

# **Exposé**

## **Master Thesis**

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**CoVid-19, the awakening of a continent?**  
A quantitative study about the perception of the  
future of ecotourism by Europeans.

EMBS13

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## Abstract

**Background :** In 2019, the tourism industry was weighting 10.3% of the world's gross domestic product and was a growing industry in the last decade, creating jobs across the world (World Travel and Tourism Council, 2020). One sector of that industry has been growing even faster with the development of more responsible, sustainable tourism, and that is the so called "ecotourism" (Buckley, 1994). It is quite difficult to measure the exact size of the ecotourism sector since there are many definitions to this term (Williams, 1991; Higgins, 1996). A general description of ecotourism would be to say it is a way to do tourism by making the negative effects of it as little as possible on cultural, natural and social environments (Barr et al., 2003; United Nations Organization, 1999). The industry was meant to grow in the next years but a worldwide crisis as unexpected as it was fast spreading arrived: CoVid-19. The effects of this pandemic over our society are numerous leading to a fragilization of the World's economy. The tourism sector has been one of the most impacted by the crisis since people could not travel at all with cities, countries under lockdowns, borders closed and strict travel restrictions put into place to avoid the spread of the virus (United Nations World Tourism Organization, 2020).

**Aim :** The aim of the study is to apprehend the pandemic under another perspective, the perspective of travelers, in order to find opportunities to stimulate the tourism industry by developing ecotourism solutions according to the findings of this study.

**Methodology :** The methodological approach selected for this study is a quantitative approach. In order to have the perception really representative of the population and high it is relevant to proceed with such an approach in order to have answers from a high number of respondents. By consequence and also due to the current situation with the pandemic, the survey will be an online self-administrated questionnaire utilizing a snowball sampling technique. The study will take place mainly online everywhere in Europe if possible. The sampling for this study aims to target people that will travel in the future, are European citizens, 18 years old minimum and that have experienced a lockdown during the outbreak of CoVid19. The data collection will be made mainly via the Internet, online, using social media as a platform to spread the survey in an easier way and maybe more efficient way. So far, the data analysis procedures will be held with the use of a Structural Equation Modeling.

**Contributions :** This study contributes to help finding opportunities in the worldwide crisis the society is experiencing and redirect tourism into the good direction (Romagosa, 2020; Ioannides and Gyimóthy, 2020). From the academic perspective, this study will enrich the research field and expand it with new knowledge about a bright new topic, helping to develop the discipline and engage students in doing more research to understand future practices that could emerge in the tourism market (Higgins-Desbiolles, 2020). For practitioners and companies of the tourism industry, this study will lead to a better understanding of the phenomenon Covid-19 and the consequences over consumers' perception to understand the opportunities linked to ecotourism development.

**Keywords :** CoVid19 - Ecotourism - Individual's Perception - Sustainability

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# 1. Introduction

In 2019, the tourism industry was weighting 10.3% of the world's gross domestic product and was a growing industry in the last decade, creating jobs across the world (World Travel and Tourism Council, 2020). One sector of that industry has been growing even faster with the development of more responsible, sustainable tourism, and that is the so called "ecotourism" (Buckley, 1994). It is quite difficult to measure the exact size of the ecotourism sector since there are many different definitions to this term (Williams, 1991; Higgins, 1996). A general description of ecotourism would be to say it is a way to do tourism by making the negative effects of it as little as possible on cultural, natural and social environments (Barr et al., 2003; United Nations Organization, 1999). The industry was meant to grow in the coming years but a worldwide crisis as unexpected as it was fast spreading arrived with CoVid-19. The effects of this pandemic over our society are numerous leading to a fragilization of the World's economy. The tourism sector has been one of the most impacted by the crisis since people could not travel at all with cities and countries under lockdowns, borders closed and strict travel restrictions put into place to avoid the spread of the virus (United Nations World Tourism Organization, 2020).

For a certain period, in some countries, households had to be in quarantine, not being allowed to leave their houses except for essential activities such as doing the groceries. Children had to stay home to follow online classes, workers were teleworking, and this resulted in empty cities. During this period, the internet has been used to share videos of people witnessing the return of wildlife in places where it has disappeared for decades due to human activities. Even before the pandemic happened, movements such as the ones leading by Greta Thundberg fighting for the environment have been rising more and more. The consciousness about environmental concerns have increased lately even more in the youngest population of the society (Jung et al., 2020). There have been a lot of indicators and alarms given to say that change should be done in our society, global warming being one of those, and in particular in the tourism sector.

CoVid-19 could be the trigger to a real significant changement in the tourism industry, going for more sustainability (Romagosa, 2020). It is known that after a crisis, a situation usually goes back to normal but in the case of CoVid-19, it is yet not quite sure if a return to normality can actually be possible (Navarro Jurado et al., 2020). This is the reason why it is interesting to understand how people, tourists perceive ecotourism now that they have experienced such an important crisis that prevented them from traveling for a certain period. Did this time spent in quarantine, blocked at home, made them change the perception they could have about tourism and be more sensible to more sustainable solutions now? According to the answers to those questions it could help understanding if the actual transformation from tourism as it used to be post-CoVid-19 to a sustainable, ecotourism is possible.

There are previous studies that have been made regarding ecotourism's topic in order to identify and define the profile of eco-tourists (Perkins et al., 2012; Dolnicar et al., 2013; Deng et al., 2015), to understand the nature-based and ecotourists behaviors and their behavioral intentions (Lee et al., 2018; Teeroovengadum, 2019; Pan et al., 2018) and the satisfaction through ecotourism (Lu et al., 2012; Castellanos-Verdugo et al., 2016). More recently, there have been studies focusing mainly on the impact of CoVid-19 on the tourism industry and the future of it linked to sustainability (Sigala, 2020; Romagosa, 2020; Jones and Comfort, 2020; Lew et al., 2020; Ioannides and Gyimóthy, 2020; Higgins-Desbiolles, 2020).

The pandemic being an event completely unexpected and new, it is difficult to find proper studies that have been made in the short amount of time there has been between the beginning of the pandemic and now. There are very few researches available at the moment since the pandemic is an

event that our society never experienced before having for consequences behaviors or intentions that might differ from what we could expect. It is primordial for our society to understand the consequences of this crisis in order to decide in which way to go in the following steps to restart gradually the economy (Ioannides and Gyimóthy, 2020). There are articles talking about the impact of CoVid-19 on tourism and ecotourism but in the literature there is a lack of empirical studies since those articles are mainly literature reviews (Sigala, 2020; Romagosa, 2020; Jones and Comfort, 2020; Alan A. Lew et al., 2020; Ioannides and Gyimóthy, 2020; Higgins-Desbiolles, 2020). There are very few articles dealing with the perception of individuals regarding CoVid-19 (Nguyen et al., 2020) and even fewer analyzing the impact of CoVid-19 on the perception of tourism (Deb and Nafi, 2020). When it happens, these articles are focusing on specific areas of the world such as Bangladesh or Vietnam (Nguyen et al., 2020; Deb and Nafi, 2020). There are no studies with sample or field research specifically focusing on Europeans' perceptions. It is important to take into consideration the Europeans perception since Europe until now was generating half of the world's outbound tourism and was receiving 50% of the world's tourist arrivals and over 37% of the global tourism receipts making Europe the most visited region in the world. Moreover, Europe contributed up to 782€ billion in 2018 and 14.4 million jobs to the tourism industry (World Tourism Organization, 2018). Due to the high involvement and contribution of this continent to the industry, it is by consequence relevant to understand the perception of Europeans.

