the data collection tool Questback on e-mail since it was not possible to meet the tourists in person. One disadvantage of distributing the questionnaire by e-mail is that the return rate is not guaranteed. The reasons for this might be that the respondents do not have the time to fill it out, they do not feel obliged to fill it out since it is sent via e-mail or they just simply do not wish to participate. On the other hand there are many advantages of using this type of research method. First of all it is possible to survey a wide geographical area. Another benefit with using a questionnaire is that one can get more answers in a shorter period of time. It is also cheaper than conducting multiple one-to-one interviews and it might be that people are more willing to be truthful because the answers are meant to be more anonymous (Salkind, 2009).

3.4.2   Levels and scale of measurement in the questionnaire

The questionnaire used for this thesis consists of 27 questions altogether, and can be found in Appendix 1. The questionnaire was divided into three parts, questions 1-10 belongs

to the authors of this thesis, questions 11-22 belongs to another Master's student, and questions 23-27 belongs to both parties since they are measuring demographics. Answers to questions 1-10 and 23-27 are the ones that will be examined in this thesis.

To get a useful measurement it is significant that the variables are precisely measured. Stevens (1951, as quoted in Salkind, 2009) offers the classical definition of measurement as the "assignment of numerals to objects or events according to rules" (p.103). Salkind (2009) also offers an explanation that "*A level of measurement is the scale that represents a hierarchy of precision on which a variable might be assessed*" (p. 103). The course literature offers four levels of measurement; *nominal, ordinal, interval* and *ratio* (Salkind, 2009).

The *nominal* level of measurement describes variables that are categorical in nature and they differ from each other in quality rather than quantity. This means that the variable one is observing can be placed into one (and only one) category, and all variables in one question are equal to each other. Examples of this are hair color (blond, red or black) or gender (male or female).

The *ordinal* level of measurement describes variables that can be ordered along some type of continuum. Not only can these variables be placed in categories, but they can be ordered as well, where one observation is ranked above or below another. One example of this is height were one can say that one person is higher than others.

The *interval* level of measurement describes variables that have equal intervals (or distances) between them. In addition to ordering these variables, it is also possible to determine the difference between them on the same type of continuum that is used with ordinal level variables. One example of this is a survey that asks about temperature where one has for instance 10-20° as one alternative, the next 20-30°, the next 30-40°, etc with the same interval between each alternative. However, it is difficult to find the exact temperature that the

respondents mean. It could be anything between for instance 10 and 20° so it is not a measure one wants to use for accurate responses.

The *ratio* level of measurement describes variables that have equal intervals between them but also have an absolute zero. One example is asking about age in a survey. The respondents have to enter their precise age, and the researcher can accurately say that person A is for instance 6 years older than person B. This is therefore the most precise level of measurement (Salkind, 2009).

Some of the questions in the questionnaire conducted in this thesis had a Likert scale design. The Likert scale is an attitude scale which assesses an individual's feelings about a person, object or event. Likert scales are the most popular type of attitude measurement scale. There are 3 steps in the development of a Likert scale: 1) "*statements are written that express an opinion or feeling about an event, object, or person*", 2) "*items that have clear positive and negative values (in the developer's judgment) are selected*", and 3) "*the statements are listed, and to the right of each statement is a space for the respondent to indicate degree of agreement or disagreement, using a five-point scale*" (Salkind, 2009, p. 138).

The most frequent used scale in the questionnaire conducted in this thesis is "Strongly disagree", "Disagree", "Undecided", "Agree", and "Strongly agree" where the respondents have been asked to check their level of agreement with each item. There has also been utilized another variety of the Likert scale where the respondents have been asked to specify how interesting they found the different activities they participated in during their visit to Fjord Norway. The alternatives they could choose from were: "Very uninteresting", "Uninteresting", "Undecided", "Interesting" and "Very interesting". In addition there was an alternative to check "Did not participate" to ensure that the respondents only gave their opinions on the activities that they actually participated in.

The statements in the survey are both positive and negative. However, when it concerns positive statements it is important to mention that it is the terms "Strongly agree" and "Very Interesting" that are considered "the best" alternatives, and regarding negative statements it is the terms "Strongly disagree" and "Very uninteresting" that are considered "the best" alternatives. It is also assumed that the value "Strongly agree" means that the respondents agrees more with the statements than "Agree", and that "Agree" means that the respondents agrees more with the statements than "Undecided" et cetera. "Very interesting" means that the respondents find the statements more interesting than "Interesting", which again is more interesting than "Undecided" et cetera. Questions 1, 5, 9 and 10 in the questionnaire have a Likert scale design.

In order to specify the exact relationship between these values the data is at the ordinal level. This is because it is already established that the alternatives are ranked above or below each other. However, it is also assumed that the intervals between the values are the same and one can therefore say that the data is at the interval level. Since it is difficult to say in numbers the exact degree of agreement or disagreement with a statement or the level of interest for an activity, it is necessary to keep this in mind when the data is processed.

It has also been chosen to use a nominal level of measurement in the questionnaire in order to categorize questions like gender and "what questions" like "What was the transportation you used to Fjord Norway?" and "What type of accommodation did you use during your vacation in Fjord Norway?". These "what questions" have several alternatives that belong to their own category. Questions 2, 3, 4, 7, 24 and 26 in the questionnaire use a nominal scale.

There are some questions in the questionnaire that are both on the nominal and the interval level, for instance age and household income, where there are different age and income groups that the respondents can check. This means that the respondents can check

boxes of equal intervals between them. This is done because it might be offensive for some respondents to write their precise age and household-income. By checking boxes some of the anonymity is preserved. Questions 25 and 27 have these scales. Two questions also have a ratio level of measurement, such as "How long was your holiday in Fjord Norway?" where the respondents could type in the precise number of days, and "nationality" where respondents could write down countries. This is question 8 and 23. In addition, one question is not possible to categorize precisely into a scale of measurement since it is an open questions such as "other activities, please specify" where the respondents could write down with their own words additional information for the questionnaire. This concerns question 6. The reason why this is included is to avoid that some major activities are left out of the questionnaire by a mistake, which might lead to errors in the results.

3.4.3   Background for the questions in the questionnaire

The questions utilized in the questionnaire are based on previously asked questions in surveys that are trying to find environment friendly tourists by testing several characteristics. After studying several studies within this field it is shown that there are some characteristics that are used repeatedly in the different studies. These are among others demographic characteristics such as "age", "education level" and "income level" (Ballantine & Eagles, 1994; Meric & Hunt, 1998; Crossley, Lee & Crossley, 1994; Dolnicar, Crouch & Long, 2008). Previous research about these characteristics has given to some degree different results so it is of interest to learn if these characteristics influence environment friendly behavior. Questions measuring these characteristics are therefore included in the questionnaire.

When it comes to income level, in this study it was decided to use eight alternatives for household income which is higher compared with what has been used in earlier studies, where the lowest utilized is four levels and highest is a seven level scale (Meric & Hunt,1998;

Kerstetter, Hou & Lee, 2004; Crossley, Lee & Crossley, 1994; Weaver & Lawton, 2002). The scale utilized in this questionnaire begins with the same amount, but ends with a higher amount compared to earlier studies. The reason for such an extensive scale was to be sure to cover all household incomes, since the sample used in this study is of the general tourist population where the income levels might be higher. In addition, Norway is an expensive country to travel in so it was assumed that tourists travelling to Norway would have a higher household income level compared to previous studies.

Tourism research has also tested the characteristic "motivation" for travelling and how this can influence environment friendly behavior. As already mentioned in the theory chapter, many of the research studies concluded that ecotourists are motivated by "learning about nature" and that these tourists are more environment friendly than those motivated by other factors (Weaver & Lawton, 2002; Eagles, 1992; Kerstetter, Hou & Lin, 2004). In surveys conducted by Eagles (1992) when comparing travel motivation by the general tourists and ecotourists, the travel motivation factors utilized are adjusted according to the type of tourists. This means that ecotourists got a survey with nature-related travel motivation factors while other tourists got a survey with non-nature-related travel motivation factors. In the questionnaire in this thesis it is chosen to use questions measuring both nature-related travel motivations and non-nature-related travel motivations since a sample from the general tourist population is tested. 20 motivation factors were selected from Eagles (1992), Wight (1996b) and Weaver and Lawton (2002). These motivation factors are the most frequently used in tourism research.

Moreover, an interest in "nature-based activities" has been a characteristic researched in the tourism literature as an indicator of pro-environmental behavior (Pennngton-Gray & Kerstetter, 2002; Weaver & Lawton, 2002). This is therefore tested through 22 activities. The

majority of the activities are taken from previous research and some of them are adjusted to the nature-based activities that Fjord Norway offers.

 "Attitudes" is another characteristic tested in this questionnaire. The NEP-scale includes several positive and negative statements about the environment, and the respondents have to give their level of agreement or disagreement. Therefore, the NEP-scale is used with nine statements from the tourism literature and it will be used to measure attitudes toward the environment.

Furthermore, there has been a focus on trying to find the tourists' behavior towards the nature. Behavior has been tested in some studies, where it has been a focus on responsible behavior, interest in nature, environmental awareness, and non responsible behavior (Weaver & Lawton, 2002; Lee & Moscardo, 2005; Fairweather, Maslin & Simmons, 2005). 16 environmental behavior statements are included in the questionnaire, and are used as a measurement of the dependent variable "Environment friendly behavior".

3.4.4 The process of data collection

The authors of this paper worked with the Tourism Yield project the summer of 2009 and travelled around Fjord Norway collecting questionnaires from international tourists. The questionnaire aimed to reveal the tourists' views about their presence in Fjord Norway and how they felt they impacted the economy, the culture and the environment in Fjord Norway. This was a brief survey, but the respondents could write down their e-mail addresses to participate in a follow-up survey. An incentive for writing down their e-mail addresses and participating in the follow-up survey was that they could win gift cards from Norwegian destinations.

Before conducting the survey in Fjord Norway the summer of 2009 the authors did research in order to find out which destinations in Fjord Norway it was necessary to visit. The

municipalities, destination-companies as well as all the other tourism businesses in each of the four counties in Fjord Norway were contacted and asked to give their opinion to where one would reach most tourists during the peak season. The highest recommended destinations were visited during a two-week period in July 2009, maximizing the probability to reach many international tourists. The questionnaires were handed out at places were one could reach many tourists at one place, such as ferry-docks, onboard different ferries, cruise ship-terminals, museums, tourist information centers, hotels, hostels and camping cites, cabins, railway stations and city centers. The questionnaires were also handed in at these places.

2925 tourists answered the questionnaire. Of these respondents 1134 wrote down their e-mail addresses and wanted to participate in a follow-up survey. The survey conducted in this thesis was therefore sent out as a follow-up survey to the 1134 participants. An incentive for answering this questionnaire was written in the e-mails as well, namely that the respondents participated in a price-draw where one would win a ticket from the Norwegian airline company Widerøe which includes unlimited flights for a two-week period within Norway the summer of 2010 or 2011. The respondents in the sample of 1134 come from 41 countries altogether, and the questionnaire was therefore sent out in four different languages: English, Spanish, German and Russian. Out of the 1134 e-mail addresses 341 of them came back as failed deliveries, leaving the valid sample with a size of 793.

3.4.5 Data analysis

In order to answer the research hypotheses stated in this thesis, it was necessary to conduct different statistical analyses or tests on the data. The statistical analyses chosen for this study are; descriptive statistics, factor analysis, reliability analysis, correlation analysis, cross-tabulation and multiple regression analysis (Salkind, 2009; Neuman, 2009).

The first step in the data analysis process is describing the results. This means computing a set of *descriptive statistics*, which means to describe the general characteristics of a set or distribution of scores. This gives the researcher a precise picture of "what the data looks like". Descriptive statistics show what the respondents have answered to each question in the questionnaire (Salkind, 2009).

Factor analysis is a statistical tool that enables the researcher to reduce the amount of variables that measure the same factors. This means that several variables can represent one particular construct. The more closely the variables are related the fewer factors are needed to represent the entire matrix of variables. One benefit of using factor analysis is that it makes it possible to examine sets of variables to see how closely they are related rather than dealing with individual variables (Salkind, 2009).

In order to find out if the factors are reliable it is necessary to accomplish a reliability analysis through the usage of *Cronbach's Alpha* (CA). This technique is a good way to see if some statements or questions in the questionnaire are low correlated with other questions and should maybe be excluded in further analyses. This includes making sure that the different factors that measure the dependent and independent variables have a CA-value on an acceptable level. A CA-value over .7 is acceptable and the closer this value is to 1 the better. This means that the factor has a strong reliability (Gripsrud, Olsson & Silkoset, 2007).

Salkind (2009) states that: *"correlational research describes the linear relationship between two or more variables without any hint of attributing the effect of one variable on another"* (p.199). *Correlation analysis* is a useful technique as it indicates whether variables (for example number of hours studying and exam grade) share something in common with each other. If they do, the two are correlated (or co-related) with each other. The most frequent measure used to determine degree of relatedness is the *correlation coefficient*, which is a numerical index that reflects the relationship between two variables. This is expressed as

a number between -1.00 and +1.00, and it increases in strength as the amount of variance that one variable shares with another increases. In other words; the more two things have in common, the more strongly related they will be to each other. Correlations can be direct or positive, meaning that as one variable changes in one direction, the other changes in the same direction. An example of this is the more you study the better the grade you will get. Similarly, the less you study the worse the grade you get will be. Correlations can also be indirect or negative, which means that as one variable changes in one direction, the other changes in the opposite direction. One example is the faster you go through a multiple-choice test, the worse the grade you get will be. However, positive correlations are not necessarily "good" and negative correlations are not necessarily "bad". This has only to do with the direction of the relationship and nothing else (Salkind, 2009). Correlations between:

- 0.8-1.0 are said to be "very strong"

- 0.6-0.8 are said to be "strong"

- 0.4-0.6 are said to be "moderate"

- 0.2- 0.4 are said to be "weak"

- 0.0-0.2 are said to be "very weak".

This applies to both negative and positive values (Salkind, 2009).

Pearson product moment correlation is the most frequently used measure of relationships and is considered one of the most commonly used correlation analysis techniques. The relationship between variables is expressed through a Pearson correlational coefficient. These values have a *significance level*, which is the risk associated with not being 100% confident that the differences is caused by what one think and may be due to unforeseen factors. For instance, if a finding or value is significant at the .05 level, it means that the chance of any differences found between the groups were not due to the tested reason but to some other unknown reason/s is less than 5 % (Salkind, 2009).

Cross-tabulation means placing two variables in a table at the same time which allows one to see how cases that have values on one variable align with values on a second variable for those same cases. One uses the process of cross-tabulation to create a contingency table, which shows two or more variables that have been cross-tabulated (Neuman, 2009).

Multiple regression analysis is one of the most extensively used statistical techniques for non-experimental data analysis in professional research reports. An advantage of using this technique is that it can control for many variables simultaneously. This technique makes it therefore possible to move the idea of statistical control to a higher level and for that reason it is said to be a powerful technique. The multiple regression analysis can only be used for interval-and ratio-level data (Neuman, 2009).

The two main outcomes multiple regression analysis show are first of all R-squared (R^2), which tells the percentage of prediction accuracy. This indicates reduced errors when predicting the dependent variable based on information from the independent variables. With several independent variables it makes it possible to account for or explain a large percentage of variation in a dependent variable. A R^2 of .20 is considered to be very good in professional social science. A R^2 of .20 means that independent variables explain 20 percent of variance in the dependent variable (Neuman, 2009).

Further results from multiple regression analysis make it possible to discover the direction and numerical size of each independent variable's impact on a dependent variable. Neuman (2009) states that a multiple regression analysis can indicate how for instance five independent variables simultaneously affect a dependent variable, with all variables controlling for the effects of one another. This is particularly important results to get when testing theories where it is stated that numerous of independent variables cause one dependent variable. The standardized regression coefficient is symbolized by the Greek letter beta (β), and this beta coefficient explains the size and direction of effects on the dependent variable.

The beta can be interpreted in the same way as a correlation coefficient, *r* when using only two variables (Neuman, 2009).

3.5 *Reliability and validity*

Something that is reliable will measure the same thing in the future as it has in the past. In other words, reliability occurs when an instrument measures the same thing more than once, and results in the same outcome. Reliability can also be explained easily as the 'consistency' of the test. This means that the method or instrument one uses to make measurements is consistent and dependable (Neuman, 2009). If an instrument (for instance a questionnaire) is reliable one can trust the results from the questionnaire since one knows that the questions measure the same thing every time and result in the same outcome. Validity is present if the instrument that is used in a study actually measures what it is supposed to measure. Validity is described as the 'does what it should qualities'. There are three aspects of validity. Validity is first of all referred to the results of a test and not the test itself. Second the validity is not valid or invalid, rather it is indicated from low to high validity. Thirdly the validity of the results has to be interpreted within the context of the test/study (Salkind, 2009).

Salkind (2009) claims that *"reliability and validity are the first lines of defense against spurious and incorrect conclusions"* (p.109). The absence of these qualities could explain why one acts incorrectly in accepting or rejecting a research hypothesis. If there is no reliability or validity, the study will not give a high-quality measurement and it can result in that the whole study will be unsuccessful.

3.5.1 Ways of increasing reliability and validity

To increase the reliability of an instrument, in this case a questionnaire, it is necessary to remove or decrease the effect of external sources of errors. There are seven stages how to accomplish this: increase the number of items or observations, eliminate items that are unclear, standardize the conditions under which the test is taken, moderate the degree of difficulty of the test, minimize the effects of external events, standardize instructions, and maintain consistent scoring procedures (Salkind, 2009).

Furthermore there are several types of tests that can be accomplished to increase the reliability of an instrument. The *test-retest reliability* and *parallel-forms reliability* are tests that measures how consistent a questionnaire is over time, and how consistent it is from one form to another. On the other hand, *the inter-rater reliability* study consistency across raters, rather than from time to time or from test to test, while the *internal consistency* studies how unified the items in a questionnaire are (Salkind, 2009).

After increasing the reliability of the questionnaire, it is necessary to try to assure the validity. There are three ways to increase validity, and these are used to establish the trustworthiness of results in tests. These are called *content validity*, *criterion validity* and *construction validity. Content validity* is one of the simplest ways of increasing validity. This finds out to which extent an instrument is representing the universe of items from which it is drawn. One way to establish this is asking an expert on the area to find out if the items assess what the test is meant to assess. Another way to increase validity is *criterion validity*, which uses a criterion to indicate a concept. This can be done by comparing a test with another measure of the same construct in which one has strong confidence.

The *construct validity* is the most time consuming and complex type of validity to establish, however, it is also the most advantageous. The construct validity is the degree the results of a questionnaire or survey are related to an underlying psychological construct. In

that way it can relate the practical components of the score of a questionnaire to a fundamental theory or model of behavior. Construct validity can for example confirm that a questionnaire that is supposed to test intelligence is actually measuring intelligence. To accomplish construct validity one can for instance look for correlation between the test that is being developed and compare it with existing tests that are known to have construct validity (Salkind, 2009).

It is important to note that even though a test is reliable it need not be valid. For instance a test may be reliable and over and over again assess the same outcome, but if the outcome does not direct the issue being studied, the test cannot be valid (Salkind, 2009).

3.5.2 Increasing reliability and validity in the questionnaire

The reliability of the survey conducted in this thesis was strengthened by the big size of the sample. The questionnaire was sent out to 1134 e-mail addresses, which is a fairly big sample. The larger the sample the higher is the probability that the sample represents the population and is reliable.

One way of increasing the reliability in the questionnaire was to make sure that all of the respondents understood the content of the questionnaire. Before sending out the questionnaire to the respondents, it was also pre-tested in all the four different languages. This was to ensure that the meaning in the questionnaire was the same in all four languages, and by doing this the reliability of the questionnaire increased.

The English version of the questionnaire was created by the authors of this thesis, originally they are Norwegians, but speak English fluently. Those who have translated the questionnaire into German, Spanish and Russian are fluent in English but speak the translation languages as their mother tongue. In addition to the questionnaire being pre-tested by the authors, the English version was pre-tested by four external persons, and all of these

people speak English fluently. This was helpful to eliminate spelling errors and other errors relating to the content of the different questions. The four versions of the questionnaires were pre-tested by people who either speak the different languages as their mother tongue or have a solid knowledge of the language. When pre-testing the four questionnaires it was made sure that the questions and answer alternatives meant the same in the different languages. All these efforts contributed to an increased reliability of the questionnaire.

There were some errors in all versions of the questionnaire that were pre-tested. However, the different versions were corrected before they were sent out, which gave the questionnaire a more understandable meaning and this increased the reliability.

In order to increase the validity of the questionnaire, most of the questions utilized have been used in previous research papers about environment friendly tourists. By using questions that have already been used before by researchers or "experts" within the field, it will increase the content validity of the questionnaire. Earlier studies within the field of environment friendly tourists are known to be generalizable to the ecotourist population, and this thesis test similar characteristics that have been researched earlier, but this time on a general tourist population. The reason to why questions from previous research papers are utilized is because there is a need to test the variables on a general tourist population in order to get generalizable answers. In addition, outcomes might be more reliable if they are measured several times. It is therefore assumed that the questionnaire has content validity.

4   Results

In this chapter the results of the data collection and analysis are presented. Different variables are compared and tested and form the foundation for further discussion and conclusions. Descriptive statistics are presented followed by statistics aimed to test this thesis' hypotheses. The statistical program SPSS and MS Excel was used in order to analyze the data.

4.1   Data cleaning

The data from the questionnaire was transferred directly from Questback into the statistical program SPSS. Moreover, before the statistical tests could be conducted it was necessary to check the data set for errors or "clean" the data.

It turned out that some of the respondents did not answer all the questions in the questionnaire. Instead of rejecting every response that was incomplete, these were marked as "missing values" so that the rest of the answers in those responses were counted as a part of the sample.

Some of the statements in the questionnaire needed to be recoded so that the answer alternatives would mean the same to each statement. This applied to statements that were stated in a "negative" way such as statements 9.8, 9.13, 9.14, 9.16, 10.4, 10.5 and 10.7 where answer alternative "Strongly disagree" that was originally coded as 5 was recoded into 1 "Strongly agree", "Disagree" that was originally coded as 2 was recoded as 4 "Agree" etc. By doing this the answer alternatives were correctly plotted into SPSS. In order to separate these correct coded statements from the original ones in the dataset the impacted statements were given new names.

When it concerns the statements regarding activities (statements 5.1-5.22) there is an extra answer alternative "Did not participate" that was coded as 6 in SPSS. "Did not

participate" was therefore recoded into "missing value" so that this alternative did not skew the results of the tests.

4.2   Interpretation of the results

When interpreting the results of the analyses it is helpful to have some guidelines on how to comprehend the results.

Since age groups in previous studies varies, in the independent variable "Age" it is assumed that tourists under the age of 25 are "youths", between 25-40 are "young adults", between 40-60 are "middle-aged" and tourists that are in the age group 60+ are "older" tourists.

When it comes to "education level" Bachelor's degree or higher education such as Master's degree or PhD are understood as "High education level" when interpreting the answers.

Regarding the household income, the scale used for the "household income level" is somewhat higher than the average income levels of ecotourists in previous studies, but as Norway is an expensive country to travel in, this was taken in consideration.

When it concerns the statements about the independent variable "motivation" in the questionnaire, the different statements yield different meanings. This means that there are certain motivations that are drivers of environment friendly behavior. It is assumed that learning about nature, cultural attractions and other nature-based motivation factors influence environment friendly behavior more than non-nature-based motivation factors, and this need to be considered in the interpretation of the results.

Regarding statements about the independent variable "activities" in the questionnaire, it is confirmed by several studies that nature-based activities such as national park visits, hiking and wildlife viewing are some of the activities most interesting for ecotourists. In

addition, it is also found in previous research that it is necessary to measure ecotourism by activities related to cultural experiences (Weaver & Lawton, 2002; Wight, 1996b; Meric & Hunt, 1998). It is therefore assumed that these types of nature-based activities influence environment friendly behavior more than other activities and it needs to be considered in the interpretation of the results.

When it comes to the statements about the independent variable "attitudes", the NEP-scale includes both positive and negative statements where the respondents have to give their level of agreement or disagreement from "strongly disagree" to "strongly agree". However in relation to the negative statements, the rating has to be reversed so it is consistent with the rest of the statements. This means that with positive statements, the rating is from 1-5, where 5 are representing "Strongly agree", and with negative statements the rating is opposite, so 1 represent "Strongly agree" (Salkind, 2009). High scores on the NEP-scale indicate pro-environmental attitudes, which mean that the respondents have a worldwide view where humans must adapt to the changing limits of the environment. If the respondent answer negatively to the statements it means that they believe that the humans were created to rule over the rest of nature (Vining & Ebreo, 1992; Lee & Moscardo, 2005).

However, high scores on these statements that measure the independent variables do not give meaningful results before they are measured up against a dependent variable. In other words, respondents that are middle-aged, high-educated, have high-income, motivated about nature-related factors, interested in nature-based activities and have positive attitudes towards the environment are not necessarily environment friendly. These independent variables therefore have to be measured up against the dependent variable, which in this case is "Environment friendly behavior". The dependent variable "Environment friendly behavior" is tested through several statements regarding interest in nature, environmental awareness,

responsible behavior and non-responsible behavior. It is assumed that a high score on these statements are indicative of environment friendly behavior.

Concerning the questions that have a Likert scale with five answer alternatives from "Strongly Disagree" to "Strongly Agree", the interpretation of the answers are: "Strongly agree" and "Agree" are both levels of agreement, while "Strongly disagree" and "Disagree" are both seen as level of agreement, while "Undecided" means a neutral opinion.

4.3   Descriptive statistics

The first statistical analysis conducted on the data was descriptive statistics. The most interesting findings are presented her, but the complete descriptive statistics are found in Appendix 2.

Question 1: "What was your motivation for travelling to Fjord Norway?"

The respondents were asked to give their level of agreement or disagreement with 20 alternatives or statements. 377 of the 381 respondents answered statement "*being close to nature*", and what is interesting here is that 221 of the respondents said that they strongly agreed to this statement as a motivation for travelling to Fjord Norway, followed by 135 of the respondents who answered "agree". "Being close to nature" is therefore considered to be an important driver of travel motivation for the respondents.
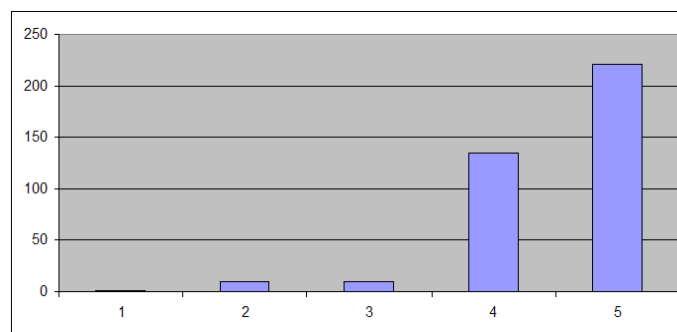
Chart 1: Question 1.1 - Being close to nature

376 of the 381 respondents answered statement *"enjoy scenery/nature"* of which 313 answered "strongly agree" followed by 61 who answered "agree". Only one respondent answered "disagree" and one "strongly disagree". In addition, 376 (of the 381) respondents answered statement *"see mountains/fjords"* of which 326 answered "strongly agree" while 44 answered "agree". This shows that these two statements are the strongest motivation for travelling to Fjord Norway.
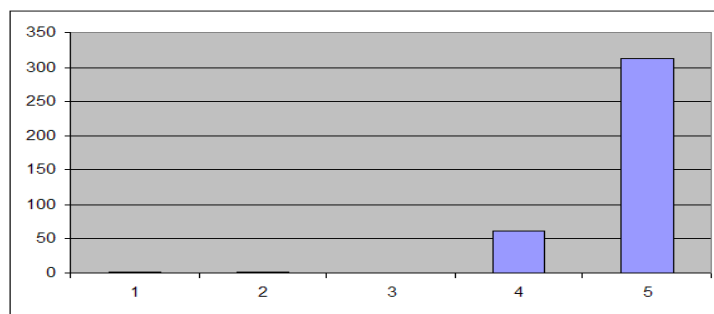
Chart 2: Question 1.6- Enjoy scenery/nature
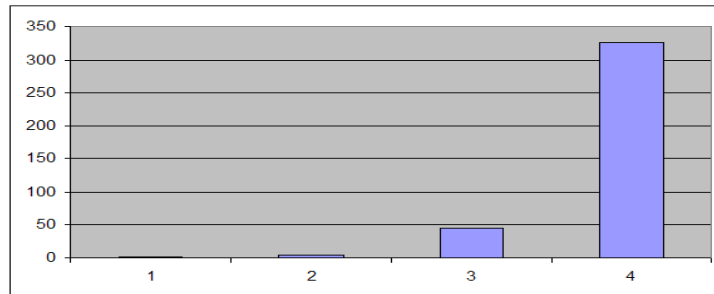
Chart 3: Question 1.15- See mountains/fjords

Other statements that the respondents agreed to are *"new experiences"* and *"rest and relaxation"*. This shows that most of the respondents travelled to Fjord Norway because they wanted to experience something new and at the same time get some rest on vacation.
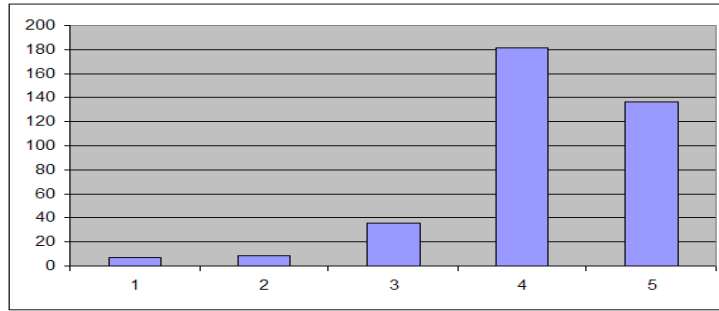
Chart 4: Question 1.5- New experiences
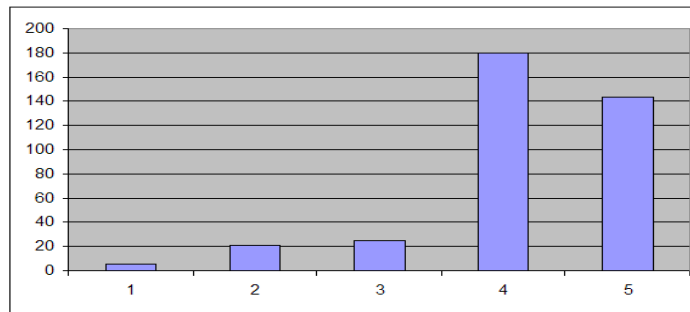
Chart 5: Question 1.14- Rest and relaxation

Other drivers of motivation for travelling to Fjord Norway are statement *"to engage in nature-based activity"* and statement *"wilderness experience"*. 374 answered statement *"to engage in nature-based experiences"* where 112 answered "strongly agree" and 146 answered "agree". In addition, 366 answered statement *"wilderness experience"* where 132 of the respondents answered "strongly agree" and 152 answered "agree".

