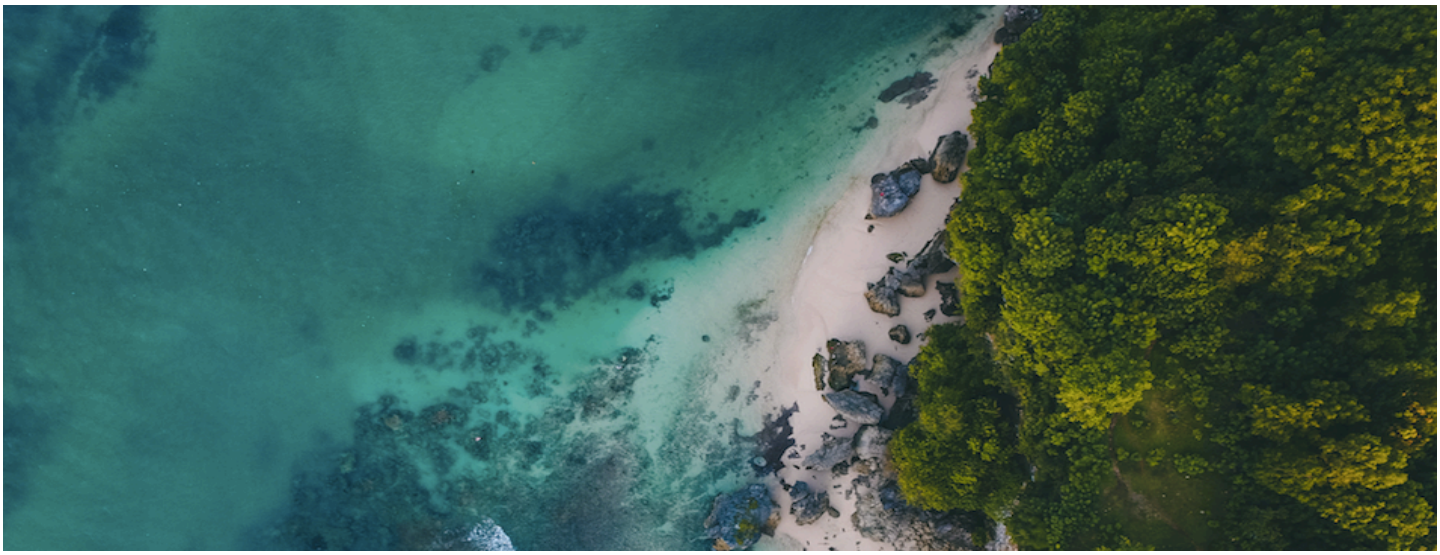
Towards changing global mobility patterns

Investigating individuals' pro-environmental intentions formation in the airline industry context



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Submission date: 14 May 2020

Number of standard pages: 78,02

Number of characters including spaces: 177 496

ABSTRACT

There is almost an unambiguous agreement that climate change is likely to jeopardize various aspects of people's lives in the near future. Even though more and more individuals become environmentally conscious, acknowledging the destructive contribution of some industries remains neglected. One prominent example is aviation, which impacts on climate change has yet to be understood by many. Indeed, individuals from neoliberal societies increasingly value binge mobility and psychological benefits gained through air travel. Nonetheless, to slow climate change down, there is a need to act upon it on an individual level by changing one's mobility patterns.

This study aims to holistically understand the formation of pro-environmental intentions amongst individuals in the context of aviation. Specifically, personal and social norms are known to directly predict intentions. Moreover, flying shame, yet to be investigated in academia, potentially affects intentions formation likewise. Finally, legitimacy as a perception approach is incorporated into the conceptual framework and forms the fourth direct antecedent of intentions. Overall, the conceptual framework is based on the Norm Activation Model, broadened with the Value-Attitude-Behavior hierarchy, the Theory of Planned Behavior, and two individual concepts - social norm and anticipated feeling of guilt. To reach this study's objectives, quantitative research approach was adopted. Specifically, the data was collected through an online survey on a sample of Denmark's residents. Multiple regression analyses further analyzed the data.

The findings indicate that personal and social norms only partially influence pro-environmental intentions. On the other hand, flying shame was evidenced to affect all the intentions included in the framework. In contrast, an individual's legitimacy judgment was found not to be significant at all.

To sum up, this research enhances the holistic understanding of pro-environmental intentions formation within aviation, taking account of the concepts of flying shame and legitimacy as a perception, not previously investigated in such context within the environmental psychology field. As for limitations, the study was not cross-cultural, measured intentions towards solely short-route journeys, and made assumptions on how to adequately measure flying shame. Finally, the findings may be of value for policymakers, activists, NGOs, and brands wishing to act upon changing consumers' mobility patterns towards more environmentally friendly ones.

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1. INTRODUCTION

"[...] Nature is angry. And we fool ourselves if we think we can fool nature. Because nature always strikes back. And around the world, nature is striking back with fury. Consider the last few months. July - the hottest month ever. June through August - the hottest summer in the Northern hemisphere ever; and the second hottest winter in the Southern hemisphere ever. The years 2015 to 2019 - the five hottest years on the books ever. Our warming earth is issuing a chilling cry: stop. If we don't urgently change our ways of life, we jeopardize life itself. Look around. Seas are rising and oceans are acidifying. Glaciers are melting and corals are bleaching. Droughts are spreading and wildfires are burning. Deserts are expanding and access to water is dwindling. Heatwaves are scorching and natural disasters are multiplying. Storms everywhere are more intense. More frequent. More deadly. [...] Make no mistake, when we see those images, we are not just seeing damage. We are seeing the future - if we do not act now", said António Guterres, United Nations' Secretary General, during his opening speech at 2019 Climate Action Summit, which took place on 23th of September 2019 in New York City (United Nations, 2019a, lines 3-19, 25-26). With these words, he tackled the undeniable damage done to the planet and the urgency of starting to actively act upon climate change, which is at the heart of this study.

Climate change, widely accepted to be caused by increasing carbon dioxide (CO_2) emissions (Zhang & Zhang, 2018), is now considered as irreversible and as one of the most defining issues of our times. In line with the growth of populations and economies, the cumulative level of these emissions has risen to levels never previously seen (United Nations, 2020). As the global emissions did not seem to be peaking, United Nations convoked the Climate Action Summit in September 2019, calling leaders not to make speeches but to present extensive yet realistic plans on how to enhance their climate practices.

The summit reasserted the significance of 1.5 °C being a safe limit to global warming in this century, as previously emphasized by The Paris Agreement (United Nations Framework Convention on Climate Change, 2020). As further agreed, in order to reach this goal, the world needs to cooperate in order to achieve net-zero emissions by 2050 (United Nations, 2019b). According to António Guterres, *"[...] Science also tells us it is not too late. We can do it. Limiting warming to 1.5 ºC is still possible. But it will require fundamental transformations in all aspects of society - how we grow food,*

use land, fuel our transport and power our economies. We need to link climate change to a new model of development - a fair globalization - with less suffering, more justice and harmony between people and planet" (United Nations, 2019a, lines 51-53). Therefore, it is evident that crucial alterations tackling climate change need to be implemented, not only on an organizational but also individual level.

Overall, it is a widely accepted belief that behaving pro-environmentally is nowadays crucial. However, not as many behave accordingly to the worldviews held, and the engagement with climate change remains somewhat limited, as indicated by the attitude-behavior gap (e.g. Kollmuss & Agyeman, 2002). In order to further increase pro-environmental practices within the aviation industry, it is deemed necessary to primarily comprehend what enhances them. Early research on personal and social norms sheds some light on this problematical issue. According to Schwartz (1977), deciding to perform particular pro-environmental behavior is determined by one's evaluation of an act as morally right or wrong (personal norm) or reflection of how reference persons, significant to an individual, perceive the issue. These concepts, up to this date, remain crucial to investigate in the field of environmental psychology.

Over the last five decades, tourism has been continuously growing (World Tourism Organization, 2020). Due to a variety of causes - namely strong global economy, growing importance of the role of middle class, technology improvements, lowering costs of traveling and enhanced visa facilitation – international tourist arrivals have increased from 25 million in 1950 to 1.4 billion in 2018 (World Tourism Organization, 2017, 2019). Moreover, World Travel and Tourism Council (2020) highlights that the growth of the tourism sector (3.5 % in 2019) outpaced the one of the global economy as a whole (2.5 % in 2018) for the past nine years.

Being environmentally conscious has become a norm that many individuals chose to follow. However, a significant disparity between aspiring to act in an environmentally friendly way at home and away from it has been evidenced (Barr, Shaw, Coles & Prillwitz, 2010). Even if consumers aim to alter their detrimental habits at home and around it, these beliefs do not easily translate to the context of aviation. Above all else, not many admit being willing to give up air travel, which is likely to result in their psychological benefits (Clark & Calleja, 2008; Elliott, 1994, in Higham, Cohen & Cavaliere, 2014, p. 462).

Up to this date, aviation accounts for around 2 % of the total worldwide human-made CO_2 emissions (International Air Transport Association, 2018). While this contribution may seem relatively low, it is crucial to take into account that in industrialized economies it is likely to be considerably higher than the global average (Becken, 2002, in Gössling, 2009, p. 17). The aviation sector's rapid growth should be acknowledged, likewise. In line with International Civil Aviation Organization (2019), the number of passengers carried worldwide surpassed 4.3 billion in 2018, pointing out to 6.4 % growth in relation to the previous year. Moreover, aviation has been the primary mode of transport for years now, and its share had increased from 46 % in 2000 to 58 % in 2018. Surprisingly, journeys by train accounted for 2 % of the total share only, despite railway being widely presented as a fast and convenient alternative to air traveling on short distances (World Tourism Organization, 2019).

Most evidently, some nations acknowledge the severity of aviation on climate change better than the others. One prominent example is Sweden, where the increasing environmental awareness has led to an emergence of a novel environmental movement, called flying shame. Consequently, mobility patterns of Swedes seem to be slowly changing. For instance, Swedavia AB, a Swedish company that owns and operates ten busiest airports in Sweden, registered a year-on-year drop in the number of passengers in January-March 2019. Meanwhile, SJ, Sweden's state train operator, noted a record number of 32 million passengers in 2018, associated with the growing appreciation of traveling in an environmentally conscious way (Hoikkala & Magnusson, 2019). Trains are commonly thought to be the greenest options nowadays, as they produce up to 90 % less CO_2 emissions than flights covering the same route (Tyers, 2020). Indeed, even KLM Royal Dutch Airlines have encouraged their passengers to switch to trains on short routes in order to reduce their carbon footprint (Asquith, 2020).

Flying shame puts pressure not only on individuals but on airlines as well. Even though SAS (Scandinavian Airlines System), the flag carrier of Denmark, Norway, and Sweden, has not yet seen such a decline on its domestic flights as Swedavia, they acknowledge the dynamic climate debate happening in Sweden and its direct effects on the aviation. As for now, SAS focused mainly on replacing its older aircraft with the ones being more fuel-efficient and hoping to use more biofuel in the near future (Hoikkala & Magnusson, 2019; Rolander, Hoikkala & Magnusson, 2019).

Until now, there have been no attempts to further investigate flying shame in academia, even though the movement emerged back in 2017. Therefore, little is known about how the concept should be

defined, whom does it affect, what are its direct consequences, or is it likewise acknowledged by other nations. In line with these gaps, this research attempts to shed some light on the interrelationship of flying shame and individuals' intentions to opt out of air traveling, accounting for the perspective of residents of Denmark, both geographically and culturally close to Sweden.

What is more, according to Gössling et al. (2019), public debate on how legitimate air travel is has been until now noticeably neglected. Even though the concept of legitimacy seems to be well-rooted in various research disciplines, mainly organizational studies, little attention has been given to how individuals perceive it (Tost, 2011). It is thus considered relevant to take account of legitimacy as a perception approach and contribute to the understanding of legitimacy in the context of aviation.

1.1 OBJECTIVES AND RESEARCH QUESTION

Even though the interrelationship of air travel and climate change has recently gained increased academic attention, its extensive understanding remains limited. In light of the challenge to significantly lower the CO_2 emissions worldwide, this study aims to touch upon pro-environmental intentions formation from an individual perspective, in the context of aviation.

Most importantly, the concept of the emotion of shame has been neglected in the pro-environmental research, and little is known about the legitimacy as a perception approach likewise. Flying shame, a fairly novel movement, touched upon in this paper together with a somewhat unfamiliar aspect of legitimacy, comprises an area of research not previously investigated. Moreover, it is the first known research examining these two constructs together. To the best of the author's knowledge, it is also one of the first attempts to investigate flying shame aside from mass media.

In line with the presented objectives, this thesis aims to address the following research question:

Why do some individuals intend to opt out of air travel and turn to more environmentally friendly transport alternatives when traveling on a short route, despite flying being nowadays a norm?

In order to exhaustively answer the proposed research question, three sub-questions are further introduced:

1. How do personal and social norms affect consumers' pro-environmental intentions formation?

2. How does flying shame affect consumers' pro-environmental intentions formation?

3. How does the perception of the airline industry's legitimacy affect consumers' pro-environmental intentions formation?

1.2 SCOPE AND DELIMITATION

Primarily, this paper aims to investigate the antecedents of pro-environmental intentions formation within aviation, on a sample consisting solely of residents of Denmark. Despite the final sample not being homogenous in terms of nationality, all the participants were residing in Denmark at the time of filling out the questionnaires. Therefore, this study's findings are restricted to the context of consumer behavior in Denmark. Nonetheless, there were no further delimitations in terms of gender, age, or highest level of education completed, as to depict a generalized view of the whole society.

As to meet the objectives of this research, a conceptual framework comprising the Norm Activation Model, broadened with the social norm, the anticipated feeling of guilt, the Value-Attitude-Behavior hierarchy, and the Theory of Planned Behavior has been employed. Despite aiming to carry out a holistic investigation, not all the constructs relevant for the understanding of pro-environmental behavior could have been touched upon due to the restraints of time and scope of this paper.

Another significant delimitation concerns focusing solely on intentions formation and not accounting for their translation into real behaviors. Moreover, the focus has been limited solely to short-route journeys, as it was evidenced by past research that even the most environmentally conscious consumers may not wish to transfer their beliefs into action. In an era of air travel being desirable by many individuals within industrialized societies, which commonly resembles a behavioral addiction, it is therefore deemed relevant to carry out the investigation starting with minor alternations to one's lifestyle.

1.3 STRUCTURE OF THE PAPER

This paper is comprised of seven main parts. The first part, Introduction, presents an overview of the chosen topic, its relevance, and addresses specific research objectives and research question. In the second part, Literature review, existing literature on three central cores forming this paper – consumer mobility patterns in the face of climate change, emotions, and legitimacy – is reviewed in detail. The third part, Hypotheses development, primarily focuses on presenting the hypotheses developed in line with the previously outlined research gaps and depicts a conceptual model in which the proposed hypotheses have been integrated. Then, part four of the thesis, Methodology, reveals the research design and the line of reasoning for all the subsequent methodological choices. Next, part five, Findings, presents all the results of the six individual regression analyses carried out. In the sixth part, Discussion, both theoretical and practical implications are touched upon. Specifically, all the suggested hypotheses are addressed and compared to the previously introduced, underlying theories. Finally, the seventh and last part, Conclusions, comprises an answer to the research question and sub-questions posed at the beginning of this paper. Furthermore, this study's limitations are discussed, and suggestions to guide future research are offered.

2. LITERATURE REVIEW

In this section, an overview of the past research on consumer mobility, the emotions of shame, guilt, and embarrassment, and the concept of legitimacy will be provided. The objectives of this review are to present essential theories contributing to the understanding of individuals' pro-environmental intentions formation and to identify causal relationships between the key constructs.

2.1 GLOBAL MOBILITY PATTERNS IN AN ERA OF CLIMATE CHANGE

There is now a broad consensus that human activity has significantly affected the state of the earth as it is today (Gössling & Peeters, 2015; Lorenzoni, Nicholson-Cole & Whitmarsh, 2007). Consequently, it is commonly agreed that the tourism sector's strong growth trend is closely related to climate change (Pang, McKercher & Prideaux, 2013, in Cohen, Higham & Reis, 2013, p. 983), due to CO_2 emissions related with consumers mobility (Higham, Cohen, Cavaliere, Reis & Finkler, 2016). Nowadays, the tourism industry is facing a great challenge, as it is continuously pressured to act on sustainability while the demand for traveling grows (Becken, 2019; Gössling, 2009).

When investigating the interrelationship of leisure tourism and irreversible damage done to the planet throughout the past decades, various academics have pointed out to the growing issue of tourist air travel (e.g. Upham & Gössling, 2009). Indeed, it is now broadly acknowledged that aviation contributes to increasing global warming (Gössling, Haglund, Kallgren, Revahl & Hultman, 2009). Even though the experiences gained through air traveling are likely to provide psychological benefits to individual leisure travelers (Clark & Calleja, 2008; Elliott, 1994, in Higham et al., 2014, p. 462), societal goals related to controlling climate change are in an intensifying conflict with aviation (Upham & Gössling, 2009; Gössling, Hanna, Higham, Cohen & Hopkins, 2019).

Shorter, but more frequent trips and visiting more distant destinations are two major patterns that emerged in the last decade among tourists coming from the industrialized countries. In the wake of such a mobility shift, aviation seems to be a meaningful facilitator (Adams, 2005, in Gössling & Peeters, 2007, p. 402-403). Air travel, luxurious, expensive, and only accessible to some a few decades ago, has shifted to be nowadays a norm in leisure mobility (Hall, 2004; McDonald, Oates, Thyne, Timmis & Carlile, 2015). Indeed, researchers point out that we now live in an era of

hypermobility – once an aspiration, air travel currently seems to be a social norm that many consumers have begun to feel entitled to (Shaw & Thomas, 2006, in McDonald et al., 2015, p. 1507). Above all, hypermobility plays an essential role in the lives of industrialized societies, accustomed to the growing network of airports, relatively cheap flights, and more leisure time (Hall, 2004).

Unconstrained consumption, encouraged by considerable freedom of choice as a laying foundation of contemporary neoliberal societies (Harvey, 2010; Urry, 2009), has recently been referred to resemble a behavioral addiction (Cohen, Higham & Cavaliere, 2011; Rosenthal, 2010). Indeed, high personal aero mobility, appraised by some as binge mobility, has encountered widespread critique due to its collective, unevenly distributed climate change implications (e.g. Cohen et al., 2011; Urry, 2009). Nonetheless, the questions regarding the perceived necessity of flying were until recently conveniently disregarded by the masses prioritizing excessive air traveling (Young et al., 2014, in Gössling et al., 2019, p. 9).

Low cost is nowadays one of the significant inducements of air traveling (Randles & Mander, 2009), pushing the demand for aviation towards continuous growth. Various low-cost carriers sell their tickets at the prices often way lower than the cost of fuel and handling fees, making price their key sales argument (Gössling et al., 2019). Air travel being widely considered as a desirable social norm, incentivized by the massive growth of low-cost carriers, mainly in the European Union is now being presented as a major obstacle to necessary behavioral change (Higham et al., 2014). Consequently, Becken (2007) points out potential difficulties in breaking people's tourism-related habits, based on inexpensive air travel, as such practices have embedded into lifestyles that many individuals aspire for. It was likewise evidenced by Barr et al. (2010) that even the most environmentally conscious consumers desired to travel to distant locations, despite their apparent awareness of air travel's contribution to the environmental issues.

According to Urry (2011), flying can be regarded as an indicator of social standing. It is rather evident that not all social groups proportionally participate in air traveling (Randles & Mander, 2009). As an example, significant parts of the societies belonging to the global South rarely fly, mostly due to the financial restraints, complex visa processes, or lack of air travel opportunities (Gössling et al., 2019). Indeed, despite widespread beliefs that social inclusion in air traveling has increased due to the introduction of various low-cost carriers in the 1990s, it cannot be denied that it is still the highest

income consumers who fly the most, undertaking trips more frequently than before (Casey, 2010 in Higham et al., 2016, p. 337).