This study contributes to help finding opportunities in the worldwide crisis the society is experiencing and redirect tourism into the best path possible (Romagosa, 2020; Ioannides and Gyimóthy, 2020). From the academic perspective, this study will enrich the research field and expand it with new knowledge about a bright new topic, helping to develop the discipline and engage students in doing more research to understand future practices that could emerge in the tourism market (Higgins-Desbiolles, 2020). For practitioners and companies of the tourism industry, this study will lead to a better understanding of the phenomenon Covid-19 and the consequences over consumers' perception to understand the opportunities linked to ecotourism development.

The aim of the study is to apprehend the pandemic under another perspective, the perspective of travelers, in order to find opportunities to stimulate the tourism industry by developing ecotourism solutions according to the findings of this study.

Firstly, the theoretical framing in which this study takes place will be detailed with the theories that have been used in order to develop a model corresponding to the topic of research with corresponding hypotheses. Then, the methodology will be developed the research design, the sample description, the data collection and the data evaluation. The expected contributions will be explained and the thesis chapters overview will be given. Finally, the work plan for the upcoming steps will be detailed and the references will be the last part of this exposé.

## 2. Theoretical Framing and Hypotheses

When doing a study, the definitions and theories used are highly important to understand and create the right model. In this part, the definitions of the terms and the context of the study will be explained. Then, the theories used to create the hypotheses and the final model for this study will be developed.

### 2.1. Definitions

Before starting to go in depth into the theories that will be used for this study, firstly it is useful to define properly the terms to be sure to have a good understanding of what is measured and understand the context in which this study is taking place.

#### 2.1.1. Ecotourism

It is quite difficult to find a common definition of ecotourism. There have been a lot of attempts and diverse propositions by researchers (Table 1).

*Table 1 : Ecotourism definitions*

Authors	Definition
Ceballos-Lascurain (1990)	Ecotourism is defined as a variable of tourism where traveling is linked to an activity that does not disturb or contaminate natural areas and with the aim of only admiring, enjoying and studying the territory, its wildlife and the cultural features form the past and present there.
The International Ecotourism Society (TIES) (1990)	It is traveling in a responsible way to natural areas that is protecting and conserving the environment and improving the life of local people.
Eagles (1992)	Ecotourism is characterized as being centered around the activity to travel for leisure in order to observe and experience nature.
Fennell (1999) ; T.H. Lee (2007)	Ecotourism is the activity to travel to places relatively undeveloped and natural with the aim of developing knowledge, admiring, enjoying natural areas and its wildlife, discovering the culture and history that can be found in the environment and participating in the conservation of it.
Ecotourism Australia (2008)	Ecotourism can be described as an environmentally and socially responsible tourism, having nature and environmental learning at the center of the experience.
Pipinos and Fokiali (2009)	Here ecotourism is defined as a singular alternative of tourism associated with environmentally and culturally

	sensitive places and developed to balance with issues traditional mass tourism caused.
Kirkby et al. (2011)	A mean for promoting environmental conservation, culture, and local livelihoods.
Zhang and Lei (2012)	Ecotourism is a considered as Ecotourism is therefore considered a sustainable development path for regions with plenty of touristic resources, because it channels financial benefits to the local population
Reimer and Walter (2013)	It is a tourism that is putting under spotlights the environmental conservation, ecological sustainability and keeping and developing the natural affinity making tourists to come.
Chiu et al. (2014)	Ecotourism is about the natural conservation of touristic places aiming to develop environmental knowledge and awareness for tourists that will have to behave in an environmentally responsible way and not harm those natural areas.

For this study we will define ecotourism as being a tourism where natural environments are supported, conserved in a way that helps local people and does not damage the environment.

### 2.1.2. CoVid-19

In order to understand the crisis the society is currently experiencing, it is important to understand and define what exactly is CoVid-19.

CoVid-19 is an infectious virus that has been discovered recently in December 2019. The first place that has been infected is the province of Wuhan in China (Chen et al., 2019). CoVid-19 is a highly infectious virus and can be transmitted from droplets from the mouth or nose coming from an infected person. The syndromes are linked to respiratory tract infections that can be severe and lead to death.

Firstly, the virus was confined to China but it fastly spread to the rest of the world. In early March, there were over 100,000 cases confirmed in 114 countries (Table 2). The 11 of March 2020, the situation has been characterized as a pandemic by the World Health Organization.

The epicenter of the pandemic moved from China to Europe and then to the United States. Extraordinary measures have been taken by national authorities in order to stop the spreading of the virus and limit the hospitals being unable to take care of all the diseased. Those extraordinary measures being putting countries under lockdown, households in quarantine with authorization to leave their houses only for necessity occasions (groceries), self-isolation, national borders closed. This quickly led to strict travel restrictions and the closing of airports and international transportations.

Majority of the European countries ended up under lockdowns. Only Sweden did not decide to do a lockdown. The governments of each country have to face an economic crisis since the national and international activities have been strongly reduced, almost stopped for a certain amount of time. The consequence of it is the world experiencing a temporary de-globalisation (Niewiadomski, 2020).



Table 2 : Cases and deaths of CoVid-19 in Europe and in the World

Date	World		Europe	
	Total Cases	Total Deaths	Total Cases	Total Deaths
11th of March	124,148	4,651	22,352	1,002
11th of April	1 634,630	105,385	858,958	76,063
11th of May	4 034,873	280,864	1 726,109	156,738
11th of June	7 254, 825	412,529	2 320,032	185,484
11th of July	12 328,847	552,604	2 895,302	199,112
11th of August	19 954,991	727,022	3 625,154	211,801
11th of September	28 067,211	906,261	4 734,302	224,829

Source : World Health Organisation

For the half of the last century one of the manifestations of globalization was the popularization of international tourism but the pandemic stopped the growing industry. This crisis is the first in its kind our society is experiencing historically. There never has been any event with such impact over the society recorded in the modern history of humankind. That is the reason why the consequences of it to go back to a normal situation may require evolutionary changes.

