From Climate Change Knowledge to Climate Change Passivity: Airline Policies on Voluntary Carbon Offsets and the Carbon Literate Citizen

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From Climate Change Knowledge to Climate Change Passivity: Airline Policies on Voluntary Carbon Offsets and the Carbon Literate Citizen

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ABSTRACT

This thesis aims to analyse airline policies and practices on voluntary carbon offsets (VCO), as a means of mitigating CO_2 (carbon dioxide) emissions from discretionary air travel, in relation to 'carbon literacy', as a meta-theme of 'green consumerism'. The study considers VCO as an integral element of the sector's overall strategy towards sustainable development, in the context of climate change mitigation. If one accepts there is a broad spectrum of ways through which heavily polluting business sectors and environmentally-aware citizens might rationalise their resulting strategies and behaviours, in situations where legal frameworks for environmental safeguarding against business-as-usual practices are lacking, and social norms are fragmented – examining discretionary air travel as a fundamental example of this fragmentation in coherence, in relation to airline VCO policies and practices, from the viewpoint of Carbon Literate (CL) citizens' experiences towards this controversial solution to climate change mitigation, contributes to the creation of new knowledge.

This research investigation adopted a qualitative approach to data collection and analysis. The first phase focused on examining the VCO policies and practices of the 'Top-10 UK-based airlines' based on the content analysis of their respective website disclosures towards VCO schemes. The second phase centred on analysing CL citizens' perceptions towards air travel, first broadly, and then specifically in relation to VCO schemes, by conducting thirty one-to-one semi-structured interviews with CL participants. While VCO initiatives, as currently applied in commercial aviation, were found to be a feature of corporate reporting for legitimacy purposes, through this study's focus on CL citizens' perceptions, richer 'empirical' accounts of practices underpinning discretionary air travel within broader contextual infrastructures emerged. These involved both interpretations for undertaking a number of different carbon reduction behaviours, with the purpose of 'regaining self-consistency', and various justifications related to different explanations for not committing oneself to such behavioural changes too.

This thesis's theoretical contribution to knowledge is twofold. First, it takes literature forward by providing a recent review of VCO policies and practices adopted by airlines, in the context of CSR reporting and corporate legitimacy. Classifying 'carbon literacy', as a meta-theme of 'green consumerism', comprises this thesis's second contribution to knowledge. This contribution is substantial because it calls attention to the presence of an emerging consumer segment, whose perceptions towards controversial solutions to environmental issues have not been explicitly considered beforehand. Exploring the rationales behind their responses also resulted in a number of further, more practical, contributions to knowledge, which could be cautiously generalised to inform prevailing choices and influences beyond the sample, aside from reshaping the direction of future research and practice.

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CHAPTER 1 – INTRODUCTION

1.1 – INTRODUCTION TO THE RESEARCH TOPIC

Earth's climate has changed throughout history – with most of these changes being accredited to slight variations in our planet's orbit that adjust the amount of solar radiation Earth receives. The current climate change trend, however, is of particular significance, because most of it has been attributed to the effects of anthropogenic activities, and it is proceeding at a rate that is unprecedented in geological times (IPCC, 2018). The evidence for rapid irreversible climate change is overwhelmingly compelling. In terms of global temperature rise, Earth's average surface temperature has climbed by 1.2^{o}C – a change, mainly driven by increased carbon dioxide (CO_2) emissions into the atmosphere. Most of the global warming happened in the past 40 years, with the seven most recent years being the warmest years on record. As one of Earth's foremost natural defences against climate change, oceans have absorbed much of this additional heat. As a result of storing this extra energy, the upper 100 meters of ocean water confirm warming of more than 0.33^{o}C (Levitus et al., 2017) resulting in what scientists refer to as ocean acidification. Warmer oceans also contribute to the rapid shrinking of ice sheets leading to huge amounts of ice mass loss, apart from triggering the devastating extinction of underwater ecosystems (coral reefs) that are overly sensitive to adapt to climatic changes. In addition, glaciers are retreating universally – including in the Alps, Himalayas, Alaska, Rockies, Andes, and Africa. In contrast, sea levels rise across the world at a rate that is almost doubling every two decades (Nerem et al., 2018). This puts a significant number of people living in low-lying coastal regions, countries, and/or small island nations at risk of mass displacement.