The statement *"Learning about the natural environment"* got 172 respondents that said "Agree" while 77 said "Strongly agree". In addition, 82 of the respondents said "undecided".
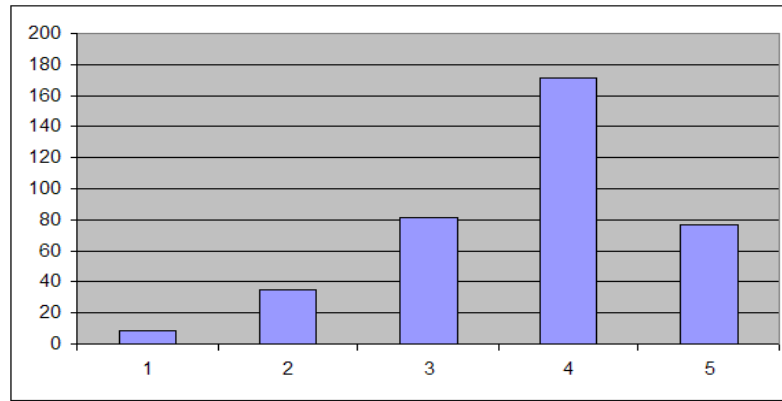
Chart 6: Question 1.11- Learning about the natural environment

The statement that most of the respondents disagreed to was their motivation for travelling to Fjord Norway is *"Nightlife and entertainment"*. 372 respondents answered this statement and 148 said "strongly disagree" whereas 152 said "disagree". This shows that this factor did not have an influence on the decision to travel to Fjord Norway.

Other statements that the respondents did not agree to are *"amusement- and team parks"* and "*shopping"*.

Question 2: "What was the transportation you used to Fjord Norway? You may check several alternatives".

The respondents could choose between 11 different transportation alternatives and they could check several options if they used several types of transportation. In addition they could write down other transport alternatives if they did not find their type of transportation as an option.

Most of the respondents checked the alternative "*Car*" as their transportation they used to Fjord Norway. As many as 165 of the 381 respondents, approximately 43 %, used this type of transportation. Another popular type of transportation among the respondents is *"ferry"* since 156 or approximately 41 % of the respondents checked this alternative. 103 of 381, or

27 % of the respondents used "*cruise ship*" as transportation. In addition, 91 or approximately 24 % of the respondents used the alternative "*airplane*" as transportation to Fjord Norway.

Question 3: "What was the transportation you used during your vacation in Fjord Norway? You may check several alternatives".

This question had the same alternatives as question 2. As in question 2, most of the respondents used car as their type of transportation, since 174 out of the 381 respondents, or approximately 46 % said that they used this alternative. The second most used transportation alternative during the visit in Fjord Norway is "*ferry*" which 169 or approximately 44 % of the respondents checked as a transportation alternative. This is also similar with question 2. 95 of the 381 respondents, or approximately 25 %, also used "*cruise ship*" as a transportation alternative during their vacation in Fjord Norway.

Question 4: "What type of accommodation did you use during your vacation in Fjord Norway? You may check several alternatives".

In this question the respondents were asked to check what types of accommodation they used during their vacation in Fjord Norway. In addition they could write down other types of accommodation if they used other alternatives than mentioned in the question. The respondents used different types of accommodations and the answers are spread on the different alternatives. However, alternative "*camping/tent*" was most frequently used with 105 respondents, or approximately 28 %. This is followed by alternative "*cruise ship*" with 102 respondents or approximately 27 %, and alternative "*cabin*" with 95 respondents or approximately 25 %.

Question 5: "What types of activities did you do during your vacation in Fjord Norway?"

In this question the respondents were asked what activities they participated in during their vacation in Fjord Norway and how interesting they think those activities are. They could also check the box "did not participate" for each activity.

The activity that most people participated in and found most interesting is "*Fjord Sightseeing*" and 355 of the 381 respondents participated in this activity during their stay in Fjord Norway. Among these 318 of the respondents said that this activity is "Very interesting", 31 said that it is "interesting" and only 6 said that the activity is "very uninteresting".
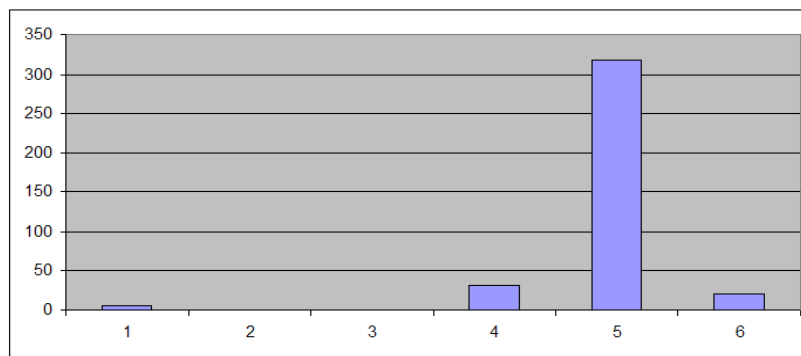
Chart 7: Question 5.2- Fjord sightseeing

Another popular activity among the respondents is "*City sightseeing*" which 346 respondents participated in. 172 of these respondents said that this activity is "very interesting" while 146 said that it is "interesting".
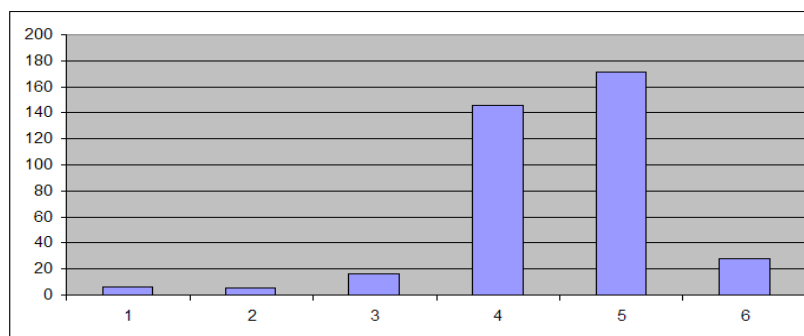
Chart 8: Question 5.9- City sightseeing

Other activities that the respondents find interesting are *"Visiting cultural attractions"* and *"Visiting national parks"*. 329 of the respondents participated in *"Visiting cultural attractions"* and 175 said that this activity is "very interesting" while 126 said that it is "interesting". 299 of the respondents participated in *"Visiting national parks"* and 207 said that the activity is "very interesting" while 80 said that it was "interesting".
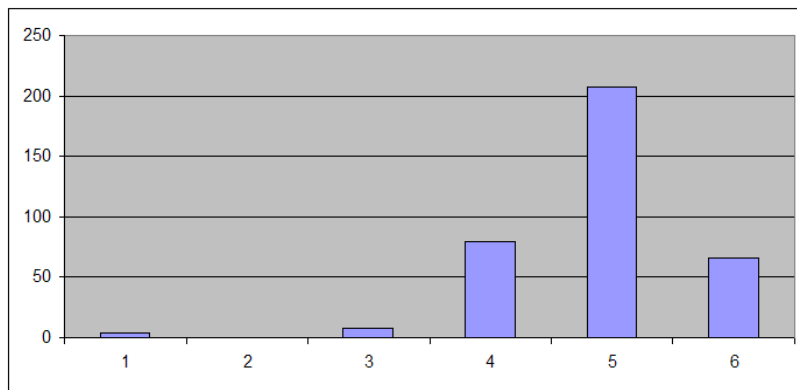
Chart 9: Question 5.15- Visiting cultural attractions
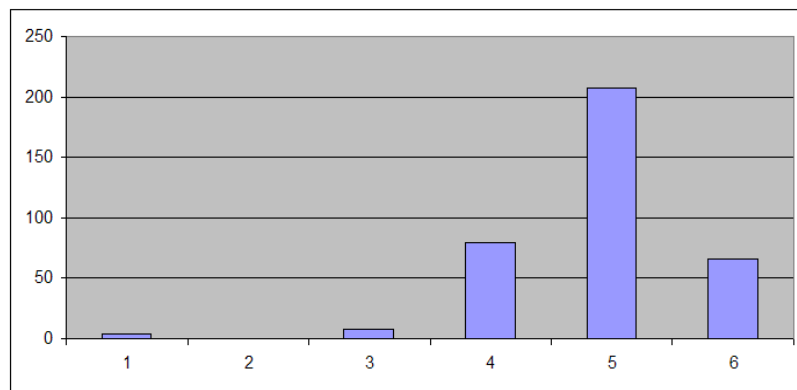
Chart 10: Question 5.1- Visiting national parks

"*Hiking*" is also an activity that the respondents found interesting. 237 respondents participated in this activity and among them 167 said that the activity is "very interesting" and 48 said that it is "interesting".
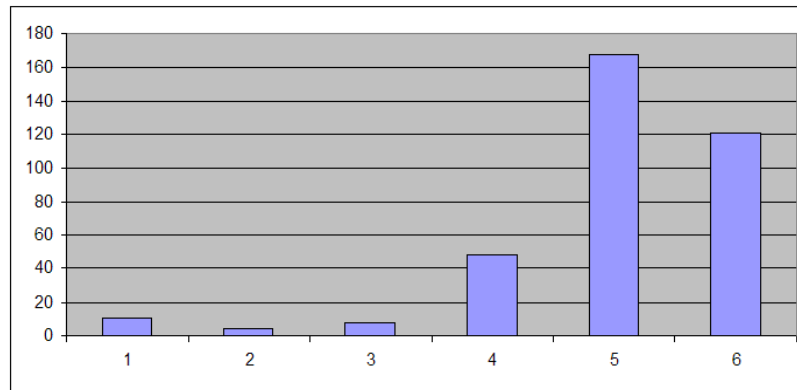
Chart 11: Question 5.13- Hiking

Activities that few of the respondents participated in are *"Kayaking"*, "*Summer skiing*", "*Whale safari*" and "*Spa*". Only 39 of the respondents found "kayaking" interesting, 12 of the respondents found "summer skiing" interesting, while 33 found "Whale safari" interesting and 19 found "spa" interesting. These activities might therefore be considered as rather uninteresting for the respondents.

Question 6: "Other activities please specify."

In this question the respondents could write with their own words other activities they participated in that were not listed as alternatives in question 5. However, this question was added to the questionnaire to make sure no major activities were forgotten. 21 of the respondents commented here but no new activities of interest were mentioned.

Question 7: "When you travelled to Fjord Norway, what travel party did you choose to travel with?"

In this question the respondents were asked to check the box for which travel party they chose to travel with to Fjord Norway. They could choose from four alternatives and also fill in with their own words to ensure that no travel parties were forgotten. Nearly half of the respondents said that they travelled with the alternative "*spouse/partner*", followed by alternative *"family/relatives"* with 144 respondents or approximately 38 %.

Question 8: "How long was your holiday in Fjord Norway? Please type in number of days".

303 of the 381 respondents answered this question, but four of the answers are not specific enough or not possible to read so they are considered as missing values. The valid number of those who answered is therefore 299. Some of the respondents gave their answers in weeks in stead of days so it was necessary to calculate all the answers into days before it was possible to find the average length of the respondents' vacations in Fjord Norway. It is calculated that the 299 respondents spent 4146 days altogether in Fjord Norway the summer of 2009. This equals an average of approximately 14 days per respondent. This means that the average amount of days that the respondents spent on holiday in Fjord Norway was 14 days.

Question 9: "Indicate how much you agree or disagree with the statements".

In this question the respondents were given several statements about the natural environment that they had to give their level of agreement or disagreement to. To statement *"When travelling I prefer nature-based destinations"* did 327 altogether answer either "strongly agree" or "agree". It is therefore clear that most of the respondents prefer to travel to nature-based destinations. To statement *"I prefer locations that are as remote as possible"*

the answers were a bit more spread over the alternatives and 128 said "agree", 120 said "undecided" and 72 said "disagree". This means that the respondents do not necessarily have to travel to remote locations in order to have a nice vacation. The respondents seem to agree more with statement *"I prefer to observe nature in a wild and unrestricted setting"* since 104 said "strongly agree" and 212 said "agree". The respondents seem to want to have unrestricted access to nature while on vacation.
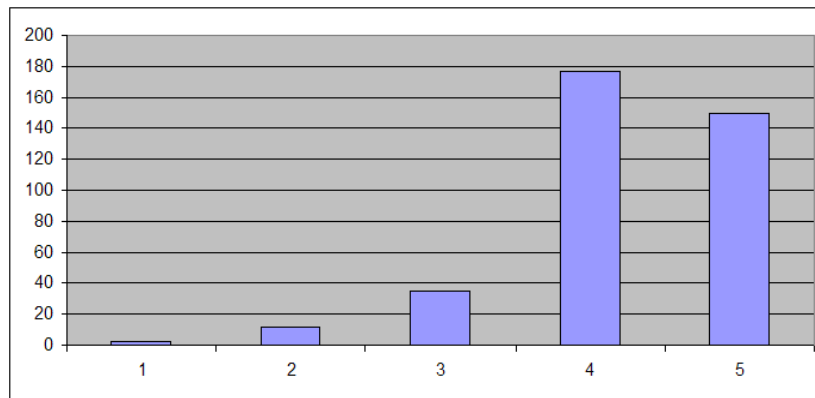
Chart 12: Question 9.1- When travelling I prefer nature-based destinations
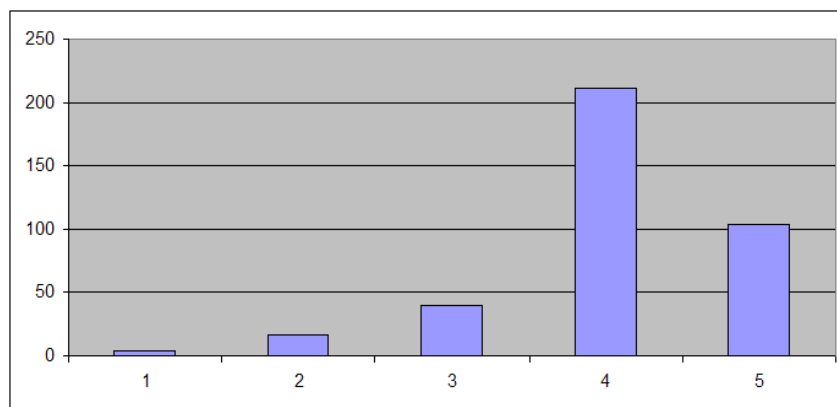
Chart 13: Question 9.3- I prefer to observe nature in a wild and unrestricted setting

93 respondents answered "strongly agree" and 187 answered "agree" to statement *"I try to find out as much about the natural environment of a destination as I can before I actually go there"*. This means that most of the respondents seem to want to prepare themselves before they travel on vacation. Similarly, 73 said "strongly agree" and 212 said

"agree" to statement *"I want to learn as much as possible about the natural environment of the cities that I visit while I am there"*. This shows that most of the respondents actually want to learn about the natural environment when they are travelling.

Most of the respondents agreed to statement *"I usually do what I can to leave the site of areas in better condition than when I arrive"*, which means that the respondents feel that they are not littering the places they are visiting. Nearly all of the respondents also agreed to statement *"Recycling of waste is an environment friendly effort that everybody should do while on vacation"*. Another interesting finding is statement *"It is good for a destination to focus on environmental issues but it does not influence my destination choice"* where 74 said "strongly agree" and 188 said "agree". When it concerns statement *"I will only use accommodations and tour operators that have a proven track record of environmental sustainability"* the answered are again spread between the different alternatives, but most of the respondents have said "undecided". In other words, the environmental track record of accommodations and tour operators is not of huge importance to the respondents.
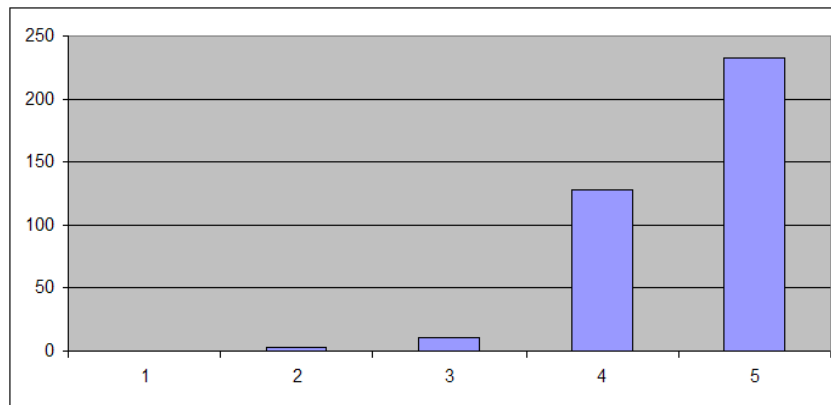
Chart 14: Question 9.7- Recycling of waste is an environment friendly effort that everybody should do while on vacation

346 of the respondents agreed to statement *"I recycle my garbage at home because I want to be environment friendly"*. In addition, 338 of the respondents also agreed to statement *"I save energy at home due to environmental concerns"*. This shows that the respondents try

to be environment friendly at home in their every-day life. To statement *"I use public transportation to save the environment"* the answers are more spread, but most said that they were "undecided" to this statement. The statement *"I find it easier to practice environment friendly behavior at home than when I am travelling"* also have more spread answers, but most said "agree" to this statement.
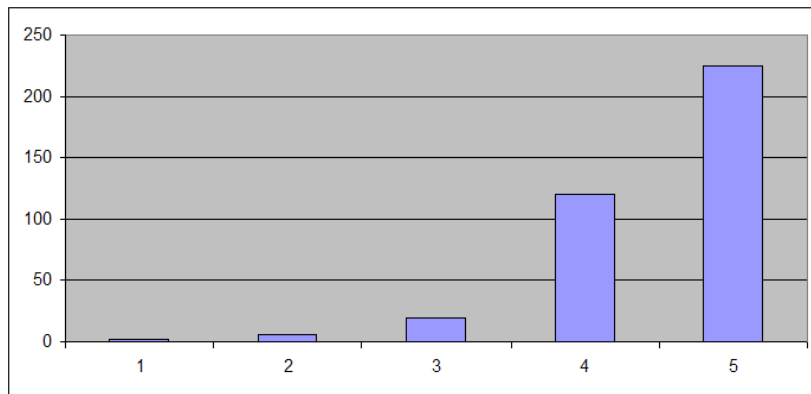
Chart 15: Question 9.10- I recycle my garbage at home because i want to be environment friendly
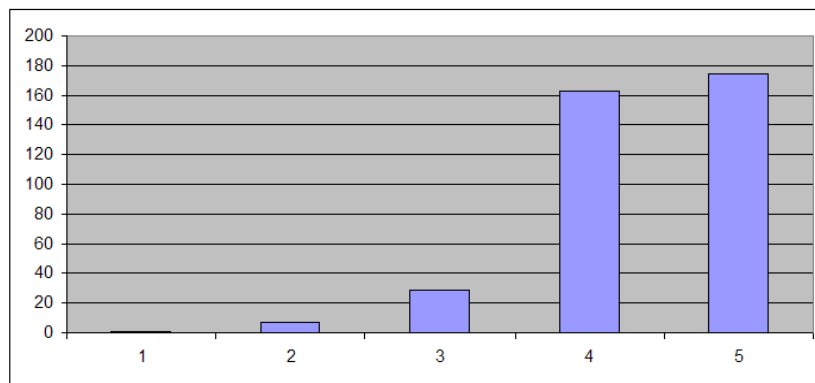
Chart 16: Question 9.11- I save energy at home due to environmental concerns

317 of the respondents disagreed and strongly disagreed to statement *"When I am travelling I do not worry about the environment"*. This shows that most of the respondents do indeed worry about the natural environment when travelling. To statement *"I try to support the local economy of places that I visit"* the answers are spread, but the highest score is "agree" with 200 respondents, while 81 said "undecided". To statement *"When I am*

travelling I am more concerned about costs of products and services than I am about their negative environmental impact" have most of the respondents said "undecided" and 117 of the respondents said "disagree". It seems that many of the respondents do care about products' negative environmental impact and not just the cost of them when they are travelling.
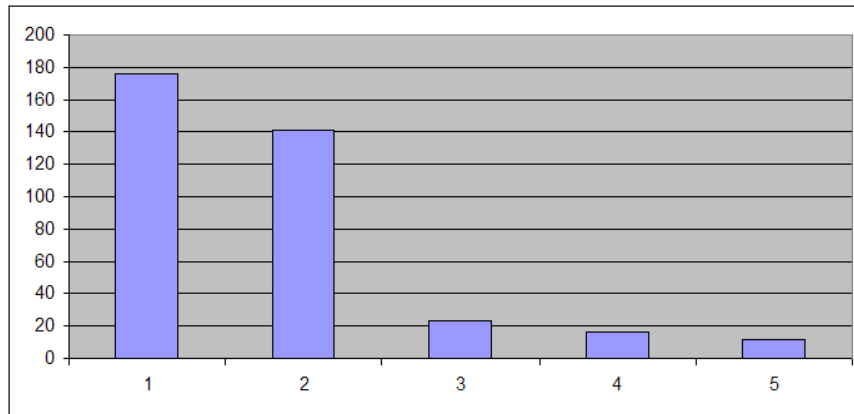
Chart 17: Question 9.14- When I am travelling I do not worry about the environment

144 of the respondents answered "strongly agree" and 147 answered "agree" to statement *"My presence in Fjord Norway did not harm the environment"*. It seems that the majority of the respondents do not feel that their vacation in Fjord Norway harmed the environment.

Question 10: Indicate how much you agree or disagree with the statements.

In this question the NEP-scale has been utilized with 9 statements about the natural environment that the respondents had to give their level of agreement or disagreement to. The majority of the respondents agreed or strongly agreed to statement *"Humans must live in harmony with nature in order to survive"*. In the next statement *"The balance of nature is very delicate and easily upset"* the majority of the respondents also agrees or strongly agrees. To statement *"Nature can have value beyond the social, economic or cultural values held by humans"* did 165 answer "agree" and 138 "strongly agree".
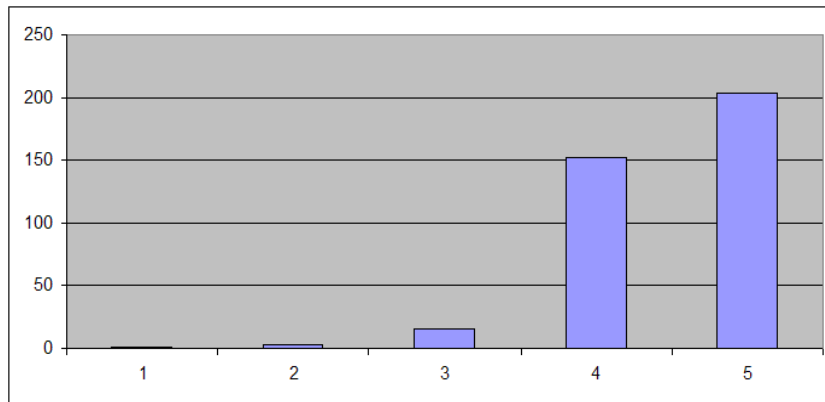
Chart 18: Question 10.1- Humans must live in harmony with nature in order to survive
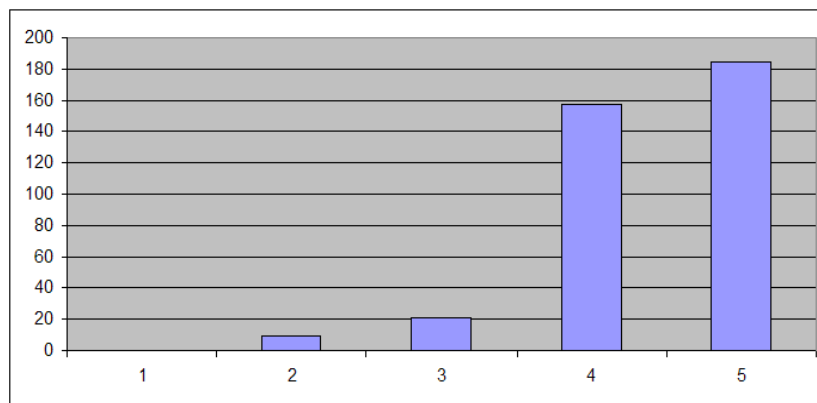
Chart 19: Question 10.2- The balance of nature is very delicate and easily upset

Furthermore, in statement *"Plants and animals exist primarily to be used by humans"* the respondents seem to disagree, since 190 said "disagree" and 104 said "strongly disagree". In statement *"Humans have the right to modify the natural environment to suit their needs"* most of the respondents have disagreed. In addition, as many as 77 respondents have answered "undecided" to this statement. When it concerns statement *"When humans interfere with nature, it often produces disastrous consequences"* 151 said "agree" and 107 said "strongly agree", while 67 said "undecided". In statement *"Mankind was created to rule over*

the rest of nature" 183 of the respondents said "strongly disagree" and 121 respondents said "disagree".
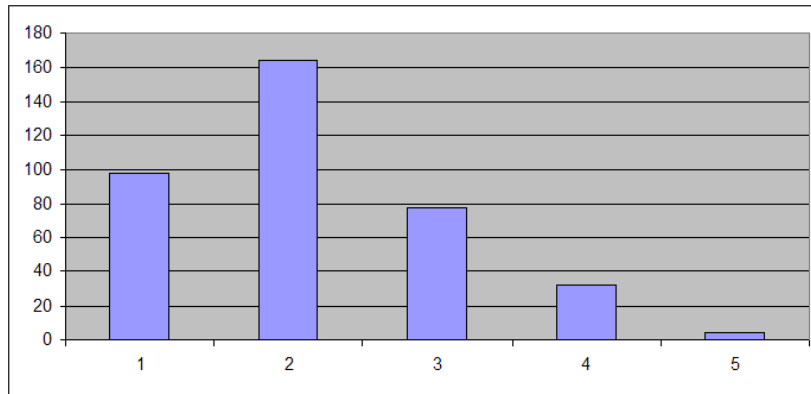
Chart 20: Questions 10.5- Humans have the right to modify the natural environment to suit their needs
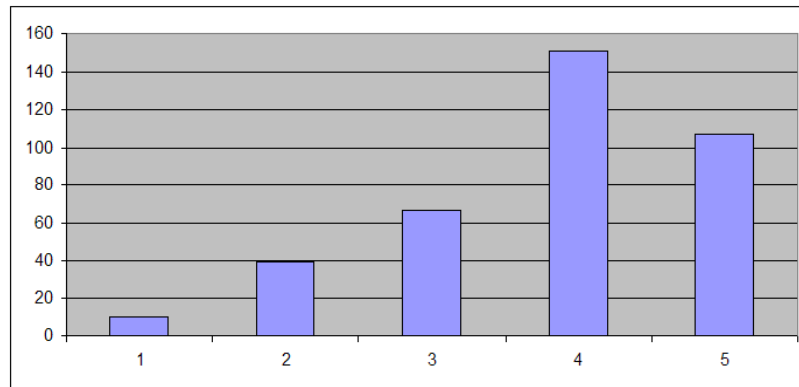
Chart 21: Question 10.6- When humans interfere with nature it often produces disastrous consequences

173 of the respondents said "agree" and 113 said "strongly agree" to statement *"Mankind is severely abusing the environment"*). What is interesting is that 235 of the respondents answered "strongly agree" to statement *"The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations", while 113 has answered "agree".*
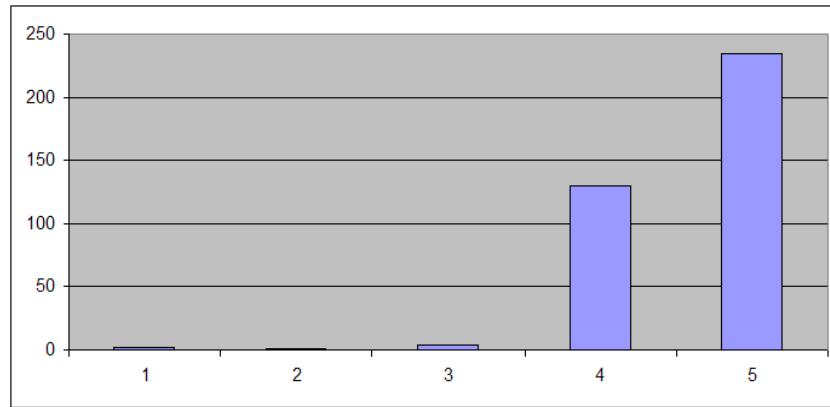
Chart 22: Question 10.9- The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations

In statement *"I perceived Fjord Norway as a highly environment friendly destination"* the majority has answered "agree" and "strongly agree". In the last statement *"I consider myself to be an environment friendly tourist"* 229 of the respondents has answered "agree", while 100 has answered "strongly agree".