## 2.2. Perceived risk theory

Bauer states "Consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which at least are likely to be unpleasant" (1960, p. 24). The perceived risk is basically composed by what is called the perceived uncertainty and the perceived consequences (Figure 1). The consequences are what would it cost to the person to take that decision, buy this item (Cox and Rich, 1964 p.33). The uncertainty is more linked to the probabilistic beliefs of individuals (e.g., Peter and Tarpey, 1975).

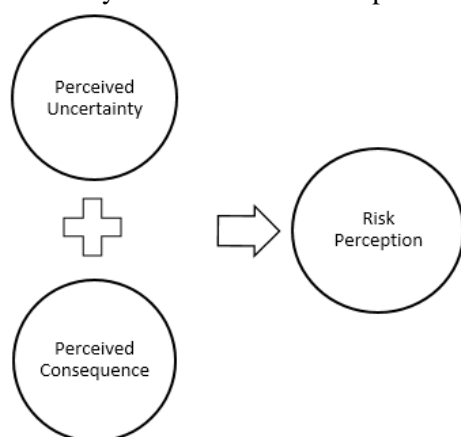


Figure 1 : Perceived Risk Model

The dimension of perceived risk is important for the model that will be used in this study in order to understand how CoVid-19 (considered as the perceived risk) is influencing the attitudes and the perceived behavioral control of the respondents (Quintal et al., 2010). The perceived risk can be defined as the expectation of a negative potential loss that might most likely impact the attitudes for a behavior negatively (Campbell and Goodstein, 2001; Lobb et al., 2007; Stoddard and Fern, 1999).

**Hypothesis 1 :** *As the perceived risk of CoVid-19 increases, a person's environmental attitudes become more negative.*

## 2.3. Value-belief-norm theory

The theory of Stern (2000), the value-belief-norm theory of environmentalism states according to the factors influencing an individual environmentalism, the environmental value influences the beliefs of a person and by consequences is influencing the personal norms and behavior. It is about the relationship between environmental concerns and behaviors. The beliefs are meant to evolve during a person's life (Rokeach, 1968) and by consequence could be modified over time in order to generate certain behavior changes (Figure 2).

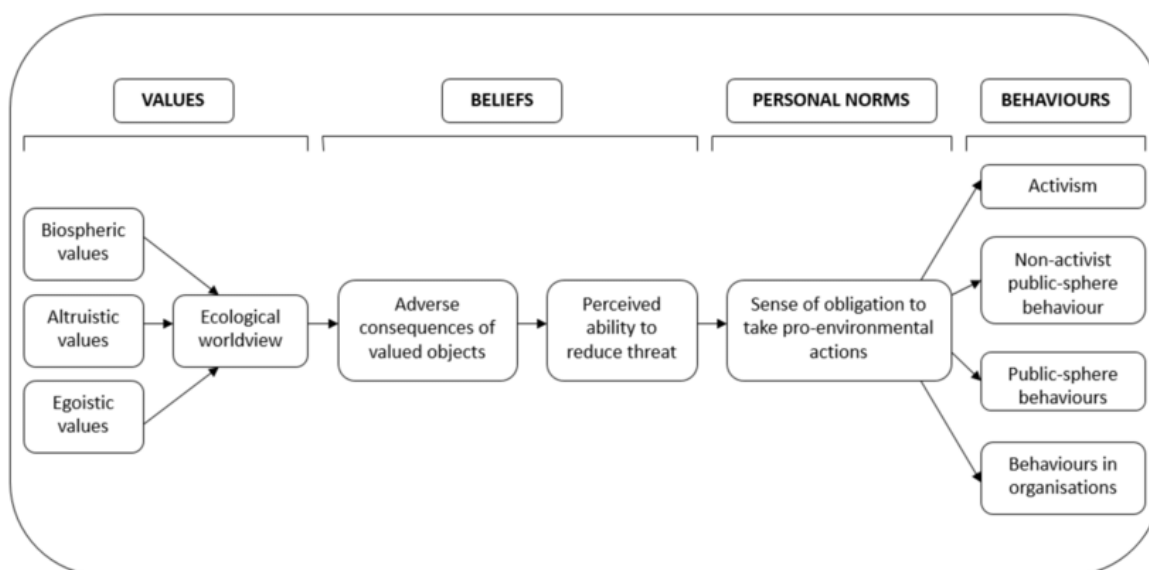


Figure 2 : Value-Belief-Norm Theory

For our study, it is quite important to have this understanding about how people are behaving or will behave, what are the reasons behind it and how to affect it more precisely when it is directly linked to environmentalism.

Environmental values influence beliefs (Stern, 1999) that then influence norms and behaviors. It has been said by previous studies that the biospheric value is impacting positively the environmental attitudes and then the environmental behavior (Jakovcevic and Steg, 2013). The value, attitudes and beliefs are playing an important role in the definition of social norms and responsibility for individuals having for consequence to influence specific behaviors and here, more responsible behavior (Stern et al., 1999). For this reason in this hypothesis we will measure the positive impact of biospheric value towards environmental attitudes (Lee and Jan, 2017):

**Hypothesis 2 :** *Biospheric value is positively related to environmental attitudes.*

## 2.4. Technology Acceptance Model

The Technology Acceptance Model is giving two indicators of what is influencing the behaviors intention and the final behavior with the perceived usefulness and the perceived ease of use (Figure 3). Davis (1989) states that those two indicators are highly important in order to have a real effect on the behavior. The aim is to predict the future acceptance of a tool or how to modify it in order to make it acceptable. Ecotourism could be considered as an innovation in the market even though it has been present for a certain period. It is helping to develop awareness and knowledge about environmental issues (Kirkby et al., 2011).

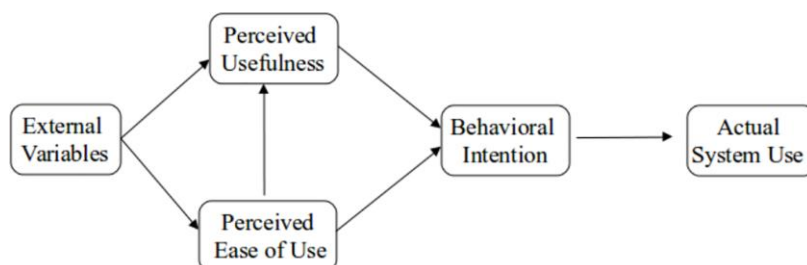


Figure 3 : Technology Acceptance Model

In the context of this study, the Technology of Acceptance Model would link the perceived usefulness of ecotourism to the environmental attitude and then to the ecotourism behavioral intention and the ecotourism behavior. According to TIES (2015), ecotourism could give to the tourists some knowledge about ecosystems and cultures. By consequence ecotourism could be considered useful to them, changing their environmental attitudes and leading to a changement in the environmental behavior (Lee, 2007).