Academics and practitioners tackling climate change are more and more concerned with behavior change of consumers (e.g. Barr et al., 2010). Changing the travel consumption patterns is deemed necessary, as continuously increasing CO_2 emissions associated with aviation make it evident that *"technology and management will not be sufficient to achieve even modest absolute emission reductions"* (Gössling, Hall, Peeters & Scott, 2010, p. 119). New aircraft technologies have so far not brought upon significant positive impact, and meanwhile, the growth of aviation has been unstoppable. Hence, tourist researches underlined the necessity of taking fewer flights, staying longer in one place, and opting for more sustainable modes of transportation (Kroesen, 2013).

Notably, the smartest move towards reducing CO_2 emissions from air travel would be to simply stop flying (Debbage & Debbage, 2019). However, freedom to travel is firmly rooted in the cultures of contemporary neoliberal societies (Becken, 2007), and some of the individuals justify their air travel behaviors as unavoidable (Gössling et al., 2019). Therefore, pressuring behavior change of the individuals from the industrialized societies, who comprise the majority of air travelers worldwide, remains challenging (Cohen et al., 2011). Schwartz (1977) pointed out the necessity of influencing personal and social norms that determine the pro-environmental behaviors of an individual. In terms of a personal norm, a feeling of being morally obliged is likely to evoke a behavioral change. In contrast, as for a social norm, considering the expectations held by significant others regarding a specific behavior guides the process (Schwartz, 1977).

The matter of an apparent disparity between attitudes and behaviors concerning sustainability has been touched upon in the previous academic work within social sciences (e.g. Carrington, Neville & Whitwell, 2010). Past research on a wide scope of pro-environmental behaviors shed some light on how consumers who were aware and approved of specific products or lifestyle alterations, were not necessarily willing to change their unsustainable behavioral patterns (e.g. Barr, 2004; Budeanu, 2007; Gupta & Ogden, 2009 in McDonald et al., 2015, p. 1503). Even though a public anxiousness over the environmental effects of aviation was found to be prominent, e.g. in Norway (Higham & Cohen, 2011) and the United Kingdom (Cohen & Higham, 2011), the dissonance between awareness, attitude and positive behavior change has been evidenced by many (e.g. Hares, Dickinson & Wilkes, 2010).

Such a disparity between being aware of intensifying climate change on the one hand but not behaving in harmony with it on the other is characteristic of the so-called value-action or attitude-behavior gap (e.g. Kollmuss & Agyeman, 2002).

Indeed, engagement with climate change seems to be hindered by a variety of barriers (Lorenzoni et al., 2007). Generally, as to reduce the attitude-behavior gap, the focus should not be placed on making consumers aware that taking care of the environment is necessary, but rather on compelling reasoning towards eliciting behavioral change (e.g. Hopper & Nielsen, 1991). This may be further facilitated by a set of basic human values held by some of the individuals. It has been proven by past research that individuals holding self-transcendence values are eager to account for the interests of the collectivity, whereas the ones holding to self-enhancement values rather consider solely their interests (Schwartz, 1992, 1994). Therefore, challenging some of the unsustainable behaviors may not be equally effortless for all.

The existence of the attitude-behavior gap can be partly clarified by apprehending yet another disparity between behaviors at home and away from it. Specifically, the results of Barr et al.'s (2010) study indicate that consumers who usually got involved in a variety of pro-environmental practices at home did not show a willingness to transfer these behaviors to the tourism context, particularly their low-cost air travel practices. Despite some beliefs that tourism-related behaviors more and more blend into the course of daily lives (e.g. Larsen, 2008, in Cohen et al., 2013, p. 984), tourism is still rather widely considered as an extraordinary experience, contrasting dailiness (Tung & Ritchie, 2011, in Cohen et al., 2013, p. 984). Furthermore, some individuals tend to care about acting pro-environmentally solely at home, in order to be able to trade-off for not sticking to such rules while traveling (Barr et al., 2010).

2.2 VARIOUS FACES OF SHAME

2.2.1 DEFINING SHAME AND UNVEILING ITS MULTIPLE FACES

In the research on the role of emotions in marketing, the emotion was defined as *"a mental state of readiness that arises from cognitive appraisals of events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically (e.g., in gestures, posture,*

facial features); and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it" (Bagozzi, Gopinath & Nyer, 1999, p. 184). Shame, as one of them, is widely considered to be intense, negative, as well as causing one to feel inferior, powerless, and self-conscious (e.g. Tangney, Miller, Flicker & Barlow, 1996 in Andrews, Qian & Valentine, 2002, p. 29-30).

Due to its interrelatedness to the interests of welfare of society, shame is also considered to be one of the moral emotions (Haidt, 2003, in Murphy & Kiffin-Petersen, 2017, p. 658). Moral emotions primarily evaluate the morality of one's particular behavior, and this behavior's reflection of the self (e.g. Lazarus, 1991, in Hillebrandt & Barclay, 2020, p. 3). At the occurrence of negative moral emotions, behaviors strictly related to them are thought to be less rewarding, and the chances to engage in such behaviors, later on, are significantly lower (Tangney, Stuewig & Mashek, 2007). Therefore, by immediately pointing out how appropriate performed behavior is, behaviors are either punished or reinforced by the occurrence of moral emotions (Hillebrandt & Barclay, 2020).

Various academics have touched upon the emotion of shame in diverse contexts. Organizational life is one of the most prominent examples. For instance, Daniels and Robinson (2019) reviewed the dominant role of shame in the workplace. They developed a framework that emphasized the factors instigating shame on workers (i.e. triggering shame unintentionally or performing shaming on purpose) and behavior-related outcomes relevant at work (i.e. prosocial, withdrawal, or aggressive behaviors). According to other researchers examining the same field, shame was found to be an essential mediator between cheating and overall justice values in the organization (Hillebrandt & Barclay, 2020).

On a different note, within the health research, Andrews et al. (2002) considered the role of shame in the way of predicting depressive symptoms. Moreover, Weingarden, Renshaw, Davidson and Wilhelm (2017) filled in a research gap concerned with not distinguishing general perceptions of shame from body shaming. Finally, reactions based on shame and guilt were linked to the field of migrant psychology by Ivey and Sonn (2020), explicitly touching upon decisions of migrants to leave their homeland.

As evident, the role of shame has been up to this date studied in a variety of contexts within various research disciplines, and this overview attempted to reveal just some of the investigations, not aiming to be exhaustive. However, to the best of the author's knowledge, the emotion of shame has not been previously touched upon in the context of pro-environmental research, forming a major research gap.

2.2.2 DIFFERENTIATING SHAME, GUILT AND EMBARRASSMENT

While investigating shame, researchers have frequently focused on considering the faulty beliefs surrounding this particular emotion. Specifically, the emotions of shame, guilt, and embarrassment are widely compared and, at times, confused. This confusion was already addressed decades ago by Schneider (1977, in Murphy & Kiffin-Petersen, 2017, p. 659). According to him, shame can be associated with e.g. embarrassment, pride, narcissism, disgrace, and humiliation, whereas guilt – with e.g. transgression, duty, offense, and obligation.

As for similarities, they all belong to the group of self-conscious emotions as they necessitate self-reflection and come forth as a result of one's failure to live up to expectations or standards (Tangney & Dearing, 2002; Tracy & Robins, 2004, in Daniels & Robinson, 2019, p. 2450). They are likewise viewed as social emotions, considering their emergence when the self fails to meet the society-shaped standards (Leary, 2007, in Daniels & Robinson, 2019, p. 2450-2451). Moreover, they are classified as moral emotions due to their aversive nature, pressuring to behave in an appropriate, benefiting others, way (Tangney et al., 2007).

Nonetheless, the scope of the appraisal is what differentiates these three emotions from one another. According to Lewis (1971), shame involves the focus on the global self in the form of negative evaluation (I am a bad person). In contrast, guilt concentrates on a specific behavior (I behaved badly). Guilt is likewise believed to induce adaptive and more emphatic behaviors, whereas shame instead brings forth anger attacks and behaviors much less emphatic (e.g. Eisenberg, 2000, in Rüsch, Corrigan, Bohus, Jacob, Brueck & Lieb, 2007, p. 314). Besides, embarrassment expresses a negative appraisal of one's impressions of violating social conventions (Tangney et al., 1996, in Daniels & Robinson, 2019, p. 2451). In the last decades, various studies supported Lewis' (1971) view on the differentiation of shame and guilt.

2.2.3 FLYING SHAME MOVEMENT

Public debate on the legitimacy of air traveling has not gained considerable attention until relatively recently. Global attention to the issue of the necessity of limiting flying was brought up by the 'Fridays for future', a global movement of students, pressuring for prompt actions towards climate change (Piskorz, 2019). Nonetheless, contemplating one's decision whether to fly or not, due to environmental concerns, has already been touched upon in the past research, yet not unambiguously conceptualized. For instance, Randles and Mander (2009) raised the issue of frequent flying long before 'Fridays for future' came into being. According to the authors: *"Accounts and justifications concerning frequent flying range from surprise that a taken-for-granted everyday activity which until very recently had been considered a culturally desirable thing to do, has suddenly become frowned upon; to a sense of almost guilty pleasure, apology and, at its extremes, defiance"* (p. 93). Later on, it was found out by Cohen and Higham (2011) that many consumers showed moral concerns regarding aviation. As a consequence, they were willing to stop flying, at least temporarily. Moreover, Higham et al. (2014) pointed to the emergence of the so-called flyers dilemma, considered as a growing tension between being concerned about the state of the earth on the one hand but longing for travel-related consumption including air travel on the other.

The anti-flying attitudes have been gathering pace over the last few years. Eventually, the so-called flying shame (*flygskam* in Swedish, interchangeably with flight shame) movement emerged in 2017 in Sweden. The term is believed to be developed by Staffan Lindberg, a Swedish singer, who in 2017 declared giving up air travel, due to the impact of carbon emissions produced by jets on the climate (Cerullo, 2019; Timperley, 2019). However, it was Greta Thunberg, a 17-years old Swedish environmental activist, who undoubtedly contributed the most to spreading the movement outside of Sweden and popularized it across the world. As an example, instead of flying to the recent United Nations 2019 Climate Action Summit, which took place in New York, she crossed the Atlantic on a zero-emissions sailing boat (Cerullo, 2019; The Guardian, 2020).

Specifically, the term flying shame assumes that one feels guilty upon a decision to take a flight, considering the urgent need to cut carbon emissions worldwide. It is also referred to as feeling embarrassed about flying while being conscious of the contemporary state of the environment. A great many of Swedes supported the movement both in real life as in social media, by sharing

#jagstannarpåmarken hashtag, meaning #istayontheground (Timperley, 2019). Alongside *flygskam*, Sweden has now seen another emerging trend – *tagskryt* (train bragging) (Hoikkala & Magnusson, 2019), as the high-speed railway is widely presented as a convenient and more environmentally friendly alternative to aviation (Kotoky, 2019).

Although the concept of shame evokes slightly negative connotations, the aim of the flying shame movement is directed less on shaming and more on bringing on a collaborative change towards more positive travel patterns. Indeed, endorsing flying less is by no means an equivalent of discouraging consumers from avoiding traveling at all costs (Timperley, 2019). Recently, the number of passengers traveling by air on domestic or short-haul routes seemed to be dropping in Sweden. Comparable to Swedish patterns, a decline in domestic air travel was also remarked in Germany (Asquith, 2020). The aviation industry was thus forced to adjust to these emerging trends. For instance, Skyscanner, one of the world's leading free flight comparison websites, now displays a greener choice label next to the flights that emit less CO_2 emissions compared to the average on the same route. Flights considered to be greener are the ones that choose more direct routes, have new aircraft, and more seats available (Tyers, 2020).

Further, the flying shame movement is believed to fuel a carbon offsetting boom. A carbon offset is a certificate that diminishes CO_2 emissions linked to an individual passenger on a specific flight, by lowering the emissions somewhere else in the world, e.g. in the form of clean energy projects like trees planting (Abington, Carr & Wilkes, 2019). However, it remains unclear whether such an offset indeed reduces the emissions. They were critiqued mainly on the premise of the time-lag – a flight taken today pollutes immediately, and a tree planted today will only start removing carbon in many years. Consequently, another danger of these relatively cheap certificates is that they may form an excuse to continue holding to the same flying patterns (Tyers, 2020).

As the flying shame movement is still relatively novel, there is visibly a research gap in academia regarding what exactly it is, whom does it affect, and what its consequences are. Presumably, the most environmentally conscious individuals could get affected by it in their air travel decision making, especially on short distances, as various alternatives are usually widely present. However, scientific research should verify such assumption. What is more, academics have up to this date not agreed on a precise definition of the movement. It cannot be stated with all the certainty then that the

flying shame touches upon the emotion of shame. As seen from explanations coming from mass media, feelings of flying shame are instead associated with guilt or embarrassment.

2.3 LEGITIMACY

2.3.1 DEFINING AND DIVIDING LEGITIMACY

Legitimacy has been a subject of thorough research in various disciplines, e.g. political science, psychology, philosophy, and sociology (Suddaby, Bitektine & Haack, 2017). Despite the existence of a social psychological approach (Tost, 2011), most researchers studying legitimacy typically adopt the definition of the construct coming from organization studies. Specifically, according to the institutional theory approach, legitimacy is regarded as a *"generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions"* (Suchman, 1995, p. 574). Moreover, it is seen as a multi-faceted and theoretically complex concept, compared to an interaction between individuals' perceptions and concrete social facts (Bitektine & Haack, 2015; Suddaby et al., 2017). It is also believed that entities can either gain or lose legitimacy over some time (Humphreys & LaTour, 2013).

Individuals generally evaluate how legitimate organizations or industries are according to various categories of the concept, as *"each type of legitimacy rests on a somewhat different behavioral dynamic"* (Suchman, 1995, p. 577). One of the most widely accepted typologies of the concept comes from an institutional approach. Pragmatic, moral, and cognitive are the three broad types of legitimacy that were further distinguished by Suchman (1995). Primarily, pragmatic legitimacy *"rests on the self-interested calculations of an organization's most immediate audiences"* (Suchman, 1995, p. 578). It is likewise interrelated to the capacity of achieving practical results in a particular organization's environment (Suddaby et al., 2017).

As for moral legitimacy, the organization's and its activities' positive normative evaluation is reflected. In contrast to pragmatic legitimacy, moral legitimacy *"rests not on judgments about whether a given activity benefits the evaluator, but rather on judgments about whether the activity is the right thing to do"* (Suchman, 1995, p. 579). Thus, moral legitimacy judgments reflect on whether an organization's activity contributes to the promotion of societal welfare (Suchman, 1995).

Lastly, cognitive legitimacy relates to taken-for-grantedness, i.e. not questioning the validity of a specific entity (Bitektine, 2011; Suchman, 1995). Consequently, in accordance with this dimension, no evaluations are carried out (Suchman, 1995; Tost, 2011). As argued by Tost (2011), cognitive legitimacy should not be regarded as a legitimacy dimension per se but rather indicate a lack of content. Nonetheless, Suchman (1995) considers this dimension as valid and *"the most powerful source of legitimacy identified to date"* (p. 583).

Moreover, the active and passive dimensions of the above-explained categories are further differentiated. Both pragmatic and moral legitimacy relies on ongoing assessments while cognitive legitimacy, in contrast, is seen as a form of a passive evaluation. Thus, cognitive legitimacy is visibly distinct from the two other types, which also require more elaborative judgments. Needless to say, this typology is not exhaustive within the legitimacy research. Several other dimensions of legitimacy have been distinguished alongside pragmatic, moral, and cognitive; however, the above-presented dimensions are most frequently measured (Alexiou & Wiggins, 2019). Above all, the approach of social psychologists presents a distinct division of the concept. According to Tost (2011), instrumental (i.e. pragmatic), relational, and moral dimensions are the ones underlying the judgments of legitimacy.

2.3.2 LEGITIMACY AS A PROPERTY, PROCESS AND PERCEPTION

According to the thematic analysis of legitimacy carried out by Suddaby et al. (2017), three various configurations of this construct occur. Specifically, legitimacy can be viewed either as a property, as a process or as a perception. Firstly, theorizing legitimacy as a property, resource, or capacity of a particular entity is a common practice, indeed applied by the majority of researchers within the field. Studies acknowledging this perspective primarily consider legitimacy as a product of both a particular organization and its external environment. Specifically, in this configuration, legitimacy is believed to be the outcome of congruence among the organization's manifestations of possessing legitimacy (e.g. structure, products, and routines) and the normative expectations that are present outside the entity (Suddaby et al., 2017).

Secondly, some oppose the view of legitimacy as property and rather incline towards evaluating this construct as an interactive process. In this case, legitimacy is widely examined as the outcome of

several actors (usually organizations) interacting with each other at a macro level. Moreover, legitimacy is no longer seen as a product of congruence, but researchers adopting this stance instead believe that legitimacy enables achieving it (Suddaby et al., 2017).

Thirdly, legitimacy can also be perceived as a socio-cognitive perception or evaluation. Researchers holding to this viewpoint recognize legitimacy as *"occurring between traditional levels of analysis as a cross-level process of perceptions, judgments of appropriateness and actions that occur in interactions between the collective and the individual"* (Suddaby et al., 2017, p. 451). Individual and collective cognition is believed to form the fundamental mechanism of constructing legitimacy (Suddaby et al., 2017).

Up to this date, researches have somewhat focused on legitimacy seen as either a property or a process and neglecting the third, perception approach (Deephouse & Suchman, 2008, in Alexiou & Wiggins, 2019, p. 471). A large part of legitimacy's empirical research adopted the collective perceptions of e.g. government regulators or media, as characteristic for many other organizational constructs (e.g. Bitektine, 2011; Deephouse & Suchman, 2008, in Alexiou & Wiggins, 2019, p. 471). Therefore, it is evident that the approach of legitimacy as perception should be given more attention, in order to enhance the legitimacy research with some novel, meaningful contributions.

2.3.3 INDIVIDUALS' LEGITIMACY JUDGMENTS

Despite recognizing the role of the crowd in constructing legitimacy (Suchman, 1995), taking account of legitimacy judgments of individual stakeholders have been widely neglected until not a long ago (Balogun, Fahy & Vaara, 2019). Indeed, not paying enough attention to the particular individuals granting legitimacy to organizations was for long considered as a critical research gap (Finch, Deephouse & Varella, 2015). The importance of individuals cannot be emphasized enough. Above all, they are considered powerful enough to collectively influence the norms and laws (Bitektine, 2011; Tost; 2011). Moreover, Scott (1995, in Finch et al., 2015, p. 265) refers to them as a micro-level legitimacy's foundation. The view of the judgments of individuals being a micro-motor, guiding their behavior, is indeed considered crucial to examine (Powell & Colyvas, 2008 in Tost, 2011, p. 687). Even though legitimacy is ultimately a phenomenon occurring at the level of the collective, interactions between particular stakeholders considerably influence the social reality and legitimacy

seen as a whole. Thus, the institutional change and the role of individuals in such processes can be thoroughly comprehended by studying individual-level legitimacy judgments (Tost, 2011).

The formation process of legitimacy judgments of individuals forms the basis of the research on legitimacy as a perception approach. Precisely, the role of individuals consists of perceiving macro-level properties of specific organizations, consulting others for contrasting views, forming own judgments and eventually, producing macro-level effects by acting upon these judgments (Bitektine & Haack, 2015). Thus, the attention within legitimacy as perception research lies first and foremost on what happens at the micro, individual, level (Suddaby et al., 2017).