All in all it seems that the majority of the respondents have agreed to the "positive" statements and disagreed with the "negative" statements.
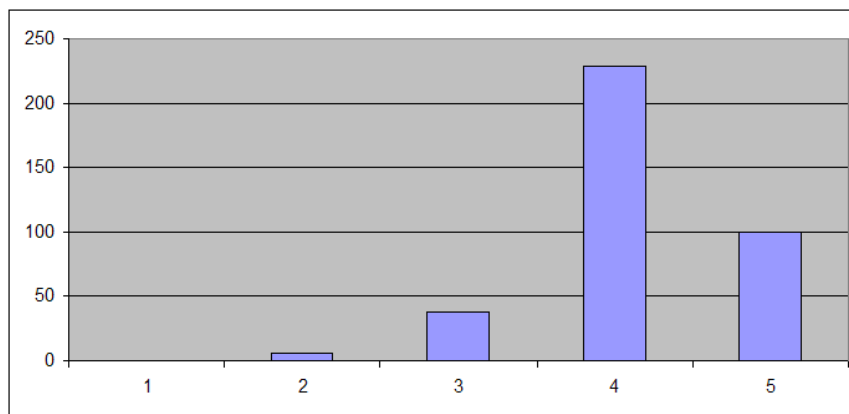
Chart 23: Question 10.11: I consider myself to be an environment friendly tourist

Question 23: Nationality

In this question the respondents were asked to write down their nationality. 349 answered this question. Altogether the respondents represent 32 nationalities. The major

nationalities represented by the respondents are Germany with 103 respondents, The U.K. with 41 respondents, Spain with 36 respondents and Italy with 13.

Question 24: Gender

372 answered this question and the respondents are very equally distributed between both genders. There are 182 female respondents and 190 male respondents.

Question 25: Age

In this question the respondents could check age boxes with equal intervals between them. It shows that most of the respondents are between the ages of 46-65. The largest age group represented is age 51-55 with 46 respondents, followed by age 61-65 with 42 representatives, age 46-50 with 41 representatives and age 56-60 with 39 representatives. It is also shown that many travelers to Fjord Norway are in the age groups 25-30 and 36-40.

		Frequency	Percent
Valid	Missing	5	1.3
	Under 25	33	8.7
	25-30	35	9.2
	31-35	29	7.6
	36-40	37	9.7
	41-45	29	7.6
	46-50	41	10.8
	51-55	46	12.1
	56-60	39	10.2
	61-65	42	11.0
	66-70	34	8.9
	71-76	8	2.1
	Over 76	3	.8
	Total	381	100.0

Table 1: Question 25-Age

Question 26: Education level

In this question the respondents were asked to check the box for the highest fulfilled education. The alternatives that have most respondents represented are "*College/University*" with 94 respondents, *"High School"* with 71 respondents, *"Bachelor's degree"* with 70 respondents and *"Master's degree"* with 66 respondents.

		Frequency	Percent
Valid	Missing	6	1.6
	Elementary school	3	.8
	Secondary school (junior high)	44	11.5
	High school	71	18.6
	College/university	94	24.7
	Bachelor's degree	70	18.4
	Master's degree	66	17.3
	Phd	27	7.1
	Total	381	100.0

Table 2: Question 26- Education level

Question 27: Household income

The respondents were in this question asked to check the box for their household income. They could also check the box "Prefer not to answer". 66 of the respondents preferred not to answer. The household income-box that was represented the most by the respondents is "30.000-50.000 Euro" with 93 respondents, followed by "50.000-70.000 euro" with 61 respondents, "70.000-90.000 Euro" with 52 respondents and "Below 30.000 Euro" with 51 respondents.

Approximately what is your household income?

		Frequency	Percent
Valid	Missing	10	2.6
	Below 30.000 Euro	51	13.4
	30.000-50.000 Euro	93	24.4
	50.000-70.000 Euro	61	16.0
	70.000-90.000 Euro	52	13.6
	90.000-110.000 Euro	20	5.2
	110.000-130.000 Euro	10	2.6
	130.000-150.000 Euro	6	1.6
	Higher than 150.000 Euro	12	3.1
	Prefer not to answer	66	17.3
	Total	381	100.0

Table 3: Question 27- Income level

4.4 Factor analysis

Since the questionnaire in this thesis contains of many questions, it was accomplished a factor analysis for statements measuring each independent variable and statements measuring the dependent variable to find out if some of the statements measured the same factor. The factor analysis and reliability analysis are found in appendix 3.

4.4.1 The dependent variable: "environment friendly behavior"

A factor analysis was first done on the dependent variable "Environment friendly behavior". This variable is measured through 16 statements (Question 9.1-9.16). The results from the factor analysis showed that these statements can be grouped into five factors or variables:

Factor 1 consists of statements:

- "Recycling of waste is an environment friendly effort that everybody should do while on vacation".

- "I recycle my garbage at home because I want to be environment friendly".

- "I save energy at home due to environmental concerns".

- "I use public transportation to save the environment".

Factor 2 consists of statements:

- "When travelling I prefer nature-based destinations".

- "I prefer locations that are as remote as possible".

- "I prefer to observe nature in a wild and unrestricted setting".

Factor 3 includes statements:

- "I try to find out as much about the natural environment of a destination as I can before I actually go there".

- "I want to learn as much as possible about the natural environment of the cities that I visit while I am there".

- "I usually do what I can to leave the site of areas in better condition than when I arrive".

- "I will only use accommodations and tour operators that have a proven track record of environmental sustainability".

- "I try to support the local economy of places that I visit".

Factor 4 contains statements:

- "I find it easier to practice "environment friendly" behavior at home than when I am travelling".

- "When I am travelling I do not worry about the environment".

- "When I am travelling I am more concerned about costs of products and services than I am about their negative environmental impact".

Factor 5 includes only one statement:

- "It is good for a destination to focus on environmental issues but it does not influence my destination choice".

Factor 1 was proven reliable with a CA-value of .793. In this analysis one can also see that by removing statement "I use public transportation to save the environment" the CA-value will increase to .862. However, it was chosen to keep this statement in the factor in further analyses since the original CA-value is sufficient. Factor 2 was also proven to be reliable with a CA-value of .790. Factor 3 had a CA-value of .755 and was confirmed reliable. On the other hand, factor 4 had a CA-value of .409 which makes the factor more unreliable than the other factors. In addition, factor 5 consists of only one statement which makes it impossible to measure it through a Cronbach's Alpha analysis. Factor 4 and 5 were therefore excluded from further analyses.

Furthermore, the three reliable factors or dependent variables were named according to the statements that are included in them. Factor 1 was named *"Responsible behavior"* since these statements reveal the respondent's behavior in relation to environment friendly actions such as recycling of waste, energy-saving and using public transportation. Factor 2 was named *"Nature Interest"* since these statements focus on a preference for nature. Factor 3 was named *"Environmental awareness"* since these statements say something about how aware

the respondents are about environmental issues. Therefore, the original dependent variable "Environment friendly behavior" consists of these three dependent variables.

4.4.2   The independent variable: "Motivation"

After determining the three new dependent variables, a factor analysis was performed with questions 1.1-1.20 in the questionnaire that measured the independent variable "motivation". The results from the factor analysis showed that these statements can be grouped into four factors.

Factor 1 consists of statements:

- "Being close to nature".
- "Enjoy scenery/nature".
- "Not touristy/crowded".
- "To engage in nature-based activity".
- "Rest and relaxation".
- "See mountains/fjords".
- "Wilderness experience".

Factor 2 includes statements:

- "Museums and cultural attractions".
- "Meet people with similar interests".
- "Visit historical places".
- "Learning about the natural environment".
- "Experience smaller towns/villages".

Factor 3 contains statements:

- "Have fun/be entertained".

- "See as much as possible in time available".

- "Nightlife and entertainment".

- "New experiences".

Factor 4 consists of statements

- "Be together as a family".

- "Amusement-and team parks".

- "Shopping".

- "Visit family/friends".

Factor 1 had a CA-value of .820, which means that the factor is strong and reliable. Factor 2 was proven reliable with a CA-value of .805. Factor 3 is also reliable with a CA-value of .722. Factor 4 had a CA-value of .568 which is a bit too weak. However, the factor would not have been stronger if some of the questions were removed. In addition, it is of interest to see what the respondents answered on these statements since they are non-nature related motivation factors. It was therefore decided to keep this factor, but it is necessary to keep in mind that results from these statements might have lower reliability than results from other factors.

Factor 1 was named *"Enjoy nature"* since it consists of motivation factors that are highly nature-based and focuses on enjoying the natural environment as a motivation for travelling to Fjord Norway. Factor 2 was named *"Learning"* since all these motivation factors include this aspect. Factor 3 was named *"Entertainment"* since these motivation factors are non-nature related and involves entertainment as motivation for travelling to fjord Norway. Factor 4 was named *"Enjoy vacation"* since these motivation factors focus on other

motivation factors that are not related to nature. In other words, the independent variable "motivation" consists of these four independent variables.

4.4.3   The independent variable: "Attitudes"

Further, a factor analysis was conducted with questions 10.1-10.9 that measure the respondents' attitudes towards the natural environment. The results of the factor analysis showed that these statements made up three factors.

Factor 1 consists of statements:

- "Humans must live in harmony with nature in order to survive".

- "The balance of nature is easily upset".

- "Nature can have value beyond the social economic or cultural values held by humans".

- "The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations".

Factor 2 includes statements:

- "Plants and animals exist primarily to be used by humans".

- "Humans have the right to modify the natural environment to suit their needs".

- "Mankind was created to rule over the rest of nature".

Factor 3 consists of statements:

- "When humans interfere with nature, it often produces disastrous consequences".

- "Mankind is severely abusing the environment".

The reliability analysis showed that factor 1 had a CA-value of .845. This is a strong CA-value and means that the factor is reliable. Factor 2 had a CA-value of .619 and factor 3 had a CA-value of .644. Even though these CA-values are under .7 it is chosen to include

them in further analyses due to the fact that the CA-values would not have increased if some of the questions were removed. In addition, it is necessary to keep these statements since factor 2 are negative statements about the environment and factor 3 measures the consequences of humans interfering with nature. It is necessary to see what the respondents have answered to each statement in order to gain an accurate picture of their attitudes towards the natural environment.

Factor 1 was named *"nature rules"* because these are statements that claim that nature should not be exploited and that nature must be maintained. Factor 2 was named *"Mankind rules"* because these are statements that claim that nature need not to be maintained and that humans can destroy nature in order to suit their needs and wants. Factor 3 was named *"Destructive results"* since it measures statements that claim that humans' interference with nature will produce destructive consequences. After this factor analysis the independent variable "attitudes" consists of these three independent variables.

4.4.4   The independent variable "Activities"

It was not possible to conduct a factor analysis on the statements that measure the independent variable "Activities" because of the design of the questions, so the authors divided the activities into factors. Research about ecotourists' activities offers several ways to divide the different activities into groups, but no activity groups are used consistently from one study to another (Meric & Hunt, 1998; Wight, 1996b; Weaver & Lawton, 2002). However, in this thesis the 22 activities were divided into three variables or factors: *"Hard nature-based activities"*, "*Soft nature-based activities*" and *"Pleasure-based activities"*. "Hard nature-based activities" are activities that demand an active participation from the tourists, while "Soft nature-based activities" are activities where the respondents do not have to be as physically active as in "Hard nature-based activities". Nevertheless, both these

activity factors are nature-based activities. "Pleasure-based activities" are activities that do not have anything to do with nature; rather they cover other aspects and activities of a vacation. However, it is important to emphasize that the "Hard" and "Soft" nature-based activity factors are considered more environment friendly than "Pleasure-based activities".

The **"Hard nature-based activities"** in the questionnaire consists of statements:

- "Cycling"
- "Kayaking"
- "Fishing"
- "Climbing"
- "Hiking"
- "Glacier Walking"
- "Riding"
- "Summer skiing"
- "Diving"

The **"Soft nature-based activities"** in the questionnaire consists of statements:

- "Visiting National parks"
- "Fjord Sightseeing"
- "Boat trips"
- "City sightseeing"
- "Farm visit"
- "Sailing and yachting"
- "Visiting cultural attractions"
- "Roundtrips"
- "Whale safari".

The **"Pleasure-based activities"** in the questionnaire consists of statements:

- "Backpacking"

- "Dining in restaurants/cafés"

- "Sunbathing"

- "Spa"

By doing this it was established that the independent variable "Activities" consists of these three independent variables.

4.5   Correlation analysis

Pearson product moment correlation was conducted with the independent variables and the three dependent variables in order to reveal relationships between them. The Pearson correlation coefficients found in these analyses are significant on either the .05 or the .01 level.

The first Pearson product moment correlation was done on the independent variables "Education level" and "Income level" (that measure "demographics") and the dependent variables "Responsible behavior", "Nature interest" and "Environmental awareness" (that measure "Environment friendly behavior").

Correlations

		Respon. behav	Nature interest	Env. awareness
Please mark the highest fulfilled education:	Pearson Correlation	.191**	.126*	.151**
	Sig. (2-tailed)	.000	.014	.003
	N	381	381	381
Approximately what is your household income?	Pearson Correlation	-.016	-.045	.009
	Sig. (2-tailed)	.754	.380	.859
	N	381	381	381

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

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

Table 4: Correlation analysis between the independent variables "Education level" and "Income level" and the dependent variables

This correlation analysis show that the strongest correlation is between the independent variable "Education level" and the dependent variable "Responsible behavior", which has a positive correlation coefficient of .191 on the .01 significance level. Although this is a significant correlation, it is still very weak. This means that to a small degree do people with higher education act more responsibly towards the environment. One can also see that it is a weak positive correlation between "Education level" and "Environmental awareness" of .151 which is significant at the .01 level. Tourists with higher education are to a little degree more aware about the environment. There is no significant correlation between "Income level" and the three dependent variables.

The second Pearson product moment correlation was conducted on the four independent variables "Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" (that are measuring "motivation") and the dependent variables "Responsible behavior", "Nature interest" and "Environmental awareness".

		Respon. behav	Nature interest	Env. awareness
Enjoy nature	Pearson Correlation	.433**	.539**	.427**
	Sig. (2-tailed)	.000	.000	.000
	N	381	381	381
Learning	Pearson Correlation	.336**	.254**	.510**
	Sig. (2-tailed)	.000	.000	.000
	N	381	381	381
Entertainment	Pearson Correlation	.198**	.152**	.336**
	Sig. (2-tailed)	.000	.003	.000
	N	381	381	381
Enjoy vacation	Pearson Correlation	.169**	.157**	.275**
	Sig. (2-tailed)	.001	.002	.000
	N	381	381	381

Correlations

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

Table 5: Correlation analysis between the independent variables "Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" and the dependent variables

This analysis show that it is the independent variable "Enjoy nature" that are strongest correlated with the three dependent variables, with correlation coefficient of .539 between "Enjoy nature" and "Nature interest", followed by "Enjoy nature" and "Responsible behavior" with a correlation coefficient of .433 and "Enjoy nature" and "Environmental awareness" with a correlation coefficient of .427. They are all positive moderate correlations. This means that tourists motivated by enjoying nature are also to a moderate degree environment friendly.

Another positive moderate correlation is between the independent variable "Learning" and the dependent variable "Environmental awareness" with a correlation coefficient of .510 at the .01 significance level. This means that tourists motivated by learning about the natural environment are to a moderate degree aware about the natural environment. There is also a positive correlation between "Learning" and the dependent variable "Responsible behavior" with a correlation coefficient of .336. However, this is a weak correlation. The independent

variables "Entertainment" and "Enjoy vacation" are also positively correlated with the three dependent variables, but these correlations are either weak or very weak. This shows that tourists motivated by "entertainment" and "enjoy vacation" are to a small degree environment friendly. All the correlation coefficients in this analysis are significant at the .01 level.

The third Pearson product moment correlation was conducted on the three independent variables "Hard activities", "Soft activities" and "Pleasure-based activities" (that measures "activities") and the three dependent variables.

		Respon. behav	Nature interest	Env. awareness
		Correlations		
Hard activities	Pearson Correlation	-.052	.202[**]	.043
	Sig. (2-tailed)	.319	.000	.408
	N	367	367	367
Soft activities	Pearson Correlation	-.013	.101	.042
	Sig. (2-tailed)	.802	.050	.412
	N	378	378	378
Pleasure activities	Pearson Correlation	.061	.042	.049
	Sig. (2-tailed)	.246	.424	.351
	N	363	363	363

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

Table 6: Correlation analysis between the independent variables "Hard activities", "Soft activities" and "Pleasure-based activities" and the dependent variables

This correlation analysis show that the only significant correlation is a positive correlation between the independent variable "Hard activities" and the dependent variable "Nature interest", with a correlation coefficient of .202 that is significant on the .01 level. However, this correlation is weak. This tells us that there is a very low significance between interest in "nature-based activities" and "environment friendly behavior".

The last Pearson product moment correlation was conducted on the three independent variables "Nature rules", "Mankind rules" and "Destructive results (which measures "Attitudes" and the three dependent variables.

		Correlations		
		Respon. behav	Nature interest	Env. awareness
Nature rules	Pearson Correlation	.652[**]	.453[**]	.580[**]
	Sig. (2-tailed)	.000	.000	.000
	N	381	381	381
Mankind rules	Pearson Correlation	.170[**]	.178[**]	.116[*]
	Sig. (2-tailed)	.001	.001	.025
	N	375	375	375
Destructive results	Pearson Correlation	.451[**]	.312[**]	.326[**]
	Sig. (2-tailed)	.000	.000	.000
	N	381	381	381

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

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

Table 7: Correlation analysis between the independent variables "Nature rules", "Mankind rules" and "Destructive results" and the dependent variables

This correlation analysis show that the independent variable "Nature rules" is strongest correlated with the three dependent variables. It is a strong correlation between "Nature rules" and "Responsible behavior" with a correlation coefficient of .652, followed by a moderate-strong correlation between "Nature rules" and "Environmental awareness" with a correlation coefficient of .580, and a moderate correlation between "Nature rules" and "Nature interest" with a correlation coefficient of .453. These are all significant at the .01 level. This means that tourists that agree to statements regarding "Nature rules" are to a moderate and high degree environment friendly.

The independent variable "Destructive results" are also positively correlated with the tree dependent variables. "Destructive results" and "Responsible behavior" has a moderate correlation with a correlation coefficient of .451. "Destructive results" and "Environmental

awareness" also has a positive correlation with a correlation coefficient of .326, similarly with "Destructive results" and "Nature interest" with a correlation coefficient of .312. These are also significant at the .01 level. It tells us that tourists that agree to statements regarding "Destructive results" are to a moderate and weak degree environment friendly. The independent variable "Mankind rules" is also positively correlated with the dependent variables, but this correlation is weak.

4.6   Cross-tabulation

Since hypothesis 1 (H1) is: "*Middle-aged tourists are more environment friendly than non-middle-aged tourists*" it was necessary to find out what the middle-aged tourists (between 40-60 years) answered to statements measuring the three dependent variables about environment friendly behavior. It was not possible to get detailed information about this by using a correlation analysis, since this type of analysis measures if there are correlation between the older the tourists are the more environment friendly they are. It does not provide accurate information about each age group and how they answered the statements about environment friendly behavior. A cross-tabulation was therefore conducted with "age" and the three dependent variables "Responsible behavior", "Nature interest" and "Environmental awareness". The results of the cross-tabulation are found in appendix 4.

The first cross-tabulation was conducted with "Age" and "Responsible behavior". It shows that it is the age group 51-55 that agreed the most to statements measuring "Responsible behavior", since 31 of the respondents answered in average between "agree" (4) and "strongly agree" (5) to these statements. Similarly, age groups 36-40 and 46-50 are the next age groups that agree to these statements with 28 of the respondents answering in average between "agree" and "strongly agree". In addition, age group 61-65 also has 24 of the

respondents that also answered "agree" or "strongly agree" to these statements. The answers from the other age groups are more scattered throughout the answer alternatives.

The second cross-tabulation was conducted with "Age" and the dependent variable "Nature interest". The results show that it is the age groups 46-50 and 51-55 that agree the most with the statements, with 25 respondents in both age-groups. This is followed by age groups 25-30 and 61-65 with 18 and 17 respondents agreeing to the statements. These numbers are a bit low, due to the fact that 81 of the respondents answered between "Undecided" and "Agree" to statements measuring the dependent variable "Nature interest".

The third cross-tabulation was conducted with "Age" and the dependent variable "Environmental awareness". This analysis shows that the answers from the respondents are spread throughout the answer alternatives. The only answer alternative that stands out is "Agree" (4) which 58 of the respondents have answered. Most of these respondents are between ages 46-60. In addition, the majority of the respondents have answered 3.20, 3.40, 3.60 and 3.80, which means that in average most of the respondents have answered between "Undecided" and "Agree" to the statements measuring the dependent variable "Environmental awareness".

It was also conducted cross-tabulation analyses with "Household income level" and the three dependent variables measuring "Environment friendly behavior", which are found in appendix 4. The reason why this was done is because it is easier to see exactly what the respondents with different income levels have answered to statements regarding "Environment friendly behavior".

The first cross-tabulation was conducted with "Household Income level" and the dependent variable "Responsible behavior". It shows that most of the respondents who have agreed to the statements regarding "Responsible behavior" have a household income level

between 30.000-70.000 Euros. These respondents have therefore more responsible behavior than the respondents with other income levels.

The second cross-tabulation was conducted with "Household income level" and the dependent variable "Nature interest". This shows that respondents with a household income between 30.000-90.000 Euros agree more with the statement measuring the dependent variable "Nature interest", indicating that these respondents are more interested in nature than respondents with other income levels.

The third cross-tabulation was conducted with "Household income level" and the dependent variable "Environmental awareness". The results show that it is once again the household income level groups 30.000-70.000 Euros that agree the most to statements measuring the dependent variable "Environmental awareness", followed by the household income level group "Below 30.000 Euros". This indicates that these respondents are more aware of the natural environment than respondents with other income levels.

4.7   Results from the stepwise multiple regression analyses

In the multiple regression analysis all the independent variables were tested up against the three dependent variables. This was done stepwise, which means that each of the independent variables are tested up against one dependent variable at the time, so it is possible to establish whether the results changes as the independent variables are added to the analyses. The results from the stepwise multiple regression analyses are to be found in appendix 5.

The independent variable "Demographics" up against the dependent variable "Responsible behavior"

The dependent variable "Responsible behavior" was tested up against the independent variable "demographics", which includes "age", "education level" and "income level". First

"age" was tested and showed a very low R^2 and a β-value of .05 which also is very low.

Further "education level" was tested, which got a significant β-value of .198 and increased the

R^2. Furthermore "income level" got a β-value of -.037. It seems that the independent variable

"education level" is impacting the dependent variable "Responsible behavior" the most since

"education level" has the highest β-value of .192 when measuring the three independent

variables together. The total R^2 when the three independent variables were measured together

is .040. This means that the R^2 is highest when testing all the independent variables within

"demographics" together with "Responsible behavior". Nevertheless, this R^2 score is very low,

and it shows that "demographics" only explains 4 % of the variance in the dependent variable

"Responsible behavior".

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.199[a]	.040	.032	.75629

a. Predictors: (Constant), Approximately what is your household income?,
Please mark the highest fulfilled education:, Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.639	.139		26.262	.000
	Age:	.012	.013	.047	.929	.353
	Please mark the highest fulfilled education:	.095	.025	.192	3.793	.000
	Approximately what is your household income?	-.010	.014	-.037	-.736	.462

a. Dependent Variable: Responbehav

Table 8: Multiple regression analysis with "Age", "Education level" and "Income level" up against "Responsible behavior"

The independent variable "Motivation" up against the dependent variable "Responsible behavior"

Further, the dependent variable "Responsible behavior" was tested with the independent variable "motivation", which contains of the four independent variables "Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation". The multiple regression analysis shows that the independent variable "Enjoy nature" got the highest scores, and the beta value is significant at the .00 level. This is followed by "Learning" which also got a high β-value. "Enjoy nature" and "Learning" together has a R^2 of .207, while measuring the four independent variables together got a R^2 of .208. This means that "Enjoy nature" and "Learning" explain 20 percent of the variance in the dependent variable "Responsible behavior", and this score does not change much when the last two independent variables are added.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.456[a]	.208	.200	.68768

a. Predictors: (Constant), Enjoyvacation, enjoynature, Entertainment, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.864	.235		7.939	.000
	Enjoy nature	.406	.060	.360	6.723	.000
	Learning	.164	.059	.172	2.752	.006
	Entertainment	.004	.057	.005	.078	.938
	Enjoy vacation	-.039	.054	-.040	-.725	.469

a. Dependent Variable: Responbehav

Table 9: Multiple regression analysis of "Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" up against "Responsible behavior"

The independent variable "Activities" up against the dependent variable "Responsible behavior"

The three independent variables that measure "activities", which are called "Hard activities", "Soft activities" and "Pleasure-based activities", were tested up against the dependent variable "Responsible behavior". The multiple regression analysis showed very low scores of R^2. The β-values were low and insignificant except for "Soft activities" that has a β-value of .141. However, the independent variables explain very little variance in the dependent variable "Responsible behavior".

The independent variable "Attitudes" up against the dependent variable "Responsible behavior"

The independent variable "Attitudes" consist of "Nature rules", "Mankind rules" and "Destructive results" and was measured up against "Responsible behavior". "Nature rules" showed to have a very high β-value and when only "Nature rules" was measured up against the dependent variable the R^2 was .425. However, seen in relation with all the other two independent variables the R^2 was reduced to .193. This shows that when it concerns "Attitudes" it is "Nature rules" that is the strongest driver of "Responsible behavior".

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.439[a]	.193	.186	.55167

a. Predictors: (Constant), Destructiveresults, Mankindrules, Naturerules

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.758	.263		6.685	.000
Nature rules	.433	.060	.373	7.176	.000
Mankind rules	.052	.042	.061	1.257	.209
Destructive results	.067	.035	.097	1.913	.056

a. Dependent Variable: Responbehav

Table 10: Multiple regression analysis with "Nature rules", "Mankind rules" and "Destructive results" up against "Responsible behavior"

The independent variable "Demographics" up against the dependent variable "Nature interest"

"Nature interest" was the next dependent variable tested up against all the independent variables. "Nature interest" was first tested with "age", "education level" and "Income level". Here it also seems that it is the variable "education level" that influences the dependent variable the most with a beta value of .133. However the R^2 is very low.

The independent variable "Motivation" up against the dependent variable "Nature interest"

Within "motivation" it seems that "Enjoy nature" is the independent variable influencing the dependent variable "Nature interest" the most with a β-value of .554 together with the other variables. The R^2 shows that the independent variables explain 29 percent of the variance in the dependent variable "Nature interest".