**Hypothesis 3 :** *Perceived ecotourism usefulness is positively related to environmental attitudes.*

## 2.5. Social Identity Theory

In order to have a better understanding of people, the Identity Theory will help to understand what the individual identity is made of. I could be described as “a set of meanings attached to the self that serves as a standard or reference that guides behavior in situations” (Stets and Biga, 2003, p. 401). The Identity Theory (Nunkoo and Gursoy, 2012) is important because it help us to understand that the identity of a person has a direct impact on the behavior of that same person and that person will try to avoid to meet situations where internal conflicts could occur and will tend to match its actions with its identity (Burke and Stets, 1999; Callero, 1985; Stets and Biga, 2003; Stryker, 1968). In order to complete this theory, the Social Identity Theory (Tajfel and Turner, 1986) indicates that individuals are apt to identify themselves and others in different social classifications. They tend to behave in a group-based way, following the norms of those social categories having for result to potentially affect their personal behavior.

In this study, the self-identity of respondents will be considered as their own understanding of themselves as being tourists having an ecotourism behavior. The more the ecotourism self-identity is strong, the more important is the environmental attitude (Lee and Jan, 2017).

**Hypothesis 4 :** *Ecotourism self-identity is positively related to environmental attitudes.*

## 2.6. Theory of Planned Behavior

Understanding how the human behaves, understanding its behavior is an important step to reach. For that, there is the theory that has been introduced by Ajzen : the Theory of Planned Behavior (Ajzen, 1991). This theory has been used in order to assess and predict human behavior. Since the conducted study aims to understand the perception of individuals, it is logical to understand their behaviors and what are the factors influencing them.

The Theory of Planned Behavior is an extension of the Theory of Reasoned Action (Ajzen and Fishbein, 1980) since it is adding the idea of perceived behavioral control that is close to the concept of self-efficacy that is the perception a person has about himself on his/her ability to have that certain behavior.

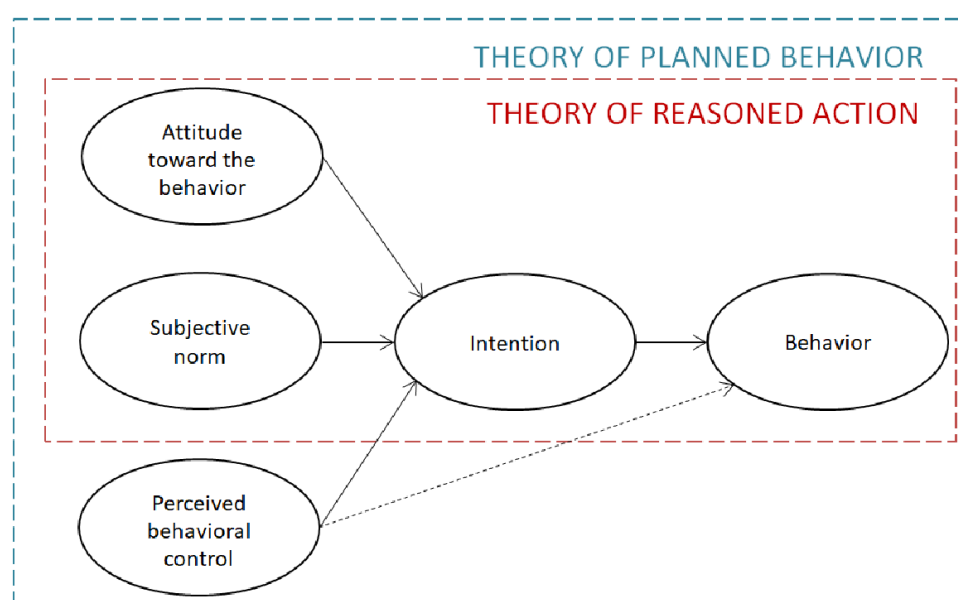


Figure 4 : Theory of Planned Behavior and Reasoned Action

The Theory of Planned Behavior indicates the human attitude toward environmental behavior is represented by the environmental attitudes (Ajzen, 1991). Subjective norms could also be described as the perception of social pressure a person could feel to engage or not in a specific behavior (Ajzen, 1991). Concerning the perceived behavioral control, it is the evaluation a person would do to decide how easy or difficult it would be to do or not a specific behavior. Finally, the behavioral intention describes the degree of willingness to act for the corresponding behavior. Ajzen's theory states attitude and perceived behavioral control affect in a positive way the behavioral intention and then will affect positively the actual behavior (Figure 4). We can say attitudes, subjective norms and perceived behavioral control are affecting the behavioral intentions. In order to be clearer, we could describe behavioral intention as "an indication of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior"(Ajzen, 1991).

This theory is the main theory that will be used in the creation of the model of the study. The focus will be done on the relation between attitudes and behavioral intentions. The choice of this focus has been made because previous studies have shown that attitudes were the most powerful and influential predictor variable leading to behavioral intentions in an environmental and ecotourism context (Hines et al., 1987; Millar et al., 2012). In the context of this study, the behavioral intentions are considered as the intentions of respondents to engage or not in ecotourism in the future. Since the actual behavior will not be measured, it is not taken into consideration.

There are past studies that have been developing explanations and predictions about how attitudes influence behavioral intentions (Armitage and Conner, 2001). There are various definitions about attitudes and environmental attitudes. The attitudes could be explained as the examination people develop about the potential results in engaging with a certain behavior (Baumgartner and Pieters, 2008, p. 367). The attitudes are taking an important role in the determination of the behavioral intentions (Ajzen, 1991). The environmental attitudes could be defined as the level of how dedicated and supportive a person is towards things related to the environment (Abdollahzadehgan et al., 2013). Researches have been made in order to demonstrate the positive relationship between the environmental attitudes and behavioral intentions (Lee and Moscardo, 2005; Sharpley, 2006). The positive correlation between those two constructs has been found (Gursoy, Boylu, and Avci 2011; Mason and Nassivera 2013) and further developed in the tourism literature (Lai and Nepal 2006; Nunkoo, Gursoy, and Ramkissoon 2013).

In order to understand if environmental attitudes are positively related to behavioral intentions (Lee and Jan, 2017), meaning the intention to engage in ecotourism, the following hypothesis will be developed:

**Hypothesis 5 :** *Environmental attitudes are positively related to ecotourism behavioral intentions.*

## 2.7. Research model

By merging the different models seen before, this would create the research model for this study (Figure 5). Five theories are included within this model in order to have a deep understanding of individuals' perceptions and counting the factor of CoVid-19 into it.