Since Earth's climate is now changing faster than at any prior point in the history of modern civilisation, predominantly as a result of human-induced activities, climate change is humanity's call to action. Protecting human health and biodiversity from global environmental change necessitates an unprecedented response, one which fundamentally takes into consideration – both the social and economic drivers of

environmental change, in addition to the resulting hazards, combined with issues around equity and climate change justice. In Ostrom's (2010) opinion, the sheer magnitude of influence within species, and the interdependency among the different species and ecosystems, involves perceiving environmental change as a global collective-action problem – which is heavily reliant upon what Laininen (2019) labels as transformative learning for sustainable future. This type of learning entails going through a deep shift in consciousness that results in changing people's way of being by bringing in a new appreciation for the complexity of the systems upon which we depend. Nevertheless, an overarching lack of such transformative learning was more than evident based on the literature review of this research study. While numerous studies (e.g., Hooper et al., 2008; Gossling et al., 2009; Randles and Mander, 2009; Cowper-Smith and De Grosbois, 2011; Hinnen et al., 2015; McDonald et al., 2015; Alcock et al., 2017; McLachlan et al., 2018; Gossling et al., 2019; Paco et al., 2019) have thus far reported an increase in global environmental concern, which is accompanied by a rise in environmental consciousness, especially for certain age groups (e.g., millennials, Generation Z) (Gossling et al., 2020) – they have also shown that environmental engagement, particularly in relation to discretionary air travel, is not adjusting accordingly (Hares et al., 2010; Higham et al., 2014; McDonald et al., 2015; McLachlan et al., 2018; Gossling et al., 2019).

In theory, several different variables have been previously associated with this prominent gap between environmental concerns and resultant action – including, knowledge of issues and action strategies, locus of control, pro-social attitudes, individual sense of responsibility, behaviour incentives, and perceived feedback about ecological behaviour (Blake, 1999; Kollmuss and Agyeman, 2002; Buchs, 2017; Paco et al., 2019). In terms of knowledge of issues and action strategies, individuals must be familiar with an environmental problem, its corresponding causes, and how to best act to lower their impact on the problem, to commit to behavioural changes. Locus of control as a term represents individuals' perceptions of whether change can be brought about through their behaviour (Kollmuss and Agyeman, 2002). People with strong pro-social attitudes and/or those who exemplify a greater sense of personal responsibility are more likely to engage in pro-social behaviours (Paco et al., 2019). Behaviour

incentives such as social desirability, quality of life, and monetary savings may also reinforce to some extent ecological behaviour – particularly if a person receives positive reinforcement (perceived feedback) to continue undertaking a specific behaviour.

In response to this increased environmental consciousness on behalf of citizens-consumers, and as a result of the numerous socio-economic benefits as well as drawbacks of air travel, this thesis aims to examine voluntary carbon offset (VCO) schemes associated with aviation, and more specifically discretionary air travel, as a practical response to the effects of such behaviours on the global environment. Such schemes work by calculating the quantity of carbon dioxide emitted (as a consequence of an individuals' flight choice) to provide options for air travellers to buy into schemes designed to reduce their share of the carbon footprint associated with each flight they take (Carlsson and Hammar, 2002; Hooper et al., 2008; Gossling et al., 2009). However, VCO schemes are neither straightforward nor uncontentious (Gossling et al., 2007; Estrada et al., 2008; Kollmuss et al., 2008; Mair, 2011; McLennan et al., 2014; Becken and Mackey, 2017) and, most air travellers know nothing or little about them (Velonaki and Stone, 2015; Babakhani et al., 2017; Zhang et al., 2019). To address debates surrounding the 'value-action' gap, this research study shifts away from cognitive philosophies, concerning how individuals formulate their attitudes or plan their behaviour – rationally and systematically – and, perhaps much closer to Blake's (1999) socially-constructed nature of environmental values. The rationale behind the decision to examine explicitly the perceptions of CL individuals is explained next.