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540[a]	.292	.284	.70448

a. Predictors: (Constant), Enjoyvacation, enjoynature, Entertainment, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.036	.240		4.308	.000
	Enjoy nature	.676	.062	.554	10.933	.000
	Learning	-.002	.061	-.002	-.040	.968
	Entertainment	-.002	.058	-.001	-.026	.979
	Enjoy vacation	-.040	.055	-.038	-.729	.466

a. Dependent Variable: natureinterest

Table 11: Multiple regression with the independent variables "Enjoy nature", "Learning, "Entertainment" and "Enjoy scenery" up against the dependent variable "Nature interest"

The independent variable "activities" up against the dependent variable "Nature interest"

Furthermore, when testing the variables "activities" it is shown that "hard activities" first got a β-value of .202, but together with the other variables the β-value increased to .290. In addition, it is shown that "Soft activities" has a significant negative β-value of -.162, which means that "Pleasure based activities" do not influence "Nature interest". "Hard activities" is the strongest driver of "nature interest" within "Activities". However, the R^2 is not very high meaning that "Activities" does not explain much of the variance of the dependent variable "Nature interest".

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.262[a]	.069	.061	.74666

a. Predictors: (Constant), Pleasureactivities, Softactivities, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.567	.135		26.352	.000
	Hard activities	.204	.053	.290	3.829	.000
	Soft activities	.072	.058	.082	1.259	.209
	Pleasure activities	-.120	.052	-.162	-2.289	.023

a. Dependent Variable: natureinterest

Table 12: Multiple regression analysis with "Hard activities", "Soft activities" and "Pleasure-based activities" up against "Nature interest"

The independent variable "Attitudes" up against the dependent variable "Nature interest"

When it concerns "attitudes", "Nature rules" seem to have a great influence on the dependent variable "Nature interest". The β-value is highest together with all the other variables (.271). The R^2 is pretty high with a value of .205 when "Nature rules" are measured alone, but together with the other independent variables the R^2 decreases to .117.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342[a]	.117	.109	.71741

a. Predictors: (Constant), Destructiveresults, Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.462	.342		4.275	.000
	Nature rules	.391	.078	.271	4.983	.000
	Mankind rules	.107	.054	.099	1.963	.050
	Destructive results	.057	.046	.066	1.244	.214

a. Dependent Variable: natureinterest

Table 13: Multiple regression analysis with "Nature rules", "Mankind rules" and "Destructive results" up against "Nature interest"

The independent variable "Demographics" up against the dependent variable "Environmental awareness"

As seen in the previous tests, "education level" has had the most influence on the dependent variable. The same is seen when testing the dependent variable "Environmental awareness" with the independent variables "demographics". "Education level" got a β-value of .148 when testing all the demographics together. This is not very high, but it signifies anyway that out of the "demographic" variables "Education level" is influencing "Environmental awareness" the most. The R^2 shows a low value of .036 which means that none of the independent variables actually explain the variance in the dependent variable to a high degree.

The independent variable "Motivation" with the dependent variable "Environmental awareness"

The next test between "Environmental awareness" and the four independent variables within "motivation" shows again that "Enjoy nature" and "Learning" are those independent variables influencing the most. Here, "Learning" was proven to be the variable influencing the dependent variable "Environmental awareness" the most, with the highest β-value of .366. The variable "Enjoy nature" had the highest β when it was tested alone, but together "Enjoy nature" and "Learning" was those influencing "Environmental awareness" the most.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550[a]	.302	.295	.60003

a. Predictors: (Constant), Enjoyvacation, enjoynature, Entertainment, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.365	.205		6.662	.000
	Enjoy nature	.239	.053	.228	4.542	.000
	Learning	.323	.052	.366	6.230	.000
	Entertainment	.047	.049	.053	.955	.340
	Enjoy vacation	.000	.047	.000	.002	.998

Table 14: Multiple regression analysis with "Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" up against "Environmental awareness"

The independent variable "Activities" and the dependent variable "Environmental awareness"

The independent variables "activities" was proven by this test to not have a big influence on the dependent variable "Environmental awareness".

The independent variable "Attitudes" up against the dependent variable

"Environmental awareness"

The independent variable "attitudes" shows that once again "Nature rules" is the independent variable influencing the dependent variable "Environmental awareness" the most. The β- value is .580 with an R^2 of .337 when this is tested alone up against the dependent variable. When adding the two other variables the R^2 decreases to .139. This is an indicator that "Nature rules" is influencing "Environmental awareness" the most.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.373[a]	.139	.132	.56334

a. Predictors: (Constant), Destructiveresults, Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.806	.269		6.725	.000
	Nature rules	.436	.062	.380	7.079	.000
	Mankind rules	.019	.043	.022	.437	.662
	Destructive results	-.025	.036	-.037	-.708	.479

a. Dependent Variable: envawareness

Table 15: Multiple regression analysis with "Nature rules", "Mankind rules" and "Destructive results" up against "Environmental awareness"

4.8   Multiple regression analysis with all variables

After the stepwise multiple regression analyses this was also done with all the independent variables simultaneously up against each of the three dependent variables.

The dependent variable "Responsible behavior" seen in relation with all the independent variables

When testing all the independent variables with the first dependent variable "Responsible behavior" the results show that 30.2 % of the variance in "Responsible behavior" is explained by the independent variables. "Nature rules" has the highest beta value of .279. "Enjoy nature" is the second most important variable with a beta value of .218, followed by "Learning" with a beta value of .167. The independent variable with the lowest beta value is "Income level", while "Hard activities" seem to have the lowest impact on the dependent variable since it has a negative beta value of -.150.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550[a]	.302	.276	.52391

a. Predictors: (Constant), Destructiveresults, Enjoyvacation, Approximately what is your household income?, Softactivities, Mankindrules, Please mark the highest fulfilled education:, Age:, enjoynature, Entertainment, Naturerules, Pleasureactivities, Learning, Hardactivities

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.907	.349		2.598	.010
	Age:	-.008	.011	-.037	-.727	.468
	Please mark the highest fulfilled education:	.033	.019	.082	1.770	.078
	Approximately what is your household income?	-.018	.010	-.080	-1.740	.083
	Enjoy nature	.243	.058	.218	4.164	.000
	Learning	.143	.051	.167	2.784	.006
	Entertainment	-.052	.049	-.060	-1.050	.294
	Enjoy vacation	-.019	.045	-.022	-.422	.673
	Hard activities	-.084	.039	-.150	-2.175	.030
	Soft activities	.035	.043	.049	.816	.415
	Pleasure activities	.027	.038	.045	.701	.484
	Nature rules	.324	.062	.279	5.198	.000
	Mankind rules	.035	.042	.039	.823	.411
	Destructive results	.073	.035	.104	2.089	.037

a. Dependent Variable: Responbehav

Table 16: Multiple regression analysis with the independent variables "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" up against the dependent variable "Responsible behavior"

The dependent variable "Nature interest" seen in relation with all the independent variables

The R^2 is shown to be pretty high since 35 % of the variance in the dependent variable "Nature interest" seems to be explained by the independent variables. "Enjoy nature" is shown to be the variable with the highest beta-value of .429. Further "Hard activities" and "Nature rules" also have significant beta values of .227 and .148. The variable with the lowest impact on the dependent variable is "Pleasure activities" with a negative beta value of -.169.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.595[a]	.354	.330	.62651

a. Predictors: (Constant), Destructiveresults, Enjoyvacation, Approximately what is your household income?, Softactivities, Mankindrules, Please mark the highest fulfilled education:, Age:, enjoynature, Entertainment, Naturerules, Pleasureactivities, Learning, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.198	.417		-.473	.636
	Age:	-.016	.013	-.061	-1.233	.218
	Please mark the highest fulfilled education:	.036	.023	.071	1.593	.112
	Approximately what is your household income?	-.016	.012	-.057	-1.281	.201
	Enjoy nature	.594	.070	.429	8.506	.000
	Learning	-.013	.061	-.012	-.204	.838
	Entertainment	.030	.059	.028	.514	.608
	Enjoy vacation	-.009	.054	-.009	-.167	.867
	Hard activities	.158	.046	.227	3.425	.001
	Soft activities	.046	.051	.053	.907	.365
	Pleasure activities	-.124	.046	-.169	-2.722	.007
	Nature rules	.214	.075	.148	2.862	.004
	Mankind rules	.093	.051	.084	1.831	.068
	Destructive results	.006	.042	.007	.141	.888

a. Dependent Variable: natureinterest

Table 17: Multiple regression analysis with the independent variables "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" up against the dependent variable "Nature interest"

The dependent variable "Environmental awareness" seen in relation with all the

independent variables

The R^2 is shown to be .410, which means that 41 % of the variance in the dependent

variable "Environmental awareness" is explained by the independent variables. This is the

highest R^2 of all the tests. "Learning" seems to be the highest driver of "Environmental

awareness" with a beta value of .379, followed by "Nature rules" with .209 and "Enjoy

nature" with a beta of .162. "Pleasure activities" is the independent variable that is not

influencing at all.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641[a]	.410	.388	.47044

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.112	.313		.357	.721
	Age:	.012	.010	.060	1.278	.202
	Please mark the highest fulfilled education:	.020	.017	.051	1.195	.233
	Approximately what is your household income?	.000	.009	-.002	-.057	.955
	Enjoy nature	.177	.052	.162	3.371	.001
	Learning	.317	.046	.379	6.877	.000
	Entertainment	.102	.044	.121	2.298	.022
	Enjoy vacation	-.017	.040	-.020	-.418	.676
	Hard activities	.053	.035	.097	1.527	.128
	Soft activities	.011	.038	.015	.276	.782
	Pleasure activities	-.052	.034	-.089	-1.508	.132
	Nature rules	.237	.056	.209	4.228	.000
	Mankind rules	.049	.038	.057	1.297	.196
	Destructive results	.007	.031	.010	.214	.831

a. Dependent Variable: envawareness

Table 18: multiple regression analysis with the independent variables "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" up against the dependent variable "Environmental awareness"

4.9   Limitations of the methodology

One limitation with the methodology is that the questionnaire is sent out to international tourists who wrote down their e-mail addresses on the questionnaire handed out during the summer of 2009. This is due to the fact that the participants just wrote their e-mail addresses straight forward with small handwritten letters because it did not say in the questionnaire to use capital letters. It was therefore very difficult and not possible to comprehend absolutely all of the e-mail addresses. This resulted in 341 failed deliveries when the questionnaire was sent out through e-mail. If the respondents could have written their e-mail addresses in big letters, the amount of failed deliveries could probably have decreased and the valid sample might have increased. However, this is a limitation that was out of the author's control, and the response sample of 381 is nevertheless a large sample.

It has already been established that research is more generalizable when using both quantitative and qualitative methods. However, as this thesis is written in the spring semester and not during the peak tourist season in Norway, it was not possible to utilize qualitative methods such as face-to-face interviews. Nevertheless, the big sample size collected ensures the representativeness of the population.

5   Discussion

This part of the thesis presents a discussion of the results found in the data analysis chapter and these results are compared with previous findings in tourism research to see if the characteristics for the environment friendly tourist can be related to not only ecotourists but also other types of tourists. The outcome of the discussion is used to answer the research question: *"What characterizes environment friendly tourists?"* The theoretical, management and methodological implications of the findings are discussed, together with strengths and weaknesses of the research. In addition, a discussion of further research needed within the topic is provided.

5.1   The behavioral statements

As a result of the factor analysis the statements measuring "Environment friendly behavior" were grouped into the three dependent variables "Responsible behavior", "Nature interest" and "Environmental awareness". The descriptive statistics show that the respondents agreed the most to statement "*Recycling of waste is an environment friendly effort that everybody should do while on vacation*", closely followed by "*I recycle my garbage at home because I want to be environment friendly*" and "*I save energy at home due to environmental concerns*". In addition did many of the respondents agree to the statement "*When travelling I prefer nature-based destinations*". Interestingly, the descriptive statistics show that the three statements that the respondents agreed to the most are all included in the dependent variable "Responsible behavior", followed by statements measuring the dependent variable "Nature interest" and at last statements measuring the dependent variable "Environmental awareness". This shows that the majority of the respondents have a responsible behavior towards the environment such as recycling, energy saving and positive attitudes towards environment

friendly efforts while on vacation. In addition, they are interested in nature and aware of the vulnerability of the natural environment.

5.2   Supplementary statements

One supplementary question among the behavioral statements is; *"My presence in Fjord Norway did not harm the environment"*. Approximately 69 % of the respondents agreed to this statement, which is a quite high result. However, this is a fairly subjective statement and it must therefore be taken into consideration that the responses may not be entirely honest. Since the statement is so subjective and only applicable for the Fjord Norway region it was excluded from the dependent variables measuring "Environment friendly behavior" in the statistical tests.

Another supplementary statement is "I consider myself to be an environment friendly tourist". To this statement approximately 86 % of the participants have agreed or strongly agreed. This shows that the majority of the tourist population consider themselves to have environment friendly behavior. There is however a need to be critical towards these answers since they can be affected by wanting to be seen as environment friendly since it is such a current issue in today's society.

5.3   Age and environment friendly behavior

The first hypothesis (H1) *"Middle-aged tourists are more environment friendly than non-middle-aged tourists"* was created since age has commonly been used to differentiate between diverse types of tourists. Previous studies has concluded that one demographic characteristic of the ecotourist (hence an environment friendly tourist) is that they tend to be middle-aged (40-60) or older (60+). Therefore, it was necessary to test this again with a more

generalizable sample, to determine if age seems to differ from what the already examined

studies have found.

Results from the descriptive statistics illustrate that the biggest age group among the

respondents is *middle-aged* (age 40-60). The second biggest age group is *young adults* (age

25-40), closely followed by *older* (age 60+). One reason why the middle-aged tourist is the

biggest group can be explained by life stages in families which are elements that affect their

travel pattern. For instance families or married couples with mature children or without

children are found to travel more than those with smaller children, while couples with

children that have moved out also belong to this group. These couples are generally middle-

aged and in that life stage it is common to have better economy and to be more flexible with

time, which explains why the majority of the tourists in this sample are "Middle-aged"

(Goeldner & Ritchie, 2006).

The descriptive statistics shows that the age group "young adults" was well

represented in the sample, which was interesting. This is not an age group that has been much

represented in earlier studies about ecotourists. The age group "older" (age 60+) was fairly

represented in the sample; this might be because many of the representatives were cruise

passengers where the biggest segment namely is elderly people.

To find which age groups that agree with statements about environment friendly

behavior it is necessary to look at results from the cross-tabulation. The independent variable

"Age" was tested with the three dependent variables "Responsible behavior", "Nature

interest" and "Environmental awareness". These results show that it is the "middle-aged"

tourist that agreed the most with statements measuring environment friendly behavior. The

"Middle-aged" tourists agreed the most with statements belonging to "Responsible behavior"

and to "Nature interest". This means that "Middle-aged" tourist to a stronger degree than

other age groups save energy at home, recycle garbage and support local economy when on

vacation which confirms a responsible behavior towards the nature at home and while on vacation. In addition, they agree to have a strong interest in nature and visiting and observing nature in a wild and unrestricted setting. This refers to the characteristics of an ecotourist. Furthermore they agree to have an interest in learning about the natural environment of a destination, which also have shown to be a characteristic that is associated with environment friendly behavior. When it concerns the cross-tabulation between "Age" and the dependent variable "Environmental awareness" the answers are a bit more spread, but it is also "Middle-aged" tourists that to a somewhat higher degree than the other age groups agree the most with the statements. After "Middle-aged" it is the group "Young adults" that is the most environment friendly since they agreed second highest to the statements measuring the three dependent variables.

The results from the descriptive statistics illustrate that middle-aged tourists (between the age 40 and 60) are those tourists that have a more environment friendly behavior compared with tourists in other age groups. One reason for this might be that environmental concerns occurred in the society approximately 20 years ago at the same time as the Brundtland commission was developed. This report established that humans have to take care of the environment in their present situation, to not destroy it for future generations (Gunce, 2003). As this was a huge social and political issue at that time, this might have had an impact on the social values and norms of people being young at that time, and might be an explanation of why those being middle-aged are concerned about the environment.

It is also important to mention that the young tourists did also agree to behavioral statements which show that they to a certain degree show environment friendly behavior as well. However, the young tourists did not agree as highly to statements concerning all the three dependent variables, as the middle aged tourist did. They had highest scores on "Responsible behavior" such as recycling, and "Nature interest" which tells that they are

interested in nature-based destinations. This is an interesting finding, since there has not been much research about young tourists being environment friendly. One reason for this finding might be that as political and social issues impact people's way of thinking and acting, the huge focus on trying to solve the environmental issues today might have influenced the younger tourists, since this age group might be more updated on current issues in society.

However, the multiple regression analyses show that "Age" combined with the other independent variables measuring "Demographics" does not have a big influence on the dependent variables measuring "Environment friendly behavior", nor does it explain much of the variance in the three dependent variables. This means that age itself does not impact environment friendly behavior to a large degree. Nonetheless, one is not born with environmental behavior; this is something that is influenced by psychological, social, cultural and environmental forces. These forces change over time and may as such explain the results (Fridgen, 1996).

Therefore, as the Cross-tabulation shows that the "middle-aged" tourist agrees more with statements about environment friendly behavior than tourists in other age groups, H1 *"Middle-aged tourists are more environment friendly than non-middle-aged tourists"* is therefore confirmed.

5.4   *Education level and environment friendly behavior*

Tourists' level of education is one of the demographic variables studied repeatedly in earlier studies regarding ecotourists. It has been found in these studies that the education level of different types of tourists seem to vary, but ecotourists are known to have quite high education levels (such as Bachelor's degrees, Master's degrees and PhDs) while other tourists tend to have lower education levels. H2 *"Tourists with higher education are more*

environment friendly than tourists with lower education" was created to see if education level is a characteristic of environment friendly tourists.

The descriptive statistics shows that the majority of the respondents (24 %) have a college or university education, while 18.6% have a High school education. Similarly, 18.4 % of the respondents in this study answered that they had a Bachelor's degree and 17.3 % had a Master's degree. As the results are very equally distributed, it is necessary to have a closer look at other tests to find out if tourists with higher education are more environment friendly than tourists with lower education level.

When looking at the results of the correlation analysis where "Education level" is compared with the three dependent variables, it is first shown that tourists with high education level are those who agree the most with statements measuring the dependent variable "Responsible behavior". This means that the respondents with higher education level have more responsible behavior such as saving energy, recycling garbage and using local transport than those with lower education level. High education level was also positively correlation with the dependent variable "Environmental awareness", which shows that those with high education level are aware of the environment in the way that they want to learn about the natural environment at places they are visiting both before and on vacation, and that they wish to travel without ruining the environment. An assumption is that those with higher education have more insight into political and social issues happening in the society, for instance issues concerning the environment, and that they therefore are more aware of protecting the natural environment. However, even though these correlation analyses were significant, they were weak according to the course literature. This means that the correlation analysis indicate only to a small degree that tourists with higher education level such as Bachelor's, Master's degrees and PhD's have a more environment friendly behavior than hose with lower education level.

When testing all the three demographic variables up against the three dependent variables in a multiple regression, the results show that none of the demographic variables explain much variance in the three dependent variables. However, "Education level" is one of the three demographics that to a small degree influence the three dependent variables.

"Education level" showed to be positively correlated with the three dependent variables. This was not a strong correlation, but it shows that tourists with higher education have a more environment friendly behavior than tourists with lower education level. Based on this H2 *"Tourists with higher education are more environment friendly than tourists with lower education"* is confirmed.

5.5   *Income level and environment friendly behavior*

H3 *"Tourists with high income level are more environment friendly than tourists with low income level"* was tested since income level is another commonly tested demographics feature after education level in previous research. The descriptive statistics shows that most of the respondents (54 %) have a household income level between 30.000 euro and 90.000 euro. However, the income level group with most answers (24 % of the respondents) is 30.000-50.000 euro. This is compatible with what is shown to be the average income of ecotourists in previous studies (Weaver & Lawton, 2002; Meric & Hunt, 1998). The income level groups 50.000-70.000 and 70.000-90.000 euro together represent 29 % of the responses, which constitutes a big part of the responses. This is interesting since it is quite higher income levels than what is already known to be the average household income for ecotourists.

It is necessary to look at the correlation analysis to find out if there is a relationship between those with high income level and those being environment friendly. The correlation analysis shows that income level is one of the demographic variables with the lowest correlation on all the three dependent variables. This means that the correlation analysis

shows that there is no relationship between high income level and environment friendly behavior. This might be caused by low response rate at the highest income level groups in the questionnaire. Another reason for why the results turned out as they did might be because 17% of the participants did not answer this question. These answers could have provided more accurate numbers of the average income level.

Results from the correlation analysis did not give any answers to what income group that is related to environment friendly behavior, therefore it was necessary to look at the results from the cross-tabulation analysis. This analysis gives a more accurate answer to what the respondents with different income levels have answered to statements regarding environment friendly behavior.

The results show that the respondents within the income level groups 30.000-90.000 euros are more environment friendly than respondents with other income levels, including the higher income level groups. Since the cross-tabulation showed that it was actually the respondents in the lower income level groups in the questionnaire that were the most environment friendly, H3 *"Tourists with high income level are more environment friendly than tourists with low income level"* is rejected.

5.6   *Motivation and environment friendly behavior*

H4 *"Tourists motivated by learning about nature are more environment friendly than tourists motivated by other factors"* was tested since research has found that learning about the natural environment is a travel motivation factor for ecotourists. Other related motivations have also been found to characterize ecotourists, such as meeting other people they can learn from and share an appreciation of the richness of nature with. However, the prime motivation factor for ecotourists is known to be learning about nature. This was therefore tested on a

general tourist population sample in order to confirm or reject this as a characteristic of environment friendly tourists.

The descriptive statistics reveal that it is the motivation factor "Enjoy scenery/nature" that most of the respondents answered was their motivation for traveling to Fjord Norway, closely followed by "See mountains/fjords" and "Being close to nature". The motivation factor "Rest and relaxation" was also a strong travel motivation factor for the respondents, followed by "To engage in nature-based activity", "Wilderness experience" and "Not touristy/crowded". This is not surprising since Fjord Norway's tourist product is centered on the natural resources made available for the tourists and it might therefore be expected that tourists coming to this region are motivated by these factors.

The factor analysis resulted in the motivation factors being grouped into the four independent variables "Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation". Interestingly, it turned out that all of the strongest travel motivation statements for the respondents were included in the independent variable "Enjoy nature". Statements measuring the independent variable "Learning" is the second strongest travel motivation for the respondents, followed by the independent variable "Entertainment". The independent variable "Enjoy vacation" consists of the weakest travel motivation statements for the respondents.

The results from the correlation analysis between the four independent variables measuring "Motivation" and the three dependent variables measuring "Environment friendly behavior" show that it is actually the independent variable "Enjoy nature" that are strongest correlated with the three dependent variables altogether. All these three correlations are positive moderate correlations. The strongest correlation is between "Enjoy nature" and the dependent variable "Nature interest". This is interesting since "Enjoy nature" consists of motivation factors that are highly nature-based and focuses on enjoying the natural environment as a motivation for travelling to Fjord Norway. Further, the dependent variable

"Nature interest" consists of statements that focus on a preference for nature-based destinations and a preference of observing nature in a wild and unrestricted setting. It is not surprising that respondents who agreed to statements measuring "Enjoy nature" also agreed to the dependent variable "Nature interest" since these statements are rather similar. In addition, it is logical to assume that those respondents who are motivated by statements measuring "Enjoy nature" also are interested in nature while actually on vacation.

The independent variable "Learning" is also positively correlated with the three dependent variables, but with somewhat weaker correlations than "Enjoy nature". It shows that the correlation between "Learning" and the dependent variable "Environmental awareness" is one of the strongest. This is not unexpected as those respondents motivated by learning about the natural environment may also want to learn about the natural environment while on vacation, and are aware of the natural environment. This might also be because those who want to learn about the natural environment have knowledge about nature and how important it is to be aware of the natural environment at places they visit, and how important it is to try to minimize their negative environmental impacts at destinations (Weaver & Lawton, 2002; Kerstetter, Hou & Lin, 2004; Eagles, 1992).

The independent variable "Entertainment" is also positively correlated with the three dependent variables, but these correlations are weaker than correlations with "Enjoy nature" and "Learning" up against the three dependent variables. "Entertainment" is highest correlated with the dependent variable "Environmental awareness". However, this correlation is characterized as weak according to course literature (Neuman, 2009), which means that only to a small degree are respondents who are motivated by statements measuring "Entertainment" aware of the natural environment.

The independent variable "Enjoy vacation" is also positively correlated with the three dependent variables, but these correlations are characterized as weak or very weak. One

reason for this might be that the motivation factors included in the independent variable "Enjoy vacation" are non-nature-based motivations, which gives reason to believe that these motivations do not necessarily impact environment friendly behavior to a large degree. Further, it is also important to mention that the independent variable "Enjoy vacation" had a weak CA-value which also gives reason to believe that the reliability of this correlation might be lower than the correlations between the other variables.

Moreover, in the multiple regression analyses conducted it is possible to see which of the independent variables measuring "motivation" are drivers of environment friendly behavior. The multiple regression analysis was first conducted stepwise with each independent variable up against each dependent variable, before all independent variables tested in this thesis were seen together in relation with each dependent variable. The results of this analysis showed that regarding "Motivation" it is the independent variable "Enjoy nature" that is the strongest driver of the dependent variable "Responsible behavior", followed by "Learning". These two independent variables explain approximately 21 % of the variance in "Responsible behavior", which is considered to be very good in professional social science (Neuman, 2009).

When the four independent variables included in "Motivation" were measured up against the dependent variable "Nature interest" it also showed that it is the independent variable "Enjoy nature" that is the most important driver of the dependent variable. None of the other three independent variables are significant, and "Enjoy nature" explains 29 % of the variance in the dependent variable "Nature interest". This is considered as a very good result, and supports the earlier findings in the correlation analysis which is not surprising since the respondents motivated by enjoying nature are also interested in nature while on vacation.

When the four independent variables measuring "Motivation" was measured up against the dependent variable "Environmental awareness" it showed that it is "Learning" that

is the strongest driver of the dependent variable. This also supports the findings in the correlation analysis, since there is reason to believe that the respondents motivated by "Learning" about the natural environment also want to learn while on vacation.

When all the independent variables tested in this thesis were analyzed together with each dependent variable, it turned out that the motivation variable "Enjoy nature" is the second strongest drivers of the dependent variable "Responsible behavior". When all the independent variables were measured up against the dependent variable "Nature interest" it turned out that "Enjoy nature" is the strongest driver of this dependent variable. Lastly, when all the independent variables were measured up against the dependent variable "Environmental awareness" it turned out that it is "Learning" that is the strongest driver of this dependent variable.

What can be drawn from the multiple regression analysis is that out of all the independent variables tested in this thesis, it is the independent variables "Enjoy nature" and "Learning" that influence "Environment friendly behavior" the most.

One aspect to keep in mind when discussing the concept of motivation is that motivations are very personal and subjective, thus difficult to measure. One reason for this might be that tourists not always want or will not always be able to find their true motivation for travelling to destinations. Another reason might be a difference between stated reasons for travel and motivations for travel, for example a family going on vacation stating the motivation is to visit the ocean etc, while the real reason is to reconnect as a family. However, since the prime tourist attractions of Fjord Norway are the natural resources it gives reason to believe that motivation for visiting this region is nature-related (Gössling & Hultman, 2006; K. Finne, NCE Tourism Fjord Norway, personal communication, April 14th 2010). This combined with the high agreement level from the respondents that nature-based motivation

factors were their motivation for visiting Fjord Norway, indicate that these stated motivations for travelling are indeed true.

Even though the results of the multiple regression analysis showed that "Learning" was a strong driver of the dependent variable "Environmental awareness", "Enjoy nature" turned out to be the strongest motivation driver of the dependent variables "Responsible behavior" and "Nature interest". This means that tourists motivated by "Enjoy nature" are more environment friendly than tourists motivated by other factors. It is important to mention that the findings show that respondents motivated by "Learning" are also to moderate degree considered environment friendly, but "Enjoy nature" was the highest driver of environment friendly behavior. H4 *"Tourists motivated by learning about nature are more environment friendly than tourists motivated by other factors"* is therefore rejected.

5.7 *Activities and environment friendly behavior*

In previous research it is assumed that an interest in outdoor nature-based activities is indicative of pro-environmental behavior. Mostly found in previous studies is that ecotourists want to be physically active, view wildlife, enjoy scenery and nature and cultural attractions. Those who are interested in nature-based activities are tourists assumed to have pro-environmental behavior (Meric & Hunt, 1998; Weaver & Lawton, 2002).