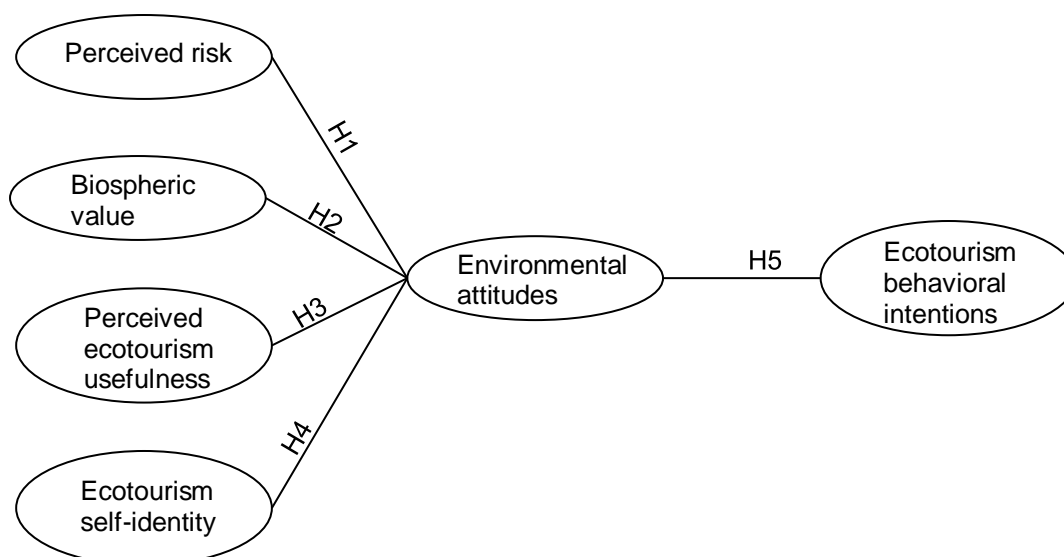


Figure 5 : Model to measure the impact of CoVid-19 on the perception of individuals about ecotourism

The hypothesis matching this model are the following :

**Hypothesis 1 :** *As the perceived risk of CoVid-19 increases, a person's environmental attitudes become more negative.*

**Hypothesis 2 :** *Biospheric value is positively related to environmental attitudes.*

**Hypothesis 3** : *Perceived ecotourism usefulness is positively related to environmental attitudes.*

**Hypothesis 4** : *Ecotourism self-identity is positively related to environmental attitudes.*

**Hypothesis 5** : *Environmental attitudes are positively related to ecotourism behavioral intentions.*

### **3. Literature review table**

In order to develop the theoretical framework and hypotheses for this study, several articles have been studied and used in the process. In Table 3 the main articles with their contributions to this research are explained.

*Table 3 : Literature review*

<b>Title</b>	<b>Author(s)</b>	<b>Year</b>	<b>Contributions</b>
Ecotourism behavior of nature-based tourists: An integrative framework	Lee, T. H., & Jan, F.-H.	2017	Description of diverse theories (TPB, TAM, Value-belief-norm, Social Identity) and creation of a model that is used in this study.
Risk, uncertainty and the theory of planned behavior: A tourism example.	Quintal, V. A., Lee, J. A., & Soutar, G. N.	2010	Description of the perceived risk theory and model that have been used in this research.
The Theory of Planned Behavior.	Ajzen, I.	1991	Theory of Planned Behavior that is playing an important role in the model of this study.
COVID-19: from temporary de-globalisation to a re-discovery of tourism?	Niewiadomski, P.	2020	Description of the CoVid-19 situation and impact over the tourism industry.
The “war over tourism”: challenges to sustainable tourism in the tourism academy after COVID-19	Higgins-Desbiolles, F.	2020	Understanding of the CoVid-19 situation and sustainable tourism.

Environmental values and the so-called true ecotourist.	Perkins, H. E., & Brown, P. R.	2012	Understand ecotourists profile and the behaviors for environmental conservation and protection.
The COVID-19 crisis: Opportunities for sustainable and proximity tourism	Romagosa, F.	2020	Description of the possibilities CoVid-19 is offering for sustainable tourism and contribution to the gap research.
Impact of the Covid-19 pandemic on perceptions and behaviors of university students in Vietnam	Nguyen, D. V., Pham, G. H., & Nguyen, D. N.	2020	Study on the perception of students about the pandemic overall and contribution to the gap research.
Impact of COVID-19 Pandemic on Tourism: Perceptions from Bangladesh	Deb, S. & Nafi, S.	2020	Study on the perceptions of people in Bangladesh about the impact of the pandemic on ecotourism and contribution to the gap research.
A Framework for Ecotourism.	Buckley, R.	1994	Develop a better understanding about ecotourism.
Self-identification of ecotourists.	Deng, J., & Li, J.	2014	Understand the ecotourists and self-identification.
Will the Future Be Greener? The Environmental Behavioral Intentions of University Tourism Students.	Pan, S.-L., Chou, J., Morrison, A., Huang, W.-S., & Lin, M.-C.	2018	Study to question the future intentions in a more sustainable tourism industry before CoVid-19.
The COVID-19 crisis as an opportunity for escaping the unsustainable global tourism path	Ioannides, D., & Gyimóthy, S.	2020	Development of ideas to explain why CoVid-19 is an opportunity for sustainable tourism. Contribution to the gap research.
Correlation between the environmental knowledge, environmental attitude, and behavioral intention of tourists for ecotourists in China	Zheng, Q.	2018	Information for the development of theoretical framework more precisely for the relationship between attitudes and behavioral intentions and the creation of hypotheses.
Intention to visit and willingness to pay	Hultman, M., Kazeminia, A., &	2015	Formulation of hypotheses and development of theoretical



premium for ecotourism: The impact of attitude, materialism, and motivation	Ghasemi, V.		framework concerning the theory of planned behavior with the construct of attitudes and behavioral intentions.
The Influence of Materialism on Ecotourism Attitudes and Behaviors	Lu, A. C. C., Gursay, D., & Del Chiappa, G.	2014	Development of hypotheses and support for the Theory of Planned Behavior.

## 4. Methodology

### 4.1. Research context and sample description

The methodological approach selected for this study is a quantitative approach. In order to have the perception really representative of the population and high it is relevant to proceed with such an approach to have answers from a high number of respondents. Also, it is an efficient method to save time for the short period available to administer the survey and analyze it (Bryman and Bell, 2007). By consequence, and due to the current situation with the pandemic, the survey will be an online self-administrated questionnaire utilizing a convenience sampling. The survey will be provided in English and in case of a low number of answers it will be considered to translate it by native speakers in other languages (French, Spanish, German, Italian...).

The study will take place mainly online and everywhere in Europe if possible. The participants will be older than 18 years old considered as the minimum age required to travel by themselves. The participants should be European citizens, should plan to travel in the future and have experienced a lockdown during the outbreak of CoVid-19. To make sure the participants are part of the people this study is targeting there will be filter questions since the beginning of the survey. It will be directly asked if the person experienced a lockdown : yes or no, if he/she would like to travel in the future : yes or no. To be sure the participants have a little bit of knowledge about ecotourism, tourism or sustainability, the survey will be spread on social groups related to those topics and a small sentence will be given in the questionnaire in order to explain in few words the terminology ecotourism. The sample should try to be as representative as possible of European or Western European countries. To sum up, the participant should :

- be aged of minimum 18 years old
- be an European citizen
- have experienced a lockdown during CoVid-19 pandemic
- plan on traveling in the future
- have a little knowledge about ecotourism

There are no additional criteria to be added since the aim of the study is to understand if CoVid-19 influenced the perception of the environment and ecotourism in a broad way. The aim is not to only select ecotourist profiles or a certain category of the European population but to understand the overall point of view of the European population on that matter. According to the results of the survey then it



will be interesting to study if the sociodemographic factors are impacting the perception of the participants for instance.