1.2 – Rationale For This Research Study

Values, much like social structure, are both emergent from and determinant of the actions of individuals (Buchs, 2017). While a considerable amount of literature (e.g., Diekman and Preisendorfer, 2003; Whitmarsh and O'Neil, 2010; Barr et al., 2010; Cohen et al., 2013) exists on the role of values in supporting the adoption of pro-social behaviours – not much is known to date, about the role that environmental values play, in the context of airline VCO schemes. At present, Buchs's (2017) work on the role of values in voluntary reduction of holiday air travel, perhaps accounts for the closest empirical evidence on this broader subject area. If one accepts that there is a broad

spectrum of ways through which environmentally aware citizens-consumers might rationalise their resulting behaviours in situations when social norms are fragmented, examining VCO schemes in relation to discretionary air travel as a fundamental example of this fragmentation of coherence in societal conduct, contributes to the creation of new knowledge. Intrinsically, what the current thesis work seeks to understand, is – what CL citizens, as individuals with pre-existing green tendencies and subject-specific knowledge do, and why they do the things they do, what decision-making process they follow when making travel decisions, and to what extent they perceive airline VCO schemes have a role to play, in relation to climate change mitigation. This study's focus on CL citizens' perceptions therefore allows for richer empirical accounts of practices that underpin air travel within wider contextual infrastructures to emerge and move literature forwards, by cautiously informing dominant choices and influences beyond the current sample, apart from changing the direction of future studies and highlighting the need to reshape existing policies and practices at a sectoral level. The aim and objectives of this investigation are detailed next.

1.3 – Aim And Objectives

This thesis aims to analyse airline VCO policies and practices, as a means of mitigating CO_2 emissions from discretionary air – in relation to 'carbon literacy', as a meta-theme of 'green consumerism'. The objectives of this research work are fourfold. First, this thesis seeks *to provide an overview of the theoretical background behind the broader subject area through an extensive review of existing literature*. This is a literature-based objective that extends over three chapters. Secondly, it seeks *to examine the VCO policies and practices of selected airlines, in the context of Corporate Social Responsibility (CSR)*. This is a primary research objective that utilises content analysis to study research-specific variables publicly available on the websites of the Top-10 UK-based airlines (per passengers carried globally in 2015) over a longitudinal time horizon. Thirdly, it seeks *to analyse CL citizens' perceptions towards discretionary air travel, and the role of VCO schemes, in relation to climate change mitigation*, based on a semi-structured interview protocol. This is also a primary research objective that focuses on gathering rich qualitative textual data on the personal experiences of knowledgeable and environmentally-conscious participants. Fourthly, it seeks *to develop a conceptual*

model underpinning the analysis of airline VCO initiatives and CL citizens' perceptions towards discretionary air travel, and VCO, in the context of climate change mitigation. This last objective not only links holistically this thesis's findings with extant research, but it also articulates its original contribution to knowledge. Overall, this fourfold process creates new knowledge, based on previously available knowledge, through a blend of advanced secondary research and original primary research – in accordance with Manchester Metropolitan University's Postgraduate Research Degrees Regulations for the degree of Doctor of Philosophy (PhD).

1.4 – THESIS STRUCTURE

This thesis is divided into eight chapters. This chapter presents an introduction to the subject area, the rationale for this research study, along with the project's aim and objectives. Chapter 2 delves into the 'Anthropocene' – a geological period during which human activity has been the dominant influence on climate and the environment. It focuses on discussing points and arguments of current literature, in relation to climate change, travel and tourism, aviation's contribution to the development of tourism, and its role as an industry that triggers further environmental degradation of the global environment via changes in biogeochemical processes and atmospheric pollution. Adaptation and mitigation strategies for climate change are also deliberated as part of this chapter. Since the current study focuses on the latter climate change strategy, VCO as an 'over-the-counter' (OTC) approach to climate change mitigation is presented too. This naturally leads to a discussion regarding technical issues and behavioural and ethical challenges around this voluntary market-based initiative in the twenty-first century.

Chapter 3 studies the non-regulatory background behind the concept of VCO schemes to gain an in-depth theoretic understanding of this subject area as well as lay the foundations upon which this study is developed. It begins to define what CSR is, then adopts a chronological approach to the conceptualisation of CSR – during which several distinct eras of CSR are acknowledged and explored in more depth. Finally, it focuses on presenting the ideological aspects behind CSR and theories relating to its underlying discourses – including, corporate philanthropy, business ethics, sustainable

development, and stakeholder theory. Chapter 4 focuses on consumer behaviour, green consumerism, and the decision-making process around air travel. It also examines literature around the well-acknowledged gap between people's environmental values and resultant actions on environmental issues. The chapter finishes with a critical discussion surrounding actors of pro-social behaviour such as moral elevation, nudge theory, taxation, VCO schemes, and carbon rationing.