Individuals' legitimacy judgments have been given more attention in the research of Finch et al. (2015). Specifically, they argued for the relevance of investigating legitimacy as a form of an attitude. The reasoning behind such an association of these two constructs lies in general recognition of both an attitude and legitimacy being multidimensional evaluations – with legitimacy being further subdivided into pragmatic, moral, and cognitive dimensions (Ajzen & Fishbein, 1977; Suchman, 1995). In their research about the oil sands, they assumed that individuals who care about the environment would most probably be aware of environmental issues surrounding this industry and would thus withhold legitimacy from it (Finch et al., 2015). Further, replacing the construct of attitude with an individual's legitimacy judgment was likewise employed by Jahn, Eichhorn & Brühl (2020). As *"legitimacy resides in the eye of the beholder"* (Ashforth & Gibbs, 1990, p. 177, in Jahn et al., 2020, p. 548), every other person is believed to apply various norms and values to their legitimacy evaluations. A subject is considered legitimate once the expectations of an individual are met, and this is further comprehended as holding a favorable attitude towards the subject (Jahn et al., 2020).

Up to this date, academic research on legitimacy as a perception remains somewhat scarce. Despite Tost's (2011) significant contribution to understanding the process of individuals' legitimacy judgments formation, no further efforts towards its measuring were undertaken. Therefore, it is believed, in line with Kates (2004), that the full potential of legitimacy is still to be discovered.

This review has identified relevant concepts, relationships, and theories within three cores forming this thesis. Several research gaps and misunderstandings have been touched upon, leaving space for novel contributions. Consequently, hypotheses are further developed in the following part.

3. HYPOTHESES DEVELOPMENT

One of the major issues within environmental research has been how to develop frameworks that would precisely explain and predict environmental behaviors. Undoubtedly, there is a large number of factors contributing to the formation and changing of pro-environmental behavioral patterns (Bamberg & Schmidt, 2003). Not aiming to be exhaustive, I bring together various insights to construct a holistic model, moving forward the understanding of individuals' pro-environmental intentions formation in the airline industry, in the face of intensifying climate change. In the present study, I employ the Norm Activation Model (Schwartz, 1977), the Value-Attitude-Behavior hierarchy (Homer & Kahle, 1988), and the Theory of Planned Behavior (Ajzen, 1991) as a theoretical basis. By integrating various constructs from somewhat distinct theories in one framework, I aim to reflect the complexity of consumers' decision making in real life – with flying being a desirable activity, widely referred to as a social norm. Based on the comprehensive literature review, hypotheses are further formulated with an aim to address this study's research question. Figure 1 depicts a proposed conceptual framework, revealing all the hypothesized relationships between constructs.

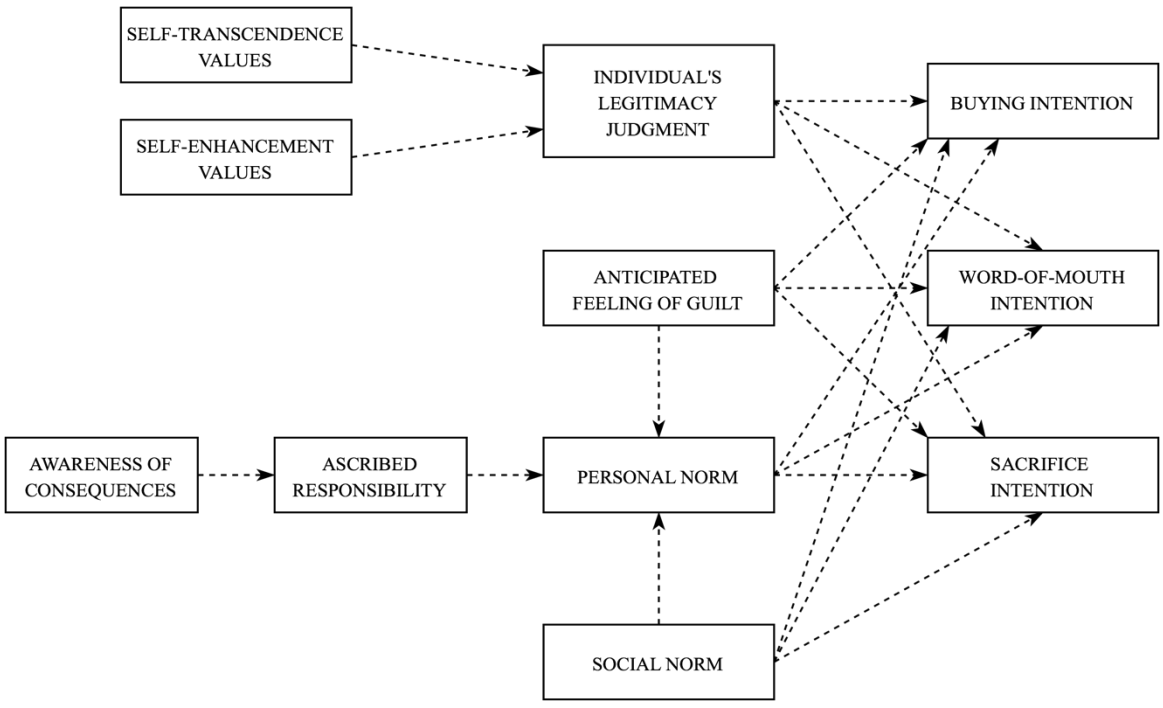

Figure 1. Conceptual framework.

3.1 THE NORM ACTIVATION MODEL

The Norm Activation Model (NAM) is considered as one of the most significant theoretical approaches demystifying intentions and behaviors of an individual within the environmental psychology field (Berenguer, 2010; Han, 2014; Hunecke, Blöbaum, Matthies, & Höger, 2001, in Han, Hwang, Lee & Kim, 2019, p. 431). NAM was initially developed as a research tool to explain altruistic behavior, and the validity of the model got restricted by Schwartz (1977) specifically to this domain. However, several researchers regarded pro-environmental behavior as a distinct form within altruism theory and used NAM to shed some light on the individuals' activities aiming to deal with environmental issues (e.g. Hopper & Nielsen, 1991; Bamberg & Schmidt, 2003). Problem awareness, ascribed responsibility, and personal norm are the three major constructs that altogether comprise the NAM (Schwartz, 1977). In line with De Groot and Steg's (2009) findings, this study interprets the NAM as a mediator and not a moderator model. Specifically, before feeling responsible for performing a particular behavior, an individual must be aware of its consequences. Then, personal norm gets activated by the sense of responsibility and after that triggers an individual's behavior (De Groot & Steg, 2009). Despite the rather frequent use of the NAM in the research on pro-environmental actions, its sufficiency have been questioned by many, and the need of widening the framework to better account for individuals' environmental intentions and behaviors has been emphasized (e.g. Han, 2015; Onwezen, Antonides, & Bartels, 2013).

Awareness of consequences is one of the determinants of holding an intention of performing pro-environmental behavior, defined by Steg and Groot (2010) as *"the extent to which someone is aware of the adverse consequences of not acting pro-socially for others or for other things one values"* (p. 725). There is now almost an undeniable consensus that climate change is real. It was evidenced that consumers acknowledged the environmental impacts of their decisions to fly already around a decade ago (Gössling et al., 2009; Higham & Cohen, 2011). Supposedly, considering the continuous pressure of minimizing one's detrimental acts that have been publicly present for the last few years, awareness of the harmfulness of not only tourism but specifically aviation has significantly risen. Nonetheless, despite being aware of the severe consequences of aviation, it is likewise widely accepted that this factor generally does not prevent one's decision to take a flight (Kroesen, 2013). Furthermore, a distinction between awareness of egoistic, social-altruistic, and biospheric consequences was underlined (e.g. Stern, 1992; Stern & Dietz, 1994). In general, awareness of consequences has to

result in an ascribed responsibility for a specific behavior to be performed (Gärling, Fujii, Gärling & Jakobsson, 2003).

Another determinant of pro-environmental intentions is known as ascribed responsibility, i.e. *"feelings of responsibility for the negative consequences of not acting pro-socially"* (Steg & Groot, 2010, p. 725). As working towards lowering the effects of climate change can be perceived as a collective undertaking, it may not occur as self-evident to some that responsibility for the state of earth lies within the hands of individuals likewise. Indeed, according to the study of flying behavior patterns in the United Kingdom, consumers *"were not prepared to accept personal responsibility for the impacts their holidays have on climate change, (but rather) put forward several denial mechanisms for why responsibility lies with governments, businesses, and other countries, rather than with the individual"* (Hares et al., 2010, p. 472).

Lastly, the personal norm is the key construct of the NAM, thought to be an unmediated determinant of pro-environmental behaviors. In line with Schwartz (1977), personal norm resembles feelings of moral obligations, i.e. evaluating particular acts as either right or wrong to perform. Thus, a strong relationship between the personal norm and the performance of altruistic behaviors is likely to be detected amongst individuals who hold awareness of consequences of their choices and ascribe responsibility to themselves (Bamberg & Schmidt, 2003). To sum up, relying on the NAM's theory, the following hypotheses are suggested:

H1. Awareness of consequences significantly affects ascribed responsibility.

H2. Ascribed responsibility significantly affects personal norm.

H3. Personal norm leads to buying intention (of aviation's environmentally friendly alternatives).

H4. Personal norm leads to word-of-mouth intention (about aviation's environmentally friendly alternatives).

H5. Personal norm leads to sacrifice intention.

3.2 SOCIAL NORM

Schwartz (1977) visibly regarded personal and social norms as distinct from each other, and viewed the social norm as a reflection of perceived expectations hold by reference persons, significant to an individual. Moreover, in line with Ajzen (1991), subjective norm (an equivalent term for the social norm, accepted in extant literature) points out how willing individuals are to perform a particular behavior taking into consideration the social pressure surrounding the specific issue. Pro-environmental studies seem to lack a compromise on whether to take account of the social norm in their studies. For instance, De Groot and Steg (2009) and Onwezen et al. (2013), who investigated pro-environmental behaviors employing the NAM, neglected the inclusion of a social norm in their research models. On the contrary, one of the studies on the willingness to use public transportation provided empirical evidence that the social norm significantly contributed to the formation of pro-environmental personal norm (Bamberg, Hunecke & Blöbaum, 2007). Identical conclusions about broadening the NAM were reached by Han (2015) in the context of environmentally friendly purchase intentions within the hospitality industry.

Although the majority of air travelers seem not to be willing to give up their flying routines simply as a result of their moral concerns (e.g. Cohen & Higham, 2011; Randles & Mander, 2009), it is deemed likely to be changed in line with the changing social norms. Public statements made by Greta Thunberg, a young Swedish climate activist, and other public figures have turned masses towards reconsidering their accountability regarding air travel (Gössling et al., 2019). Indeed, Morten et al. (2018, p. 303 in Gössling et al., 2019, p. 8) support the view that individuals who hold a positive attitude towards lowering their air travel patterns, and who additionally believe that significant others would appreciate their efforts of flying less often, are more likely to take fewer flights in the future. To sum up, I reckon the essential role of the social norm and broaden the proposed conceptual framework with this construct. Thus, another set of hypotheses is as follows:

H6. Social norm significantly affects personal norm.

H7. Social norm leads to buying intention.

H8. Social norm leads to word-of-mouth intention.

H9. Social norm leads to sacrifice intention.

3.3 ANTICIPATED EMOTIONAL PROCESS

Human beings possess an ability to anticipate which specific emotions they will be exposed to in anticipation of future occurrences. As individuals, as a rule, aim to experience positive emotions and reduce coming across negative ones, anticipated emotions further guide individuals' decision-making processes. Both guilt and pride are regarded as self-conscious emotions and are elicited when an individual assesses oneself after managing to follow personal and social standards or failing to do so (Lewis, 1993; Tracy & Robins, 2004, in Onwezen et al., 2013, p. 143). Onwezen et al. (2013) further suggested broadening the NAM by providing evidence that both anticipated guilt and pride were found to be significant mediators of personal norms on behavior. Moreover, they proved that in the NAM extended with the TPB variables, anticipated emotions did not have a direct effect on pro-environmental behaviors, but intentions mediated these effects (Onwezen et al., 2013). Similar empirical evidence was provided by Bamberg et al. (2007). According to them, individuals willingly follow their personal norms, not because of the fear of potential social sanctions but based on the anticipation of emotions like guilt after not living up to such norms (Bamberg et al., 2007).

In this study, I will explicitly focus on the negative emotion of guilt. I will hereunder argue to consider the construct of the anticipated feeling of guilt as the one allowing to evaluate the so-called, not yet clearly defined in academia, flying shame felt by individuals. Although there is a clear distinction between the emotions of shame and guilt (Lewis, 1971), a few arguments underly such an assumption (please refer to section 4.3.3 for further explanations). Moreover, it is hypothesized that anticipated feeling of guilt can also influence pro-environmental intentions directly, and not only through personal norms, as in the case of the social norm. Therefore, the following hypotheses are suggested:

H10. Anticipated feeling of guilt significantly affects personal norm.

H11. Anticipated feeling of guilt leads to buying intention.

H12. Anticipated feeling of guilt leads to word-of-mouth intention.

H13. Anticipated feeling of guilt leads to sacrifice intention.

3.4 VALUE-ATTITUDE-BEHAVIOR HIERARCHY

Homer and Kahle (1988) proposed and tested the Value-Attitude-Behavior (VAB) hierarchy. The general assumption of the model is that values indirectly affect behaviors through attitudes. Specifically, a set of relatively abstract values affects more specific attitudes, and in turn, such attitudes lead to performing particular behaviors (Homer & Kahle, 1988). Both values and attitudes are some of the most fundamental variables in the field of environmental psychology (Hurst, Dittmar, Bond, & Kasser, 2013, in Han et al., 2019, p. 431) and their role in triggering particular pro-environmental intentions and behaviors have been researched comprehensively (e.g. De Groot & Steg, 2007).

On a related note, the VAB hierarchy was applied in Shin, Moon, Jung and Severt's (2017) research and led to empirical evidence that universal sustainability values held by individuals were likely to affect their positive attitude towards the environment. As a result, behavioral intention, such as a willingness to pay more for the organic menu in restaurants, occurred (Shin et al., 2017). Even though both variables of value and attitude are considered to hold significant explanatory power in environmental psychology research, the VAB hierarchy seems not to be sufficient in extensively explaining behaviors (e.g. Homer & Kahle, 1988). Thus, the need for broadening the original VAB hierarchy has been emphasized (e.g. Do Paço et al., 2013 in Jacobs, Petersen, Hörisch & Battenfeld, 2018, p. 1157).

The value system is commonly defined as *"an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance"* (Rokeach, 1973, p. 5). In line with Stern and Dietz (1994, p. 67-68), value orientations are regarded as somewhat stable in adults, not mutually exclusive and diverse amongst individuals, groups, and cultures. While studying pro-environmental behaviors, there is an almost universal agreement to rely on Schwartz's (1992, 1994) basic human values theory. He further distinguished self-transcendence values (taking into account the interests of the collectivity) and self-enhancement values (taking into account solely the interests of oneself) (Schwartz, 1992, 1994). Furthermore, self-transcendence values are commonly set apart into biospheric and altruistic values (e.g. De Groot & Steg, 2010). Contrarily, self-enhancement values resemble egoistic values, i.e. individuals being focused on their resources – wealth, power, and achievements (e.g. De Groot & Steg, 2008).

Such widespread in the pro-environmental research trilogy, comprised of biospheric, altruistic, and egoistic values, got questioned by Steg, Perlaviciute, Van Der Werff and Lurvink (2014). Intending to comprehend pro-environmental acts even better, he proposed adding hedonic values as another dimension of self-enhancement values, which suggests that individuals seek to improve their feelings and minimalize efforts (Steg et al., 2014). Generally, self-transcendence values are believed to promote pro-environmental attitudes and behaviors, whereas self-enhancement values instead hinder them (e.g. De Groot & Steg, 2010; Steg et al., 2014).

The second fundamental construct in the VAB hierarchy is an attitude. In line with Ajzen (1991), an attitude can be defined as *"the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question"* (p. 188). Moreover, holding a pro-environmental attitude assumes being worried about the state of the earth and doing one's best not to harm the environment (Steg & Vlek, 2009, in Shin et al., 2017, p. 115). General sustainability values of an individual are believed to influence one's pro-environmental attitude, and further contribute to generating behavioral intentions (Shin et al., 2017). In this study, I follow Finch et al. (2015), who regarded individual's legitimacy judgment as an attitude, affected by one's belief system, in line with the value-attitude marketing theory. Therefore, the hypotheses proposed are as follows:

H14. Holding self-transcendence values is negatively related to individual's legitimacy judgment of the airline industry.

H15. Holding self-enhancement values is positively related to individual's legitimacy judgment of the airline industry.

3.5 THEORY OF PLANNED BEHAVIOR

An attitude, commonly referred to as a key antecedent of behavior, is a construct widely present in various theoretical behavioral frameworks, e.g. the Theory of Planned Behavior (TPB). The general assumption underlying the TPB is that behavioral intentions are formed based on individuals' attitudes, subjective norms, and perceptions of behavioral control (Ajzen, 1991). Whereas Schwartz (1977) restricted the NAM's validity merely to altruistic behaviors, the TPB is widely perceived as a general theory in the consumer behavior field, explaining a variety of human decision making (Ajzen, 1991).

There have been some attempts to bring together the NAM with the TPB. It was evidenced that intentions mediate the effect of personal norms on behaviors and that including a variable of behavioral intention in the NAM increased the explained variance in behavior to a great extent. To sum up, a holistic NAM-TPB model can be regarded as the one thoroughly evaluating pro-environmental behaviors (Bamberg et al., 2007; Bamberg & Möser, 2007). This finding is further in line with Ajzen's (1991) theory, suggesting that an intention is not only the most immediate but also a predictor of specific behaviors valuable to discover. Therefore, it is deemed reasonable to use the construct of a behavioral intention as a proxy measure of particular behavior within the VAB hierarchy. This reasoning will be further followed in this study, and outcomes in the form of intentions, not behaviors, will be measured.

Nowadays, with flight ticket prices reaching record low levels and binge flying being desirable by many, completely resisting air traveling may seem challenging. It was decided to go beyond solely focusing on behavioral intention to stop flying, as it seems to be widespread in the environmental psychology research but lacking details of the terms under which individuals would eventually not board the plane. Following Han et al. (2019), who measured consumers' intentions in an environmentally responsible cruise context, buying intention, word-of-mouth intention, and sacrifice intention were selected as the outcomes. It is believed they can shed more light on air travel patterns in an era of considerable freedom of choice and environmental issues not necessarily being considered in the first place.

In terms of buying and sacrifice intentions, the higher the legitimacy perceptions of a particular subject, there should be a greater willingness to contribute to the subject's success by providing them with financial resources (Alexiou & Wiggins, 2019). On the other hand, word-of-mouth is perceived as *"informal communication among consumers about products and services"* (Liu, 2006, p. 74). Whereas positive word-of-mouth assumes recommending products or services to others, negative word-of-mouth focuses on their condemnation (Liu, 2006). Thus, several last hypotheses are suggested:

H16. Judging the airline industry as legitimate is negatively related to buying intention.

H17. Judging the airline industry as legitimate is negatively related to word-of-mouth intention.

H18. Judging the airline industry as legitimate is negatively related to sacrifice intention.

3.6 FINAL CONCEPTUAL FRAMEWORK

Overall, the holistic conceptual framework of this study aims to comprehensively explain the pro-environmental intentions formation of individuals concerning their flying patterns and potential willingness to switch to less harmful modes of transport in their future travels. Consecutively, the NAM got employed as a critical theory and further broadened, as suggested by the past research, with two more separate constructs – the social norm and the anticipated feeling of guilt – and eventually, the VAB hierarchy. Furthermore, TPB got recalled with an aim to argue for the significance of intentions mediating the relationship between an attitude and a behavior. Han et al. (2019) were the first ones who took up the challenge of testing such an integrative model, comprising all of the above-mentioned theories in the tourism industry, specifically environmentally responsible cruises. The model fit was proven by them to be satisfactory and prediction power turned out to be superior to the original NAM (Han et al., 2019).