## 4.2. Research design

The questionnaire will be structured in a way that allows a good understanding of the reasoning followed by the study and for the respondents it will be easy to follow their progress with a system showing it to them while filling the survey.

The structure of the survey will be the following :

- 1- Introduction (short text explaining the situation, that it is anonymous, how much time it is taking to fill the survey...)
- 2- Filter questions (to be sure the participant is matching our target)
- 2- CoVid-19
- 3- Environmental issues and concerns
- 4- Tourism and ecotourism
- ... Sociodemographic factors and respondents profile...

Of course, when the participants will have access to the survey a small, but effective, introduction will be there to describe and explain the aim of the study with an estimation of how much time the survey will be taken from them followed by the filter questions. Then questions will be ask about CoVid-19 for the perceived risk part. Following this part, the survey will focus more on the environmental issues and concerns of the respondent. And finally, questions will be directly linked to the ecotourism, asking if they are more likely to travel in the future using sustainable, responsible, eco-tourism solutions. This way, in each category, questions will be ordered in a way to fit to the topic related and match with the research model and theories used in this study. In the Table 4 are developed the first items that will be used in the survey.

*Table 4 : Items for the questionnaire*

Construct	#	Adapted from	Item	Item modified
Perceived Risk	1	Dryhurst et al. (2020)	How worried are you personally about the following issues at present? - Coronavirus/COVID-19	I am personally worried about the CoVid-19 issues.
	2	Dryhurst et al. (2020)	How likely do you think it is that you will be directly and personally affected by the following in the next 6 months? - Catching the coronavirus/COVID-19	CoVid-19 might change my traveling plans in the next 6 months.
	3	Dryhurst et al. (2020)	How much do you agree or disagree with the following statements? - I will probably get sick with the coronavirus/ COVID-19	I will probably get sick with the coronavirus/ COVID-19 if I am traveling.

<b>Biospheric Value</b>	<b>4</b>	Lee (2011)	“We human beings should not damage the beauty of the nature; ”	Human beings should not damage the beauty of the nature.
	<b>5</b>	Lee (2011)	“We human beings should live harmoniously with the nature; ”	Human beings should live harmoniously with the nature.
	<b>6</b>	Lee (2011)	“It would be a shame if we human beings damage the environment for our benefits.”	Same
<b>Perceived Usefulness</b>	<b>7</b>	Wu and Hsu (2018)	Ecotourism can enable me to obtain knowledge about ecology and environment	Ecotourism can help me to obtain knowledge about the environment
	<b>8</b>	Wu and Hsu (2018)	Ecotourism can enable me to pursue related ecological information more	Ecotourism can push me to look more for information about the environment
	<b>9</b>	Wu and Hsu (2018)	Ecotourism has a value higher than other tourism types	Ecotourism has more value than other types of tourism (examples)
	<b>10</b>	Wu and Hsu (2018)	Ecotourism can increase the value of life	Same
<b>Self-Identity</b>	<b>11</b>	Teeroovengadum (2019)	Indifferent about VS very concerned about the natural environment	I am concerned about the natural environment.
	<b>12</b>	Teeroovengadum (2019)	Wanting to utilize VS wanting to preserve the natural environment	I want to preserve the natural environment.
	<b>13</b>	Teeroovengadum (2019)	Not respectful toward VS very respectful toward the environment	I’m respectful toward the environment.
	<b>14</b>	Teeroovengadum (2019)	Superior VS inferior to the environment	I feel superior to the environment.
<b>Environmental attitudes</b>	<b>15</b>	Krider et al. (2010)	Humans are severely abusing the environment.	Humans are abusing the environment.
	<b>16</b>	Krider et al. (2010)	The earth has plenty of natural resources if we just learn how to develop them.	Same

	17	Krider et al. (2010)	The balance of nature is strong enough to cope with the impacts of modern industrialisations.	Same
	18	Krider et al. (2010)	If things continue on their present course, we will soon experience a major ecological catastrophe.	Same
<b>Behavioral Intentions</b>	19	Hultman et al (2015)	There is a high likelihood that I will visit an ecotourism destination within a foreseeable future	There is a high likelihood that I will travel in the future
	20	Hultman et al (2015)	There is a high likelihood that I will visit an ecotourism destination within a foreseeable future	Same
	21	Hultman et al (2015)	I intend to visit an ecotourism destination within a foreseeable future.	Same
	22	Hultman et al (2015)	I will visit an ecotourism destination within the next 12 months.	Same

### 4.3. Data collection procedures

In order to calculate the size of the sample the Slovin's Formula has been used. Where  $n$  is the sample size we are looking for,  $N$  is the total population and  $e$  is the error tolerance or margin of error.

$$n = N / (1 + N \cdot e^2)$$

In this situation, the confidence level will be at 95% since we want to have the best accuracy so our error tolerance will be 0,05. We already know the size of the population of Europe (447.706.209) but we do not know how many people are exactly interested in ecotourism nor environmental issues neither how many of them were exactly under lockdown during the pandemic. This is the reason why the overall European Union population will be taken into account. Since we do not take into consideration people younger than 18 years old, this population has been removed from the overall population. In 2016, 15% of the European population were under 14 years old (Eurostat, 2016), if we remove this proportion of the population that should be 18 years old in 2020, then we can have more or less an idea of the overall population (not considering the deaths in the meantime).

$$N = 447706209 \cdot (1 - 0,15) = 3080550277,7$$

$$e = 0,05$$

$$3080550277,7 / (1 + 3080550277,7 \cdot 0.05^2) = 399,999 = 400$$

According to the Slovin's Formula, the ideal sample size to be the most representative of the population would be 400 participants. In order to double check, those numbers have been computed in the online sample size calculator Raosoft and the software indicated the recommended sample should be 385. However, since the overall population is not absolutely certain, further researches have been done looking at previous studies that have been made in the field of ecotourism and the size of their samples were significantly close to the number found in this situation.