To find these tourists' activity preferences and if there is a relationship between them and their behavior towards the environment H5 *"Tourists interested in nature-related activities are more environment friendly than tourists interested in non-nature related activities"* was tested on a general tourist population.

As shown by the descriptive statistics the activities that were considered most interesting by the respondents were "Fjord Sightseeing", "City sightseeing", "Visiting cultural attractions", "Visiting national parks" and "Hiking". The activities "Kayaking", "Summer

skiing", "Whale safari" and "Spa" were those activities most of the respondents did not participate in.

Due to the number of activities in the questionnaire, they were divided into 3 variables: "Hard nature-based activities", "Soft nature-based activities" and "Pleasure-based activities".

The correlation analysis shows a weak correlation between the independent variable "Hard nature-based activities" and the dependent variable "Nature interest". This means that those tourists interested in "Hard nature-based activities" to a small degree are more interested in nature than those not so interested in "Hard nature-based activities". The independent variables "Soft nature-based activities" and "Pleasure-based activities" are not correlated with the three dependent variables, meaning that there is no relationship between those who found these activities interesting and environment friendly behavior. One reason for the weak correlation and lack of correlation between the independent variables measuring "Activities" and the dependent variables might be that a considerable amount of the respondents did not participate in all the activities. This is especially obvious regarding "Hard nature-based activities", which is shown through the descriptive statistics. What the correlation analysis show is that those who did participate in "Hard nature-based activities" and found them interesting, are to a small degree more interested in nature than those interested in other activities.

Furthermore, it is shown in the stepwise multiple regression analysis that the independent variable "Hard nature-based activities" has among the other independent variables measuring "Activities" the biggest influence on the dependent variable "Nature interest". This is consistent with the findings from the correlation analysis and show that those tourists interested in "Hard nature-based activities" (which includes activities such as hiking, climbing, kayaking and cycling) are those with major interest in the nature itself, which is one

important element explaining environment friendly behavior. Moreover, the stepwise multiple regression analysis indicates that the independent variable "Soft nature-based activities" is influencing both the dependent variables "Responsible behavior" and "Environmental awareness". However, the stepwise multiple regression analysis shows that the independent variables measuring "Activities" do not explain much of the variance in the dependent variables, which means that "Activities" do not influence environment friendly behavior to a strong degree.

Moreover, when all the independent variables tested in this thesis were measured up against each dependent variable in the multiple regression analysis, one interesting finding is that the independent variable "Hard nature-based activities" is one of the strongest drivers of the dependent variable "Nature interest". This also supports the earlier findings that tourists who find "Hard nature-based activities" interesting have a higher interest in nature than tourists participating in other activities.

The findings from the correlation analysis and multiple regression analyses show that "Hard nature-based activities" is correlated with and influence the dependent variable "Nature interest" more than the other independent variables measuring "Activities". The correlation on the other two dependent variables "Responsible behavior" and "Environmental awareness" are not significant. Even though the correlation between "Hard nature-based activities" and "Nature interest" is weak, it shows that to a small degree are the respondents interested in these activities more environment friendly than those interested in other activities. H5 *"Tourists interested in nature-related activities are more environment friendly than tourists interested in non-nature related activities"* is therefore confirmed.

5.8   Attitudes and environment friendly behavior

H6 *"Tourists that have positive attitudes towards the natural environment are more environment friendly than tourists with negative attitudes towards the natural environment"* was tested since tourism research has discovered that positive attitudes towards the environment are predictive of pro-environmental behavior, but there is a need for testing this on a sample from the general tourist population.

Regarding the measurement of the respondents' attitudes towards the environment, the NEP-scale with nine statements from the tourism literature was utilized.

The descriptive statistics show that most of the participants agreed to the statement *"The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations"*, followed by statements *"Humans must live in harmony with nature in order to survive"* and *"The balance of nature is very delicate and easily upset"*. On the other hand most of the respondents are disagreeing with the statements *"Humans have the right to modify the natural environment to suit their needs"* and *"When humans interfere with nature, it often produces disastrous consequences"*. Some of the respondents have also answered "undecided" to these statements. This might be due to the fact that some of the respondents think it is difficult to live in a world where one cannot modify the natural environment to some extent in order to suit humans' needs.

The descriptive statistics showed all in all that the majority of the respondents agreed with the positive statements and disagreed with the negative statements. In other words; the descriptive statistics revealed that the majority of the respondents seem to have positive attitudes towards the natural environment.

The factor analysis conducted on the statements measuring "Attitudes" revealed that these statements can be grouped into three dependent variables; "Nature rules", "Mankind rules" and "Destructive results". The descriptive analysis shows that the three statements that

the majority of the respondents agreed to the most are all measuring the independent variable "Nature rules".

The results from the correlation analysis between the three independent variables measuring "Attitudes" and the three dependent variables measuring "Environment friendly behavior" reveal that all of the independent variables are positively correlated with the three dependent variables. Nevertheless, it is the independent variable "Nature rules" that is strongest correlated with the three dependent variables, and the correlation is considered as "moderate" and "strong" according to the course literature. The strongest correlation is between "Nature rules" and the dependent variable "Responsible behavior", which gives reason to believe that those of the respondents who agreed to statements measuring "Nature rules" exercise responsible behavior such as recycling of waste at home and on vacation, saving energy and using public transportation. The second strongest correlation is between "Nature rules" and the dependent variable "Environmental awareness". This means that the respondents who are concerned about the natural environment and think that nature must be maintained for the benefit of future generations are also to a moderate degree aware of the environment to the extent that they want to learn as much about the natural environment of places they visit before going there, and during the visit. They also do what they can to maintain the sites they visit so that when they leave it looks better than when they arrived. The third strongest correlation is between "Nature rules" and the dependent variable "Nature interest", which shows that respondents who are concerned about nature and want to protect it to a moderate degree prefer nature-based destinations when travelling.

The independent variable "Destructive results" is also positively correlated with the three dependent variables, but these are weaker correlations than with "Nature rules". "Destructive results" is strongest correlated with the dependent variable "Responsible behavior", which means that respondents who agreed to statements measuring "Destructive

results" to a moderate degree have responsible behavior. This might be because these respondents who seem to think that humans' interference with nature will produce destructive consequences also feel that they must act responsible in everyday life and on vacation in order to minimize these destructive results. However, the independent variable "Destructive results" did get a somewhat low CA-value, which means that this correlation results might have lower reliability than the results from the other independent variables measuring "Attitudes".

The independent variable "Mankind rules" was also positively correlated with the three dependent variables, but this independent variable had the weakest correlations. This might be caused by a low CA-value of the factor.

Nevertheless, the correlation analysis shows that respondents who agree to the positive statements and disagree with the negative statements measuring all the independent variables are more environment friendly than those who did not agree with the positive statements and did agree with the negative statements.

Moreover, multiple regression analyses were conducted stepwise on the three independent variables measuring "Attitudes" and each of the dependent variables. The first analysis was conducted on the dependent variable "Responsible behavior", and the results show that when it concerns "Attitudes" it is the independent variable "Nature rules" that is the strongest driver of "Responsible behavior", and all together these independent variables explain 19.3 % of the variance in "Responsible behavior". The analysis conducted on the dependent variable "Nature interest" also reveals that it is the independent variable "Nature rules" within "Attitudes" that influence the dependent variable the most, similarly is the case with the analysis with the dependent variable "Environmental awareness". These findings from the stepwise multiple regression analyses support the findings in the correlation analysis.

The multiple regression analyses conducted with all the independent variables measured in the thesis and the three dependent variables show that it is actually "Nature rules"

that is the strongest driver of the dependent variable "Responsible behavior". Further, the analysis with the dependent variable "Nature interest" show that "Nature rules" is the third strongest driver. This is not surprising and supports the findings in the correlation analysis which shows that respondents who are concerned about nature and want to protect it also prefer nature-based destinations when travelling. "Nature rules" is the second strongest driver of the dependent variable "Environmental awareness", which also supports the findings from the correlation analysis that those who are concerned about nature also are aware of the environment and have knowledge about the natural environment.

One important thing to keep in mind is that new and different information influences both what we believe and the attitudes we hold. This means that attitudes can actually be changed through persuasion. The media or advertising can be examples of attempt to influence someone's attitudes toward an object, a person or an event. What might be considered here is that climate changes has become a current issue in today's media, and many people are aware of these challenges. Fishbein and Ajzen's theory of reasoned action (1975) also suggests that attitudes can be affected by social norms and what is socially accepted (as quoted in Vining & Ebreo, 1992). This means that some of the respondents might have agreed or disagreed more to the statements because they feel it is expected of them. This may introduce a small error in the data, but as it is already established that the respondents' greatest motivation for travelling to Fjord Norway are nature-based motivation factors, it is logical that many of the tourists coming to Fjord Norway also have positive attitudes towards the natural environment.

The relationship between attitudes towards the natural environment and environment friendly behavior has earlier been found to be moderate (not perfect). This is supported by the findings in this thesis, since the correlations between the three independent variables measuring "Attitudes" and the three dependent variables are moderate. Nevertheless, the

statistical tests conducted in this thesis show that tourists with positive attitudes towards the natural environment are indeed more environment friendly than tourists with negative attitudes towards the environment. Based on this H6 *"Tourists that have positive attitudes towards the natural environment are more environment friendly than tourists with negative attitudes towards the natural environment" is* confirmed.

5.9   Characteristics of environment friendly tourists

The results from the multiple regression analysis conducted on all the independent variables tested in this thesis and each of the dependent variables show that the independent variables together explain between 30-40 % of the total variance in each of the dependent variables. This is considered to be very good in professional social science (Neuman, 2009), and is especially good in this case since there are so many internal and external elements that influence behavior. 30-40 % explained variance is positive since it is an indicator of that the correct characteristics of environment friendly behavior are measured.

Through H1 measuring "Age" with "Environment friendly behavior" it was found that middle-aged tourists are more environment friendly than non-middle-aged tourists. The majority of the age studies examined before have found that ecotourists are middle-aged, and the findings in this thesis confirm that this is also true regarding the general tourist population. However, the results also show that "Younger adults" seem to be the most environment friendly after "Middle aged". This is interesting since earlier findings of characteristics of environment friendly tourists show that they are both middle-aged and older tourists. The results found in this thesis might be an indicator of that perhaps it is not only middle-aged who are environment friendly. It might therefore be interesting to do more research on this characteristic, to find out if "Younger adults" really are environment friendly as well.

Through H2 measuring "Education level" it was found that tourists with higher education level are more environment friendly than tourists with lower education level. However, even though these correlation analyses were significant, they were weak, which means that the correlation analysis indicate only to a small degree that tourists with higher education level such as Bachelor's, Master's degrees and PhD's have a more environment friendly behavior than hose with lower education level. Nevertheless, these tourists with higher education levels are still more environment friendly. This characteristic seems to be compatible with earlier findings about ecotourists and is therefore considered a reliable characteristic that can be used in further research when trying to define environment friendly tourists.

Through H3 measuring "Income level" it was found that the majority of the environment friendly tourists had a moderate income level (between 30.000-90.000 euro) which shows that high income is not a characteristic that is important for environment friendly behavior. This differs from previous research findings that claim that ecotourists have relatively high income levels. However, as previously mentioned these results might be influenced by the use of an inadequately constructed income scale in the questionnaire. To get a more reliable characteristic of "Income level" on the general tourist population more research is needed.

Through H4 measuring "Motivation" it was found that tourists motivated by motivation factors measuring "Enjoy nature" are more environment friendly than tourists motivated by other factors. The correlation analyses between "Enjoy nature" and the three dependent variables are all moderate, which means that the relationship is not perfect but definitely very important. "Learning", which has been found to be the prime travel motivation for ecotourists, was also a high motivation factor for the environment friendly tourists, but it was not the highest. The correlation analyses between "Learning" and the three dependent

variables are significant, but these relationships are weaker than those with "Enjoy nature". This difference may be related to the use of a general tourist population as opposed to an ecotourist population and further research is needed in order to make sure that this characteristic is reliable.

Through H5 measuring "Activities" it was found that "Hard nature-based activities" was only positively correlated with "Nature interest" and it was a weak relationship, which tells that tourists interested in these activities are to a small degree more interested in nature than those interested in other activities. Even though the correlation between "Hard nature-based activities" and "Nature interest" is weak, it shows that to a small degree are the respondents interested in these activities more environment friendly than those interested in other activities. Concerning the characteristic "Activities", those who agreed the most with the statements measuring "Nature interest" are those preferring to be physically active in nature when on vacation. These are both preferences very typical for ecotourists. This finding therefore shows that this characteristic is applicable for the different types of tourists with an environment friendly behavior.

Through H 6 measuring "Attitudes" it was found that tourists with positive attitudes towards the natural environment are more environment friendly than tourists with negative attitudes towards the natural environment. This was proven as a "moderate" to "strong" correlation, which supports earlier findings that has found a moderate (and not perfect) relationship between attitudes and environmental behavior. This means that "Attitudes" influence "Environment friendly behavior", but since there are so many external and internal forces that influence behavior it is difficult to find a perfect relationship. This thesis found a moderate to strong relationship between attitudes and environment friendly behavior, which means that the characteristics "positive attitudes" is reliable to measure environment friendly tourists. Even though, it is still recommended to test this again on a sample from the general

tourist population in order to say that this characteristic is applicable to the general tourist population.

5.10 Strengths and Weaknesses of the research

One weakness of the research conducted in this thesis is that by only using questionnaires as a research method it is always a risk that the respondents are not 100 % honest. They might answer what they think is "expected" of them and not their true opinions. Another weakness is that more information about environment friendly tourists might have been discovered through the usage of experimental methods such as observation, since it is established that many internal and external forces influence behavior.

Another weakness of the research might be that it is already established that motivation and attitudes can change through persuasion and time. This means that it is a possibility that the stated motivation and attitudes in the questionnaire might not be the respondents' true motivation and attitudes. One example of this is statements where it is socially "expected" to answer in a certain way, and it therefore might be difficult to get the respondents' true opinions. However, this is not something that one can control for and it always has to be considered when conducting quantitative research. In addition, the majority of the respondents agreed to the motivation statements measuring "Enjoy nature" and had strong positive attitudes towards the natural environment, which give reason to believe that what they are saying is indeed true.

Another weakness with the research is regarding H3 "Income level" and the usage of income level scale in the questionnaire. If the highest income level groups had been removed from the scale the results might have been different since so many of the respondents had moderate income levels. Further, many of the respondents did not answer this question, which might have skewed the results.

The biggest strength of this research is that already found characteristics of ecotourists are tested again in this thesis. This made it possible to gain more reliable answers. In addition, a new sample is used from the general tourist population to test these characteristics, to make the results more generalizable. Another strength is the use of reliable questions and statements in the questionnaire. This has been done using statements and questions that has already been tested on a sample that is already known to have environment friendly behavior, namely among ecotourists.

5.11 Implications of the results

As already mentioned, the sample used in this study is from a general tourist population. Even though the natural environment is the biggest attraction in Fjord Norway, the region is not marketed as an eco-destination which gives reasons to believe that general tourists visit the region (K. Finne, NCE Tourism Fjord Norway, personal communication, April 14th 2010). Since the characteristics in this thesis have been found based on a general tourist sample, one can say that these characteristics of environment friendly tourists are generalizable to the whole tourist population. In addition, this sample represents 32 different nationalities, which gives reason to believe that the general tourist population is represented in this sample. This means that a wider range of tourists have an environment friendly behavior and that tourists interested in nature and nature-based destinations are not homogenous, as already found by Mehmetoglu (2007) and Dolnicar, Crouch & Long (2008). This thesis therefore confirms that environment friendly tourists can belong to all different types of tourism, and not only ecotourism.

The findings show that it is the independent variables "Motivation" and "Attitudes" that influence "Environment friendly behavior" the most. It is possible to take advantage of the new knowledge about motivation and attitudes when trying to attract more environment

friendly tourists to destinations. The independent variable "Enjoy nature" is the strongest motivation factor for travelling to Fjord Norway, which other nature-based destinations can take advantage of. This can be used as a marketing strategy for destination managers in order to help them target environment friendly tourists that leave small ecological footprints at destinations. As it is shown that "Attitudes" can be changed through persuasion, it can be a marketing strategy to market the destination as a nature-based destination to the right segments. In addition, demographics are helpful for tourism destinations when targeting segments.

Characterizing environment friendly tourists fits into the Tourism Yield model since this model is a tool for establishing a holistic view of tourism's influence on a destination's economy and society. Tourism Yield is all about creating sustainability, and this must be done on several levels. Finding the environment friendly tourists is a small part of this model, and this knowledge can help nature-based destinations to create sustainability since they can target the right segments.

As the results of this thesis show, the characteristics "Education", "Activities" and "Attitudes" are from this study together with earlier studies found to be reliable. Furthermore, results from the characteristics "Motivation" and "Income level" are not compatible with earlier findings. Research is recommended to find out if statements measuring "Enjoy nature" actually are the prime motivation for travelling among environment friendly tourists. When concerning "Income level" the results found in this study differ from what is found earlier among the ecotourist population, and therefore more research is needed to find a more reliable characteristic. Moreover H1 "*Middle-aged tourist are more environment friendly than non-middle-aged tourists*" was confirmed but the results show an interesting finding, namely that the "Younger adults" also to a moderate degree have environment friendly behavior. More research on this characteristic is therefore recommended to find out if "Younger adults"

actually are environment friendly. The three characteristics "Education", "Activities" and "Attitudes" found reliable for the general tourist population can make a foundation for further research in the tourism literature.

Since the multiple regression analysis show that the characteristics "Motivation" and "Attitudes" are the strongest drivers of environment friendly behavior, it seems very important that these characteristics are included in further research about environment friendly behavior.

It is also recommended to supplement quantitative research methods with qualitative and experimental research methods to get a more holistic and accurate image of environment friendly behavior. These qualitative methods can for instance be interviews, focus groups and observation. There are many external things influencing behavior, therefore it can be useful to observe the respondents to get a more precise perception of their actual behavior.

6   Conclusion

The central aim of sustainable tourism research today is to find tourists that have a low environmental impact on destinations, which can also be defined as environment friendly tourists. There is a pattern among previous studies that they are testing a population already known to be an ecotourist population when attempting to characterize environment friendly tourists. To find characteristics of environment friendly tourists that can be applicable to the general tourist population this thesis is performed on a more general, not purely ecotourist, population. Six hypotheses regarding the characteristics "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" of environmental friendly tourists were tested.

The first part of the thesis examined a theoretical framework within the topic of sustainability, ecotourism and previously known characteristics of ecotourists. The methodology chapter showed that the research conducted in this thesis was non-experimental with a descriptive design where a quantitative method in the form of a questionnaire was utilized in order to collect the data. The questionnaire was sent out via e-mail to a total sample of 1134 tourists who visited the Fjord Norway region during the summer of 2009, of which 381 respondents answered the questionnaire.

Based on the results of the questionnaire the dependent variable "Environment friendly behavior" was grouped into the three dependent variables "Responsible behavior", "Nature interest" and "Environmental awareness" through a factor analysis.

H1 concerning the characteristic "Age" and environment friendly behavior was confirmed based on the statistical results. Middle-aged tourists are indeed more environment friendly than non-middle-aged tourists. H2 concerning "Education level" was also confirmed, which means that tourists with higher education level are more environment friendly than tourist with lower education level. Through H3 which regards "Income level" it was found

that for the general tourist population high income was not a characteristic for environment friendly behavior, it can rather be shown that a characteristic among environment friendly tourists is moderate income. The hypothesis was therefore rejected. Regarding H4 which concerns the characteristic "Motivation" it was found that tourists motivated by statements measuring "Enjoy nature" are more environment friendly than tourists motivated by other factors. These motivation factors for travelling are to some degree different than what has been found earlier among ecotourists, so this characteristic is considered to be special for the general tourist population with environment friendly behavior. Based on this the hypothesis was rejected. H5 regarding the characteristic "Activities" was confirmed since it was found that tourists interested in "Hard nature-based activities" are more environment friendly than those interested in other activities. Through H6 concerning "Attitudes" it was found that tourists with positive attitudes towards the natural environment are more environment friendly than tourists with negative attitudes towards the natural environment. Based on these results this hypothesis was confirmed.

On this basis environment friendly tourists can be characterized by being middle-aged, have a high education level and a moderate income level. Moreover, they are motivated by factors measuring "Enjoy nature" such as being close to nature, enjoy scenery/nature, not touristy/crowded, to engage in nature-based activity, rest/relaxation, see mountains/fjords and wilderness experience. Furthermore, they are interested in "Hard nature-based activities" such as hiking, cycling, kayaking, fishing, climbing, glacier walking, riding, summer skiing and diving. In addition, environment friendly tourists have positive attitudes towards the natural environment in the way that they think that humans must adapt to the changing limits of the environment.

The results from the multiple regression analysis show that the sum of the independent variables tested in this thesis explain about 30-40 % of the variance in each of the dependent

variables. This is considered to be very good in professional social science and indicates that the correct characteristics are measured in this thesis. In other words, these independent variables together explain a large part of environment friendly behavior. However, it is important to mention that the characteristics "Motivation" and "Attitudes" are the independent variables that influence environment friendly behavior the most and these characteristics are especially recommended to include in further research about environment friendly behavior.

As found in this thesis, the characteristics of ecotourists are not necessarily the same characteristics as for environment friendly tourists among the general tourist population. Of the six characteristics tested, it was found that four of them were similar characteristics to what has been found in previous studies when characterizing ecotourists, while two of them were found to be new characteristics about environment friendly tourists, and are therefore characteristics belonging to the general tourist population.

Further research is recommended to establish if statements measuring "Enjoy nature" actually are the prime motivation for travelling among environment friendly tourists. The results concerning "Income level" found in this study differ from what has been found earlier among ecotourist populations, and therefore more research is needed to find a more reliable characteristic. Moreover, it has been found that also the "Younger adults" to a moderate degree have environment friendly behavior. More research on this characteristic is recommended to find out if "Younger adults" actually are environment friendly.

The research question "What characterizes environment friendly tourists" was answered by the research hypotheses, which discovered that the general tourist population also has characteristics related to environment friendly behavior. This is new information about who environment friendly tourists actually are. This thesis therefore confirms that environment friendly tourists can belong to all different types of tourism, and not only ecotourism.

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Appendix 1: The Questionnaire

Survey: Your trip to Fjord Norway

Please reply to the best of your knowledge and as thruthfully as possible. In advance, we really appreciate your help in this project.

Motivation for travelling

1) What was your motivation for travelling to Fjord Norway? Please specify how much you agree/disagree with the following alternatives motivating you for travelling to Fjord Norway:

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Being close to nature	☐	☐	☐	☐	☐
Have fun/be entertained	☐	☐	☐	☐	☐
See as much as possible in time available	☐	☐	☐	☐	☐
Nightlife and entertainment	☐	☐	☐	☐	☐
New experiences	☐	☐	☐	☐	☐
Enjoy scenery/nature	☐	☐	☐	☐	☐
Not touristy/crowded	☐	☐	☐	☐	☐
Museums and cultural attractions	☐	☐	☐	☐	☐
Meet people with similar interests	☐	☐	☐	☐	☐
Visit historical places	☐	☐	☐	☐	☐

Learning about the natural environment	☐	☐	☐	☐	☐
To engage in nature-based activity	☐	☐	☐	☐	☐
Be together as a family	☐	☐	☐	☐	☐
Rest and relaxation	☐	☐	☐	☐	☐
See mountains/fjords	☐	☐	☐	☐	☐
Wilderness experience	☐	☐	☐	☐	☐
Amusement-and team parks	☐	☐	☐	☐	☐
Shopping	☐	☐	☐	☐	☐
Visit family/friends	☐	☐	☐	☐	☐
Experience smaller towns/villages	☐	☐	☐	☐	☐

Travel preferences

2) What was the transportation you used to Fjord Norway? You may check several alternatives.

☐ Airplane

☐ Car

☐ Train

☐ Bus

☐ Recreational vehicle (Motor home/caravan etc)

☐ Ferry

☐ Sailboat

☐ Cruise ship

☐ Boat

☐ Motorbike

☐ Bicycle

☐ Other, please specify here

3) What was the transportation you used during your vacation in Fjord Norway? You may check several alternatives.

☐ Airplane

☐ Car

☐ Train

☐ Bus

☐ Recreational vehicle (Motor home)

☐ Ferry

☐ Sailboat

☐ Cruise ship

☐ Boat

☐ Motorbike

☐ Bicycle

☐ Other, please specify here [ ]

⇨

4) What type of accomodation did you use during your vacation in Fjord Norway? You may check several alternatives.

☐ Cabin

☐ Camping/tent

☐ Hotel

☐ Cruise ship

☐ Recreational vehicle(Motor homes)

☐ Hostel

☐ Bed and breakfast

☐ Motel

☐ Sailboat

☐ Private home/friends

☐ House/apartement

☐ Other, please specify here [ ]

⇨

5) What types of activities did you do during your vacation in Fjord Norway. Please specify how interesting those activities you participated in were:

	Very uninteresting	Uninteresting	Undecided	Interesting	Very interesting	Did not participate

Visiting National parks	☐	☐	☐	☐	☐	☐
Fjord sightseeing	☐	☐	☐	☐	☐	☐
Cycling	☐	☐	☐	☐	☐	☐
Kayaking	☐	☐	☐	☐	☐	☐
Fishing	☐	☐	☐	☐	☐	☐
Boat trips	☐	☐	☐	☐	☐	☐
Backpacking	☐	☐	☐	☐	☐	☐
Dining in restaurants/cafés	☐	☐	☐	☐	☐	☐
City sightseeing	☐	☐	☐	☐	☐	☐
Farm visit	☐	☐	☐	☐	☐	☐
Climbing	☐	☐	☐	☐	☐	☐
Sailing and yachting	☐	☐	☐	☐	☐	☐
Hiking	☐	☐	☐	☐	☐	☐
Glacier walking	☐	☐	☐	☐	☐	☐
Visiting cultural attractions	☐	☐	☐	☐	☐	☐
Riding	☐	☐	☐	☐	☐	☐
Sunbathing	☐	☐	☐	☐	☐	☐
Summer skiing	☐	☐	☐	☐	☐	☐
Roundtrips	☐	☐	☐	☐	☐	☐
Diving	☐	☐	☐	☐	☐	☐
Whale safari	☐	☐	☐	☐	☐	☐
Spa	☐	☐	☐	☐	☐	☐

6) Other activities, please specify:

7) When you travelled to Fjord Norway, what travel party did you choose to travel with?

☐ By my self

☐ Familiy/relatives

☐ Friends

☐ spouse/partnes

☐ Other, specify here _____

8) How long was your holiday in Fjord Norway? Please type in number of days:

_____

➡

Environmental behavior

9) When answering the next statements please think about your environmental behavior. Indicate how much you agree or disagree with the statements:

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
When travelling I prefer nature-based destinations	○	○	○	○	○
I prefer locations that are as remote as possible	○	○	○	○	○
I prefer to observe nature in a wild and unrestricted setting	○	○	○	○	○
I try to find out as much about the natural environment of a destination as I can before I actually go there	○	○	○	○	○
I want to learn as much as possible about the natural environment of the cites that I vsiit while I am there	○	○	○	○	○
I usually do what I can to leave the site of areas in better condition than when I arrive	○	○	○	○	○
Recycling of waste is an environment-friendly effort that everybody should do while on vacation	○	○	○	○	○
It is good for a destination to focus on environmental issues but it does not influence my destination choice	○	○	○	○	○
I will only use accommodations and tour operators that have a prooven track record of environmental sustainability	○	○	○	○	○
I recycle my garbage at home because I	○	○	○	○	○

want to be environment-friendly

I save energy at home due to environmental concerns	☐	☐	☐	☐	☐
I use public transportation to save the environment	☐	☐	☐	☐	☐
I find it easier to practice 'environment-friendly' behavior at home than when I am travelling	☐	☐	☐	☐	☐
When I am travelling I do not worry about the environment	☐	☐	☐	☐	☐
I try to support the local economy of places that I visit	☐	☐	☐	☐	☐
When I am travelling I am more concerned about costs of products and services than I am about their negative environmentallt impact	☐	☐	☐	☐	☐
My presence in Fjord Norway did not harm the environment	☐	☐	☐	☐	☐

⇨

Attitudes toward the environment

10) When answering the next statements, please think about your attitudes toward the environment. Indicate how much you agree or disagree with the statements:

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Humans must live in harmony with nature in order to survive	☐	☐	☐	☐	☐
The balance of nature is very delicate and easily upset	☐	☐	☐	☐	☐
Nature can have value beyond the social, economic or cultural values held by humans	☐	☐	☐	☐	☐
Plants and animals exist primarily to be used by humans	☐	☐	☐	☐	☐
Humans have the right to modify the natural enviroment to suit their needs	☐	☐	☐	☐	☐
When humans interfere with nature, it often produces disastrous consequences	☐	☐	☐	☐	☐
Mankind was created to rule over the rest of nature	☐	☐	☐	☐	☐
Mankind is severely abusing the environment	☐	☐	☐	☐	☐
The present generation should ensure that	☐	☐	☐	☐	☐

the environment is maintained or enhanced for the benefit of future generations

I perceived Fjord Norway as a highly environment-friendly destination

☐ ☐ ☐ ☐ ☐

I consider myself to be an environment-friendly tourist

☐ ☐ ☐ ☐ ☐

Assuming that you spent all your travel budget in 3 types of experiences/activities (cultural, environmental, and social):

The sum of your 3 answers should be **100%** of your travel budget

11) I spent (%) of my budget in cultural experiences/activities:

12) I spent (%) of my budget in nature-environmental experiences/activities:

13) I spent (%) of my budget in social experiences/activities:

According to the quality of Fjord Norway as a tourist destination:

14) The prices in Fjord Norway are:

☐ Very low ☐ Low ☐ Medium ☐ High ☐ Very high

15) Rate the quality of Fjord Norway as a tourist destination, 1 being the lowest and 10 the highest:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

16) Have you experienced a similar destination with higher quality than Fjord Norway?