Due to the perceived variety of similarities between cruise and aviation industry in terms of their scarcity of positive contributions to the well-being of the earth, it was deemed reasonable to attempt studying intentions formation of flyers on a similar note. However, this conceptual framework did not perceive all the constructs and measurements in the same manner as Han et al.'s research (2019). Most notably, a set of universal sustainability values was employed as a primary construct in the VAB hierarchy, substituting perceived value used earlier. Moreover, an individual's legitimacy judgment, comprising pragmatic, moral, and cognitive legitimacy dimensions, was equated with the construct of an attitude. Lastly, the anticipated feeling of pride was not taken into a consideration in this research. Instead, the focus was placed solely on the anticipated feeling of guilt, which is considered to resemble the so-called flying shame, a concept that has been given significant attention in the last year in discussions related to the future of the airline industry.

4. METHODOLOGY

In this chapter, all the methodological choices will be presented and argued for. To begin with, the underlying research philosophy adopted and the research design underpinning this study are introduced. The research onion (Saunders, Lewis & Thornhill, 2019), illustrating the particular stages of a research work development process, enhances the understanding of the respective choices undertaken. Specifically, using the research onion assumes accordingly moving step by step from the outer to the inner layers. Subsection concerning the philosophy of science (4.1) touches upon the outer two layers of the research onion, namely philosophy and approach to theory development. In contrast, the research design subsection (4.2) constitutes the remaining three layers, namely methodological choice, research strategy, and research time horizon. Next, the appropriateness of all the measurement scales of all the variables (4.3) and the process of data collection is argued for (4.4). Moreover, the population and sampling (4.5) are accounted for as well, and lastly, the particular steps of the chosen data analysis method (4.6) are considered.

4.1 PHILOSOPHY OF SCIENCE

4.1.1 PHILOSOPHY

The focus of research philosophy is primarily placed on a system of beliefs and assumptions concerning knowledge development. Specifically, every stage of a research process involves numerous assumptions, primarily ontological and epistemological. Further, distinct assumptions refer to various research philosophies. Ontological assumptions regard the nature of reality and shape the way research objects are seen and studied, whereas epistemological ones concern the adequate, valid and legitimate knowledge and how it can be communicated to others (Saunders et al., 2019).

Five major philosophies prevail within business and management research nowadays – positivism, critical realism, interpretivism, postmodernism, and pragmatism. This study adopts the positivist approach. Ontologically, various social entities, e.g. organizations, are seen as real, just like physical objects and natural phenomena. In terms of epistemology, producing credible and meaningful knowledge is possible if solely phenomena that can be observed and measured are taken into consideration. Moreover, causal relationships should be looked for in the data in order to come to

generalizations. The assumption regarding objective facts offering the best scientific evidence most likely leads to the choice of quantitative methods and research findings generally being objective and generalizable. Further, the existing theory is widely used within positivism, enabling to develop hypotheses, i.e. statements providing various explanations, and resulting in the development of theories (Saunders et al., 2019). Therefore, this research uses a highly structured methodology and develops several hypotheses as a part of it, as to enhance further replication.

What is more, it is crucial to strive to remain neutral and detached from both research as a whole and data when adopting a positivist stance. Undertaking value-free research is desirable, yet now and then causing issues while being carried out (Saunders et al., 2019). In this study's case, I aimed to stay external to the data collection, meaning not controlling the respondents or their particular answers in any way. Nevertheless, my interests concerning the aviation industry and its harmful impact on climate change led me to the choice of this particular research question. Therefore, staying entirely value-free was slightly disturbed by the inclusion of my values regarding this study's topic.

4.1.2 APPROACH TO THEORY DEVELOPMENT

There are three main approaches regarding theory development – deductive, inductive, and abductive. In case research begins with theory, widely developed from existing academic literature, and the designed research strategy aims to test the theory – a deductive approach comes into play. In contrast, an inductive approach assumes collecting the data first in order to explore a phenomenon and further build theory based on it. Lastly, while using an abductive approach, data is collected to explore a phenomenon, and further, either a new theory is generated, or an existing one modified – and tested with the means of additional data collection (Saunders et al., 2019).

Positivism typically assumes being underpinned by the deductive approach. Such a choice was also assumed in this research, and thus, several actions follow the selection of this alternative. Firstly, this study aims to come up with explanations of various relationships between variables. Thus, eighteen hypotheses were developed and further tested by ensuring quantitative data collection. Additionally, all the constructs forming the conceptual framework were operationalized in a way enabling them to measure the facts accurately. Finally, the sample was ensured to have a sufficient size in order to meet the requirements of generalization (Saunders et al., 2019).

4.2 RESEARCH DESIGN

4.2.1 METHODOLOGICAL CHOICE

There are quantitative, qualitative, and mixed methodologies to choose from. Following the adopted philosophy of positivism and the deductive approach of theory development, this research takes a quantitative form. Indeed, it is widely assumed by many that positivism, deduction, and quantitative research design have to be bonded (Saunders et al., 2019). Even though this is, without a doubt, not the only solution, it was found the most relevant as to meet this study's objectives. Quantitative research was opted for due to its nature of examining relationships that occur among multiple study's constructs. These variables are measured numerically, and as for the analysis, various statistical techniques are further employed (Saunders et al., 2019).

What is more, one final essential choice regarding the methodology affects how specific research is being undertaken – whether single or multiple methods are applied. This study focuses solely on one data collection method. The alternative would have assumed employing at least two various methods, which is widely believed to enrich the research and overcome weaknesses occurring when the mono method is decided (Saunders et al., 2019). Nevertheless, taking into account primarily the allowed scope of this research, going for the mono method was found appropriate. Moreover, it was deemed reasonable to further contribute to the understanding of consumers' intentions formation within the airline industry based on the under-researched combined framework comprising the NAM, the VAB, and the TPB, allowing to investigate relationships between multiple variables specifically. What is more, a relatively novel scale, measuring individual's legitimacy judgments, was employed in order to further investigate one of this study's key variables, contributing towards providing needed empirical research of a rather left out legitimacy as perception view. Thus, focusing on a single methodology was considered adequate.

4.2.2 RESEARCH STRATEGY

The purpose of specific research can be either exploratory, descriptive, explanatory, or evaluative. As this research above all investigates the relationships between various constructs, it can be classified as serving explanatory and descriptive purposes. Precisely, the emphasis is placed on

studying a particular situation – pro-environmental intentions formation within the airline industry in the face of climate changes – while taking into consideration hypothesized various potential predictors. Generally, a research strategy concerns the right way of answering a particular research question. As to ensure coherence, its choice should be guided by the mentioned research question(s) and objectives, as well as previously discussed philosophy and research approach (Saunders et al., 2019).

Moreover, following the decision of choosing a single quantitative method, the survey strategy was considered the most appropriate in this case. Specifically, meeting the objectives and answering the research question seems realistic when a self-administered Internet survey is employed. Surveys are above all desirable when there is a need for generalizability, as they enable collecting data from a large number of respondents, with no need for major time or resources investments. Likewise, the data gathered with the means of a survey is easily comparable, standardized, and meaningfully enhances the understanding of various relationships distinguished amongst the study's constructs (Saunders et al., 2019).

Even though conducting a survey was proven to be the right fit, one major disadvantage of this strategy should be taken into consideration. Arguably, some of the respondents may not feel willing or even lack the ability to answer questions that they perceive as sensitive, embarrassing, or threatening. This phenomenon is defined as a social desirability bias (Fisher, 1993) and seems to be adequate to the context of this study. Specifically, the survey's participants were asked multiple questions regarding their impressions on the climate change, what they value in life, what or who impacts their choices, whether they hold a positive or negative attitude towards aviation industry in terms of its legitimacy and lastly, if they held particular intentions regarding future traveling in a more environmentally friendly way. As climate change issues are nowadays widely discussed, it may be assumed that some of the participants might not have been entirely truthful while providing their answers and only wanted to fit the standard of a citizen concerned about the state of the earth. Even though it was clearly emphasized that the survey was anonymous and given answers should have reflected the real opinions held, it may not be ascertained that none of the respondents fell for social desirability bias.

4.2.3 RESEARCH TIME HORIZON

One last issue regarding the research design is pointing out the appropriate time horizon. Generally, research can be either a single snapshot, specific of particular times, called cross-sectional; or a representation of a set of them over a given period, called longitudinal (Saunders et al., 2019). As this research aims to study particular phenomena at a specific moment, it is considered as cross-sectional. The aviation industry, forming the context of this study, is rather dynamic, and therefore, what consumers believe in today may not be as such in a month. Moreover, the movement of flying shame is also accounted for by this research. As it is still relatively novel and possibly unclear to many, the findings cannot be regarded as anything more than just a representation of the current state, which is very likely to change over time due to the increasing focus on fighting against climate change.

4.3 MEASUREMENT OF VARIABLES

This section presents the measurement scales employed in this research and argues for the significance of choosing all the following items. The relevant scales adopted in the previous research were further adapted to fit this study's context. Specifically, wording modifications were performed on some of the items, in order to relate to pro-environmental decision making within the aviation industry properly.

While searching for the appropriate measurement scales, their internal consistency reported in the previous studies was evaluated. As Cronbach's alpha is one of the most widely used methods assessing reliability, it was decided to try to adopt the measurement perceived as reliable by their alpha scores, i.e. a minimum of $\alpha = .7$ (Field, 2009). Nevertheless, it was not possible in every case, as the level of alpha can get negatively affected by the low number of items comprised of a scale (Saunders et al., 2019). Therefore, some of the measurement scales applied in this study were reported to have alpha lower than .7 – but were still deemed relevant for this study, as they seemed significant for properly evaluating certain variables, and their low alpha scores could have been justified. In general, 46 items were used for assessing a total of 11 variables employed in this study's conceptual framework. All the following items were measured on a 7-point Likert scale (1 = strongly disagree, and 7 = strongly agree).

4.3.1 AWARENESS, ASCRIBED RESPONSIBILITY, PERSONAL NORM

Inclusion of the measurement scales for the variables of awareness of consequences, ascribed responsibility and personal norm, comprising the Norm Activation Model, was decided based on the studies of Gärling et al. (2003), who measured intentions to perform collective pro-environmental behavior, and Onwezen et al. (2013), exploring the functions of anticipated emotions in pro-environmental behavior context. As the goal of these variables was to enhance the understanding of consumers' general views on the environment, the scales found in Gärling et al. (2003), and further employed by Onwezen et al. (2013), were kept without any modifications. In line with Gärling et al. (2003), awareness of consequences was regarded as a combination of awareness of consequences for oneself ($\alpha = .45$), awareness of consequences for others ($\alpha = .42$), and awareness of consequences for the biosphere ($\alpha = .54$). The scale of ascribed responsibility was reported to have $\alpha = .46$ and a personal norm - a higher level of reliability of $\alpha = .84$. On the other hand, Onwezen et al. (2013) obtained higher internal consistency values while using the same items - $\alpha = .77$ for awareness of consequences, $\alpha = .65$ for ascribed responsibility, and $\alpha = .95$ for the personal norm.

As for measuring awareness of consequences, six items were used (awareness of consequences for oneself, awareness of consequences for others and awareness of consequences for the biosphere, combined all together), including: *"Laws that protect the environment limit my choices and personal freedom", "Protecting the environment will threaten jobs for people like me", "The effects of pollution on public health are worse than we realize", "Pollution generated in one country harms people all over the world", "The balance in nature is delicate and easily upset"* and *"Over the next several decades, thousands of species will become extinct".*

As for measuring ascribed responsibility, three items were used, including: *"I am concerned about the environment", "Every citizen must take responsibility for the environment",* and *"Authorities rather than the citizens are responsible for the environment".*

As for measuring personal norm, four items were used, including: *"I feel a moral obligation to protect the environment", "I feel that I should protect the environment", "I feel it is important that people in general protect the environment"* and *"Our environmental problems cannot be ignored".*

4.3.2 SOCIAL NORM

The choice of a relevant measurement scale for the social norm was decided based on Han et al.'s (2019) research on passengers' decision making towards eco-cruises, as the legitimacy of the cruise industry is currently widely doubted. Thus, it can be assumed that employing such a scale should be relevant in the context of intentions formation in the aviation industry as well. The modified Han et al.'s (2019) scale was therefore adapted, assuming the public pressure on protecting the environment instead of choosing an eco-cruise.

As for measuring social norm, three items were used, including*: "Most people who are important to me think I should do my best to protect the environment", "Most people who are important to me would want me to do my best to protect the environment",* and *"People whose opinions I value would want me to do my best to protect the environment".*

4.3.3 ANTICIPATED FEELING OF GUILT

One of the objectives of this study was to find out whether nowadays consumers are likely to experience the so-called flying shame and what would be its direct outcomes. However, the lack of scientific research (and as a result, adequate measurement scales) on this reasonably recent social movement poses a significant obstacle in further testing this phenomenon. Studying the NAM unveiled the connotation of this theory with anticipated emotions, mainly guilt and pride. As already evidenced, shame and guilt are emotions rather distinctive from each other (e.g. Lewis, 1971). Nonetheless, it has not yet been evidenced that flying shame represents the emotion of shame solely, despite its rather unequivocal name. Various reasons underly this speculation.

Firstly, flying has been referred to as a guilty pleasure by some authors investigating the phenomenon of the flying shame. Secondly, guilt assumes concentrating on a specific behavior (I behaved badly), contrary to shame – involving a negative evaluation of a self (I am a bad person) (Lewis, 1971). Undoubtedly, as flying is rather a sporadic activity for a significant majority of passengers, negative evaluation of the particular behavior performed rather than the whole self can be assumed. Therefore, I would argue for the construct of the anticipated feeling of guilt to resemble what we know today as a flying shame. The anticipated feeling of guilt has been applied in the study of Han et al.'s (2019)

regarding the harmfulness of the cruise industry. As both cruise and aviation industry can be perceived equally damaging to the state of the earth in terms of their CO_2 emissions, it should be justified to employ this variable in this study's context likewise.

One last argument concerns the lack of research on shame concerning pro-environmental behavior. Most of the scales measuring the emotion of shame could not be easily applied to the activity of flying. Some of the well-known measures of shame are Experience of Shame Scale (ESS) and Test of Self-Conscious Affect (TOSCA). ESS assesses various areas of characterological shame, e.g. shame of personal habits, sort of person you are, saying something stupid, failure in competitive situations, or feeling ashamed of your body. On the other hand, TOSCA is a scenario-based self-report that assesses shame and guilt-proneness by describing daily life situations in which something went wrong (Andrews et al., 2002; Rüsch et al., 2007). Nevertheless, adapting such scales was eventually deemed inappropriate for evaluating flying shame.

Therefore, adopting the scale of the anticipated feeling of guilt from Kugler and Jones (1992, in Onwezen et al., 2013, p. 146), with a very high level of Cronbach's alpha at $\alpha = .97$, was decided for and modified to fit this study's context. Originally, the participants were to anticipate how would buying or not buying environmentally friendly products make them feel. In this study, the participants were asked the following question: *"Imagine that you fail to travel with an environmentally friendly mode of transport that minimizes its negative impact on the wider environment (e.g. you take a short flight instead of covering this route by train or bus). How would you feel? For this study, please assume that a short flight covers a route of up to around 1000 km"*. Ultimately, they were asked to assess five items, including: *"I feel guilty", "I feel remorseful", "I feel sorry", "I feel bad",* and *"I feel ashamed"*.

4.3.4 VALUES

Measuring the construct of values by referring to self-transcendence and self-enhancement ones, within the theory of fundamental human values (Schwartz, 1994), is widely encountered in the pro-environmental and prosocial behavior research. Therefore, the extended view on values, e.g. adding hedonic ones to the widespread trilogy of biospheric, altruistic, and egoistic values (Steg et al., 2014), is considered in this study. Jacobs et al. (2018) applied such a four-item scale in their research on

sustainable clothing with the use of the Value-Attitude-Behavior hierarchy. They reported self-transcendence values to have α = .707 and self-enhancement values to have α = .629.

As for measuring self-transcendence values, two items were used, including: *"An ecologically sound environment is very important to me",* and *"Social responsibility is important to me".* As for measuring self-enhancement values, two more items were used, including: *"Success in life is important to me",* and *"I frequently feel the urge to experience something intense and novel".*

4.3.5 INDIVIDUAL'S LEGITIMACY JUDGMENT

In line with the view of Finch et al. (2015), who regarded an individual's legitimacy judgment as an attitude, this scale stands for the construct of an attitude within the VAB hierarchy. There have been only a few attempts to measure an individual's legitimacy judgments until now. Moreover, researchers tended to develop their own measurements, specific to their study's context and thus contributing to the lack of a scale allowing to generalize in the research on legitimacy as a perception. As to overcome these limitations, Alexiou and Wiggins (2019) developed and validated a measure of individual judgments of pragmatic, moral, and cognitive legitimacy, based on the widely accepted legitimacy typology proposed by Suchman (1995). The reliabilities for each dimension of legitimacy were reported to be high - α = .92 (pragmatic legitimacy), α = .94 (moral legitimacy), α = .77 (cognitive legitimacy). Researchers likewise argue that their measurement scale of legitimacy does not only apply to the context of organizations but could easily be adapted as a form of assessing the legitimacy perceptions of specific industries or fields (Alexiou & Wiggins, 2019).

As for measuring pragmatic legitimacy judgments, three items were used, including: *"In general, the airline industry creates value for its consumers", "The policies of the airline industry cater to the interests of its consumers"* and *"I believe the activities of the airline industry benefit their consumers".*

As for measuring moral legitimacy judgments, six items were used, including: *"The general public would approve of the airline industry's policies and procedures", "Most people would consider the airline industry's practices to be moral", "The way the airline industry operates promotes the common good", "Airline industry is concerned with meeting acceptable standards for ethical*

behavior in their field", "Airline industry's policies seem appropriate", and *"If more organizations adopted policies and procedures like the airline industry, the world would be a better place".*

As for measuring cognitive legitimacy judgments, three items were used, including: *"I believe that the airline industry is necessary", "In general, the airline industry provides an essential function",* and *"It is difficult to imagine a world in which the airline industry did not exist".*

Importantly, studying the relationships between particular dimensions of legitimacy and behavioral intentions is outside the scope of this study. Instead, an individual's legitimacy judgment is further regarded as an overall construct, comprising pragmatic, moral, and cognitive legitimacy dimensions.

4.3.6 BEHAVIORAL INTENTIONS

Lastly, the applied measurements of the consumers' behavioral intentions were adapted while keeping in mind that the behavior referred to should be explicitly specified regarding TACT - its target, action, context, and time (Ajzen, 2002). Once again, Han et al.'s (2019) research on eco-cruises guided the choice of specific scales to study the constructs of three pro-environmental behavioral intentions. Thus, this study proposes three modified measurement scales of buying intention, word-of-mouth intention and sacrifice intention, ensuring that the scales met the context of the aviation industry.