Table 5 : Articles and sample size

Articles	Sample size
Nguyen, D. V., Pham, G. H., & Nguyen, D. N. (2020). Impact of the Covid-19 pandemic on perceptions and behaviors of university students in Vietnam. <i>Data in Brief</i> , 31, 105880.	440
Perkins, H. E., & Brown, P. R. (2012). Environmental Values and the So-Called True Ecotourist. <i>Journal of Travel Research</i> , 51(6), 793–803.	258
Lee, T. H., & Jan, F.-H. (2017). Ecotourism Behavior of Nature-Based Tourists: An Integrative Framework. <i>Journal of Travel Research</i> , 57(6), 792–810.	136
Castellanos-Verdugo, M., Vega-Vázquez, M., Oviedo-García, M. Á., & Orgaz-Agüera, F. (2016). The relevance of psychological factors in the ecotourist experience satisfaction through ecotourist site perceived value. <i>Journal of Cleaner Production</i> , 124, 226–235.	471
Lu, W., & Stepchenkova, S. (2012). Ecotourism experiences reported online: Classification of satisfaction attributes. <i>Tourism Management</i> , 33(3), 702–712.	300
Zheng, Q. J. (2018). Correlation Between The Environmental Knowledge, Environmental Attitude, And Behavioral Intention Of Tourists For Ecotourism In China. <i>Applied Ecology and Environmental Research</i> , 16(1), 51–62.	372
Chiu, Y.-T. H., Lee, W.-I., & Chen, T.-H. (2014). Environmentally responsible behavior in ecotourism: Antecedents and implications. <i>Tourism Management</i> , 40, 321–329.	328

The ideal would be to have a margin of error of 5%. If the sample size is 300, the error margin would be 5.66% that is the reason why the sample size should at least be above 300.

The data collection will follow an empirical sampling since we do not have access to data base to pick randomly participant with an equal chance to be selected. Following the characteristics of the population we already know; we will try to represent at least each European country according to the proportion of each population in Europe.

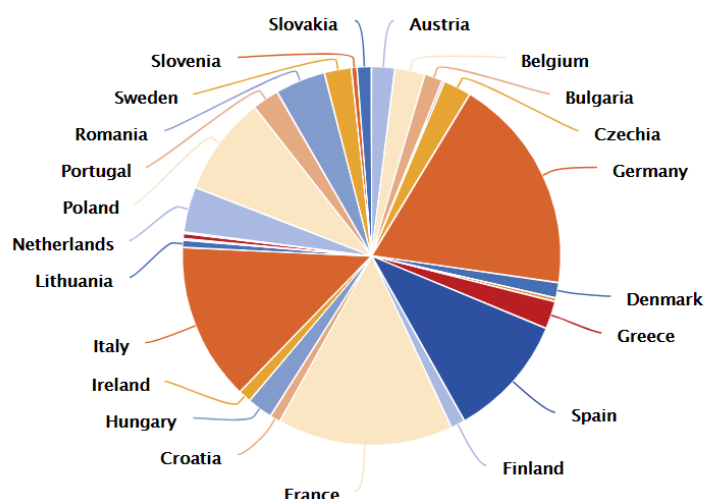


Figure 6 : Population by country

Country	Population	%	Country	Population	%	Country	Population	%
Austria	8901064	1,99	Spain	47329981	10,57	Latvia	1907675	0,43
Belgium	11549888	2,58	Finland	5525292	1,23	Malta	514564	0,11
Bulgaria	6951482	1,55	France	67098824	14,99	Netherlands	17407585	3,89
Cyprus	888005	0,20	Croatia	4058165	0,91	Poland	37958138	8,48
Czechia	10693939	2,39	Hungary	9769526	2,18	Portugal	10295909	2,30
Germany	83166711	18,58	Ireland	4963839	1,11	Romania	19317984	4,31
Denmark	5822763	1,30	Italy	60244639	13,46	Sweden	10327589	2,31
Estonia	1328976	0,30	Lithuania	2794090	0,62	Slovenia	2095861	0,47
Greece	10709739	2,39	Luxembourg	626108	0,14	Slovakia	5457873	1,22
						<b>SUM</b>	<b>447706209</b>	<b>100</b>

Table 6 : Population by country and weight in percentage

Source : Eurostat

The strategy for the sampling will be done in two steps. The first step will be a convenience sample which means a sample that is easy to have access to for instance via personal social medias. The second step will be to ask to the participants, once they answered the survey, to spread the survey to people they know that might be concerned about this study and susceptible to participate as well. The goal in doing this is to have a snowball effect, helping us to gather a certain amount of data and respondent in a short period of time (Fowler 2013). Doing so, this will lead to an ever-expanding set of potential respondents (Goldenberg et al., 2009). It will help us to reach people from different areas, countries of Europe.

The data collection will be made mainly via the Internet, online, using as a first step the personal social medias (Facebook, Instagram, Whatsapp, LinkedIn, Youtube...) as platforms to spread the survey in an easier way and maybe more efficient way. As explained earlier, in order to make sure people answering the survey are corresponding to the target group needed, there will be filter questions since the beginning of the questionnaire. Moreover, in order to incentive people to answer the survey and at

the same time to be sure they have a minimum knowledge about environmental issues or the tourism industry, people that may have hedonistic motivation throughout the study (eco-sensitive people, travelers...) will be directly contacted. To do so, a list of Facebook groups (Table 5) have been developed gathering sustainable and touristic topics, European and English-speaking groups only so far. This list will be developed in the future according to how well the survey will be spread. Then, it can be considered to translate the survey in other languages and spread to groups gathering the same topics but in their own languages to reach more people. The aim is to focus on groups of people with hedonistic motivation, having natural incentives and interests in answering the survey and people interested a little bit to environmental and tourism topics.

*Table 7 : Potential Facebook groups related to the study to spread the questionnaire*

Name of the group	Link
Ecotourism	<a href="https://www.facebook.com/groups/735513543311720/">https://www.facebook.com/groups/735513543311720/</a>
Ecotourism	<a href="https://www.facebook.com/groups/40755188700/">https://www.facebook.com/groups/40755188700/</a>
Sustainable Living	<a href="https://www.facebook.com/groups/1506863119534951/">https://www.facebook.com/groups/1506863119534951/</a>
Eco-friendly, Sustainability, Ethical & Going Green	<a href="https://www.facebook.com/groups/sustainableandecofriendly/">https://www.facebook.com/groups/sustainableandecofriendly/</a>
Yes to Sustainability - Youth Erasmus+ Projects	<a href="https://www.facebook.com/groups/259417304458631/">https://www.facebook.com/groups/259417304458631/</a>
Eco friendly and Sustainable Living	<a href="https://www.facebook.com/groups/1049909145146714/">https://www.facebook.com/groups/1049909145146714/</a>
Sustainable Development Goals for the 2030 Agenda	<a href="https://www.facebook.com/groups/369823038490/">https://www.facebook.com/groups/369823038490/</a>
Young leaders in Energy and Sustainability - Europe	<a href="https://www.facebook.com/yes.energy.europe/">https://www.facebook.com/yes.energy.europe/</a>
EUROPE ☐☐ Travel Community	<a href="https://www.facebook.com/groups/EUROPEbackpackerTRAVELER/">https://www.facebook.com/groups/EUROPEbackpackerTRAVELER/</a>
Self sufficiency, permaculture and sustainable living (UK & Europe)	<a href="https://www.facebook.com/groups/431720677023109/">https://www.facebook.com/groups/431720677023109/</a>
Traveling and camping in Europe	<a href="https://www.facebook.com/groups/410882135690808/">https://www.facebook.com/groups/410882135690808/</a>
Travel and Tourism	<a href="https://www.facebook.com/groups/433024676868583/">https://www.facebook.com/groups/433024676868583/</a>
Backpacking Europe	<a href="https://www.facebook.com/groups/BackpackingEuropeGroup/">https://www.facebook.com/groups/BackpackingEuropeGroup/</a>
GERMANY ☐☐ Travel Community	<a href="https://www.facebook.com/groups/GermanyBackpackerTraveler/">https://www.facebook.com/groups/GermanyBackpackerTraveler/</a>
Sustainable Travel & Tourism	<a href="https://www.facebook.com/groups/306571766058883/">https://www.facebook.com/groups/306571766058883/</a>
Ambassadors of Sustainability	<a href="https://www.facebook.com/groups/3746720922023120/">https://www.facebook.com/groups/3746720922023120/</a>
Sustainable Travel Creatives, Bloggers & Content Creators	<a href="https://www.facebook.com/groups/sustainabletravelcreatives/">https://www.facebook.com/groups/sustainabletravelcreatives/</a>