Chapter 5 presents the methodology of this study – including aspects underlying research philosophy and paradigms of scientific research, approach to research, and sampling strategy. It includes details on the instrumentation employed to underpin each stage of the primary data collection and analysis, for the pilot study and the main study, upon which amendments and reflections were meticulously drawn. This chapter concludes with a consideration of ethical issues in academic research, with a particular focus on ethical concerns when conducting qualitative research.

Chapter 6 presents the findings of the website content analysis of the Top 10 UK-based airlines. Whilst, Chapter 7 presents the findings of the semi-structured interviews which analysed CL citizens' perceptions towards discretionary air travel and VCO schemes. Finally, Chapter 8 brings together the key outcomes of the secondary research findings (as emerged from Chapter 2, 3, and 4) and the main conclusions of the primary research findings (presented in Chapters 6 and 7) all thoroughly interwoven with a critical discussion. This chapter concludes with a review of the study's aim and objectives, followed by contribution to knowledge, research evaluation, and recommendations for future research and practice.

CHAPTER 2 – 'SETTING THE ANTHROPOCENE'

> [Definition] An·thro·po·cene /ˈanTHrəpəˌsēn/ adjective relating to or denoting the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment.
>
> Our climate is changing: What is humanity's role? It is significant. How did we get here? It is lengthy. When did we get here? It is complicated.
>
> The only constant in our earth's history is change. Luckily, records of this change are present all around us—memorialized in the rocks beneath our feet, in the air above our heads, and even in the pages of our history books. The most significant record, though, can be found in the changing climates and environments of our Earth's past. For billions of years, nature has embraced change through extended times of fire, ice, water, rocks, extinctions, and renewals. However, humans have now intervened in this natural system of change.
>
> Vitse and Regmi (2018)

2.1 – THE BASICS OF CLIMATE CHANGE IN THE AGE OF HUMANS

To understand climate change, it is imperative to first define what climate is. In simple terms, climate is described as mean weather conditions in a place over a long period (Peake and Smith, 2009). Natural changes in the dynamic processes of the Earth's five sub-systems have been responsible for influencing climate in this natural system of change – which typically entails deviations in the Earth's orbit, variations in solar radiation, and the level of greenhouse gas (GHG) concentrations. These five sub-systems are called *"spheres"* and consist of what Peake and Smith (2009:39) list as *"lithosphere"* (land surface), *"hydrosphere"* (rivers, seas, oceans, underground water, and freshwater), *"biosphere"* (living organisms and ecosystems), "cryosphere" (glaciers, snow, ice sheet, sea ice and permafrost) and *"atmosphere"* (air). In terms of the atmosphere, common GHGs like carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and ozone (O_3) exist naturally in the air and help to absorb and emit radiation within the thermal infrared range (IPCC, 2014) – this process makes the Earth warm enough to sustain living organisms and therefore habitable to life as we currently know it. However, human activities are increasingly influencing these cycles of climatic change by adding

enormous amounts of GHGs to those already naturally occurring in the atmosphere (IPCC, 2014). According to the United Nations (UN) Intergovernmental Panel[1] on Climate Change (IPCC), these additional human-induced quantities of GHGs increase the greenhouse effect and result in triggering global warming and climatic changes.

In recognition of humanity's extreme influence on the Earth's sub-systems, the term "anthropogenic" was employed by Bampton (1999) to describe phenomena with origins in the activities of humans. In the context of environmental science, anthropogenic climate change is a direct result of the transformative effect of human actions on the Earth's sub-systems. The anthropogenic impact on the environment is indeed manifold. It includes detrimental changes in ecosystems like ocean acidification, land-use changes including deforestation, and increases in croplands and monoculture plantations which result in environmental degradation, biodiversity loss and mass extinction of native species. Likewise, overconsumption (e.g., burning fossil fuels, fast fashion) and overexploitation (e.g., mining industry, farming livestock, overfishing) of Earth's natural resources are associated with unprecedented levels of biodiversity loss which based on future projections and climate change scenarios pose existential risks to the human race. As the problem of overpopulation continues and developing countries are becoming more industrialised, and more dependent on the same unsustainable forms of development and growth that western civilisations rely upon, environmental repercussions will further intensify due to the fast-growing chain of causality.