As for measuring buying intention, three items were used, including: *"I am willing to travel with a more environmentally friendly mode of transport instead of taking a flight in the future", "I plan to travel with a more environmentally friendly mode of transport instead of taking a flight in the future",* and *"I will expend effort on traveling by an environmentally friendly mode of transport instead of taking a flight in the future".*

As for measuring word-of-mouth intention, three items were used, including: *"I will encourage my friends and relatives to choose a more environmentally friendly mode of transport instead of taking a flight", "If someone is looking for a flight ticket, I will advise him/her to choose another, more environmentally friendly mode of transport",* and *"I will say positive things about more environmentally friendly modes of transport rather than taking a flight".*

As for measuring sacrifice intention, three items were used, including: *"To protect the environment, I would be willing to pay higher taxes for my flights", "To protect the environment, I would be willing to accept some inconvenience in the standard of traveling (e.g. by choosing a longer journey by train or bus instead of taking a short flight)",* and *"To protect the environment, I would be willing to pay more for my flights".*

4.4 DATA COLLECTION

4.4.1 QUESTIONNAIRE DESIGN

This study bases its findings on quantitative data collection, allowing to test the proposed hypotheses further. Within the survey strategy, questionnaires are some of the most commonly applied methods of collecting data. Getting insights from large samples is therefore simplified as every respondent receives identical questions set and completes it on their own. Questionnaires are also commonly used in explanatory research, therefore considered a good fit for answering this study's research question (Saunders et al., 2019). The questionnaire was designed carefully to ensure the reliability and validity of the collected data, as well as to increase the response rate. Specifically, the phrasing of every single scale item was well-thought, the layout was pleasing, the purpose of the research accurately explained, and the delivery of the full-scale questionnaire precisely planned. All these actions were performed in order to get the most out of the data collection, keeping in mind that there would not be an opportunity to identify participants and collect any additional responses as they answered the questionnaire anonymously (Saunders et al., 2019).

The survey began with a welcome screen introducing the context of the research to the respondents, providing an average time needed to participate, assuring anonymity, as well as making the residence in Denmark a prerequisite of further participation. The first page of the survey comprised five questions, generally evaluating participants' perceptions of the state of the earth and climate change. This included the scales of awareness of consequences (Q1), ascribed responsibility (Q2), personal norm (Q3), social norm (Q4), and values (Q5). The next section presented one question (Q6) only. Specifically, consumers were asked to assess the particular items of the anticipated feeling of guilt measurement scale, unveiling their potential feelings in a situation of failing to behave in a pro-environmental way when choosing a mode of transport on a short route. The third page posed three

additional questions, all regarding an individual's legitimacy judgment – namely pragmatic legitimacy (Q7), moral legitimacy (Q8), and cognitive legitimacy (Q9) dimensions. After that, respondents were introduced to three additional questions, on page four, regarding their behavioral intentions related to traveling in a more environmentally friendly way. These questions dealt with the scales of buying intention (Q10), word-of-mouth intention (Q11), and sacrifice intention (Q12). On the fifth page of the survey, there was just one question (Q13) where individuals were asked if they knew what flying shame was.

Next, the last, sixth section, comprised socio-demographic questions, included in the questionnaire to evaluate if the gathered data could be considered as representative for the whole population (Saunders et al., 2019). The reason for placing this section at the end of the survey, instead of the very beginning as commonly practiced, was that sharing some of the personal characteristics may be considered as threatening by some individuals and discouraging from participating in the study (Schmidt & Hollensen, 2010). In this section, participants were asked to provide the information on their gender (Q14), age (Q15), if they currently reside in Denmark (Q16), nationality (Q17), and lastly, their highest level of education completed (Q18).

What is more, it was ensured that the understanding of all the scale items and questions would be enhanced and unequivocal without providing any additional information or statistics regarding climate change and the aviation industry. Specifically, it was not desired to bias the respondents' views in any way by presenting a lengthy introduction or explanation of any of the other pages of the questionnaire. This was done hoping to avoid participants feeling judged for potentially not complying with the environmental standards and distorting their own beliefs just to fit the standard of an environmentally friendly citizen.

4.4.2 PILOT STUDY

Prior to collecting the data with the full-scale questionnaire, letting it be pilot tested by respondents belonging to the desired sample is commonly recommended. Pilot testing aims to refine the questionnaire so that the actual respondents would not overcome major issues while filling the survey out, allowing to remove any errors before starting the data collection. It is also recommended to pilot study the survey on a minimum of 10 respondents (Saunders et al., 2019).

One week before sharing the survey online, the pilot study on a convenience sample of twelve graduate students from Copenhagen Business School was conducted. Participants were given the original questionnaire, asked to complete it, and provide feedback. As advised by Bell and Waters (2014), providing respondents with another short questionnaire should enhance the ability to spot potential problematic issues before carrying out the full-scale study. Therefore, respondents of the pilot study where asked to evaluate the clarity of instructions, the time they took to complete the survey, potential uneasiness when answering some questions, any topics missing, and attractiveness of the layout (Bell & Waters, 2014). In line with the provided feedback, a few minor changes were introduced to the final full-study questionnaire.

Most importantly, a few questions were shortened in order to lower the average time needed for completing the survey and, as a result, a possibility of more respondents dropping out in the middle of the process. Secondly, a proper explanation of what is understood by a short route was further added, as it seemed to be unclear for the respondents what kind of distance they should consider. Lastly, a missing "other" option in the gender section was pointed out. After correcting these issues, the survey was considered ready to be distributed amongst the final sample.

4.4.3 PROCEDURE AND LIMITATIONS

The final full-scale survey was conducted online and took a form of a self-administered questionnaire created in Qualtrics, an online survey software. The link leading to the survey was shared in various Facebook groups gathering both Danes and individuals of other nationalities residing in Denmark. It was attempted to increase the response rate through providing rather short, but encouraging for further participation, description of the conducted research. As time allowed, two follow-ups in three major Facebook groups, cumulating tens of thousands of people, were ensured.

There were a few limitations regarding the procedure of distributing the final questionnaire amongst the desired participants. Firstly, Facebook was the only platform used, and thus, it resulted in not being able to reach candidates who were not present on this social network site. Secondly, the survey was conducted solely in English, despite Danish being the official language in Denmark. It is, therefore, not known whether all the study's participants possessed sufficient language skills in order to apprehend all the questions. Lastly, and most importantly, the final limitation concerns the

extraordinary external situation, which might have biased some of the responses. Specifically, the day when the survey got launched online was also one of the first days of worldwide chaos caused by the increasing number of people infected with coronavirus, causing the closure of many borders and limiting the movement of citizens. Thus, potential participants were asked not to let the current situation bias their choices and answer according to the beliefs held before the travel ban, and a necessity of social distancing were introduced.

4.5 POPULATION AND SAMPLING

Ideally, the probability (representative) sample technique could have been employed if it was not for the restrictions of time, money, and access associated with the nature of this research. Probability sampling generally assumes equal chances for each case of the target population to get selected to participate in a study and leaves no space for the researcher's bias. Nevertheless, approaching the whole target population, i.e. all the people living in Denmark, would not have been possible due to numerous constraints. Therefore, the only alternative left was to apply a non-probability sampling technique, where the researcher has some control over who receives the full-scale questionnaire and participates in the study. One more limitation regarding a non-probability sampling concerns being able to generalize about the target population, but not on statistical grounds. Eventually, the data got collected with the use of convenience (availability) sampling technique, enabling the selection of the participants based on their availability in comparison to the other cases within the target population. Convenience sampling is widely used, especially in the case of self-administered Internet questionnaires distributed on social networking sites. However, it is not clear of bias and influences that remain beyond a researcher's control (Saunders et al., 2019). Despite these drawbacks, such a sampling technique was deemed to be the most appropriate for this study's purpose and significantly facilitated collecting data from a sufficient sample in a relatively short period.

Out of 189 returned questionnaires, six of them were excluded from the further analysis as they were found not usable. Five respondents did not meet the requirement of residing in Denmark in order to participate in the study, and one more person did not provide accurate information regarding age and nationality (as both of these questions were open-ended, potentially allowing respondents to provide any information, not necessarily the one asked for). After deleting all the input from these respondents, the final sample comprised a total of 183 usable cases.

To begin with, the respondents were somewhat familiar with the movement of flying shame. The majority of them (N = 104, 56.8 %) answered "yes" to the question if they know what flying shame is. Such a finding was rather expected based on the close geographical proximity of Sweden, the homeland of *flygskam*. However, the sample did not comprise Danish citizens solely but the representatives of multiple nationalities living in Denmark long term. Therefore, it can be supposed that the acknowledgment of the flying shame could have been even higher amongst Danes only.

Aiming to evaluate the generalizability of the results, socio-demographic data was compared between the sample and the target population (Saunders et al., 2019). Statistics regarding the entire population of Denmark were derived from Danmarks Statistik (Statistics Denmark, an organization creating statistics on Danish society). The comparison, based on the Danmarks Statistik's data from the first quarter of the year 2020 (Danmarks Statistik, 2020a, 2020b), is presented in Table 1.

	SAMPLE		POPULATION	
	Frequency	**Percentage**	**Frequency**	**Percentage**
GENDER				
Female	136	74.3 %	2 925 845	50.2 %
Male	47	25.7 %	2 896 918	49.8 %
Total	183	100 %	5 822 763	100 %
AGE				
< 20	5	2.7 %	1 296 400	22.3 %
20-29	122	66.7 %	782 701	13.4 %
30-39	37	20.2 %	686 808	11.8 %
40-49	13	7.1 %	756 048	13.0 %
50-59	2	1.1 %	800 444	13.7 %
> 60	4	2.2 %	1 500 362	25.8 %
Total	183	100 %	5 822 763	100 %
EDUCATION				
Primary school	1	0.5 %	1 025 443	25.4 %
Upper secondary school	0	0 %	417 474	10.4 %
High school	19	10.5 %	1 394 715	34.6 %
Bachelor program	79	43.2 %	689 583	17.1 %
Master program	74	40.4 %	400 602	9.9 %
PhD program	9	4.9 %	35 116	0.9 %

Not stated	1	0.5 %	69 874	1.7 %
Total	183	100 %	4 032 807	100 %

Table 1. Descriptive statistics – comparison of the sample and population of Denmark.

Firstly, there was a clear gender imbalance in the sample - 136 participants (74.3 %) were female, and 47 - male (25.7 %). Thus, the sample cannot be considered representative in terms of gender distribution.

Next, the sample did not turn out to be age representative either. Most visibly, there was an evident overweight of younger respondents, aged 20-29 (N = 122, 66.7 %), whereas the average age in the sample was 28,73. Despite such an uneven distribution, it should be emphasized that respondents are representing many age groups. Moreover, reaching individuals over 60 years old was considered rather challenging due to the chosen data collection method of an online survey, distributed solely on various Facebook groups.

Thirdly, the data collection resulted in the sample gathering representatives of 45 various nationalities. As Danmarks Statistik provides data based on the population registered in CPR (Central Person Register), further including foreigners (residing in Denmark long-term) in the sample of the population of Denmark seems justified. Moreover, it is important to take account of various cultural backgrounds of the participants, as they may not necessarily reflect the values of Danes. The biggest nation groups within the sample were formed by Danes (N = 25, 13.7 %), followed by Germans (N = 22, 12 %), Poles (N = 15, 8.2 %), Americans (N = 10, 5.5 %), and Britons (N = 10, 5.5 %). In total, the participants from these five countries formed almost half of the whole sample (44.9 %).

Lastly, the sample did not turn out to be representative of the whole population in terms of the highest level of education completed neither. This study's respondents were overall highly educated. A university degree was held by 162 participants (88.5 %), and another 19 (10.5 %) reported to have finished high school. Thus, it leaves just 1 % for the other levels of education, which contribute to more than one-third of the actual population of Denmark (Danmarks Statistik, 2020a).

4.6 DATA ANALYSIS

4.6.1 DATA PROCESSING

All the data preparation and analysis were carried out in IBM SPSS Statistics (version 25) for Mac, a software package used for statistical analysis. Prior to analyzing data quantitatively, several actions were deemed necessary to be undertaken. Firstly, the collected data was exported from Qualtrics to SPSS, where it got further processed. As answering every single question in the questionnaire was made obligatory, there was no issue with dropping out any of the respondents from the final sample size because of missing data. To begin with the preparation process, all the data was consecutively coded using numerical values. Secondly, it was ensured that the dataset was entered correctly and inspected for any potential errors. Primarily, the methods of searching for illegitimate codes and illogical relationships were applied (Saunders et al., 2019). Ultimately, the final stage of the research process, analyzing the collected data, could begin.

Regression analysis was chosen as a method of data analysis best fitting to this study's objectives. Regression analysis is one of the most widely used dependence techniques, commonly applied in studying decision making of consumers and how they form specific impressions and attitudes. Overall, exploring all types of dependence relationships is significantly facilitated by employing this method. Predicting a single dependent variable from one or more independent variables forms the objective of regression analysis. In case there is a single independent variable, simple regression analysis is applied. However, when there are two or more independent variables involved in the problem, multiple regression analysis is performed (Hair, Black, Babin & Anderson, 2014).

In this study, I chose to proceed with the data analysis based on the statistical technique of multiple regression analysis, as there was more than one independent variable involved in every regression analysis carried out (except for one single regression analysis). Moreover, as this study's main objective was to investigate consumers' pro-environmental intentions formation towards choosing more environmentally friendly alternatives than flying on short routes, regression analysis seemed to be able to contribute towards further understanding of this complex issue, hypothesized to be understood by various concepts.

Lastly, a sufficient sample size should be ensured when opting for a regression analysis, as it determines statistical power and affects the generalizability of the results. Generally, the ratio of

observations and independent variables in the variate should never go below 5:1, meaning gathering five cases for a single independent variable. Although, it is rather preferred to have 15-20 observations for every independent variable, as reaching this level of gathered observations typically allows to generalize the results (if the sample is representative of the population) (Hair et al., 2014). In this study, the requirement of the sufficient sample size is without a doubt met, even if applying the more rigorous, 20 observations per one independent variable, rule.

4.6.2 RELIABILITY AND VALIDITY

Reliability and validity are known to be central to judgments concerning the quality of quantitative research in the social sciences (Saunders et al., 2019). For an instrument to be valid, it is required to be considered as reliable in the first place (Field, 2009).

As reliability refers to consistency, it is concerned with the robustness of a questionnaire and assessing whether it can produce consistent findings under various conditions, e.g. when addressed to different samples. Specifically, internal consistency assumes correlating responses to questions with each other within the questionnaire. Internal consistency can be calculated in several ways, however, Cronbach's alpha is one of the most frequently used methods. Applying this statistic enables to measure the consistency of responses to multiple scale items, combined as a scale, and measuring a specific construct. An alpha coefficient takes a value between 0 and 1 (Saunders et al., 2019). It is generally acknowledged that acceptable values for Cronbach's alpha should be between .7 to .8, while results below this range indicate a scale generally not considered as reliable. However, there is an issue of Cronbach's alpha's positive relationship with the number of scale items within the measured concept, as the top half of the alpha's equation includes the number of items squared. Thus, the general requirements regarding the desired value of alpha should be analyzed cautiously. Particularly, scales comprising a large number of scale items should be studied attentively (Field, 2009).

Reliability analysis was run in SPSS on all the eleven constructs forming this study's conceptual framework. Most of the subscales reported high or very high reliabilities, from self-transcendence values ($\alpha = .744$) to buying intention ($\alpha = .940$). However, some of the subscales posed significant reliability issues. Thus, I further examined the values in the "Cronbach's alpha if item deleted" section to inspect whether excluding some of the items from the scale would increase the overall alpha for

such variables. For most of the subscales, the deletion of none of the items would increase the alpha, meaning that all the items within a scale positively contributed to the overall reliability.

Unlike the majority of the subscales, the overall alpha for the self-enhancement values scale was relatively low (α = .503). One of the reasons could have been that it comprised two items only. However, in line with Kline (1999), the diversity of psychological constructs is widely expected to lower the alpha values, even below .7. Likewise, extensive theory dictates that self-enhancement values are measured precisely with these particular items. In this case, I argue that the score of α = .503 should be acceptable, given the nature of this construct and including solely two items.

Moreover, three more subscales got significantly more reliable when particular items were deleted. Firstly, awareness of consequences initially comprised six items and resulted in a low reliability value (α = .386). However, deleting four scale items resulted in a significant improvement in the overall reliability (α = .744). Thus, in order to be perceived as reliable, the subscale of awareness of consequences was decided to eventually comprise two items only – *"The balance in nature is delicate and easily upset"* and *"Over the next several decades, thousands of species will become extinct"*. Secondly, ascribed responsibility's original reliability value was even lower than the one of the awareness of consequences subscale (α = .146), primarily comprising three scale items. Surprisingly, the overall alpha increased significantly (α = .809) by deleting one item, namely *"Authorities rather than the citizens are responsible for the environment"*.

Lastly, even though the subscale of sacrifice intention primarily resulted in a high reliability value (α = .777) with the original three items, it was noted that the alpha could have been increased even more if one item was deleted. In order to increase the reliability of this subscale even further, it was thus decided to exclude the item *"To protect the environment, I would be willing to accept some inconvenience in the standard of traveling (e.g. by choosing a longer journey by train or bus instead of taking a short flight)"* from the subscale, resulting in a final value of α = .888. The summarized results of all the reliabilities can be found in Table 2.

VARIABLE	CRONBACH'S α	NUMBER OF SCALE ITEMS
Awareness of consequences	.386	6
	.502	5
	.680	4

	.683 .744	3 2
Ascribed responsibility	.146 .809	3 2
Personal norm	.874	4
Social norm	.883	3
Self-transcendence values	.744	2
Self-enhancement values	.503	2
Anticipated feeling of guilt	.939	5
Individual's legitimacy judgment	.824	12
Buying intention	.940	3
Word-of-mouth intention	.903	3
Sacrifice intention	.777 .888	3 2

Table 2. Internal consistency of the subscales – the value of Cronbach's alpha.

On the other hand, validity concerns the accuracy of a particular instrument in measuring a specific concept (Field, 2009). Considering the validity of this study, three well-known theories formed a base for measuring pro-environmental intentions' formation within the sample - the Norm Activation Model, the Value-Attitude-Behavior hierarchy, and the Theory of Planned Behavior. All these theories have been thoroughly tested within the field of environmental psychology in the last decades, and there have been numerous attempts to merge them likewise. Thus, it is argued that adopting these models to gain insights on consumers' pro-environmental intentions formation makes the particular study valid. Moreover, external validity relates to whether it is possible to generalize results from particular research beyond the researched context (Saunders et al., 2019). I argue that the external validity of the results should be reassured for nations culturally similar and as environmentally conscious as Denmark, e.g. Norway, Finland, or Germany.

5. FINDINGS

In this chapter, the main significant findings from the data analysis performed in SPSS will be further presented to form the basis for discussion in the next chapter. Firstly, descriptive statistics are displayed. Secondly, the assumptions underlying regression analysis are clarified and check for. Lastly, the results of the six regression analyses are presented.

5.1 DESCRIPTIVE STATISTICS

To get an overview of the gathered data, descriptive statistics of all the constructs comprising the conceptual framework are presented in Table 3.

	RANGE STATISTIC	MIN. STATISTIC	MAX. STATISTIC	MEAN		STANDARD DEVIATION STATISTIC
				STATISTIC	STD. ERROR	
Awareness of consequences	6.00	1.00	7.00	5.6175	.08214	1.11119
Ascribed responsibility	5.00	2.00	7.00	6.1940	.06232	.84308
Personal norm	4.50	2.50	7.00	6.1913	.06066	.82060
Social norm	5.00	2.00	7.00	4.9199	.07842	1.06085
Self-transcendence values	5.00	2.00	7.00	5.9372	.06734	.91094
Self-enhancement values	5.00	2.00	7.00	5.3142	.07791	1.05399
Anticipated feeling of guilt	6.00	1.00	7.00	3.7530	.11437	1.54713
Individual's legitimacy judgment	3.67	2.67	6.33	4.5159	.05330	.72106
Buying intention	6.00	1.00	7.00	4.7104	.11762	1.59112
Word-of-mouth intention	6.00	1.00	7.00	4.1439	.12017	1.62567
Sacrifice intention	6.00	1.00	7.00	4.7049	.12399	1.67736

Table 3. Descriptive statistics of the study's constructs.