☐ Yes ☐ No ☐ I am not sure

17) If "Yes", please name that destination:

18) Rate the quality of that destination 1 being the lowest and 10 the highest:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

Based on all your previous global travel experience, please rate Fjord Norway on the following issues:

19) Environmental issues

	Very low	Low	Average	High	Very high	I am not sure
Biodiversity (diversity of species)	☐	☐	☐	☐	☐	☐
Environmental activities	☐	☐	☐	☐	☐	☐
Natural resources use	☐	☐	☐	☐	☐	☐
Alternative energy	☐	☐	☐	☐	☐	☐
Conservation areas	☐	☐	☐	☐	☐	☐
Recycling and reuse	☐	☐	☐	☐	☐	☐
Environmental awareness	☐	☐	☐	☐	☐	☐
Pollution	☐	☐	☐	☐	☐	☐
Energy conservation and efficiency	☐	☐	☐	☐	☐	☐
Water conservation and efficiency	☐	☐	☐	☐	☐	☐

20) Destination issues

	Very low	Low	Average	High	Very high	I am not sure
Tourism infrastructure	☐	☐	☐	☐	☐	☐
Affordability (products and services available for low-incomers)	☐	☐	☐	☐	☐	☐
Local owned businesses	☐	☐	☐	☐	☐	☐
Overcrowding	☐	☐	☐	☐	☐	☐
Traffic	☐	☐	☐	☐	☐	☐
Tourism attractiveness	☐	☐	☐	☐	☐	☐
Tourism operators' training	☐	☐	☐	☐	☐	☐
Customer oriented service	☐	☐	☐	☐	☐	☐
Tourist assistance	☐	☐	☐	☐	☐	☐

21) Cultural issues

	Very low	Low	Average	High	Very high	I am not sure
Cultural heritage	☐	☐	☐	☐	☐	☐
Cultural facilities and infrastructure	☐	☐	☐	☐	☐	☐

Cultural activities	☐	☐	☐	☐	☐	☐
Cultural promotion	☐	☐	☐	☐	☐	☐
Local traditions and customs	☐	☐	☐	☐	☐	☐

22) Social/society issues

	Very low	Low	Average	High	Very high	I am not sure
Education	☐	☐	☐	☐	☐	☐
Social activities	☐	☐	☐	☐	☐	☐
Community involvement	☐	☐	☐	☐	☐	☐
Host involvement with tourists	☐	☐	☐	☐	☐	☐
Crime and harassment	☐	☐	☐	☐	☐	☐
Government involvement	☐	☐	☐	☐	☐	☐
NGOs involvement (Non-governmental organizations)	☐	☐	☐	☐	☐	☐
Health and safety	☐	☐	☐	☐	☐	☐
Social Equality	☐	☐	☐	☐	☐	☐
Quality of life	☐	☐	☐	☐	☐	☐

➡

Demographics

23) Nationality:

[   ]

24) Gender:

☐ Female

☐ Male

25) Age:

☐ Under 25

☐ 25-30

☐ 31-35

☐ 36-40

☐ 41-45

☐ 46-50

☐ 51-55

☐ 56-60

☐ 61-65

☐ 66-70

☐ 71-76

☐ Over 76

---

26) Please mark the highest fulfilled education:

☐ Elementary school

☐ Secondary school (junior high)

☐ High school

☐ College/university

☐ Bachelor's degree

☐ Master's degree

☐ Phd

---

27) Approximately what is your household income?

☐ Below 30.000 Euro

☐ 30.000-50.000 Euro

☐ 50.000-70.000 Euro

☐ 70.000-90.000 Euro

☐ 90.000-110.000 Euro

☐ 110.000-130.000 Euro

☐ 130.000-150.000 Euro

☐ Higher than 150.000 Euro

☐ Prefer not to answer

Appendix 2: Descriptive statistics

Question 1: What was your motivation for travelling to Fjord Norway?

1.1: Being close to nature

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	4	1.0	1.0	1.0
	Strongly disagree	1	.3	.3	1.3
	Disagree	10	2.6	2.6	3.9
	Undecided	10	2.6	2.6	6.6
	Agree	135	35.4	35.4	42.0
	Strongly agree	221	58.0	58.0	100.0
	Total	381	100.0	100.0	

1.2: Have fun/be entertained

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	8	2.1	2.1	2.1
	Strongly disagree	20	5.2	5.2	7.3
	Disagree	78	20.5	20.5	27.8
	Undecided	93	24.4	24.4	52.2
	Agree	147	38.6	38.6	90.8
	Strongly agree	35	9.2	9.2	100.0
	Total	381	100.0	100.0	

1.3: Have fun/be entertained

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	8	2.1	2.1	2.1
	Strongly disagree	20	5.2	5.2	7.3
	Disagree	78	20.5	20.5	27.8
	Undecided	93	24.4	24.4	52.2
	Agree	147	38.6	38.6	90.8
	Strongly agree	35	9.2	9.2	100.0
	Total	381	100.0	100.0	

1.4: See as much as possible in time available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	10	2.6	2.6	5.0
	Disagree	41	10.8	10.8	15.7
	Undecided	54	14.2	14.2	29.9
	Agree	158	41.5	41.5	71.4
	Strongly agree	109	28.6	28.6	100.0
	Total	381	100.0	100.0	

1.5: Nightlife and entertainment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	148	38.8	38.8	41.2
	Disagree	152	39.9	39.9	81.1
	Undecided	50	13.1	13.1	94.2
	Agree	21	5.5	5.5	99.7
	Strongly agree	1	.3	.3	100.0
	Total	381	100.0	100.0	

1.6: New experiences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Strongly disagree	7	1.8	1.8	4.5
	Disagree	9	2.4	2.4	6.8
	Undecided	36	9.4	9.4	16.3
	Agree	182	47.8	47.8	64.0
	Strongly agree	137	36.0	36.0	100.0
	Total	381	100.0	100.0	

1.7: Enjoy scenery/nature

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	5	1.3	1.3	1.3
	Strongly disagree	1	.3	.3	1.6
	Disagree	1	.3	.3	1.8
	Agree	61	16.0	16.0	17.8
	Strongly agree	313	82.2	82.2	100.0
	Total	381	100.0	100.0	

1.8: Not touristy/crowded

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	9	2.4	2.4	4.7
	Disagree	16	4.2	4.2	8.9
	Undecided	67	17.6	17.6	26.5
	Agree	171	44.9	44.9	71.4
	Strongly agree	109	28.6	28.6	100.0
	Total	381	100.0	100.0	

1.9: Museums and cultural attractions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Strongly disagree	10	2.6	2.6	5.2
	Disagree	50	13.1	13.1	18.4
	Undecided	86	22.6	22.6	40.9
	Agree	175	45.9	45.9	86.9
	Strongly agree	50	13.1	13.1	100.0
	Total	381	100.0	100.0	

1.10: Meet people with similar interests

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	8	2.1	2.1	2.1
	Strongly disagree	21	5.5	5.5	7.6
	Disagree	104	27.3	27.3	34.9
	Undecided	116	30.4	30.4	65.4
	Agree	115	30.2	30.2	95.5
	Strongly agree	17	4.5	4.5	100.0
	Total	381	100.0	100.0	

1.10: Visit historical places

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Strongly disagree	10	2.6	2.6	4.5
	Disagree	44	11.5	11.5	16.0
	Undecided	77	20.2	20.2	36.2
	Agree	183	48.0	48.0	84.3
	Strongly agree	60	15.7	15.7	100.0
	Total	381	100.0	100.0	

1.11: Learning about the natural environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	9	2.4	2.4	3.9
	Disagree	35	9.2	9.2	13.1
	Undecided	82	21.5	21.5	34.6
	Agree	172	45.1	45.1	79.8
	Strongly agree	77	20.2	20.2	100.0

1.12: To engage in nature-based activity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Strongly disagree	11	2.9	2.9	4.7
	Disagree	37	9.7	9.7	14.4
	Undecided	68	17.8	17.8	32.3
	Agree	146	38.3	38.3	70.6
	Strongly agree	112	29.4	29.4	100.0
	Total	381	100.0	100.0	

1.13: Be together as a family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Strongly disagree	27	7.1	7.1	9.7
	Disagree	40	10.5	10.5	20.2
	Undecided	61	16.0	16.0	36.2
	Agree	146	38.3	38.3	74.5
	Strongly agree	97	25.5	25.5	100.0
	Total	381	100.0	100.0	

1.14: Rest and relaxation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	5	1.3	1.3	2.9
	Disagree	21	5.5	5.5	8.4
	Undecided	25	6.6	6.6	15.0
	Agree	180	47.2	47.2	62.2
	Strongly agree	144	37.8	37.8	100.0
	Total	381	100.0	100.0	

1.15: See mountains/fjords

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	5	1.3	1.3	1.3
	Strongly disagree	2	.5	.5	1.8
	Undecided	4	1.0	1.0	2.9
	Agree	44	11.5	11.5	14.4
	Strongly agree	326	85.6	85.6	100.0
	Total	381	100.0	100.0	

1.16: Wilderness experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	15	3.9	3.9	3.9
	Strongly disagree	6	1.6	1.6	5.5
	Disagree	20	5.2	5.2	10.8
	Undecided	56	14.7	14.7	25.5
	Agree	152	39.9	39.9	65.4
	Strongly agree	132	34.6	34.6	100.0
	Total	381	100.0	100.0	

1.17: Amusement-and team parks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Strongly disagree	144	37.8	37.8	40.4
	Disagree	112	29.4	29.4	69.8
	Undecided	69	18.1	18.1	87.9
	Agree	36	9.4	9.4	97.4
	Strongly agree	10	2.6	2.6	100.0
	Total	381	100.0	100.0	

1.18: Shopping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Strongly disagree	124	32.5	32.5	35.2
	Disagree	118	31.0	31.0	66.1
	Undecided	90	23.6	23.6	89.8
	Agree	35	9.2	9.2	99.0
	Strongly agree	4	1.0	1.0	100.0
	Total	381	100.0	100.0	

1.19: Visit family/friends

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	13	3.4	3.4	3.4
	Strongly disagree	196	51.4	51.4	54.9
	Disagree	89	23.4	23.4	78.2
	Undecided	40	10.5	10.5	88.7
	Agree	23	6.0	6.0	94.8
	Strongly agree	20	5.2	5.2	100.0
	Total	381	100.0	100.0	

1.20: Experience smaller towns/villages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	13	3.4	3.4	5.0
	Disagree	24	6.3	6.3	11.3
	Undecided	71	18.6	18.6	29.9
	Agree	198	52.0	52.0	81.9
	Strongly agree	69	18.1	18.1	100.0
	Total	381	100.0	100.0	

Question 2: What was the transportation you used to Fjord Norway? You may check several alternatives.

2.1: Airplane

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	290	76.1	76.1	76.1
	true	91	23.9	23.9	100.0
	Total	381	100.0	100.0	

2.2: Car

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	216	56.7	56.7	56.7
	true	165	43.3	43.3	100.0
	Total	381	100.0	100.0	

2.3: Train

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	347	91.1	91.1	91.1
	true	34	8.9	8.9	100.0
	Total	381	100.0	100.0	

2.4: Bus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	342	89.8	89.8	89.8
	true	39	10.2	10.2	100.0
	Total	381	100.0	100.0	

2.5: Recreational vehicle (Motor home/caravan etc)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	334	87.7	87.7	87.7
	true	47	12.3	12.3	100.0
	Total	381	100.0	100.0	

2.6: Ferry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	225	59.1	59.1	59.1
	true	156	40.9	40.9	100.0
	Total	381	100.0	100.0	

2.7: Sailboat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	378	99.2	99.2	99.2
	true	3	.8	.8	100.0
	Total	381	100.0	100.0	

2.8: Cruise ship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	278	73.0	73.0	73.0
	true	103	27.0	27.0	100.0
	Total	381	100.0	100.0	

2.9: Boat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	361	94.8	94.8	94.8
	true	20	5.2	5.2	100.0
	Total	381	100.0	100.0	

2.10: Motorbike

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	364	95.5	95.5	95.5
	true	17	4.5	4.5	100.0
	Total	381	100.0	100.0	

2.11: Bicycle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	376	98.7	98.7	98.7
	true	5	1.3	1.3	100.0
	Total	381	100.0	100.0	

2.12: Other transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	368	96.6	96.6	96.6
	true	13	3.4	3.4	100.0
	Total	381	100.0	100.0	

2.13: Other, please specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		368	96.6	96.6	96.6
	+ bicycle	1	.3	.3	96.9
	Andere, bitte erläutern Sie hier:	1	.3	.3	97.1
	Auto + Wohnwagen	1	.3	.3	97.4
	Auto und Wohnanhänger	1	.3	.3	97.6
	by foot	1	.3	.3	97.9
	by walk	1	.3	.3	98.2
	Campingwagen	1	.3	.3	98.4
	Caravan	2	.5	.5	99.0
	motorcykel med sidovagn (svenska)	1	.3	.3	99.2
	walking	1	.3	.3	99.5
	Wohnwagen	2	.5	.5	100.0
	Total	381	100.0	100.0	

Question 3: What was the transportation you used during your vacation in Fjord Norway? You may check several alternatives.

3.1: Airplane

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	358	94.0	94.0	94.0
	true	23	6.0	6.0	100.0
	Total	381	100.0	100.0	

3.2: Car

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	207	54.3	54.3	54.3
	true	174	45.7	45.7	100.0
	Total	381	100.0	100.0	

3.3: Train

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	320	84.0	84.0	84.0
	true	61	16.0	16.0	100.0
	Total	381	100.0	100.0	

3.4: Bus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	279	73.2	73.2	73.2
	true	102	26.8	26.8	100.0
	Total	381	100.0	100.0	

3.5: Recreational vehicle (Motor home)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	339	89.0	89.0	89.0
	true	42	11.0	11.0	100.0
	Total	381	100.0	100.0	

3.6: Ferry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	212	55.6	55.6	55.6
	true	169	44.4	44.4	100.0
	Total	381	100.0	100.0	

3.7: Sailboat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	376	98.7	98.7	98.7
	true	5	1.3	1.3	100.0
	Total	381	100.0	100.0	

3.8: Cruise ship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	286	75.1	75.1	75.1
	true	95	24.9	24.9	100.0
	Total	381	100.0	100.0	

3.9: Boat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	343	90.0	90.0	90.0
	true	38	10.0	10.0	100.0
	Total	381	100.0	100.0	

3.10: Motorbike

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	362	95.0	95.0	95.0
	true	19	5.0	5.0	100.0
	Total	381	100.0	100.0	

3.11: Bicycle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	352	92.4	92.4	92.4
	true	29	7.6	7.6	100.0
	Total	381	100.0	100.0	

3.12: Other transportation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	366	96.1	96.1	96.1
	true	15	3.9	3.9	100.0
	Total	381	100.0	100.0	

3.13: Other, please specify here

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		366	96.1	96.1	96.1
	Auto und Wohnanhänger	1	.3	.3	96.3
	Boot	1	.3	.3	96.6
	by walk	1	.3	.3	96.9
	coach	1	.3	.3	97.1
	funicular	1	.3	.3	97.4
	hiking	1	.3	.3	97.6
	Motorboot	2	.5	.5	98.2
	Motorroller	1	.3	.3	98.4
	Postschiff= Hurtigruten	1	.3	.3	98.7
	taxi	1	.3	.3	99.0
	walk	1	.3	.3	99.2
	walking	1	.3	.3	99.5
	Walking	1	.3	.3	99.7
	Wohnwagen	1	.3	.3	100.0
	Total	381	100.0	100.0	

Question 4: What type of accommodation did you use during your vacation in Fjord Norway? You may check several alternatives.

4.1: Cabin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	286	75.1	75.1	75.1
	true	95	24.9	24.9	100.0
	Total	381	100.0	100.0	

4.2: Camping/tent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	276	72.4	72.4	72.4
	true	105	27.6	27.6	100.0
	Total	381	100.0	100.0	

4.3: Hotel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	305	80.1	80.1	80.1
	true	76	19.9	19.9	100.0
	Total	381	100.0	100.0	

4.4: Cruise ship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	279	73.2	73.2	73.2
	true	102	26.8	26.8	100.0
	Total	381	100.0	100.0	

4.5: Recreational vehicle(Motor homes)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	336	88.2	88.2	88.2
	true	45	11.8	11.8	100.0
	Total	381	100.0	100.0	

4.6: Hostel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	356	93.4	93.4	93.4
	true	25	6.6	6.6	100.0
	Total	381	100.0	100.0	

4.7: Bed and breakfast

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	360	94.5	94.5	94.5
	true	21	5.5	5.5	100.0
	Total	381	100.0	100.0	

4.8: Motel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	376	98.7	98.7	98.7
	true	5	1.3	1.3	100.0
	Total	381	100.0	100.0	

4.9: Sailboat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	380	99.7	99.7	99.7
	true	1	.3	.3	100.0
	Total	381	100.0	100.0	

4.10: Private home/friends

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	353	92.7	92.7	92.7
	true	28	7.3	7.3	100.0
	Total	381	100.0	100.0	

4.11: House/apartement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	353	92.7	92.7	92.7
	true	28	7.3	7.3	100.0
	Total	381	100.0	100.0	

4.12 Other accommodation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	369	96.9	96.9	96.9
	true	12	3.1	3.1	100.0
	Total	381	100.0	100.0	

4.13: Other, please specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		369	96.9	96.9	96.9
	bauernhofunterkunft	1	.3	.3	97.1
	Bei Verwandten gewohnt	1	.3	.3	97.4
	bewirtschaftete Häuser in Wandergebieten DNT und privat	1	.3	.3	97.6
	caravan	1	.3	.3	97.9
	home exchange with norway family	1	.3	.3	98.2
	huts	1	.3	.3	98.4
	Postschiff= Hurtigruten	1	.3	.3	98.7
	Wohnanhänger	1	.3	.3	99.0
	Wohnwagen	2	.5	.5	99.5
	youth hostel	2	.5	.5	100.0
	Total	381	100.0	100.0	

Question 5: What types of activities did you do during your vacation in Fjord Norway?

5.1: Visiting National parks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	16	4.2	4.2	4.2
	Very uninteresting	4	1.0	1.0	5.2
	Undecided	8	2.1	2.1	7.3
	Interesting	80	21.0	21.0	28.3
	Very interesting	207	54.3	54.3	82.7
	Did not participate	66	17.3	17.3	100.0
	Total	381	100.0	100.0	

5.2: Fjord sightseeing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Very uninteresting	6	1.6	1.6	3.1
	Interesting	31	8.1	8.1	11.3
	Very interesting	318	83.5	83.5	94.8
	Did not participate	20	5.2	5.2	100.0
	Total	381	100.0	100.0	

5.3: Cycling

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	24	6.3	6.3	6.3
	Very uninteresting	14	3.7	3.7	10.0
	Uninteresting	21	5.5	5.5	15.5
	Undecided	13	3.4	3.4	18.9
	Interesting	39	10.2	10.2	29.1
	Very interesting	20	5.2	5.2	34.4
	Did not participate	250	65.6	65.6	100.0
	Total	381	100.0	100.0	

5.4: Kayaking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	27	7.1	7.1	7.1
	Very uninteresting	16	4.2	4.2	11.3
	Uninteresting	18	4.7	4.7	16.0
	Undecided	11	2.9	2.9	18.9
	Interesting	19	5.0	5.0	23.9
	Very interesting	20	5.2	5.2	29.1
	Did not participate	270	70.9	70.9	100.0

5.5: Fishing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	24	6.3	6.3	6.3
	Very uninteresting	18	4.7	4.7	11.0
	Uninteresting	15	3.9	3.9	15.0
	Undecided	13	3.4	3.4	18.4
	Interesting	30	7.9	7.9	26.2
	Very interesting	41	10.8	10.8	37.0
	Did not participate	240	63.0	63.0	100.0
	Total	381	100.0	100.0	

5.6: Boat trips

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	22	5.8	5.8	5.8
	Very uninteresting	6	1.6	1.6	7.3
	Uninteresting	8	2.1	2.1	9.4
	Undecided	12	3.1	3.1	12.6
	Interesting	75	19.7	19.7	32.3
	Very interesting	135	35.4	35.4	67.7
	Did not participate	123	32.3	32.3	100.0
	Total	381	100.0	100.0	

5.7: Backpacking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	36	9.4	9.4	9.4
	Very uninteresting	17	4.5	4.5	13.9
	Uninteresting	18	4.7	4.7	18.6
	Undecided	16	4.2	4.2	22.8
	Interesting	21	5.5	5.5	28.3
	Very interesting	43	11.3	11.3	39.6
	Did not participate	230	60.4	60.4	100.0
	Total	381	100.0	100.0	

5.8: Dining in restaurants/cafés

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	19	5.0	5.0	5.0
	Very uninteresting	19	5.0	5.0	10.0
	Uninteresting	33	8.7	8.7	18.6
	Undecided	51	13.4	13.4	32.0
	Interesting	140	36.7	36.7	68.8
	Very interesting	43	11.3	11.3	80.1
	Did not participate	76	19.9	19.9	100.0
	Total	381	100.0	100.0	

5.9: City sightseeing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Very uninteresting	6	1.6	1.6	3.4
	Uninteresting	5	1.3	1.3	4.7
	Undecided	17	4.5	4.5	9.2
	Interesting	146	38.3	38.3	47.5
	Very interesting	172	45.1	45.1	92.7
	Did not participate	28	7.3	7.3	100.0
	Total	381	100.0	100.0	

5.10: Farm visit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	27	7.1	7.1	7.1
	Very uninteresting	14	3.7	3.7	10.8
	Uninteresting	20	5.2	5.2	16.0
	Undecided	20	5.2	5.2	21.3
	Interesting	45	11.8	11.8	33.1
	Very interesting	35	9.2	9.2	42.3
	Did not participate	220	57.7	57.7	100.0
	Total	381	100.0	100.0	

5.11: Climbing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	29	7.6	7.6	7.6
	Very uninteresting	17	4.5	4.5	12.1
	Uninteresting	21	5.5	5.5	17.6
	Undecided	22	5.8	5.8	23.4
	Interesting	27	7.1	7.1	30.4
	Very interesting	27	7.1	7.1	37.5
	Did not participate	238	62.5	62.5	100.0
	Total	381	100.0	100.0	

5.12: Sailing and yachting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	27	7.1	7.1	7.1
	Very uninteresting	16	4.2	4.2	11.3
	Uninteresting	27	7.1	7.1	18.4
	Undecided	21	5.5	5.5	23.9
	Interesting	8	2.1	2.1	26.0
	Very interesting	14	3.7	3.7	29.7
	Did not participate	268	70.3	70.3	100.0
	Total	381	100.0	100.0	

5.13: Hiking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	23	6.0	6.0	6.0
	Very uninteresting	10	2.6	2.6	8.7
	Uninteresting	4	1.0	1.0	9.7
	Undecided	8	2.1	2.1	11.8
	Interesting	48	12.6	12.6	24.4
	Very interesting	167	43.8	43.8	68.2
	Did not participate	121	31.8	31.8	100.0
	Total	381	100.0	100.0	

5.14: Glacier walking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	29	7.6	7.6	7.6
	Very uninteresting	7	1.8	1.8	9.4
	Uninteresting	9	2.4	2.4	11.8
	Undecided	17	4.5	4.5	16.3
	Interesting	30	7.9	7.9	24.1
	Very interesting	89	23.4	23.4	47.5
	Did not participate	200	52.5	52.5	100.0
	Total	381	100.0	100.0	

5.15: Visiting cultural attractions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	16	4.2	4.2	4.2
	Very uninteresting	6	1.6	1.6	5.8
	Uninteresting	4	1.0	1.0	6.8
	Undecided	18	4.7	4.7	11.5
	Interesting	126	33.1	33.1	44.6
	Very interesting	175	45.9	45.9	90.6
	Did not participate	36	9.4	9.4	100.0
	Total	381	100.0	100.0	

5.16: Riding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	30	7.9	7.9	7.9
	Very uninteresting	31	8.1	8.1	16.0
	Uninteresting	23	6.0	6.0	22.0
	Undecided	11	2.9	2.9	24.9
	Interesting	14	3.7	3.7	28.6
	Very interesting	8	2.1	2.1	30.7
	Did not participate	264	69.3	69.3	100.0
	Total	381	100.0	100.0	

5.17: Sunbathing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	28	7.3	7.3	7.3
	Very uninteresting	23	6.0	6.0	13.4
	Uninteresting	29	7.6	7.6	21.0
	Undecided	34	8.9	8.9	29.9
	Interesting	54	14.2	14.2	44.1
	Very interesting	23	6.0	6.0	50.1
	Did not participate	190	49.9	49.9	100.0
	Total	381	100.0	100.0	

5.18: Summer skiing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	29	7.6	7.6	7.6
	Very uninteresting	35	9.2	9.2	16.8
	Uninteresting	27	7.1	7.1	23.9
	Undecided	7	1.8	1.8	25.7
	Interesting	4	1.0	1.0	26.8
	Very interesting	8	2.1	2.1	28.9
	Did not participate	271	71.1	71.1	100.0
	Total	381	100.0	100.0	

5.19: Roundtrips

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	24	6.3	6.3	6.3
	Very uninteresting	15	3.9	3.9	10.2
	Uninteresting	13	3.4	3.4	13.6
	Undecided	8	2.1	2.1	15.7
	Interesting	54	14.2	14.2	29.9
	Very interesting	110	28.9	28.9	58.8
	Did not participate	157	41.2	41.2	100.0
	Total	381	100.0	100.0	

5.20: Diving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	34	8.9	8.9	8.9
	Very uninteresting	28	7.3	7.3	16.3
	Uninteresting	24	6.3	6.3	22.6
	Undecided	11	2.9	2.9	25.5
	Interesting	10	2.6	2.6	28.1
	Very interesting	4	1.0	1.0	29.1
	Did not participate	270	70.9	70.9	100.0
	Total	381	100.0	100.0	

5.21: Whale safari

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	33	8.7	8.7	8.7
	Very uninteresting	21	5.5	5.5	14.2
	Uninteresting	16	4.2	4.2	18.4
	Undecided	9	2.4	2.4	20.7
	Interesting	17	4.5	4.5	25.2
	Very interesting	16	4.2	4.2	29.4
	Did not participate	269	70.6	70.6	100.0
	Total	381	100.0	100.0	

5.22: Spa

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	33	8.7	8.7	8.7
	Very uninteresting	27	7.1	7.1	15.7
	Uninteresting	19	5.0	5.0	20.7
	Undecided	15	3.9	3.9	24.7
	Interesting	13	3.4	3.4	28.1
	Very interesting	6	1.6	1.6	29.7
	Did not participate	268	70.3	70.3	100.0
	Total	381	100.0	100.0	

Question 6: Other activities, please specify

Other activities, please specify:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		360	94.5	94.5	94.5
	Die Zugreisen über die Hardangerviddar durch die einzigartige Natur waren besonderes Erlebnis.	1	.3	.3	94.8

Einfach irgendwo sitzen und genießen!	1	.3	.3	95.0
free camping - very interesting	1	.3	.3	95.3
große Oslobesichtigung	1	.3	.3	95.5
mountain train to Myrdal -> interesting Tusenfryd -> interesting	1	.3	.3	95.8
mushrooming - interesting	1	.3	.3	96.1
Norway Rock 2009!!!	1	.3	.3	96.3
Not many activities offered from our Cruise Ship and weather was attrocious	1	.3	.3	96.6
photography	1	.3	.3	96.9
Reise mit Hurtigrute (südwärts)=	1	.3	.3	97.1
Shopping, bummeln	1	.3	.3	97.4
Surfen	1	.3	.3	97.6
Train Flåm banan. Very interesting	1	.3	.3	97.9
Train ride	1	.3	.3	98.2
Trekking für weniger fortgeschrittene Wanderer	1	.3	.3	98.4
Various shore excursions organised from cruise ship. Very interesting.	1	.3	.3	98.7
Visiting with relatives and friends.	1	.3	.3	99.0
Volkstanzabend mit Akkordeon Musik in Skej	1	.3	.3	99.2
Warten auf die Fähren, Eis essen	1	.3	.3	99.5

Wasserfälle bewundern, sich immer wieder von der überwältigend schönen Landschaft beeindrucken lassen, Höhepunkte unserer Reise: Briksdal, Geiranger Fjord, Vogelinsel Runde! Reisen um Schönes zu entdecken u. sich überraschen zu lassen: immer weiterfahren	1	.3	.3	99.7
WE WOULD HAVE LIKED TO VISIT THE OIL/GAS MUSEUM IN STAVANGER BUT THE CRUISE SHIP "SPIRIT OF ADVENTURE" DID NOT HAVE TIME FOR THIS VISIT.	1	.3	.3	100.0
Total	381	100.0	100.0	

Question 7: When you travelled to Fjord Norway, what travel party did you choose to travel with?