## 4.4. Data analysis procedures

The items that will be measuring the constructs will be built on the theories presented earlier : Theory of Perceived Risk, Value-Belief-Norm, Technology Acceptance Model, Social Identity and Planned Behavior. To do so, a Likert-type scale will be used having 1 = “strongly disagree” to 5 = “strongly agree”. The survey will be design and spread through the online platform Sphix. From this platform, the data will be collected and then, analyzed.

The data analysis procedures will be held via SPSS in order to understand the data retrieved from Sphix with the use of a Structural Equation Modeling. This method aims to evaluate the causal relationships between variables, those variables being the hypothesis presented earlier in this document.

## 5. Expected Contributions

The aim of this study is to understand if the pandemic our society experienced has an impact on the ecotourism perception of individuals. If people that faced a lockdown, not able to travel, made them more conscious about their environment and the way they use to travel. This study has different contributions to different fields : social, practical and academic.

Firstly, in a social perspective, for our society it would help to find opportunities in the worldwide crisis experienced and redirect tourism into the best path possible (Romagosa, 2020; Ioannides and Gyimóthy, 2020). To do so, according to the findings of this study, the results might indicate a significant increase of environmental consciousness by the tourists and potential tourists towards the tourism industry. For the society to engage in a transition and transformation of how we used to consider the tourism industry it is relevant to understand the point of view of people using such services to restart the activity in the best conditions and as soon as possible to move away from the economic crisis.

Secondly, linked directly to our society, for the practitioners and companies in the tourism industry, this study will lead to a better understanding of the phenomenon Covid-19 and the consequences over consumers' perception to understand the opportunities linked to ecotourism development.

Finally, for the academic perspective and for the scholars, this study will enrich the research field of tourism and bring new knowledge about a bright new topic with CoVid-19, helping to develop the discipline and engage scholars in doing more research to understand future practices that could emerge in the tourism market (Higgins-Desbiolles, 2020). Thanks to the results of this study, it would be possible to understand if the outbreak of CoVid-19 may contribute to a sustainable consumption transition and by consequence, deeper researches could be conducted in the field of tourism but also extended to other consumption fields.

## 6. Limitations

The development of this study has some limitations like most of researches. Firstly, the current situation with CoVid-19 makes this study only feasible online. For this reason, it might be difficult to reach a sample big enough and completely representative of all the European countries populations rather than an on field study. Secondly, respondents may give answers now that may change later due



to the current situation we are living in, events are changing fast from a day, week, month, to another. It may be possible a participant willing to travel in the next 6 months but in the end will not be able to because of other factors. Each country may have different rules applied during this pandemic, impacting differently the participants according to their nationality/where they live. This is one of the reason why this study is analyzing the intentions and not the actual behaviors of the respondents. Studying the actual behaviors would be the next step for future studies. Thirdly, CoVid-19 being a new event to our society, there are very few researches already made to compare this study with. Fourthly, the participants may be biased when answering to the questionnaire for example saying they are very concerned about environmental issues in order to socially look better. Finally, it is very subjective the way participants will answer with the Likert scale. It is like when a doctor is asking for the pain between 0 and 10, according to the person it may vary a lot on how they estimate their own pain.

Further limitations of this study could be linked directly to the theories used in order to create the model. Not the entire parts of each theories have been used to create the model but only the parts that appeared being the most relevant for this study (for example in the Theory of Planned Behavior, the model is not taking into account the perceived behavioral control and the subjective norm). In addition, there might be alternative theories that could help the study but this would create a complex model difficult to implement and that should be verify in advance. Further researches could be done in the field using alternative model to verify if the results would be the same.

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## 8. Workplan

This workplan has changed already several times in the process of this thesis, and might change in the future, but this is a clear representation of how it should be in the upcoming weeks and months.

After having find a topic, did some research about it, develop a theoretical framework with the creation of a model with hypotheses and a methodology, this exposé will be submitted. After the feedbacks receiving by the tutor, some additional modifications will be made to the exposé before its publication. Then will come the development of the instrument with the design of the survey, the test of it and the approval. Once this will be done, the survey will be spread as explained earlier in this document, mostly via Internet. For now, the period to spread the survey has been estimated for a up to two weeks overall but this might change according to the number of answers (half week 43 until half week 45). The goal is to spread the questionnaire at its maximum and collecting as much as possible data across all Europe. That is the reason why two weeks seemed to be fair in order to collect the amount of data needed. The received answers will be checked everyday and at the same time places where to spread the survey will be searched in order to increase the probability of receiving answers. Of course, if the 300-400 useable answers have been collected before that date, then the data evaluation will start before. As soon as the amount of answers will be collected, the data cleaning and analysis will start. This will be done for a period of a month more or less but this might potentially change according to the progress of the work. Once those important steps will be done, the redaction of the final thesis will start until the date of the final thesis submission (Table 6).

Table 8 : Planning for the thesis organization

Activities		September					October				November					December				January			
		36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	1	2	3	4
Phase 1	Topic definition																						
	Literature research																						
	Literature reading																						
Phase 2	Theoretical framework development																						
	Model development																						
	Hypotheses development																						
	Methodology development																						
	Exposé submission																						
	Exposé modifications																						
Phase 3	Development of the Instrument																						
	Design																						
	Test																						
	Approval																						
Phase 4	Data Collection																						
Phase 5	Data evaluation																						
	Literature development																						
Phase 6	Writing of the thesis																						
	Finalisation																						
Phase 7	Deadline final thesis																						
Phase 8	Defence																						

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