By looking at the mean value, it can be argued that the participants were rather environmentally conscious in terms of their awareness of consequences (mean = 5.6175) and ascribed responsibility (mean = 6.1940). Evaluations of the personal norm, i.e. feelings that protecting the environment is morally right thing to do, were generally high (mean = 6.1913), whereas social norm, i.e. feeling pressure of significant others to engage in protecting the environment, was slightly lower (mean = 4.9199). Moreover, holding to self-transcendence values (mean = 5.9372) prevailed over self-enhancement ones (mean = 5.3142). Lastly, the anticipated feeling of guilt in individuals was quite low (mean = 3.7530), whereas the legitimacy of the airline industry was generally evaluated as rather high (mean = 4.5159). The following subsections go into depth with the data.

5.2 MEETING REGRESSION ANALYSIS ASSUMPTIONS

Primarily, it was deemed necessary to check for outliers, cases significantly differing from the main trend of the data. Their inclusion in the dataset could lead to regression models bias, by affecting the values of the estimated regression coefficients, and thus distorting the obtained results. Any cases standing out by having a large residual could potentially be outliers. Cook's distance is a statistic considering the overall influence of a single case on the model as a whole. If the value of Cook's distance is greater than 1, there may be a cause for concern. Thus, if a particular case is a significant outlier on Y, but its Cook's distance does not exceed the value of 1, the point does not need to be deleted from the dataset as its effect on the regression analysis is not significant (Field, 2009).

After checking for outliers, there are several other assumptions that one must check for (Berry 1993, in Field, 2009, p. 220-221). These assumptions primarily concern no perfect multicollinearity, homoscedasticity, independent errors, normally distributed errors, and linearity.

Firstly, collinearity is an association between two predictors, measured as the correlation. In order to maximize the prediction from a particular set of independent variables, predictors having a high correlation with the outcome and low multicollinearity with the other predictors should be looked for. In an attempt to identify collinearity, the correlation matrix for the independent variables should be examined for the occurrence of high correlations (.90 or higher). Moreover, tolerance and the variance inflation factor (VIF) are the most widely used measures, allowing the assessment of both pairwise and multiple variable collinearity. Therefore, if there is a high degree of multicollinearity, tolerance

values would get significantly lower and VIF values – higher. A value of .10 for tolerance, corresponding to a value of 10 for VIF, is a standard cutoff threshold, applied in this study likewise (Field, 2009; Hair et al., 2014).

Secondly, in case of the assumption of the independent errors, the residual terms for any two cases should be independent (i.e. uncorrelated). Durbin-Watson test, checking for serial correlations between errors, can be applied in this case. Specifically, the test statistic can vary between 0 and 4. The average value, 2, indicates no correlation between the residuals. Meanwhile, a value higher than 2 denotes a negative correlation and value lower than 2 – a positive correlation. Generally, it is advised to be concerned about values lower than 1 or higher than 3, and the closer the value is to 2, the better (Field, 2009).

Thirdly, there is an assumption that the residuals in the regression model are random, normally distributed variables, having a mean of 0. Thus, while looking at the model and the observed data, the differences should be zero or very close to zero. Differences significantly higher than zero should also happen rarely. The normality of residuals is commonly tested by looking at histograms and normal probability plots (P-P). A straight line represents a normal distribution in the plot. If a dataset is perfectly normally distributed, all the observed residuals (depicted by all the points in the plot) would be on the line. Moreover, normal distribution assumes the values of both skewness and kurtosis to be equal of 0. As for skewness, its value is positive in the case when too many scores in the dataset are low; and negative when the scores are primarily high. On the other hand, in the case of kurtosis, a pointy and heavy-tailed distribution emerges as an effect of positive values; and a flat and light-tailed – as an effect of negative ones. Furthermore, the Kolmogorov-Smirnov test leads to whether the distribution deviates from normality. The distribution is probably normal (not deviating significantly from normality) if the test turns out to be non-significant ($p > .05$) and non-normal in the case when the test is significant ($p < .05$) (Field, 2009).

Fourthly, the residuals terms at each level of the predictor(s) should have constant variance (homoscedasticity). Heteroscedasticity is, therefore, reported when the variances are extremely unequal (Field, 2009). Diagnosis can be performed with residual plots, showing a consistent pattern of whether the variance is not constant (Hair et al., 2014).

Lastly, it is assumed that the modeled relationship is linear. In the case of modeling a non-linear relationship with a linear model, the generalizability of the findings is significantly limited (Field, 2009).

The above-presented rules will serve as a guide in the assumptions checking of this study's six individually carried out regression analyses, presented in the following subsections.

5.2.1 ASCRIBED RESPONSIBILITY

In the case of the regression analysis of ascribed responsibility, an analysis of standard residuals was carried out and indicated one outlier (std. residual min. = - 5.648). However, Cook's distance for this case was well below 1 (.08912), and thus, the outlier was decided to be kept in the sample, as it does not have a significant effect on the regression analysis.

Assumptions underlying regression analysis were checked next. Multicollinearity was not an issue (VIF = 1, tolerance = 1). Examining the model summary, the number for the Durbin-Watson test was 1.854 – a slightly positive correlation, but meeting the independent errors assumption, as this value is close to optimal 2. The normality of distribution could not have been assumed based on the histogram and P-P plot, which showed significant deviations from the line. Indeed, both the skewness (= - 1.462) and kurtosis (= 3.486) were different from 0 and additionally, the Kolmogorov-Smirnov test evidenced that the distribution was non-normal ($D(183) = .180, p < .001$). Lastly, the assumptions of linearity and homoscedasticity were checked for. Examining the scatterplot revealed that linearity was assured. However, the assumption of homoscedasticity might have been violated as the dots were spread out rather than evenly placed around the line. Therefore, the validity of this model is questioned.

5.2.2 PERSONAL NORM

In the case of the regression analysis of personal norm, an analysis of standard residuals revealed three outliers (std. residual min. = - 3.380, std. residual min. = - 3.250, std. residual max. = 5.285). Cook's distance for all three cases was considerably below 1 (.08705, .18627 and .34130), and based on these results, none of the outliers were excluded from the sample.

Assumptions underlying regression analysis were checked next. Multicollinearity was not an issue (ascribed responsibility: VIF = 1.372, tolerance = .729; social norm: VIF = 1.112, tolerance = .899; anticipated feeling of guilt: VIF = 1.321, tolerance = .757). The number for the Durbin-Watson test was 1.680 – a positive correlation, yet still close to the optimal value of 2. Therefore, the assumption of the independent errors was met. As for the normality of residuals distribution, it was evident from the histogram and P-P plot that it could not have been assumed. This was further proved by the values of both skewness (= - 1.506), kurtosis (= 3.281), and the Kolmogorov-Smirnov test (D (183) = .167, $p < .001$). As for this model, the assumption of linearity could have been confirmed as the dots seemed not to funnel out when looking at the scatterplot. Nonetheless, the violation of the assumption of homoscedasticity was apparent due to the dots being spread out around one part of the scatterplot only instead of closely surrounding the line. As a result, the validity of the model cannot be guaranteed.

5.2.3 INDIVIDUAL'S LEGITIMACY JUDGMENT

An analysis of standard residuals was carried out, and no outliers were detected in the regression analysis of an individual's legitimacy judgment. Assumptions underlying regression analysis were checked next. Multicollinearity was not an issue (self-transcendence values: VIF = 1.074, tolerance = .931; self-enhancement values: VIF = 1.074, tolerance = .931). The number for the Durbin-Watson test was 2.211 – indicating a slightly negative correlation but still being relatively close to the value of 2. Moreover, both histogram and P-P lot indicated a rather normal distribution of residuals, with the majority of the points being on the line. The values of skewness and kurtosis were only slightly different from 0 (skewness = - .059, kurtosis = - .144). The Kolmogorov-Smirnov test confirmed that the distribution was in this case normal (D (183) = .056, p = .200). Moreover, linearity and homoscedasticity were checked for, and both assumptions were considered as met.

5.2.4 BUYING INTENTION

As for the regression analysis of buying intention, an analysis of standard residuals found one outlier (std. residual min. = - 3.445). Once again, it was not further excluded from the sample based on the Cook's distance result significantly lower than 1 (.04361).

Assumptions underlying regression analysis were checked next. Multicollinearity was not an issue (personal norm: VIF = 1.347, tolerance = .742; social norm: VIF = 1.131, tolerance = .884; anticipated feeling of guilt: VIF = 1.369, tolerance = .731; individual's legitimacy judgment: VIF = 1.109, tolerance = .902). The number for the Durbin-Watson test was 1.900 – thus meeting the independent errors assumption, as this value is close to optimal 2, yet indicating a slightly positive correlation. The histogram did not raise any concern in terms of normality, whereas the P-P plot indicated a slight deviation of cases from the line. The values of skewness (= - .550) and kurtosis (= - .445) were slightly different from 0 but overall, the Kolmogorov-Smirnov test proved the distribution to be non-normal (D (183) = .102, $p < .001$). In this particular model, there were no concerns about not meeting the linearity and homoscedasticity assumptions, as all the dots strictly followed the line and did not funnel out.

5.2.5 WORD-OF-MOUTH INTENTION

An analysis of standard residuals was carried out, pointing to one outlier in the regression analysis of word-of-mouth intention (std. residual min. = - 3.382). This outlier was as well kept in the sample, as all the previous ones, due to the Cook's distance value lower than 1 (.12789).

Assumptions underlying regression analysis were checked next. Multicollinearity was not an issue (personal norm: VIF = 1.347, tolerance = .742; social norm: VIF = 1.131, tolerance = .884; anticipated feeling of guilt: VIF = 1.369, tolerance = .731; individual's legitimacy judgment: VIF = 1.109, tolerance = .902). Examining the model summary, the number for the Durbin-Watson test was 1.840 – indicating a slightly positive correlation, yet close enough to the optimal value of 2 to meet the independent errors assumption. As for the normality of distributions, the histogram did not show any significant deviations. However, the P-P plot indicated a slight deviation from normality as not all the points were strictly on the line. The values of skewness (= - .300) and kurtosis (= - .846) confirmed there might be an issue with normality, which eventually got confirmed by the Kolmogorov-Smirnov test (D (183) = .099, $p < .001$). Lastly, looking at the scatterplot of this model, it was evident that there were no issues with the assumptions of linearity and homoscedasticity.

5.2.6 SACRIFICE INTENTION

As for the regression analysis of sacrifice intention, no outliers were found. Assumptions underlying regression analysis were checked next. Multicollinearity was not an issue (personal norm: VIF = 1.347, tolerance = .742; social norm: VIF = 1.131, tolerance = .884; anticipated feeling of guilt: VIF = 1.369, tolerance = .731; individual's legitimacy judgment: VIF = 1.109, tolerance = .902). The number for the Durbin-Watson test was 2.118 – therefore, meeting the independent errors assumption by being close to the optimal value of 2, yet still indicating a slightly negative correlation. Neither histogram nor P-P lot indicated perfectly normally distributed residuals. Skewness (= - .749) and kurtosis (= - .416) slightly diverged from 0 and the Kolmogorov-Smirnov test ultimately proved that the distribution was non-normal (D (183) = .187, $p < .001$). Finally, the assumptions of linearity and homoscedasticity were given consideration. They were both met as the dots evenly surrounded the line and did not form any funnel.

To sum up, the normality assumption seems to have been violated in several cases as normality is usually hard to be reassured in smaller datasets. Besides, the rest of the assumptions of all the regression models seems to be met, which allows for generalization of the further presented results (Field, 2009).

5.3 REGRESSION ANALYSES

This section will be split into six subsections, as each individually presents the results obtained from six regression analyses carried out, concerning all the dependent variables from this study's conceptual framework - ascribed responsibility, personal norm, individual's legitimacy judgment, and three behavioral intentions – buying intention, word-of-mouth intention and sacrifice intention. The chosen method of regression analyses was the forced entry (Enter in SPSS), which forces all the predictors into the model at the same time. Some believe that this method is the only appropriate one regarding theory testing (Studenmund & Cassidy, 1987, in Field, 2009, p. 212) as the alternative stepwise techniques rely on random variation in the data and rarely allow to obtain replicable results in case of retesting a model (Field, 2009).

5.3.1 ASCRIBED RESPONSIBILITY

The first, single, regression analysis was conducted to see if awareness of consequences predicted ascribed responsibility. The SPSS output for this regression can be found in Appendix B.

Predictor of awareness of consequences related highly to the outcome of ascribed responsibility (r = .495, $p < .001$). As for the fit of the regression model, the analysis of the importance of the independent variable on the dependent one showed that awareness of consequences accounted for 24.5 % of the variation in ascribed responsibility ($R^2 = .245$, $p < .001$). Moreover, a significant regression equation was found ($F (1, 181) = 58.615$, $p < .001$), revealing that the model predicts the outcome well.

The individual contribution of particular independent variables to the regression model can be understood by analyzing the coefficients table. However, as to use the regression coefficients for explanatory purposes, independent variables being measured on comparable scales should be ensured. As this study used the same units of measurement across all the constructs (i.e. 7-point Likert scale), I argue for the relevance of using unstandardized, instead of the standardized, coefficients. Awareness of consequences was therefore found to have a significant relationship with ascribed responsibility ($B = .375$, $p < .001$). This finding allows for confirming H1.

5.3.2 PERSONAL NORM

The second regression analysis, a multiple one, was carried out to see if ascribed responsibility, social norm, and anticipated feeling of guilt predicted personal norm. The SPSS output for this regression can be found in Appendix C.

Of all the predictors, ascribed responsibility related best to the outcome (r = .803, $p < .001$). Anticipated feeling of guilt and social norm related significantly to personal norm as well, at r = .458 and r = .320 respectively ($p < .001$). As for the fit of the regression model, when all the independent variables got included in the regression while exploring the outcome of the personal norm, they accounted for 65.6 % ($R^2 = .656$, $p < .001$) of the variance in the personal norm. It was revealed that the model is a significant fit of the data overall as a significant regression equation was found ($F (3, 179) = 113.953$, $p < .001$).

Out of three independent variables in this model, only one of them, ascribed responsibility, was found to be statistically significant in predicting the outcome of the personal norm (B = .720, p < .001), thus confirming H2. The analysis confirmed that neither social norm nor anticipated feeling of guilt contribute towards understanding of the dependent variable in this model (B = .600, p = .092 and B = .043, p = .106, respectively). H6 and H10 can be therefore rejected as it could not have been significantly evidenced that there was any effect of either social norm or anticipated feeling of guilt on the personal norm.

5.3.3 INDIVIDUAL'S LEGITIMACY JUDGMENT

Another multiple regression analysis was conducted to see if self-transcendence values and self-enhancement values predicted an individual's legitimacy judgment. The SPSS output for this regression can be found in Appendix D.

Self-transcendence values appeared to be negatively related to individual's legitimacy judgment (r = - .141, p = .029). On the contrary, self-enhancement values related positively to the outcome (r = .306, p < .001). As for the fit of the regression model, the independent variables of self-transcendence values and self-enhancement values explained only 14.6 % (R^2 = .146, p < .001) of the variance in individual's legitimacy judgment. Moreover, the overall fit of the data to this model was found to be significant (F (2, 180) = 15.402, p < .001).

The dependent variable of an individual's legitimacy judgment and its association with both of the predictors turned out significant. However, there was a significant negative relationship between self-transcendence values and individual's legitimacy judgment (B = - .188, p < .001), whereas the relationship between self-enhancement values and individual's legitimacy judgment turned out positive (B = .252, p < .001). Thus, both H14 and H15 were confirmed.

5.3.4 BUYING INTENTION

Next, the fourth multiple regression analysis was carried out to see if personal norm, social norm, the anticipated feeling of guilt, and an individual's legitimacy judgment predicted the first out of three

behavioral intentions – buying intention. The SPSS output for this regression can be found in Appendix E.

The predictors of the anticipated feeling of guilt, personal norm, and social norm all related significantly to the outcome of buying intention at r = .729, r = .463, and r = .256 ($p < .001$) respectively. Individual's legitimacy judgment turned out to be negatively related to buying intention (r = - .317, $p < .001$). As for the fit of the regression model, analyzing the importance of the chosen independent variables on the dependent variable of buying intention, it was shown that these four predictors – personal norm, social norm, the anticipated feeling of guilt and individual's legitimacy judgment – accounted for 56.3 % of the variation in buying intention ($R^2 = .563$, $p < .001$). What is more, the overall fit of the data showed that the model for buying intention was significant (F (4, 178) = 57.420, $p < .001$).

Of the four independent variables in the model, only two of them were revealed as significant in understanding the dependent variable of buying intention. As evidenced, the construct of anticipated feeling of guilt was found to be the most significant predictor ($B = .638$, $p < .001$), followed by personal norm ($B = .284$, $p = .012$). Neither social norm nor individual's legitimacy judgment contributed to predicting buying intention as they were not found statistically significant ($B = .075$, $p = .344$ and $B = - .211$, $p = .068$ respectively). These results provided support for the proposed relationships between the variables in H3 and H11, whereas H7 and H16 were rejected.

5.3.5 WORD-OF-MOUTH INTENTION

Fifth multiple regression analysis was conducted to see if personal norm, social norm, the anticipated feeling of guilt, and an individual's legitimacy judgment predicted another behavioral, word-of-mouth, intention. The SPSS output for this regression can be found in Appendix F.

The anticipated feeling of guilt appeared to be most related to the outcome (r = .755, $p < .001$). Next, personal norm and social norm also related significantly to word-of-mouth intention at r = .458 and r = .367 ($p < .001$) respectively. Individual's legitimacy judgment was once again negatively related to the outcome (r = - .323, $p < .001$). As for the fit of the regression model, $R^2 = .622$ ($p < .001$) indicated that the suggested four predictors accounted for 62.2 % of the variation in word-of-mouth intention.

It was also revealed by the multiple regression equation that the overall fit of the data was significant (F (4, 178) = 73.175, $p < .001$).

The analysis of unstandardized coefficients revealed the significance of two, out of four, independent variables in the explanation of the dependent variable of word-of-mouth intention. Anticipated feeling of guilt was considered as the most dominant predictor in the regression model ($B = .678$, $p < .001$), whereas social norm was found to be second strongest variable ($B = .266$, $p < .001$). Two other independent variables – personal norm and individual's legitimacy judgment - were not statistically significant ($B = .184$, $p = .968$ and $B = - .195$, $p = .076$ respectively) and thus, they did not contribute to predicting the intention. This provides evidence for the support of H8 and H12. However, H4 and H17 needed to be rejected.

5.3.6 SACRIFICE INTENTION

Finally, the last multiple regression analysis was carried out to see if personal norm, social norm, the anticipated feeling of guilt, and an individual's legitimacy judgment predicted sacrifice intention. The SPSS output for this regression can be found in Appendix G.

Three out of four predictors turned out to be positively related to the outcome. Of all the independent variables, anticipated feeling of guilt related best with sacrifice intention ($r = .291$, $p < .001$), followed by personal norm ($r = .207$, $p = .002$) and social norm ($r = .123$, $p = .049$). However, an individual's legitimacy judgment turned out not to significantly relate to the outcome ($r = .028$, $p = .354$). As for the fit of the regression model, the proposed four predictors only accounted for 10.9 % of the variation in the dependent variable of sacrifice intention ($R^2 = .109$, $p < .001$). Based on the ANOVA table, the model was found significant (F (4, 178) = 5.466, $p < .001$).

Lastly, there was just one independent variable – the anticipated feeling of guilt - considered as statistically significant and, therefore, contributing to the explanation of the dependent variable of sacrifice intention ($B = .306$, $p < .001$). The rest of the predictors – personal norm ($B = .175$, $p = .300$), social norm ($B = .075$, $p = .528$) and individual's legitimacy judgment ($B = .314$, $p = .072$) – did not predict the intention. H13 was therefore supported, whereas H5, H9, and H18 could not be confirmed.