7.1 By my self

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	365	95.8	95.8	95.8
	true	16	4.2	4.2	100.0
	Total	381	100.0	100.0	

7.2: Familiy/relatives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	237	62.2	62.2	62.2
	true	144	37.8	37.8	100.0
	Total	381	100.0	100.0	

7.3: Friends

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	300	78.7	78.7	78.7
	true	81	21.3	21.3	100.0
	Total	381	100.0	100.0	

7.4 spouse/partner

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	193	50.7	50.7	50.7
	true	188	49.3	49.3	100.0
	Total	381	100.0	100.0	

7.5: Other travel party?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	false	370	97.1	97.1	97.1
	true	11	2.9	2.9	100.0
	Total	381	100.0	100.0	

7.6: Other, please specify here

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		370	97.1	97.1	97.1
	Bussdriving Asiengrupps and others	1	.3	.3	97.4
	cruising	1	.3	.3	97.6
	Guided tour organized in USA (Europe Through the Back Door)	1	.3	.3	97.9

	Frequency	Percent	Valid Percent	Cumulative Percent
I own a tour company in the U.S. and I brought a group of people to cruise the area.	1	.3	.3	98.2
ich war Reiseleiter einer Touristengruppe	1	.3	.3	98.4
Rick Steves' Scandinavian tour	1	.3	.3	98.7
Rick Steves's Tour	1	.3	.3	99.0
SNP.nl (travel agency the Netherlands= 1 week)	1	.3	.3	99.2
the party we found on te Cruis boat	1	.3	.3	99.5
tour group - Rick Steves	1	.3	.3	99.7
wife and children (3x= age 20 and 18)	1	.3	.3	100.0
Total	381	100.0	100.0	

Question 8: How long was your holiday in fjord Norway? Please type in number of days.

How long was your holiday in Fjord Norway? Please type in number of days:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		78	20.5	20.5	20.5
	1 week	1	.3	.3	20.7
	10	22	5.8	5.8	26.5
	10 days	1	.3	.3	26.8
	10 days	1	.3	.3	27.0
	10 days on a cruise ship	1	.3	.3	27.3
	10 días	1	.3	.3	27.6
	11	5	1.3	1.3	28.9
	11 days	3	.8	.8	29.7
	12	11	2.9	2.9	32.5
	12 dias de crucero	1	.3	.3	32.8
	120	1	.3	.3	33.1
	13	5	1.3	1.3	34.4

13 dias	1	.3	.3	34.6
14	31	8.1	8.1	42.8
14 days	2	.5	.5	43.3
14 dias	1	.3	.3	43.6
14 Tage	3	.8	.8	44.4
15	9	2.4	2.4	46.7
15 Tage	1	.3	.3	47.0
16	6	1.6	1.6	48.6
16 Tage	1	.3	.3	48.8
17	3	.8	.8	49.6
18	4	1.0	1.0	50.7
18 dagen	1	.3	.3	50.9
18 Tage	1	.3	.3	51.2
19	1	.3	.3	51.4
2	2	.5	.5	52.0
20	22	5.8	5.8	57.7
20 Tage	2	.5	.5	58.3
21	8	2.1	2.1	60.4
21 Tage	5	1.3	1.3	61.7
22	2	.5	.5	62.2
23	3	.8	.8	63.0
24	1	.3	.3	63.3
25	2	.5	.5	63.8
26	2	.5	.5	64.3
28	4	1.0	1.0	65.4
3	6	1.6	1.6	66.9
3 ???	1	.3	.3	67.2
3 mois 20 juin 2009	1	.3	.3	67.5
3 oder 4 (mehrere Ausflüge von Südnorwegen aus)	1	.3	.3	67.7
3 weeks	3	.8	.8	68.5
3 Wochen	1	.3	.3	68.8
30	4	1.0	1.0	69.8

31	1	.3	.3	70.1
31 tage, die ganze reise betug 10 wochen, norwegen, finnland, schweden und dänemark	1	.3	.3	70.3
35	1	.3	.3	70.6
4	6	1.6	1.6	72.2
5	13	3.4	3.4	75.6
5 Tage	1	.3	.3	75.9
5 Tage / Norwegen insgesamt: 22 Tage	1	.3	.3	76.1
5-6	1	.3	.3	76.4
6	6	1.6	1.6	78.0
6 days	2	.5	.5	78.5
6 Tage	1	.3	.3	78.7
60	2	.5	.5	79.3
62	1	.3	.3	79.5
7	33	8.7	8.7	88.2
7 days	6	1.6	1.6	89.8
7 dias	2	.5	.5	90.3
7 Tage	6	1.6	1.6	91.9
8	7	1.8	1.8	93.7
8 días	1	.3	.3	94.0
9	3	.8	.8	94.8
9 dias	1	.3	.3	95.0
9 Tage	1	.3	.3	95.3
ca,14 Tage	1	.3	.3	95.5
ca. 10 Tage= dann schnell weiter nach S, da N zu teuer	1	.3	.3	95.8
ca. 28	1	.3	.3	96.1
catorce días	1	.3	.3	96.3
cruise ship trip 12 days	1	.3	.3	96.6
diez (10)	1	.3	.3	96.9
doce dias	1	.3	.3	97.1

	Frequency	Percent	Valid Percent	Cumulative Percent
four ports	1	.3	.3	97.4
fourteen	1	.3	.3	97.6
ocho	1	.3	.3	97.9
seven	2	.5	.5	98.4
SEVEN	1	.3	.3	98.7
seven days	2	.5	.5	99.2
Ten days.	1	.3	.3	99.5
twelve days	1	.3	.3	99.7
vier Wochen	1	.3	.3	100.0
Total	381	100.0	100.0	

Question 9: Indicate how much you agree or disagree with the statements.

9.1: When travelling I prefer nature-based destinations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	5	1.3	1.3	1.3
	Strongly disagree	3	.8	.8	2.1
	Disagree	11	2.9	2.9	5.0
	Undecided	35	9.2	9.2	14.2
	Agree	177	46.5	46.5	60.6
	Strongly agree	150	39.4	39.4	100.0
	Total	381	100.0	100.0	

9.2: I prefer locations that are as remote as possible

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	18	4.7	4.7	6.3
	Disagree	72	18.9	18.9	25.2
	Undecided	120	31.5	31.5	56.7
	Agree	128	33.6	33.6	90.3
	Strongly agree	37	9.7	9.7	100.0
	Total	381	100.0	100.0	

9.3 : I prefer to observe nature in a wild and unrestricted setting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	4	1.0	1.0	2.6
	Disagree	16	4.2	4.2	6.8
	Undecided	39	10.2	10.2	17.1
	Agree	212	55.6	55.6	72.7
	Strongly agree	104	27.3	27.3	100.0
	Total	381	100.0	100.0	

9.4: I try to find out as much about the natural environment of a destination as I can before I actually go there

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	5	1.3	1.3	1.3
	Strongly disagree	4	1.0	1.0	2.4
	Disagree	33	8.7	8.7	11.0
	Undecided	59	15.5	15.5	26.5
	Agree	187	49.1	49.1	75.6
	Strongly agree	93	24.4	24.4	100.0
	Total	381	100.0	100.0	

9.5: I want to learn as much as possible about the natural environment of the cites that I vsiit while I am there

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	1	.3	.3	2.6
	Disagree	26	6.8	6.8	9.4
	Undecided	60	15.7	15.7	25.2
	Agree	212	55.6	55.6	80.8
	Strongly agree	73	19.2	19.2	100.0
	Total	381	100.0	100.0	

9.6: I usually do what I can to leave the site of areas in better condition than when I arrive

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Strongly disagree	1	.3	.3	2.1
	Disagree	18	4.7	4.7	6.8
	Undecided	65	17.1	17.1	23.9
	Agree	163	42.8	42.8	66.7
	Strongly agree	127	33.3	33.3	100.0
	Total	381	100.0	100.0	

9.7: Recycling of waste is an environment-friendly effort that everybody should do while on vacation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Disagree	3	.8	.8	2.4
	Undecided	11	2.9	2.9	5.2
	Agree	128	33.6	33.6	38.8
	Strongly agree	233	61.2	61.2	100.0
	Total	381	100.0	100.0	

9.8: It is good for a destination to focus on environmental issues but it does not influence my destination choice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	7	1.8	1.8	4.2
	Disagree	40	10.5	10.5	14.7
	Undecided	63	16.5	16.5	31.2
	Agree	188	49.3	49.3	80.6
	Strongly agree	74	19.4	19.4	100.0
	Total	381	100.0	100.0	

9.9: I will only use accommodations and tour operators that have a prooven track record of environmental sustainability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	13	3.4	3.4	5.8
	Disagree	97	25.5	25.5	31.2
	Undecided	171	44.9	44.9	76.1
	Agree	74	19.4	19.4	95.5
	Strongly agree	17	4.5	4.5	100.0
	Total	381	100.0	100.0	

9.10: I recycle my garbage at home because I want to be environment-friendly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Strongly disagree	2	.5	.5	2.4
	Disagree	6	1.6	1.6	3.9
	Undecided	20	5.2	5.2	9.2
	Agree	121	31.8	31.8	40.9
	Strongly agree	225	59.1	59.1	100.0
	Total	381	100.0	100.0	

9.11: I save energy at home due to environmental concerns

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	1	.3	.3	1.8
	Disagree	7	1.8	1.8	3.7
	Undecided	29	7.6	7.6	11.3
	Agree	163	42.8	42.8	54.1
	Strongly agree	175	45.9	45.9	100.0
	Total	381	100.0	100.0	

9.12: I use public transportation to save the environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	13	3.4	3.4	3.4
	Strongly disagree	19	5.0	5.0	8.4
	Disagree	85	22.3	22.3	30.7
	Undecided	117	30.7	30.7	61.4
	Agree	101	26.5	26.5	87.9
	Strongly agree	46	12.1	12.1	100.0
	Total	381	100.0	100.0	

9.13: I find it easier to practice 'environment-friendly' behavior at home than when I am travelling

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Strongly disagree	31	8.1	8.1	10.8
	Disagree	93	24.4	24.4	35.2
	Undecided	73	19.2	19.2	54.3
	Agree	124	32.5	32.5	86.9
	Strongly agree	50	13.1	13.1	100.0
	Total	381	100.0	100.0	

9.14: When I am travelling I do not worry about the environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	12	3.1	3.1	3.1
	Strongly disagree	176	46.2	46.2	49.3
	Disagree	141	37.0	37.0	86.4
	Undecided	24	6.3	6.3	92.7
	Agree	17	4.5	4.5	97.1
	Strongly agree	11	2.9	2.9	100.0
	Total	381	100.0	100.0	

9.15: I try to support the local economy of places that I visit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	12	3.1	3.1	3.1
	Strongly disagree	3	.8	.8	3.9
	Disagree	15	3.9	3.9	7.9
	Undecided	81	21.3	21.3	29.1
	Agree	200	52.5	52.5	81.6
	Strongly agree	70	18.4	18.4	100.0
	Total	381	100.0	100.0	

9.16: When I am travelling I am more concerned about costs of products and services than I am about their negative environmentallt impact

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	11	2.9	2.9	2.9
	Strongly disagree	45	11.8	11.8	14.7
	Disagree	117	30.7	30.7	45.4
	Undecided	132	34.6	34.6	80.1
	Agree	66	17.3	17.3	97.4
	Strongly agree	10	2.6	2.6	100.0
	Total	381	100.0	100.0	

9.17: My presence in Fjord Norway did not harm the environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	2	.5	.5	2.1
	Disagree	28	7.3	7.3	9.4
	Undecided	84	22.0	22.0	31.5
	Agree	147	38.6	38.6	70.1
	Strongly agree	114	29.9	29.9	100.0
	Total	381	100.0	100.0	

Question 10: Indicate how much you agree or disagree with the statements.

10.1 : Humans must live in harmony with nature in order to survive

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	1	.3	.3	1.8
	Disagree	3	.8	.8	2.6
	Undecided	15	3.9	3.9	6.6
	Agree	152	39.9	39.9	46.5
	Strongly agree	204	53.5	53.5	100.0
	Total	381	100.0	100.0	

10.2: The balance of nature is very delicate and easily upset

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Disagree	10	2.6	2.6	4.5
	Undecided	21	5.5	5.5	10.0
	Agree	158	41.5	41.5	51.4
	Strongly agree	185	48.6	48.6	100.0
	Total	381	100.0	100.0	

10.3: Nature can have value beyond the social, economic or cultural values held by humans

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Disagree	12	3.1	3.1	5.5
	Undecided	57	15.0	15.0	20.5
	Agree	165	43.3	43.3	63.8
	Strongly agree	138	36.2	36.2	100.0
	Total	381	100.0	100.0	

10.4: Plants and animals exist primarily to be used by humans

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	104	27.3	27.3	29.7
	Disagree	190	49.9	49.9	79.5
	Undecided	49	12.9	12.9	92.4
	Agree	23	6.0	6.0	98.4
	Strongly agree	6	1.6	1.6	100.0
	Total	381	100.0	100.0	

10.5: Humans have the right to modify the natural enviroment to suit their needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Strongly disagree	98	25.7	25.7	27.3
	Disagree	164	43.0	43.0	70.3
	Undecided	77	20.2	20.2	90.6
	Agree	32	8.4	8.4	99.0
	Strongly agree	4	1.0	1.0	100.0
	Total	381	100.0	100.0	

10.6: When humans interfere with nature, it often produces disastrous consequences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Strongly disagree	10	2.6	2.6	4.5
	Disagree	39	10.2	10.2	14.7
	Undecided	67	17.6	17.6	32.3
	Agree	151	39.6	39.6	71.9
	Strongly agree	107	28.1	28.1	100.0
	Total	381	100.0	100.0	

10.7 : Mankind was created to rule over the rest of nature

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Strongly disagree	183	48.0	48.0	50.4
	Disagree	121	31.8	31.8	82.2
	Undecided	37	9.7	9.7	91.9
	Agree	25	6.6	6.6	98.4
	Strongly agree	6	1.6	1.6	100.0
	Total	381	100.0	100.0	

10.8: Mankind is severely abusing the environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	8	2.1	2.1	2.1
	Strongly disagree	17	4.5	4.5	6.6
	Disagree	20	5.2	5.2	11.8
	Undecided	50	13.1	13.1	24.9
	Agree	173	45.4	45.4	70.3
	Strongly agree	113	29.7	29.7	100.0
	Total	381	100.0	100.0	

10.9: The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	8	2.1	2.1	2.1
	Strongly disagree	2	.5	.5	2.6
	Disagree	1	.3	.3	2.9
	Undecided	4	1.0	1.0	3.9
	Agree	131	34.4	34.4	38.3
	Strongly agree	235	61.7	61.7	100.0
	Total	381	100.0	100.0	

10.10: I perceived Fjord Norway as a highly environment-friendly destination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	7	1.8	1.8	1.8
	Disagree	12	3.1	3.1	5.0
	Undecided	41	10.8	10.8	15.7
	Agree	185	48.6	48.6	64.3
	Strongly agree	136	35.7	35.7	100.0
	Total	381	100.0	100.0	

10.11: I consider myself to be an environment-friendly tourist

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Disagree	5	1.3	1.3	3.7
	Undecided	38	10.0	10.0	13.6
	Agree	229	60.1	60.1	73.8
	Strongly agree	100	26.2	26.2	100.0
	Total	381	100.0	100.0	

Question 23: Nationality

Nationality:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25	6.6	6.6	6.6
??????	4	1.0	1.0	7.6
???????	1	.3	.3	7.9
????????? ?????????	1	.3	.3	8.1
american	1	.3	.3	8.4
American	4	1.0	1.0	9.4
American of Norwegian descent.	1	.3	.3	9.7
Australian	5	1.3	1.3	11.0
austria	1	.3	.3	11.3
belgian	1	.3	.3	11.5
Belgierin	1	.3	.3	11.8
Belgium	4	1.0	1.0	12.9
british	5	1.3	1.3	14.2
British	27	7.1	7.1	21.3
Canadian	1	.3	.3	21.5
CANADIAN/BRITISH	1	.3	.3	21.8
catalana	1	.3	.3	22.0
Cayman Islands	1	.3	.3	22.3
CH	1	.3	.3	22.6
czech	1	.3	.3	22.8
Czech	2	.5	.5	23.4
d	1	.3	.3	23.6
D	4	1.0	1.0	24.7
danish	2	.5	.5	25.2
Danish	5	1.3	1.3	26.5
Danmark	1	.3	.3	26.8
Denmark	3	.8	.8	27.6

deusch	1	.3	.3	27.8
deustch	1	.3	.3	28.1
deutsch	67	17.6	17.6	45.7
Deutsch	31	8.1	8.1	53.8
deutsch und schwedisch	1	.3	.3	54.1
Deutsche	2	.5	.5	54.6
Deutschland	1	.3	.3	54.9
dk	1	.3	.3	55.1
dutch	7	1.8	1.8	57.0
dUTCH	1	.3	.3	57.2
Dutch	13	3.4	3.4	60.6
Dutch (living in Norway)	1	.3	.3	60.9
Dutch= from Holland.	1	.3	.3	61.2
eapañola	1	.3	.3	61.4
english	2	.5	.5	61.9
English	3	.8	.8	62.7
ENGLISH	1	.3	.3	63.0
España	3	.8	.8	63.8
ESPAÑA	2	.5	.5	64.3
español	2	.5	.5	64.8
Español	1	.3	.3	65.1
española	8	2.1	2.1	67.2
Española	15	3.9	3.9	71.1
ESPAÑOLA	2	.5	.5	71.7
ESTONIA	1	.3	.3	71.9
filipino	1	.3	.3	72.2
Finn	1	.3	.3	72.4
finnish	1	.3	.3	72.7
Finnish	4	1.0	1.0	73.8
français	1	.3	.3	74.0
Freanch	1	.3	.3	74.3
french	3	.8	.8	75.1
French	2	.5	.5	75.6

German	4	1.0	1.0	76.6
Holland	1	.3	.3	76.9
irish	2	.5	.5	77.4
Israeli	2	.5	.5	78.0
italian	2	.5	.5	78.5
Italian	2	.5	.5	79.0
ITALIAN	1	.3	.3	79.3
italiana	1	.3	.3	79.5
Italien	1	.3	.3	79.8
italy	1	.3	.3	80.1
Italy	5	1.3	1.3	81.4
Latvier	1	.3	.3	81.6
Lithuania	1	.3	.3	81.9
Lithuanian	3	.8	.8	82.7
Netherland	1	.3	.3	82.9
Netherlands	3	.8	.8	83.7
niederlandisch	1	.3	.3	84.0
niederländerin	1	.3	.3	84.3
nl	1	.3	.3	84.5
Nl	1	.3	.3	84.8
NL	2	.5	.5	85.3
NL (Netherlands)	1	.3	.3	85.6
Norwegian -American	1	.3	.3	85.8
Polish	2	.5	.5	86.4
polnisch	1	.3	.3	86.6
portuguese	1	.3	.3	86.9
romanian	1	.3	.3	87.1
Russia	1	.3	.3	87.4
russian	1	.3	.3	87.7
s	1	.3	.3	87.9
Schweiz	5	1.3	1.3	89.2
Schweizer	2	.5	.5	89.8
Scots	1	.3	.3	90.0

scottish	1	.3	.3	90.3
slovak	1	.3	.3	90.6
Slovak	1	.3	.3	90.8
South African	2	.5	.5	91.3
SPANIARD	1	.3	.3	91.6
Suisse	1	.3	.3	91.9
Sverige	1	.3	.3	92.1
sweden	1	.3	.3	92.4
Sweden	1	.3	.3	92.7
swedish	2	.5	.5	93.2
Swedish	5	1.3	1.3	94.5
Sweedish	1	.3	.3	94.8
The Netherlands	2	.5	.5	95.3
Turkish	1	.3	.3	95.5
U.S.	1	.3	.3	95.8
UK	1	.3	.3	96.1
ukrainian	1	.3	.3	96.3
US Citizen	2	.5	.5	96.9
USA	7	1.8	1.8	98.7
Welsh	2	.5	.5	99.2
Österreich	2	.5	.5	99.7
ÖSterreich	1	.3	.3	100.0
Total	381	100.0	100.0	

Question 24: Gender

Gender:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	9	2.4	2.4	2.4
	Female	182	47.8	47.8	50.1
	Male	190	49.9	49.9	100.0
	Total	381	100.0	100.0	

Question 25: Age

Age:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	5	1.3	1.3	1.3
	Under 25	33	8.7	8.7	10.0
	25-30	35	9.2	9.2	19.2
	31-35	29	7.6	7.6	26.8
	36-40	37	9.7	9.7	36.5
	41-45	29	7.6	7.6	44.1
	46-50	41	10.8	10.8	54.9
	51-55	46	12.1	12.1	66.9
	56-60	39	10.2	10.2	77.2
	61-65	42	11.0	11.0	88.2
	66-70	34	8.9	8.9	97.1
	71-76	8	2.1	2.1	99.2
	Over 76	3	.8	.8	100.0
	Total	381	100.0	100.0	

Question 26: Education level

Please mark the highest fulfilled education:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	6	1.6	1.6	1.6
	Elementary school	3	.8	.8	2.4
	Secondary school (junior high)	44	11.5	11.5	13.9
	High school	71	18.6	18.6	32.5
	College/university	94	24.7	24.7	57.2
	Bachelor's degree	70	18.4	18.4	75.6
	Master's degree	66	17.3	17.3	92.9
	Phd	27	7.1	7.1	100.0
	Total	381	100.0	100.0	

Question 27: Household income

Approximately what is your household income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	10	2.6	2.6	2.6
	Below 30.000 Euro	51	13.4	13.4	16.0
	30.000-50.000 Euro	93	24.4	24.4	40.4
	50.000-70.000 Euro	61	16.0	16.0	56.4
	70.000-90.000 Euro	52	13.6	13.6	70.1
	90.000-110.000 Euro	20	5.2	5.2	75.3
	110.000-130.000 Euro	10	2.6	2.6	78.0
	130.000-150.000 Euro	6	1.6	1.6	79.5
	Higher than 150.000 Euro	12	3.1	3.1	82.7
	Prefer not to answer	66	17.3	17.3	100.0
	Total	381	100.0	100.0	

Appendix 3: Factor analysis

Dependent variable: "Environment friendly behavior"

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
When travelling I prefer nature-based destinations	.142	.783	.076	.091	.129
I prefer locations that are as remote as possible	-.013	.764	.232	.044	.003
I prefer to observe nature in a wild and unrestricted setting	.085	.813	.088	.007	-.047
I try to find out as much about the natural environment of a destination as I can before I actually go there	-.093	.322	.669	.127	.027
I want to learn as much as possible about the natural environment of the cites that I vsiit while I am there	.146	.130	.675	.142	.089
I usually do what I can to leave the site of areas in better condition than when I arrive	.237	.291	.449	.181	-.296
Recycling of waste is an environment-friendly effort that everybody should do while on vacation	.611	.234	.032	.338	-.365
Q9gr	-.008	.107	-.115	.153	.803
I will only use accommodations and tour operators that have a prooven track record of environmental sustainability	.095	.078	.674	-.100	-.216

I recycle my garbage at home because I want to be environment-friendly	.805	.097	.026	.079	.002
I save energy at home due to environmental concerns	.679	.115	.339	.121	.078
I use public transportation to save the environment	.433	-.049	.420	-.075	.304
Q9lr	-.385	.103	.132	.678	-.108
Q9mr	.329	-.015	-.111	.681	.046
I try to support the local economy of places that I visit	.331	-.037	.362	-.074	-.084
Q9or	.213	.086	.140	.593	.274

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

Reliability analysis: Factor 1

Reliability Statistics

Cronbach's Alpha	N of Items
.793	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Recycling of waste is an environment-friendly effort that everybody should do while on vacation	11.77	6.144	.649	.728
I recycle my garbage at home because I want to be environment-friendly	11.86	5.525	.694	.697
I save energy at home due to environmental concerns	12.00	5.529	.736	.680

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Recycling of waste is an environment-friendly effort that everybody should do while on vacation	11.77	6.144	.649	.728
I recycle my garbage at home because I want to be environment-friendly	11.86	5.525	.694	.697
I save energy at home due to environmental concerns	12.00	5.529	.736	.680
I use public transportation to save the environment	13.20	5.543	.426	.862

Reliability analysis: Factor 2

Reliability Statistics

Cronbach's Alpha	N of Items
.790	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When travelling I prefer nature-based destinations	7.19	3.255	.638	.710
I prefer locations that are as remote as possible	8.16	2.798	.608	.751
I prefer to observe nature in a wild and unrestricted setting	7.37	3.144	.659	.687

Reliability analysis: Factor 3

Reliability Statistics

Cronbach's Alpha	N of Items
.755	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I try to find out as much about the natural environment of a destination as I can before I actually go there	14.41	8.680	.512	.714
I want to learn as much as possible about the natural environment of the cites that I vsiit while I am there	14.45	8.496	.567	.695
I usually do what I can to leave the site of areas in better condition than when I arrive	14.26	8.388	.576	.691
I will only use accommodations and tour operators that have a prooven track record of environmental sustainability	15.36	8.814	.510	.715
I try to support the local economy of places that I visit	14.50	8.956	.443	.740

Reliability analysis: Factor 4

Reliability Statistics

Cronbach's Alpha	N of Items
.409	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q9lr	7.5644	2.554	.162	.498
Q9mr	6.1507	2.738	.285	.246
Q9or	7.0575	2.664	.303	.212

Reliability analysis: Factor 5

Reliability Statistics

Cronbach's Alpha	N of Items
.488	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q9mr	3.3351	.972	.323	.[a]
Q9or	4.2316	.949	.323	.[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Independent variable: "Motivation"

Rotated Component Matrix[a]

	Component			
	1	2	3	4
Being close to nature	.806	.078	.085	.016
Have fun/be entertained	.057	.048	.768	.212
See as much as possible in time available	.153	.328	.620	.040
Nightlife and entertainment	-.123	.281	.653	.358
New experiences	.321	.358	.510	-.002
Enjoy scenery/nature	.770	.241	.265	-.116
Not touristy/crowded	.510	.365	-.171	-.067
Museums and cultural attractions	.165	.701	.188	.115
Meet people with similar interests	.139	.659	.074	.295
Visit historical places	.121	.790	.242	.052
Learning about the natural environment	.352	.578	.222	.124
To engage in nature-based activity	.692	.131	-.153	.342
Be together as a family	.476	-.076	.035	.585
Rest and relaxation	.603	.119	.040	.449
See mountains/fjords	.695	.216	.372	-.138
Wilderness experience	.613	.164	.051	.079
Amusement-and team parks	.032	.174	.423	.546
Shopping	-.041	.270	.325	.603
Visit family/friends	-.009	.162	.054	.526
Experience smaller towns/villages	.209	.574	.225	.237

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 10 iterations.