Based on the presented results, analyzing six separate regression models, the summary of this study's hypotheses is presented in Table 4.

HYPOTHESIS	*B*	*p*	STATUS
H1. Awareness of consequences significantly affects ascribed responsibility.	.375	< .001	SUPPORTED
H2. Ascribed responsibility significantly affects personal norm.	.720	< .001	SUPPORTED
H3. Personal norm leads to buying intention.	.284	.012	SUPPORTED
H4. Personal norm leads to word-of-mouth intention.	.184	.968	NOT SUPPORTED
H5. Personal norm leads to sacrifice intention.	.175	.300	NOT SUPPORTED
H6. Social norm significantly affects personal norm.	.600	.092	NOT SUPPORTED
H7. Social norm leads to buying intention.	.075	.344	NOT SUPPORTED
H8. Social norm leads to word-of-mouth intention.	.266	< .001	SUPPORTED
H9. Social norm leads to sacrifice intention.	.075	.528	NOT SUPPORTED
H10. Anticipated feeling of guilt significantly affects personal norm.	.043	.106	NOT SUPPORTED
H11. Anticipated feeling of guilt leads to buying intention.	.638	< .001	SUPPORTED
H12. Anticipated feeling of guilt leads to word-of-mouth intention.	.678	< .001	SUPPORTED
H13. Anticipated feeling of guilt leads to sacrifice intention.	.306	< .001	SUPPORTED
H14. Holding self-transcendence values is negatively related to individual's legitimacy judgment of the airline industry.	- .188	< .001	SUPPORTED
H15. Holding self-enhancement values is positively related to individual's legitimacy judgment of the airline industry.	.252	< .001	SUPPORTED
H16. Judging the airline industry as legitimate is negatively related to buying intention.	- .211	.068	NOT SUPPORTED
H17. Judging the airline industry as legitimate is negatively related to word-of-mouth intention.	- .195	.076	NOT SUPPORTED
H18. Judging the airline industry as legitimate is negatively related to sacrifice intention.	.314	.072	NOT SUPPORTED

Table 4. Overview of hypotheses testing.

6. DISCUSSION

The discussion is divided into two sections. Firstly, theoretical implications are discussed, based on the results obtained through six regression analyses carried out. Each of the proposed hypotheses is addressed individually in relation to the past research on the particular constructs comprising the conceptual framework. Secondly, practical implications are suggested and argued for.

6.1 THEORETICAL IMPLICATIONS

6.1.1 AWARENESS, ASCRIBED RESPONSIBILITY, PERSONAL NORM

The first five hypotheses of this research underpinned the Norm Activation Model, consisting of three key constructs – problem awareness, ascribed responsibility, and personal norm. Generally, as assumed by the NAM, in order to perform specific behavior, it is deemed necessary that awareness of consequences antecedes feelings of responsibility for it (Gärling et al., 2003).

Primarily, previous research found a significant, positive relationship between awareness of consequences and ascribed responsibility. This relationship was hypothesized in H1 and was further confirmed by the first regression analysis in this study, leading to the conclusion that individuals indeed must be aware of the seriousness of climate change and its potential consequences in order to feel responsible for their mobility choices. Participants of this study were overall found to be highly aware of the consequences for the biosphere elicited by climate change, which is in line with the previous research findings that climate change is nowadays widely acknowledged as real and unequivocal by many.

Secondly, ascribed responsibility is known to be another determinant of holding pro-environmental intentions, found to directly affect the personal norm (Steg & Groot, 2010). The positive relationship between feelings of responsibility for the state of the earth and one's personal norm was hypothesized in H2 and found to be highly significant by the multiple regression analysis investigating three individual predictors – ascribed responsibility, the anticipated feeling of guilt and social norm – on a personal norm. What is more, participants seemed to comprehend the importance of individual

responsibility on the state of the environment well, instead of ascribing responsibility solely to the government or powerful institutions.

Lastly, personal norm, the third dominant construct of the NAM, was hypothesized to trigger an individual's behavioral pro-environmental intentions directly, specifically buying intention (H3), word-of-mouth intention (H4) and sacrifice intention (H5). This was in line with past research indicating that if individuals are aware of their choices' consequences and feel responsible for them, there is a high likelihood of detecting a relationship between personal norm and performing altruistic behaviors (Bamberg & Schmidt, 2003). However, this study employed outcomes of behavioral intentions, as it was argued that intentions are mediators of the personal norm effect on particular behaviors (Bamberg et al., 2007; Bamberg & Möser, 2007).

As for the hypotheses concerned with the relationship between the personal norm and behavioral intentions, only buying intention was further verified. Thus, this finding enables to conclude that individuals who are highly aware of the consequences of their choices, feel responsible for them on an individual level and eventually hold the pro-environmental personal norm, are more likely to intend to travel on short routes with more environmentally friendly modes of transport instead of taking a flight in the future. However, this could not have been evidenced for the other two behavioral intentions. Being aware of the environmental issues, feeling responsible for them and holding a personal norm were found to be insufficient to trigger intention of word-of-mouth, i.e. recommending others to travel with more environmentally friendly modes of transport nor intention of sacrifice, i.e. paying more for the flight tickets and in taxes. Based on these findings, it is considered relevant to place importance on a holistic understanding of acting pro-environmentally in terms of the choice of short route mode of transport and not solely the buying intention. Specifically, individuals should be made aware that it is not only their personal transport choices that would be likely to elicit a positive change in the state of environment but advising others to behave likewise and accepting increased prices of flight tickets as well.

6.1.2 SOCIAL NORM

The following four hypotheses dealt with the effect of the social norm, i.e. perceived expectations of significant others regarding performing a specific behavior (Schwartz, 1977), on the personal norm

and a set of three behavioral intentions – buying intention, word-of-mouth intention and sacrifice intention. Results from the regression analyses carried out indicate that, contrary to the findings of the past research, the social norm was not found to be a predictor of a personal norm. Therefore, as personal norm resembles a moral obligation (Schwartz, 1977), feelings of whether protecting the environment is indeed necessary were, when analyzing results obtained from the sample, not enhanced by the social pressure of acting upon climate change.

What is more, out of three hypothesized relationships between a social norm and behavioral pro-environmental intentions, only the one regarding intentions towards word-of-mouth was found to be statistically significant and therefore verified. These findings provide some interesting conclusions regarding whether social pressure can indeed elicit a powerful pro-environmental change when choosing a mode of transport for short-distance journeys. Surprisingly, social norm solely urged individuals to manifest word-of-mouth intention, i.e. encourage and advise others to opt for a more environmentally friendly mode of transport than a plane when traveling on a short route in the future. Likewise, it could not have been evidenced that consumers who place importance on the social norm would be more likely to choose more environmentally friendly transport alternatives themselves or would be eager to accept some financial losses by paying more for their flights and in taxes. Therefore, it seems evident that the social pressure of significant others, surrounding the issue of irreversible environmental changes, was not fully influential enough to cause the emergence of pro-environmental intentions on an individual level. This is in opposition to what was evidenced in the past by Morten et al. (2018, p. 303 in Gössling et al., 2019, p. 8). Specifically, they found that individuals holding a belief that significant others would not like them to fly often would be more eager to opt out of air travel in the future, at least to some extent. Moreover, this study's data analysis findings further evoke a question of whether these word-of-mouth intentions were brought forth out of real concern of the state of the planet and if yes, why were they not followed by a willingness on acting upon climate change personally. In this case, further research is needed to tackle this disparity.

Finally, earlier research adopting the NAM did not come to terms whether expanding the model with a social norm, visibly distinct from a personal norm, is valid. Despite this disagreement, this construct was decided to be relevant for this study's purpose, as the activity of flying has been considered by many as a leisure mobility norm for some years now (Hall, 2004; McDonald et al., 2015), and eventually included in the conceptual framework. Furthermore, it provided some ambiguous yet

exploitable findings, and thus, it is recommended to expand the original model with this variable when investigating issues being a subject of public debates in the future.

6.1.3 ANTICIPATED FEELING OF GUILT

Thereafter, another set of hypotheses touched upon potential relationships between the anticipated feeling of guilt, which was argued to resemble the construct of the flying shame specifically for this study, and personal norm (H10), buying intention (H11), word-of-mouth intention (H12), and sacrifice intention (H13). According to the results of multiple regression analysis with the variable of the personal norm as an outcome, it was evident that the anticipated feeling of guilt did not demonstrate a significant effect on the personal norm. Thus, this finding contrasts the results of past research. Specifically, it was found by Onwezen et al. (2013) that the variable of the anticipated feeling of guilt was a significant mediator of the personal norm on pro-environmental behavioral intentions. Overall, neither the anticipated feeling of guilt nor the social norm, as evidenced in the previous sub-section, were found to have an impact on the personal norm. The construct of personal norm ended up being solely explained by ascribed responsibility, which is in line with the NAM, but no other past research regarding extending the model with additional constructs.

Furthermore, another three hypotheses assumed that there is a direct and significant relationship between the anticipated feeling of guilt and each of the pro-environmental behavioral intentions. Interestingly, all these hypotheses could have been verified, leading to the conclusion that flying shame indeed significantly and positively influenced individuals' formation of buying intention, word-of-mouth intention, and sacrifice intention. The anticipated feeling of guilt is, therefore, the only direct antecedent of pro-environmental intentions that demonstrated significant relationships with all of them. It can be concluded that individuals from the sample were more likely to hold pro-environmental intentions, and the so-called flying shame significantly contributed to their appearance.

Significantly, this result was not likely to be biased, as participants were given no indication at any point of the survey that flying is morally wrong, and that other transport alternatives are preferred. This finding further evidences that individuals might have acknowledged the harmfulness of flying at some point in the past and decided to opt for more environmentally alternatives when traveling on

short distances, in order to avoid feeling bad for flying if there was a convenient alternative available. Likewise, to omit the occurrence of negative emotions, they seem to be eager to extend their efforts towards acting in a pro-environmental way by informing others of alternative transport modes and make sacrifices on their own, i.e. pay more for the flights if it was to help the environment.

This finding should be moreover viewed in regard to the geographical proximity of Denmark and Sweden and their cultures not being substantially distinct from each other. As the flying shame movement emerged in Sweden, it is more likely to influence the reasoning and further spread to the nations culturally close and led by similar environmental values. For instance, SAS (Scandinavian Airline System), the flag carrier of Denmark, Sweden, and Norway, is considered as one of the foremen touching upon the unstoppable shift in the worldviews of consumers regarding the aviation industry. Therefore, individuals participating in the study, residents of Denmark, might have been more aware of the widespread environmental practices of SAS, rather than any other country far from Sweden, both geographically and culturally. Likewise, the majority of the sample was aware of the flying shame movement prior to participating in the study.

However, these above-discussed findings should be given the benefit of the doubt. Indeed, the construct of flying shame has not been previously measured in academia. To the best of author's knowledge, this research provided the first attempt of investigating it - specifically its impact on consumers' intentions of opting out of air travel and switching towards more environmentally friendly transport alternatives. What is more, the measurement scale of the variable of the anticipated feeling of guilt was chosen in order to stand for the feelings of the flying shame. Even though such a connotation was exhaustively argued for, it has not been proven to be valid by any other researchers yet, primarily due to the phenomenon of flying shame still being considered as fairly novel. Further research is required to investigate whether this study's assumptions regarding the flying shame movement can be considered as valid.

6.1.4 VALUES AND LEGITIMACY JUDGMENT

Several relevant insights can be obtained when analyzing the effect of values on an attitude, being in line with the Value-Attitude-Behavior hierarchy, as well as replacing the variable of an attitude with a construct of an individual's legitimacy judgment (Finch et al., 2015), which has so far been widely

neglected. Primarily, a split of an overall variable of values was deemed necessary as both self-transcendence and self-enhancement values are believed to affect perceptions of legitimacy in opposite ways. The findings of regression analysis provided empirical evidence that there was a significant negative relationship between holding self-transcendence values and considering the aviation industry as legitimate, thus confirming H14. Consequently, H15, assuming the existence of a positive relationship between holding self-enhancement values and ascribing legitimacy to the aviation industry, was also verified.

These findings are undoubtedly in line with what was evidenced by many researchers tackling pro-environmental intentions and behaviors in the past. Thus, when individuals hold self-transcendence values, i.e. take into account the well-being of collectivity, they are more likely to withhold legitimacy from the aviation industry as this type of values is generally believed to enhance the occurrence of pro-environmental attitudes. Contrarily, if consumers associate themselves as following along self-enhancement values, i.e. accounting solely for their interests, the aviation industry can seem legitimate to them, as self-enhancement values are likely to hinder pro-environmental attitudes (e.g. De Groot & Steg, 2010; Steg et al., 2014).

To sum up, it is somewhat logical that appreciating an ecologically sound environment and social responsibility leads to not wanting it to get disrupted by the operations of illegitimate industries, such as aviation. On the other hand, individuals wishing to be successful and have their lives filled with constant adventures are much less likely to get concerned over the state of the earth. This group of consumers is assumed not to excessively contemplate over the damaging impact of air travel and binge flying despite the strong evidence of the harmfulness of the aviation and widespread availability of more environmentally friendly transport alternatives.

6.1.5 LEGITIMACY JUDGMENT AND BEHAVIORAL INTENTIONS

Finally, the last three hypotheses wrap up the multivariable discussion of consumers' pro-environmental intentions formation. An individual's legitimacy judgment was once again considered to resemble an attitude, the critical construct within the VAB hierarchy, in line with the reasoning of Finch et al. (2015). Generally, the field of environmental psychology acknowledges a meaningful role of attitudes in triggering pro-environmental intentions (e.g. Han et al., 2019). It was therefore

expected to detect significant relationships between an individual's legitimacy judgment, as a multi-dimensional attitude, and all the pro-environmental intention constructs employed in the conceptual framework.

Surprisingly, an individual's legitimacy judgment turned out not to affect buying, word-of-mouth or sacrifice intentions. Thus, neither positive nor negative relationships could have been evidenced, and all the hypotheses had to be eventually dismissed. The evidence provided by Finch et al.'s (2015) that individuals caring about the environment are likely to be well aware of environmental issues surrounding the controversial industries, would not consider their practices as legitimate and ultimately, choose not to engage with them, cannot, therefore, be referred to within the context of aviation.

Specifically, considering how desirable mobility is and how air travel facilitates it, it should not be surprising that the study's participants evaluated their legitimacy judgments of the aviation industry as rather high. Despite relatively lower evaluations of moral legitimacy, touching upon e.g. morality, appropriateness, and acceptable standards of the aviation, pragmatic and cognitive legitimacy evaluations were relatively higher. No matter how pro-environmentally oriented a person is, it would have been rather rare to neglect the pragmatic legitimacy dimension of the airline industry - the value created for customers, catering to customers' interests, and overall benefits for travelers. On a related note, cognitive legitimacy could not have been underestimated either, as it is still commonly believed that the airline industry is necessary, provides an essential function, and imaging a world without it is rather challenging (Alexiou & Wiggins, 2019).

The non-significant effect of legitimacy perception on pro-environmental intentions is, however, very likely to change with time. The aviation's contribution to climate change has been recently given more attention than ever before. Moreover, the movement of flying shame seems to be slowly spreading around Europe. Even though it has not yet been given sufficient attention in academia, it was earlier preliminarily proved that feelings of the flying shame within the sample of Denmark's residents indeed affected pro-environmental intentions. Assuming the continuous but even stronger emphasis on climate-smart traveling, it is likely that perceptions of the aviation industry's legitimacy will begin to lower soon enough and start having a significant effect on consumers' pro-environmental intentions formation.

The concept of an individual's legitimacy judgment was employed in this paper to address Kates (2004) and Humphreys' (2010) encouragement to gain more insights into its potential relationships within the consumer behavior research. Even though the empirical findings ultimately did not evidence any significant relationships between perceptions of legitimacy and pro-environmental behavioral intentions in the context of aviation, it is worth to investigate similar assumptions in the future, as to fully reject proposed relationships.

6.2 PRACTICAL IMPLICATIONS

From a practical point of view, the findings of this research should be of value primarily to various policymakers, non-governmental organizations (NGOs) and activists encouraging pro-environmental practices continuously.

Firstly, the results can be insightful in terms of enhancing individuals' personal norms, i.e. evaluation whether a particular act is morally right or wrong. Specifically, the significance of increasing the level of environmental awareness and ascribed responsibility for own acts was indicated, as no pro-environmental change is likely to occur if consumers are not aware of the irreversible changes occurring in the world in the first place. Indeed, the continuous spreading of climate change related information by NGOs and environmental activists through various means is crucial. The focus should be, however, placed on carrying out highly encouraging, rather than intimidating, communication. Such communication should be multi-dimensional, touching upon various aspects of one's mobility patterns that might be ameliorated to help the planet, beginning with small steps.

Moreover, emphasizing the undeniable impact of aviation on the proceeding climate change is urgent, as many consumers up to this date seem to neglect this relationship, or are simply not yet aware of it. It is argued that the levels of consumer awareness are much likely to be considerably higher in industrialized societies, as e.g. Denmark, Sweden, or Germany, which have been previously discussed in the context of the flying shame. Therefore, it is crucial to act upon awareness of individuals from various cultural backgrounds, culturally and geographically distinct from the above-mentioned nations.

Likewise, the findings provided yet another insightful evidence of a need for emphasizing the importance of an individual's efforts towards the collective goal of acting pro-environmentally in order to significantly lower the harm caused to the environment. This poses yet another challenge, mainly to environmental organizations eliciting change in consumers. Continuous emphasis on not being dependent on the more powerful ones and bringing on even minor alterations into one's lifestyle, as e.g. carbon offsetting or accepting a slight inconvenience of a few hours longer trip by a bus or a train, instead of a short-distance flight, should be reassured.

Another challenge for the ones tackling necessity of pro-environmental behaviors lies in successfully handling a necessary shift in consumers' perception of flying as a social norm, activity that they feel entitled to, regardless of the harm done to the planet. Indeed, not finding the social norm as a significant predictor of the personal norm may be further hindering pro-environmental intentions formation in individuals. Thus, an urgent switch in consumers' mentality should be brought upon. As the significant reference persons have the most substantial influence on one's deeds, it is considered necessary to start seeing the engagement of reputable brands and well-known individuals towards reinforcing the social pressure of limiting air travel.

Surprisingly, consumers' pro-environmental intentions formation seemed to be profoundly affected by anticipating the feeling of guilt by individuals when imagining not living up to the behavioral standards set up by society, in terms of environmentally conscious traveling. This result thus indicates that there is a tremendous potential underlying the movement of flying shame, especially in the cultures culturally and geographically close to Sweden, the pioneer of *flygskam*. Overall, it is deemed reasonable to increase focus on emotions marketing, as consumers generally try to do their best to avoid overcoming negative emotions, including shame and guilt.

Consequently, if air traveling is continuously depicted as a guilty pleasure, that could be easily substituted with a bunch of other available environmentally friendly transport modes alternatives on short-route journeys, consumers may step by step turn their backs from it. It is believed that this knowledge can provide meaningful indicators on how to tackle the flying shame in terms of e.g. policy adjustments or strategic communication. Above all else, these opportunities should be seized by policymakers concerned with railway and buses, as these constitute the most frequently chosen alternatives to flying on short distances. Considerable switch in mobility patterns is however not

likely to occur without a holistic approach, e.g. providing financial incentives or assuring greater comfort to passengers, but making use of the flying shame trend is still highly advocated.

An individual's legitimacy judgment supposedly did not affect any of the pro-environmental intentions due to air traveling being well-rooted into the lifestyles of affluent ones and widely considered as a social norm for masses. Indeed, even though the study's participants seemed to be environmentally conscious across various dimensions and acknowledged the existence of the flying shame movement, they still evaluated the airline industry as highly legitimate. Joint forces of environmental institutions, policymakers concerned with railway and buses, and NGOs should reassure a collaborative effort towards eliminating this perception. However, ascribing social stigma to aviation may be a lengthy process, as binge mobility is still somewhat mainstream. Generally, no legal restraints suggest that opting for a plane instead of any other mode of transport would be wrong, even if there are other alternatives on the same route. Thus, unless further principles are established, e.g. resembling the more and more common ban of smoking in public places, eliciting behavioral change may be infeasible in the near future.

7. CONCLUSIONS

This master's thesis aimed to respond to the posed research question asking *"Why do some individuals intend to opt out of air travel and turn to more environmentally friendly transport alternatives when traveling on a short route, despite flying being nowadays a norm?"*. In order to gain insights on it, a conceptual framework based on the Norm Activation Model, extended with the social norm, the anticipated feeling of guilt, the Value-Attitude-Behavior hierarchy, and the Theory of Planned Behavior was employed. Constructs of the personal norm, social norm, anticipated feeling of guilt, and an individual's legitimacy judgment were identified as potential direct predictors of pro-environmental intentions, which ultimately were restricted to buying intention, word-of-mouth intention, and sacrifice intention.

Consequently, quantitative research in form of an online survey was conducted and resulted in a sample of 183 residents of Denmark. Ultimately, six regression analyses were performed to analyze the data and shed light on the intentions' formation processes within the sample.

Regression analyses' findings revealed that an individual's personal norm affected solely buying intention formation, i.e. intending to travel on short routes with more environmentally friendly alternatives of flying. In contrast, the social norm was found to be a significant predictor of merely the word-of-mouth intention, i.e. encouraging others to be more environmentally conscious in their short route journey choices. As for the anticipated feeling of guilt, which was argued to resemble a novel, not yet widely understood feelings of the flying shame, significant effects with all the pro-environmental outcomes were detected. Conversely, an individual's legitimacy judgment did not influence any of the pro-environmental intentions. To sum up, flying shame occurred to be the most meaningful predictor of consumers' intentions to opt out of air travel on short routes, where more environmentally friendly alternatives are easily accessible.

These findings enhance further understanding of the dynamics that may influence consumer decision-making while deciding to travel. In conclusion, the results point towards relying more on relating to the anticipated feeling of guilt as to prevent consumers from excessive mobility with the means of flying. Moreover, an urgent need to act upon lowering the perception of the legitimacy of the airline industry by individuals has been evidenced. These implications form a significant challenge primarily

for policymakers, i.e. the ones in charge of less polluting alternatives to aviation like the railway. The findings should be valuable to activists, NGOs, and major brands, likewise. They should enhance further understanding of how to proceed with their communication efforts in order to elicit pro-environmental intentions in consumers.

7.1 LIMITATIONS AND FUTURE RESEARCH

This study's findings should be interpreted in light of several limitations that are further advised to be addressed by future research.

First and foremost, one major limitation of this research concerned the lack of academic interest in the movement of flying shame until now. Consequently, there were no indications on how to tackle the issue of measuring it in individuals accurately. Even though the name of the phenomenon is indeed unambiguous, I argued for the relevance of looking at it outside the scope of solely the emotion of shame. Precisely, emotions of shame and guilt have been confused continuously by many, and various disagreements surrounding this issue are still present up to this date. Having exhaustively studied the construct of shame and its various measurement scales across diverse research disciplines, it became justifiable to employ the measurement tackling the emotion of anticipated guilt instead. However, as more and more individuals are getting aware of the undeniable interrelationship of aviation and climate change, a proper, reliable measurement of the flying shame will likely be developed soon enough. Therefore, I want to highlight the importance of further research on the phenomenon of flying shame, primarily as it appeared to be one of the significant predictors of eliciting pro-environmental intentions in individuals, based on this paper's findings.

Moreover, as this study focused on the intentions formations of individuals living in Denmark only, awareness of the existence of the flying shame movement was rather noticeable. Nevertheless, the concept of opting out of air travel as a result of being ashamed was still unfamiliar to some. Thus, it is advised to carry out such research again the future, when the knowledge about the movement spreads even further, to see if it indeed significantly affects the behavioral intentions of individuals. Eventually, conducting a comparison between the consumers who acknowledge flying shame and the ones that do not is proposed as a meaningful extension of this study.

Next, the findings of this research are restricted to the context of Denmark. The proposed conceptual framework was studied solely on a particular sample within one country, therefore limiting the generalizability of the results. It was previously evidenced that participants were indeed environmentally conscious and ascribed responsibility for acting upon climate change to themselves. However, these findings should be seen in the light of multiple factors, e.g. freedom of movement, good standards of living, and considerably high-level earnings in Denmark when compared to the other countries within Europe but also across the world. In conclusion, it cannot be assumed with certainty that the process of pro-environmental intentions formation would look likewise in the other cultural settings than the ones presented in this research. Therefore, it is recommended to carry out similar studies in other countries. This suggestion is further in line with Milfont et al. (2010), who reassured that the validity of the models concerning environmental behavior visibly improves when a cross-cultural test is performed.

Thereafter, there are some limitations concerning the sample. It was not only found not to be representative of the picture of Danish society as a whole, but primarily, it consisted of representatives of various nationalities. Even though it was reassured that all the participants were residents of Denmark, meaning they were assumed to have adjusted to the "Danish way of living", the findings might have turned out to be different if solely Danes were investigated. Moreover, the socio-demographic data was gathered exclusively to check the representativeness of the sample. Thus, it might have been interesting to conduct a multi-group analysis in order to detect significant differences within intentions formation across gender, age, and groups. To sum up, further research is advised to investigate homogenous groups based on nationality and take account of potential disparities amongst individuals belonging to particular socio-demographic groups.

Another limitation lies within delimiting the investigation of consumers' mobility patterns to the short route journeys only. It was deemed reasonable that fighting against air travel, a habit so well-rooted into the lifestyles of many within neoliberal societies, should take place one step at a time. It was assumed that asking participants about their intentions to completely cut down flying would have been too much regarding the continuously increasing worldwide demand for travel. However, the aim of the flying shame is not only to make people alter their habits when covering short distances but to reflect on their air travel patterns holistically and reduce them to a great extent. Therefore, it is

considered relevant for future research to investigate behavioral intentions formations regarding all types of trips, not distinguishing between short and long-distance.

Finally, the snapshot nature of this research forms probably the most significant identified limitation. Precisely, this thesis was planned and partially executed before the coronavirus pandemic made the tourism section as a whole face a tremendous challenge. According to the most recent forecasts, it is likely that between five up to seven years' worth of the tourism sector's growth may be lost (Serra & Leong, 2020).

Consequently, data collection took place during uncertain times and started at a time when barely a few countries had decided for a full lockdown and introduced considerable travel restrictions. Even after the point of gathering the sufficient sample size and proceeding to data analysis, it was still not yet clear when would things would go back to normal. Therefore, the research continued as primarily planned, holding to a belief that this might have as well been a temporary phase.

At the point of writing these limitations (i.e. the beginning of May 2020), it is rather commonly believed that there will be no turning back to what we used to consider as normality, likewise in terms of traveling. Instead, new normality awaits once the pandemic is tamed enough to a point enabling people for leisure travel again. Indeed, there is no doubt that people will eventually come back to traveling, but evidently not on the same terms anymore (Serra & Leong, 2020). Therefore, as for now, it cannot be stated without any hesitation whether the relevance of the obtained results may be limited or not in the near future.

Supposedly, there are two possible ways of proceeding once the world comes out of the pandemic. Firstly, it is an excellent opportunity to redefine one's environmental values and reconsider whether binge mobility should continue being so desirable. As international leisure traveling may still be considerably restricted for months, a trend of local travels, based on more environmentally friendly aviation alternatives, is likely to emerge, and hopefully, it will be there to stay. Moreover, Serra and Leong (2020) point out a great opportunity for governments and the tourism industry as a whole to redefine traveling and switch towards more sustainable practices.

On the other hand, the economic consequences of the coronavirus crisis have so far been tremendous for many, and the future forecasts are not more optimistic. The whole tourism industry has turned out into chaos, causing not only inconvenience and frustrations of travelers but primarily devastating economies significantly dependent on tourists' arrivals like Italy, Spain, or Greece (Henley, 2020). As to make up for the losses, caring for the environment may become secondary once the borders are open again. This issue was tackled by Florian Kock long before the pandemic had started, and the flying shame movement was becoming more and more widespread. In September 2019 he said: *"Right now, we live in a prosperous time. The economy is doing well, and people have the resources and time to think about these things. What I fear is that if the economy slows, caring about the environment could become less important for people. If the external pressure falls, people who only stopped flying due to the external pressure will not feel ashamed of flying anymore"* (Lykkegaard, 2019, para. 25).

Future research on aviation should, therefore, aim to take account of how coronavirus pandemic has affected consumers' pro-environmental intentions regarding traveling. Specifically, investigating whether consumers would be still willing to opt out of air travel based on their climate change concerns, or are they instead substituted by other pandemic-related concerns, provides an exciting further research opportunity.

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9. APPENDIX

APPENDIX A. FULL-SCALE STUDY QUESTIONNAIRE

Hey everyone!

I am currently completing my studies at Copenhagen Business School and as a part of my master's thesis, I am conducting research on consumers' pro-environmental intentions formation within the airline industry in the face of intensifying climate change. I would really appreciate if you could help me out by completing the survey below - it shouldn't take more than 6-7 minutes.

As my topic strictly relates to the airline industry, I would like to you to not let the current coronavirus situation bias your answers too much - simply imagine how you would answer if we still had freedom of travelling whenever and wherever we want to go and wouldn't need to isolate ourselves from the others.

Your responses will be treated with confidentiality, remain anonymous at all time and will be used for academic purposes only.

Please note that you must reside in Denmark in order to participate.

Thank you for your time!

PAGE 1

Q1 (Awareness of consequences). Please indicate whether you agree or disagree with the following statements.

- Laws that protect the environment limit my choices and personal freedom.
- Protecting the environment will threaten jobs for people like me.
- The effects of pollution on public health are worse than we realize.
- Pollution generated in one country harms people all over the world.

- The balance in nature is delicate and easily upset.
- Over the next several decades, thousands of species will become extinct.

Q2 (Ascribed responsibility). Please indicate whether you agree or disagree with the following statements.

- I am concerned about the environment.
- Every citizen must take responsibility for the environment.
- Authorities rather than the citizens are responsible for the environment.

Q3 (Personal norm). Please indicate whether you agree or disagree with the following statements.

- I feel a moral obligation to protect the environment.
- I feel that I should protect the environment.
- I feel it is important that people in general protect the environment.
- Our environmental problems cannot be ignored.

Q4 (Social norm). Please indicate whether you agree or disagree with the following statements.

- Most people who are important to me think I should do my best to protect the environment.
- Most people who are important to me would want me to do my best to protect the environment.
- People whose opinions I value would want me to do my best to protect the environment.

Q5 (Values). Please indicate whether you agree or disagree with the following statements.

- An ecologically sound environment is very important to me.
- Social responsibility is important to me.
- Success in life is important to me.
- I frequently feel the urge to experience something intense and novel.

PAGE 2

Imagine that you fail to travel with an environmentally friendly mode of transport that minimizes its negative impact on the wider environment (e.g. you take a short flight instead of covering this route by train or bus). How would you feel?

For the purpose of this study, please assume that a short flight covers a route of up to around 1000 km.

Q6 (Anticipated feeling of guilt). Please indicate whether you agree or disagree with the following statements.

- I feel guilty.
- I feel remorseful.
- I feel sorry.
- I feel bad.
- I feel ashamed.

PAGE 3

Q7 (Pragmatic legitimacy). Please indicate whether you agree or disagree with the following statements.

- In general, the airline industry creates value for its consumers.
- The policies of the airline industry cater to the interests of its consumers.
- I believe the activities of the airline industry benefit their consumers.

Q8 (Moral legitimacy). Please indicate whether you agree or disagree with the following statements.

- The general public would approve of the airline industry's policies and procedures.
- Most people would consider the airline industry's practices to be moral.
- The way the airline industry operates promotes the common good.

- Airline industry is concerned with meeting acceptable standards for ethical behavior in their field.
- Airline industry's policies seem appropriate.
- If more organizations adopted policies and procedures like the airline industry, the world would be a better place.

Q9 (Cognitive legitimacy). Please indicate whether you agree or disagree with the following statements.

- I believe that the airline industry is necessary.
- In general, the airline industry provides an essential function.
- It is difficult to imagine a world in which the airline industry did not exist.

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For the following statements, please mark your answers according to your feelings regarding routes of up to around 1000 km.

Q10 (Buying intention). Please indicate whether you agree or disagree with the following statements.

- I am willing to travel with a more environmentally friendly mode of transport instead of taking a flight in the future.
- I plan to travel with a more environmentally friendly mode of transport instead of taking a flight in the future.
- I will expend effort on travelling by an environmentally friendly mode of transport instead of taking a flight in the future.

Q11 (Word-of-mouth intention). Please indicate whether you agree or disagree with the following statements.

- I will encourage my friends and relatives to choose a more environmentally friendly mode of transport instead of taking a flight.

- If someone is looking for a flight ticket, I will advise him/her to choose another, more environmentally friendly mode of transport.
- I will say positive things about more environmentally friendly modes of transport rather than taking a flight.

Q12 (Sacrifice intention). Please indicate whether you agree or disagree with the following statements.

- To protect the environment, I would be willing to pay higher taxes for my flights.
- To protect the environment, I would be willing to accept some inconvenience in the standard of travelling (e.g. by choosing a longer journey by train or bus instead of taking a short flight).
- To protect the environment, I would be willing to pay more for my flights.

PAGE 5

Q13. Do you know what flying shame is?

- Yes
- No

PAGE 6

Lastly, I would like you to answer the following questions about yourself.

Q14. Please indicate your gender.

- Female
- Male
- Other

Q15. Please indicate your age (open-ended question).

Q16. Do you currently reside in Denmark?

- Yes
- No

Q17. Please indicate your nationality (open-ended question).

Q18. Please indicate your highest level of education completed.

- I have no formal education
- Primary school
- Upper secondary school
- High school
- Bachelor programme
- Master programme
- PhD programme
- I would prefer not to answer

APPENDIX B. ASCRIBED RESPONSIBILITY REGRESSION ANALYSIS

MODEL SUMMARY [b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.495[a]	.245	.240	.73477	.245	58.615	1	181	.000	1.854

a. Predictors: (Constant), Awareness of consequences
b. Dependent variable: Ascribed responsibility

ANOVA [a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	31.645	1	31.645	58.615	.000[b]
	Residual	97.718	181	.540		
	Total	129.363	182			

a. Dependent variable: Ascribed responsibility
b. Predictors: (Constant), Awareness of consequences

COEFFICIENTS [a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	4.086	.281		14.559	.000
	Awareness of consequences	.375	.049	.495	7.656	.000

a. Dependent variable: Ascribed responsibility

APPENDIX C. PERSONAL NORM REGRESSION ANALYSIS

MODEL SUMMARY [b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.810[a]	.656	.651	.48507	.656	113.953	3	179	.000	1.680

a. Predictors: (Constant), Anticipated feeling of guilt, Social norm, Ascribed responsibility
b. Dependent variable: Personal norm

ANOVA [a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	80.438	3	26.813	113.953	.000[b]
	Residual	42.118	179	.235		
	Total	122.556	182			

a. Dependent variable: Personal norm
b. Predictors: (Constant), Anticipated feeling of guilt, Social norm, Ascribed responsibility

COEFFICIENTS [a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	1.271	.287		4.423	.000
	Ascribed responsibility	.720	.050	.740	14.411	.000
	Social norm	.060	.036	.078	1.692	.092
	Anticipated feeling of guilt	.043	.027	.082	1.624	.106

a. Dependent variable: Personal norm

APPENDIX D. INDIVIDUAL'S LEGITIMACY JUDGMENT REGRESSION ANALYSIS

MODEL SUMMARY [b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.382[a]	.146	.137	.66999	.146	15.402	2	180	.000	2.211

a. Predictors: (Constant), Self-enhancement values, Self-transcendence values
b. Dependent variable: Individual's legitimacy judgment

ANOVA [a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	13.828	2	6.914	15.402	.000[b]
	Residual	80.800	180	.449		
	Total	94.627	182			

a. Dependent variable: Individual's legitimacy judgment
b. Predictors: (Constant), Self-enhancement values, Self-transcendence values

COEFFICIENTS [a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	4.292	.370		11.612	.000
	Self-transcendence values	-.188	.056	-.237	-3.325	.001
	Self-enhancement values	.252	.049	.368	5.161	.000

a. Dependent variable: Individual's legitimacy judgment

APPENDIX E. BUYING INTENTION REGRESSION ANALYSIS

MODEL SUMMARY [b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.751[a]	.563	.554	1.06311	.563	57.420	4	178	.000	1.900

a. Predictors: (Constant), Individual's legitimacy judgment, Social norm, Personal norm, Anticipated feeling of guilt
b. Dependent variable: Buying intention

ANOVA [a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	259.585	4	64.896	57.420	.000[b]
	Residual	201.177	178	1.130		
	Total	460.761	182			

a. Dependent variable: Buying intention
b. Predictors: (Constant), Individual's legitimacy judgment, Social norm, Personal norm, Anticipated feeling of guilt

COEFFICIENTS [a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	1.139	.883		1.290	.199
	Personal norm	.284	.111	.146	2.548	.012
	Social norm	.075	.079	.050	.949	.344
	Anticipated feeling of guilt	.638	.060	.621	10.714	.000
	Individual's legitimacy judgment	-.211	.115	-.096	-1.833	.068

a. Dependent variable: Buying intention

APPENDIX F. WORD-OF-MOUTH INTENTION REGRESSION ANALYSIS

MODEL SUMMARY [b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.789[a]	.622	.613	1.01087	.622	73.175	4	178	.000	1.840

a. Predictors: (Constant), Individual's legitimacy judgment, Social norm, Personal norm, Anticipated feeling of guilt
b. Dependent variable: Word-of-mouth intention

ANOVA [a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	299.098	4	74.774	73.175	.000[b]
	Residual	181.891	178	1.022		
	Total	480.988	182			

a. Dependent variable: Word-of-mouth intention
b. Predictors: (Constant), Individual's legitimacy judgment, Social norm, Personal norm, Anticipated feeling of guilt

COEFFICIENTS [a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	.034	.840		.041	.968
	Personal norm	.184	.106	.093	1.732	.085
	Social norm	.266	.075	.174	3.544	.001
	Anticipated feeling of guilt	.678	.057	.646	11.972	.000
	Individual's legitimacy judgment	-.195	.109	-.087	-1.786	.076

a. Dependent variable: Word-of-mouth intention

APPENDIX G. SACRIFICE INTENTION REGRESSION ANALYSIS

MODEL SUMMARY [b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.331[a]	.109	.089	1.60065	.109	5.466	4	178	.000	2.118

a. Predictors: (Constant), Individual's legitimacy judgment, Social norm, Personal norm, Anticipated feeling of guilt
b. Dependent variable: Sacrifice intention

ANOVA [a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	56.018	4	14.004	5.466	.000[b]
	Residual	456.048	178	2.562		
	Total	512.066	182			

a. Dependent variable: Sacrifice intention
b. Predictors: (Constant), Individual's legitimacy judgment, Social norm, Personal norm, Anticipated feeling of guilt

COEFFICIENTS [a]

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	.691	1.329		.520	.604
	Personal norm	.175	.168	.085	1.040	.300
	Social norm	.075	.119	.048	.633	.528
	Anticipated feeling of guilt	.306	.090	.282	3.407	.001
	Individual's legitimacy judgment	.314	.173	.135	1.810	.072

a. Dependent variable: Sacrifice intention