Reliability analysis: Factor 1

Reliability Statistics

Cronbach's Alpha	N of Items
.820	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Being close to nature	25.14	17.382	.676	.781
Enjoy scenery/nature	24.84	18.135	.695	.784
Not touristy/crowded	25.73	17.406	.457	.816
To engage in nature-based activity	25.83	15.865	.600	.790
Rest and relaxation	25.50	17.303	.530	.801
See mountains/fjords	24.82	18.570	.596	.796
Wilderness experience	25.71	16.113	.537	.805

Reliability analysis: Factor 2

Reliability Statistics

Cronbach's Alpha	N of Items
.805	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Museums and cultural attractions	13.89	10.819	.584	.770
Meet people with similar interests	14.40	11.263	.544	.782
Visit historical places	13.78	10.442	.679	.740
Learning about the natural environment	13.68	11.034	.590	.768
Experience smaller towns/villages	13.65	11.356	.556	.778

Reliability analysis: Factor 3

Reliability Statistics

Cronbach's Alpha	N of Items
.722	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Have fun/be entertained	9.63	5.961	.528	.650
See as much as possible in time available	9.07	5.874	.512	.662
Nightlife and entertainment	11.01	6.810	.550	.647
New experiences	8.77	6.543	.472	.683

Reliability analysis: Factor 4

Reliability Statistics

Cronbach's Alpha	N of Items
.568	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Be together as a family	5.89	6.112	.286	.557
Amusement-and team parks	7.44	6.052	.420	.442
Shopping	7.39	6.195	.445	.429
Visit family/friends	7.66	6.531	.279	.554

Independent variable: "Attitudes"

Rotated Factor Matrix[a]

	Factor		
	1	2	3
Humans must live in harmony with nature in order to survive	.766	.088	.142
The balance of nature is very delicate and easily upset	.618	.156	.264
Nature can have value beyond the social, economic or cultural values held by humans	.413	.119	.063
Q10cr	.158	.669	-.011
Q10dr	.160	.475	.261
When humans interfere with nature, it often produces disastrous consequences	.196	.010	.716
Q10fr	.082	.597	-.001
Mankind is severely abusing the environment	.139	.057	.463
The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations	.427	.140	.276

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Reliability analysis: Factor 1

Reliability Statistics

Cronbach's Alpha	N of Items
.845	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Humans must live in harmony with nature in order to survive	12.86	5.431	.762	.772
The balance of nature is very delicate and easily upset	12.97	5.312	.704	.793
Nature can have value beyond the social, economic or cultural values held by humans	13.22	5.364	.594	.846
The present generation should ensure that the environment is maintained or enhanced for the benefit of future generations	12.77	5.547	.684	.802

Reliability analysis: Factor 2

Reliability Statistics

Cronbach's Alpha	N of Items
.619	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q10cr	8.0623	2.428	.459	.477
Q10dr	8.1870	2.489	.387	.576
Q10fr	7.8266	2.258	.439	.504

Reliability analysis: Factor 3

Reliability Statistics

Cronbach's Alpha	N of Items
.644	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When humans interfere with nature, it often produces disastrous consequences	3.84	1.354	.475	.[a]
Mankind is severely abusing the environment	3.75	1.336	.475	.[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Appendix 4: Cross-tabulation

Cross-tabulation: "Age" and "Responsible behavior"

Age \ Count	Responsible behavior														Total
	.00	1.50	2.00	2.25	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	
Missing	3	0	0	0	0	0	1	0	0	0	0	1	0	0	5
Under 25	0	0	1	0	0	0	1	4	4	4	5	5	5	4	33
25-30	0	0	0	1	1	1	1	4	4	4	7	4	3	5	35
31-35	0	0	0	0	1	1	0	3	3	8	2	4	4	3	29
36-40	0	0	0	0	0	2	1	3	3	5	10	6	5	2	37
41-45	1	0	0	0	2	2	2	0	2	4	5	5	3	3	29
46-50	0	0	0	0	0	1	1	2	9	9	7	4	5	3	41
51-55	1	0	0	0	0	0	2	6	6	5	4	6	14	2	46
56-60	0	0	0	0	1	0	1	5	7	4	3	8	6	4	39
61-65	1	1	0	0	0	1	0	9	6	3	4	11	4	2	42
66-70	0	0	0	0	1	0	1	3	7	5	5	5	5	2	34
71-76	0	0	0	0	0	0	0	1	1	3	1	2	0	0	8
Over 76	0	0	0	0	0	1	0	0	1	0	0	1	0	0	3
Total	6	1	1	1	6	9	11	40	53	54	53	62	54	30	381

Cross Tabulation: "Age" and "Nature interest"

Age \ Count	Nature interest													Total
	.00	1.00	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00	
Missing	2	0	0	1	0	0	1	0	0	0	1	0	0	5
Under 25	0	0	0	0	1	0	2	2	6	7	8	4	3	33
25-30	0	0	0	0	1	2	0	3	11	7	5	3	3	35
31-35	0	0	0	0	0	3	2	4	7	5	3	4	1	29
36-40	0	0	0	0	0	2	2	5	7	6	5	5	5	37
41-45	0	1	0	1	1	0	1	1	8	6	1	6	3	29
46-50	0	0	0	2	2	1	1	3	7	7	11	4	3	41
51-55	1	0	0	2	2	0	4	7	5	8	11	3	3	46
56-60	0	1	0	1	1	0	3	5	9	7	8	2	2	39
61-65	1	0	2	3	0	1	1	5	12	9	4	3	1	42
66-70	0	0	0	0	0	0	2	8	9	3	5	4	3	34
71-76	0	0	0	1	0	1	1	1	0	3	1	0	0	8
Over 76	0	0	0	0	1	1	0	0	0	1	0	0	0	3
Total	4	2	2	11	9	11	20	44	81	69	63	38	27	381

Cross Tabs: "Age" and "Environmental Awareness"

Age \ Count	Environmental Awareness																			Total
	.00	.80	1.40	1.80	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	
Missing	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	5
Under 25	0	0	0	0	1	2	2	2	2	4	2	3	4	2	3	3	2	0	1	33
25-30	0	0	0	0	0	0	0	1	3	4	3	8	5	6	3	0	1	0	1	35
31-35	0	0	0	0	0	0	2	0	2	4	6	3	3	3	3	2	1	0	0	29
36-40	0	0	0	0	0	1	1	0	2	4	6	7	4	5	1	2	1	3	0	37
41-45	0	1	1	0	0	0	0	1	1	5	2	4	4	2	3	4	0	0	1	29
46-50	0	0	0	0	0	1	1	0	5	3	2	3	4	11	6	1	1	2	1	41
51-55	1	0	0	0	0	0	0	2	3	4	5	5	3	11	6	3	2	1	0	46
56-60	0	0	0	0	0	1	1	0	1	4	6	7	4	8	4	0	1	0	2	39
61-65	1	0	0	1	0	1	1	0	0	7	7	9	4	3	3	1	1	3	0	42
66-70	0	0	0	0	0	0	0	2	2	2	2	3	5	5	5	6	1	0	1	34
71-76	0	0	0	0	0	0	1	0	0	0	1	1	2	2	0	1	0	0	0	8
Over 76	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3
Total	4	2	1	1	1	6	9	9	21	42	42	54	42	58	37	25	11	9	7	381

Cross-Tabulations: "Household income" and "Responsible Behavior"

Income \ Count	Responsible behavior														Total
	.00	1.50	2.00	2.25	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	
Missing	3	0	0	0	0	0	2	0	1	1	1	2	0	0	10
Below 30.000 Euro	1	0	0	0	1	2	1	2	3	9	6	8	12	6	51
30.000-50.000 Euro	1	1	1	0	1	1	1	12	13	8	7	22	15	10	93
50.000-70.000 Euro	0	0	0	0	1	1	2	11	6	7	13	12	7	1	61
70.000-90.000 Euro	0	0	0	1	1	0	3	3	8	9	5	6	9	7	52
90.000-110.000 Euro	1	0	0	0	0	0	0	1	4	1	6	2	2	3	20
110.000-130.000 Euro	0	0	0	0	0	1	0	1	2	3	1	0	1	1	10
130.000-150.000 Euro	0	0	0	0	0	0	0	2	1	2	0	1	0	0	6
Above 150.000 Euro	0	0	0	0	0	1	0	2	2	1	2	2	2	0	12
Prefer not to answer	0	0	0	0	2	3	2	6	13	13	12	7	6	2	66
Total	6	1	1	1	6	9	11	40	53	54	53	62	54	30	381

Cross-Tabulations: "Income" and "Nature interest"

Income \ Count	Nature interest													Total
	.00	1.00	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00	
Missing	2	0	0	1	1	0	1	0	4	0	1	0	0	10
Below 30.000 Euro	1	0	0	0	0	1	1	7	8	9	11	8	5	51
30.000-50.000 Euro	0	1	1	2	0	4	3	12	16	23	14	8	9	93
50.000-70.000 Euro	0	1	0	4	2	1	3	8	15	7	12	6	2	61
70.000-90.000 Euro	0	0	0	1	0	3	2	7	13	8	8	6	4	52
90.000-110.000 Euro	1	0	0	0	1	0	0	0	4	5	5	2	2	20
110.000-130.000 Euro	0	0	0	0	0	1	0	2	1	4	1	0	1	10
130.000-150.000 Euro	0	0	0	0	0	0	2	0	1	0	0	2	1	6
Above 150.000 Euro	0	0	0	1	0	0	2	0	4	2	3	0	0	12
Prefer not to answer	0	0	1	2	5	1	6	8	15	11	8	6	3	66
Total	4	2	2	11	9	11	20	44	81	69	63	38	27	381

Cross-Tabulation: "Income" and "Environmental awareness"

Income \ Count	Environmental awareness																			Total
	.00	.80	1.40	1.80	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	
Missing	2	1	0	0	0	1	0	0	1	1	1	0	0	1	1	1	0	0	0	10
Below 30.000 Euro	1	0	0	0	0	1	1	3	1	2	5	3	7	9	7	5	2	3	1	51
30.000-50.000 Euro	0	1	0	1	0	0	3	4	7	10	8	12	8	11	10	8	4	1	5	93
50.000-70.000 Euro	0	0	1	0	0	1	2	0	2	10	7	16	6	10	5	0	0	1	0	61
70.000-90.000 Euro	0	0	0	0	0	0	0	0	3	9	3	8	6	9	6	3	4	0	1	52
90.000-110.000 Euro	1	0	0	0	0	0	0	0	1	1	6	2	2	1	3	2	0	1	0	20
110.000-130.000 Euro	0	0	0	0	0	0	1	0	1	2	1	1	1	0	1	1	1	0	0	10
130.000-150.000 Euro	0	0	0	0	0	0	0	0	0	2	0	1	0	1	0	1	0	1	0	6
Above 150.000 Euro	0	0	0	0	0	0	0	2	1	2	1	1	1	3	1	0	0	0	0	12
Prefer not to answer	0	0	0	0	1	3	2	0	4	3	10	10	11	13	3	4	0	2	0	66
Total	4	2	1	1	1	6	9	9	21	42	42	54	42	58	37	25	11	9	7	381

Appendix 5: Multiple regression analysis - stepwise

Multiple regression analysis: "Demographics" up against the dependent variable "Responsible behavior".

"Age" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.050[a]	.003	.000	.76873

a. Predictors: (Constant), Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.995	.086		46.626	.000
	Age:	.013	.013	.050	.976	.329

a. Dependent Variable: Responbehav

"Age" and "Education level" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.196[a]	.038	.033	.75583

a. Predictors: (Constant), Please mark the highest fulfilled education:,
Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.610	.133		27.174	.000
	Age:	.011	.013	.043	.859	.391
	Please mark the highest fulfilled education:	.093	.025	.189	3.748	.000

a. Dependent Variable: Responbehav

"Age", "Education level" and "Income level" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.199[a]	.040	.032	.75629

a. Predictors: (Constant), Approximately what is your household income?, Please mark the highest fulfilled education:, Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.639	.139		26.262	.000
	Age:	.012	.013	.047	.929	.353
	Please mark the highest fulfilled education:	.095	.025	.192	3.793	.000
	Approximately what is your household income?	-.010	.014	-.037	-.736	.462

a. Dependent Variable: Responbehav

Multiple regression analysis: "Motivation" up against the dependent variable "Responsible behavior"

"Enjoy nature" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.433[a]	.188	.186	.69372

a. Predictors: (Constant), enjoynature

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.006	.223		8.976	.000
	enjoynature	.488	.052	.433	9.357	.000

a. Dependent Variable: Responbehav

"Enjoy nature" and "Learning" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.455[a]	.207	.203	.68635

a. Predictors: (Constant), Learning, enjoynature

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.857	.226		8.199	.000
	enjoynature	.399	.059	.354	6.706	.000
	Learning	.152	.050	.160	3.030	.003

a. Dependent Variable: Responbehav

"Enjoy nature", "Learning" and "Entertainment" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.455[a]	.207	.201	.68724

a. Predictors: (Constant), Entertainment, enjoynature, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.865	.235		7.950	.000
	enjoynature	.399	.060	.354	6.698	.000
	Learning	.156	.059	.164	2.668	.008
	Entertainment	-.007	.054	-.008	-.138	.890

a. Dependent Variable: Responbehav

"Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.456[a]	.208	.200	.68768

a. Predictors: (Constant), Enjoyvacation, enjoynature, Entertainment, Learning

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.864	.235		7.939	.000
	enjoynature	.406	.060	.360	6.723	.000
	Learning	.164	.059	.172	2.752	.006
	Entertainment	.004	.057	.005	.078	.938
	Enjoyvacation	-.039	.054	-.040	-.725	.469

a. Dependent Variable: Responbehav

Multiple regression analysis: "Activities" up against the dependent variable "Responsible behavior"

"Hard activities" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.052^a	.003	.000	.71864

a. Predictors: (Constant), Hardactivities

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.129	.055		75.293	.000
	Hardactivities	-.033	.033	-.052	-.997	.319

a. Dependent Variable: Responbehav

"Hard activities" and "Soft activities" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.061[a]	.004	-.002	.72002

a. Predictors: (Constant), Softactivities, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.068	.124		32.909	.000
	Hardactivities	-.049	.042	-.077	-1.158	.248
	Softactivities	.030	.052	.038	.570	.569

a. Dependent Variable: Responbehav

"Hard activities", "Soft activities" and "Pleasure-based activities" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135[a]	.018	.010	.64998

a. Predictors: (Constant), Pleasureactivities, Softactivities, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.848	.118		32.663	.000
	Hardactivities	-.071	.046	-.120	-1.541	.124
	Softactivities	.105	.050	.141	2.104	.036
	Pleasureactivities	.047	.046	.074	1.021	.308

a. Dependent Variable: Responbehav

Multiple regression analysis: "Attitudes" up against the dependent variable "Responsible behavior".

"Nature rules" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.652[a]	.425	.424	.58342

a. Predictors: (Constant), Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.207	.173		6.958	.000
	Naturerules	.663	.040	.652	16.753	.000

a. Dependent Variable: Responbehav

"Nature rules" and "Mankind rules" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.430[a]	.185	.180	.55364

a. Predictors: (Constant), Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.823	.262		6.966	.000
	Naturerules	.475	.056	.409	8.436	.000
	Mankindrules	.055	.042	.063	1.305	.193

a. Dependent Variable: Responbehav

"Nature rules", "Mankind rules" and "Destructive results" up against "Responsible behavior"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.439[a]	.193	.186	.55167

a. Predictors: (Constant), Destructiveresults, Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.758	.263		6.685	.000
	Naturerules	.433	.060	.373	7.176	.000
	Mankindrules	.052	.042	.061	1.257	.209
	Destructiveresults	.067	.035	.097	1.913	.056

a. Dependent Variable: Responbehav

Multiple regression analysis: "Demographics" up against the dependent variable "Nature interest"

"Age" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.073[a]	.005	.003	.83161

a. Predictors: (Constant), Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.904	.093		42.121	.000
	Age:	-.020	.014	-.073	-1.432	.153

a. Dependent Variable: natureinterest

"Age" and "Education level" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.149[a]	.022	.017	.82570

a. Predictors: (Constant), Please mark the highest fulfilled education:,

Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.620	.145		24.939	.000
	Age:	-.022	.014	-.078	-1.532	.126
	Please mark the highest fulfilled education:	.069	.027	.129	2.538	.012

a. Dependent Variable: natureinterest

"Age", "Education level" and "Income level" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.156[a]	.024	.017	.82580

a. Predictors: (Constant), Approximately what is your household income?, Please mark the highest fulfilled education:, Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.660	.151		24.191	.000
	Age:	-.020	.014	-.073	-1.427	.155
	Please mark the highest fulfilled education:	.071	.027	.133	2.608	.009
	Approximately what is your household income?	-.014	.015	-.049	-.953	.341

a. Dependent Variable: natureinterest

Multiple regression analysis: "Motivation" up against the dependent variable "Nature interest"

"Enjoy nature" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.539[a]	.291	.289	.70235

a. Predictors: (Constant), enjoynature

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.004	.226		4.440	.000
	enjoynature	.658	.053	.539	12.458	.000

a. Dependent Variable: natureinterest

"Enjoy nature" and "Learning" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.539^a	.291	.287	.70317

a. Predictors: (Constant), Learning, enjoynature

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.022	.232		4.405	.000
	enjoynature	.669	.061	.548	10.976	.000
	Learning	-.018	.051	-.017	-.349	.727

a. Dependent Variable: natureinterest

"Enjoy nature", "Learning" and "Entertainment" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.539^a	.291	.285	.70404

a. Predictors: (Constant), Entertainment, enjoynature, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.037	.240		4.316	.000
	enjoynature	.669	.061	.548	10.964	.000
	Learning	-.010	.060	-.010	-.171	.864
	Entertainment	-.014	.055	-.013	-.249	.803

a. Dependent Variable: natureinterest

"Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540[a]	.292	.284	.70448

a. Predictors: (Constant), Enjoyvacation, enjoynature, Entertainment, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.036	.240		4.308	.000
	enjoynature	.676	.062	.554	10.933	.000
	Learning	-.002	.061	-.002	-.040	.968
	Entertainment	-.002	.058	-.001	-.026	.979
	Enjoyvacation	-.040	.055	-.038	-.729	.466

a. Dependent Variable: natureinterest

Multiple regression analysis: "Activities up against the dependent variable "Nature interest"

"Hard activities" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.202[a]	.041	.038	.77566

a. Predictors: (Constant), Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.644	.059		61.556	.000
	Hardactivities	.140	.036	.202	3.940	.000

a. Dependent Variable: natureinterest

"Hard activities" and "Soft activities" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201[a]	.040	.035	.77761

a. Predictors: (Constant), Softactivities, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.629	.134		27.182	.000
	Hardactivities	.136	.045	.195	3.003	.003
	Softactivities	.008	.056	.009	.137	.891

a. Dependent Variable: natureinterest

"Hard activities", "Soft activities" and "Pleasure-based activities" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.262[a]	.069	.061	.74666

a. Predictors: (Constant), Pleasureactivities, Softactivities, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.567	.135		26.352	.000
	Hardactivities	.204	.053	.290	3.829	.000
	Softactivities	.072	.058	.082	1.259	.209
	Pleasureactivities	-.120	.052	-.162	-2.289	.023

a. Dependent Variable: natureinterest

Multiple regression analysis: "Attitudes" up against the dependent variable "Nature interest"

"Nature rules" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.453[a]	.205	.203	.74353

a. Predictors: (Constant), Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.634	.221		7.393	.000
	Naturerules	.498	.050	.453	9.883	.000

a. Dependent Variable: natureinterest

"Nature rules" and "Mankind rules" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.336[a]	.113	.108	.71794

a. Predictors: (Constant), Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.517	.339		4.470	.000
	Naturerules	.426	.073	.295	5.841	.000
	Mankindrules	.108	.054	.101	1.996	.047

a. Dependent Variable: natureinterest

"Nature rules", "Mankind rules" and "Destructive results" up against "Nature interest"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342[a]	.117	.109	.71741

a. Predictors: (Constant), Destructiveresults, Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.462	.342		4.275	.000
	Naturerules	.391	.078	.271	4.983	.000
	Mankindrules	.107	.054	.099	1.963	.050
	Destructiveresults	.057	.046	.066	1.244	.214

a. Dependent Variable: natureinterest

Multiple regression analysis: "Demographics" up against the dependent variable "Environmental awareness"

"Age" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.120[a]	.014	.012	.71021

a. Predictors: (Constant), Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.484	.079		44.011	.000
	Age:	.029	.012	.120	2.351	.019

a. Dependent Variable: envawareness

"Age" and "Education level" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.189[a]	.036	.031	.70334

a. Predictors: (Constant), Please mark the highest fulfilled education:,

Age:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.206	.124		25.936	.000
	Age:	.027	.012	.115	2.269	.024
	Please mark the highest fulfilled education:	.067	.023	.147	2.905	.004

a. Dependent Variable: envawareness

"Age", "Education level" and "Income level" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.190[a]	.036	.028	.70418

a. Predictors: (Constant), Approximately what is your household

income?, Please mark the highest fulfilled education:, Age:

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.218	.129		24.939	.000
	Age:	.028	.012	.116	2.285	.023
	Please mark the highest fulfilled education:	.068	.023	.148	2.916	.004
	Approximately what is your household income?	-.004	.013	-.016	-.307	.759

a. Dependent Variable: envawareness

Multiple regression analysis: "Motivation" up against the dependent variable "Environmental awareness"

"Enjoy nature" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.427^a	.182	.180	.64695

a. Predictors: (Constant), enjoynature

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.760	.208		8.445	.000
	enjoynature	.447	.049	.427	9.187	.000

a. Dependent Variable: envawareness

"Enjoy nature" and "Learning" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.548[a]	.300	.296	.59923

a. Predictors: (Constant), Learning, enjoynature

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.417	.198		7.167	.000
	enjoynature	.241	.052	.230	4.646	.000
	Learning	.350	.044	.396	7.986	.000

a. Dependent Variable: envawareness

"Enjoy nature", "Learning" and "Entertainment" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550[a]	.302	.296	.59923

a. Predictors: (Constant), Entertainment, enjoynature, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.365	.205		6.671	.000
	enjoynature	.239	.052	.229	4.607	.000
	Learning	.323	.051	.366	6.339	.000
	Entertainment	.047	.047	.053	1.000	.318

a. Dependent Variable: envawareness

"Enjoy nature", "Learning", "Entertainment" and "Enjoy vacation" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550[a]	.302	.295	.60003

a. Predictors: (Constant), Enjoyvacation, enjoynature, Entertainment, Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.365	.205		6.662	.000
	enjoynature	.239	.053	.228	4.542	.000
	Learning	.323	.052	.366	6.230	.000
	Entertainment	.047	.049	.053	.955	.340
	Enjoyvacation	.000	.047	.000	.002	.998

a. Dependent Variable: envawareness

Multiple regression analysis: "Activities" up against the dependent variable "Environmental awareness".

"Hard activities" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.043[a]	.002	.000	.66702

a. Predictors: (Constant), Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.636	.051		71.426	.000
	Hardactivities	.025	.031	.043	.829	.408

a. Dependent Variable: envawareness

"Hard activities" and "Soft activities" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051[a]	.003	-.003	.66768

a. Predictors: (Constant), Softactivities, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.577	.115		31.207	.000
	Hardactivities	.009	.039	.016	.243	.808
	Softactivities	.029	.048	.040	.604	.546

a. Dependent Variable: envawareness

"Hard activities", "Soft activities" and "Pleasure-based activities" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.167[a]	.028	.020	.61337

a. Predictors: (Constant), Pleasureactivities, Softactivities,

Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.383	.111		30.428	.000
	Hardactivities	.012	.044	.021	.276	.783
	Softactivities	.123	.047	.173	2.602	.010
	Pleasureactivities	-.026	.043	-.044	-.611	.541

a. Dependent Variable: envawareness

Multiple regression analysis: "Attitudes" up against the dependent variable "Environmental awareness"

"Nature rules" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580[a]	.337	.335	.58249

a. Predictors: (Constant), Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.282	.173		7.400	.000
	Naturerules	.548	.040	.580	13.879	.000

a. Dependent Variable: envawareness

"Nature rules" and "Mankind rules" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.372[a]	.138	.133	.56296

a. Predictors: (Constant), Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.781	.266		6.694	.000
	Naturerules	.420	.057	.366	7.334	.000
	Mankindrules	.018	.043	.021	.419	.676

a. Dependent Variable: envawareness

"Nature rules", "Mankind rules" and "Destructive results" up against "Environmental awareness"

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.373[a]	.139	.132	.56334

a. Predictors: (Constant), Destructiveresults, Mankindrules, Naturerules

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.806	.269		6.725	.000
	Naturerules	.436	.062	.380	7.079	.000
	Mankindrules	.019	.043	.022	.437	.662
	Destructiveresults	-.025	.036	-.037	-.708	.479

a. Dependent Variable: envawareness

Appendix 6: Multiple regression analysis – all variables

The independent variables "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" up against the dependent variable "Responsible behavior":

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550[a]	.302	.276	.52391

a. Predictors: (Constant), Destructiveresults, Enjoyvacation, Approximately what is your household income?, Softactivities, Mankindrules, Please mark the highest fulfilled education:, Age:, enjoynature, Entertainment, Naturerules, Pleasureactivities, Learning, Hardactivities

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.907	.349		2.598	.010
	Age:	-.008	.011	-.037	-.727	.468
	Please mark the highest fulfilled education:	.033	.019	.082	1.770	.078
	Approximately what is your household income?	-.018	.010	-.080	-1.740	.083
	enjoynature	.243	.058	.218	4.164	.000
	Learning	.143	.051	.167	2.784	.006
	Entertainment	-.052	.049	-.060	-1.050	.294
	Enjoyvacation	-.019	.045	-.022	-.422	.673
	Hardactivities	-.084	.039	-.150	-2.175	.030
	Softactivities	.035	.043	.049	.816	.415
	Pleasureactivities	.027	.038	.045	.701	.484
	Naturerules	.324	.062	.279	5.198	.000
	Mankindrules	.035	.042	.039	.823	.411
	Destructiveresults	.073	.035	.104	2.089	.037

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.907	.349		2.598	.010
	Age:	-.008	.011	-.037	-.727	.468
	Please mark the highest fulfilled education:	.033	.019	.082	1.770	.078
	Approximately what is your household income?	-.018	.010	-.080	-1.740	.083
	enjoynature	.243	.058	.218	4.164	.000
	Learning	.143	.051	.167	2.784	.006
	Entertainment	-.052	.049	-.060	-1.050	.294
	Enjoyvacation	-.019	.045	-.022	-.422	.673
	Hardactivities	-.084	.039	-.150	-2.175	.030
	Softactivities	.035	.043	.049	.816	.415
	Pleasureactivities	.027	.038	.045	.701	.484
	Naturerules	.324	.062	.279	5.198	.000
	Mankindrules	.035	.042	.039	.823	.411
	Destructiveresults	.073	.035	.104	2.089	.037

a. Dependent Variable: Responbehav

The independent variables "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" up against the dependent variable "Nature interest":

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.595[a]	.354	.330	.62651

a. Predictors: (Constant), Destructiveresults, Enjoyvacation, Approximately what is your household income?, Softactivities, Mankindrules, Please mark the highest fulfilled education:, Age:, enjoynature, Entertainment, Naturerules, Pleasureactivities, Learning, Hardactivities

Coefficients[a]

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.

	B	Std. Error	Beta		
1 (Constant)	-.198	.417		-.473	.636
Age:	-.016	.013	-.061	-1.233	.218
Please mark the highest fulfilled education:	.036	.023	.071	1.593	.112
Approximately what is your household income?	-.016	.012	-.057	-1.281	.201
enjoynature	.594	.070	.429	8.506	.000
Learning	-.013	.061	-.012	-.204	.838
Entertainment	.030	.059	.028	.514	.608
Enjoyvacation	-.009	.054	-.009	-.167	.867
Hardactivities	.158	.046	.227	3.425	.001
Softactivities	.046	.051	.053	.907	.365
Pleasureactivities	-.124	.046	-.169	-2.722	.007
Naturerules	.214	.075	.148	2.862	.004
Mankindrules	.093	.051	.084	1.831	.068
Destructiveresults	.006	.042	.007	.141	.888

a. Dependent Variable: natureinterest

The independent variables "Age", "Education level", "Income level", "Motivation", "Activities" and "Attitudes" up against the dependent variable "Environmental awareness":

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641[a]	.410	.388	.47044

a. Predictors: (Constant), Destructiveresults, Enjoyvacation,
Approximately what is your household income?, Softactivities,
Mankindrules, Please mark the highest fulfilled education:, Age:,
enjoynature, Entertainment, Naturerules, Pleasureactivities, Learning,
Hardactivities

Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	.112	.313		.357	.721
	Age:	.012	.010	.060	1.278	.202
	Please mark the highest fulfilled education:	.020	.017	.051	1.195	.233
	Approximately what is your household income?	.000	.009	-.002	-.057	.955
	enjoynature	.177	.052	.162	3.371	.001
	Learning	.317	.046	.379	6.877	.000
	Entertainment	.102	.044	.121	2.298	.022
	Enjoyvacation	-.017	.040	-.020	-.418	.676
	Hardactivities	.053	.035	.097	1.527	.128
	Softactivities	.011	.038	.015	.276	.782
	Pleasureactivities	-.052	.034	-.089	-1.508	.132
	Naturerules	.237	.056	.209	4.228	.000
	Mankindrules	.049	.038	.057	1.297	.196
	Destructiveresults	.007	.031	.010	.214	.831

a. Dependent Variable: envawareness