From a historical viewpoint, the sheer extent of anthropogenic influence indicates that humans started being the dominant impact on the Earth's climate and environment during the Industrial Revolution (Archer, 2009; Crutzen and Stoermer, 2000; Steffen et al., 2011; Certini and Scalenghe, 2015; Chakrabarty, 2018; Ellis, 2018). Driven by the ground-breaking use of steam power, the Industrial Revolution commenced in Britain, and gradually spread to the rest of the globe during the beginning of the nineteenth

[1] The IPCC was established in 1988 by the World Meteorological Organization (WMO) in collaboration with the United Nations Environment Programme (UNEP) to act as an intergovernmental body, whose job is to assess the science related to climate change, compile scientific reports on its potential effects and provide recommendations for climate change adaptation and mitigation.

century. For Crutzen and Stoermer (2000), this recognition signals that Earth's history should now be measured by human influence [a period during which human activities (e.g., Earth's sixth mass extinction, the development of atomic technologies, and the advent of global climate change) have become the dominant influence on climate and the environment] rather than through geological spans measured in millions of years determined by evidence contained in rock layers, ice sheets, and ocean floors. While the term "Anthropocene" was introduced by Crutzen and Stoermer in the early 2000s to describe the current geological era, this relatively newly proposed term has not yet been officially accepted by geologists – who still identify Holocene[2] as Earth's currently accepted geologic time.

For Chakrabarty (2018), reconciling what climate scientists believe and what geologists stand by, involves merging two immensely large and fundamentally different timescales: Earth history and World history. Yet, as Chakrabarty (2018) states, in debates concerning the Anthropocene, World history matters prevail enquiries of Earth history considering that humankind has become a dominant force in Earth's evolution. Furthermore, if the Anthropocene hypothesis is correct, what should be a matter of great concern for all humans is that the Holocene appears to represent a disturbingly short epoch. Especially if one considers the millions of years geological times typically entailed – in comparison to the few hundreds of years that can be said to constitute the history of capitalism, an economic system (Smith, 1954) which progressively led to the rise of the Industrial Revolution. According to Piketty's (2013) ideological stance, profound wealth and income inequalities have been observed throughout the world from that moment onwards.

In the context of travel and tourism, inequalities between richer and poorer inhabitants are evident amongst developed and developing nations and even within industrialised societies, between those who are classed as affluent and those who are assigned a deprived status (Oxfam, 2015). These profound wealth and income inequalities are stereotypically accompanied by higher-than-average energy consumption on behalf of the wealthy – a large part of this higher energy use is directly related to their excessive

[2] Holocene began roughly 11,650 years ago, with an event known as the Holocene glacial retreat.

'need' or 'desire' for mobility (Strasdas, 2007; Gossling et al., 2007; Gossling et al., 2019). As Sheller (2016:15) highlights mobility may be understood as a universal human right albeit in practical terms *"it exists in relation to class, racial, sexual, gendered, and disabling exclusions from public space, from national citizenship, and from the means of mobility at all scales"*. While, it is generally established that people travel for different reasons (Pearce and Lee, 2005) the act of travelling is consistent with exponential increases in the levels of air pollution, noise, and infrastructural expansion (Gossling et al., 2019) – to the point that global mobility ends up clashing with wider societal goals aiming to stabilise climate change and prevent the worst impacts of it from materialising (UN, 2015; UNFCCC, 2015; IPCC, 2018). Travel and tourism, as one of the most conflicting sectors, in relation to anthropogenic climate change and global mobility advancement is discussed in more detail.

2.2 – Travel And Tourism: A 'Two-way Relationship' With Climate Change

Travelling, as a sector with multiple socio-economic implications, has been the subject of continuous growth over the past few decades, mainly due to advances related to transport modes. While travelling for pleasure or recreation is widely established as a form of discretionary travel, business travel itself has been viewed as somewhat less straightforward. In fact, some of the first definitions of tourism originally excluded business travel. As cited in Leiper's (1979:391) work, tourism was initially described as *"the theory and practice of touring, travelling for pleasure"*. Other explanations of tourism were mostly focused on its economic and/or business-related inferences. McIntosh (1977:ix), for example, referred to tourism *"as the science, art and business of attracting and transporting visitors, accommodating them and graciously catering to their needs and wants"*. Since multiple definitions made it difficult to understand what and whom tourism categorically involves, an official definition for tourism was compiled by the United Nations World Tourism Organisation. UNWTO's (2008 [online: no page]) definition specifically states that tourism is *"a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes"*. Personal purposes include all tourism-related journeys (e.g., holidays, leisure, recreation, visiting friends and relatives, education and training, health and medical care, religion/pilgrimage,

shopping, transit) and other temporary non-remunerated activities not included elsewhere. While, business and professional purposes include all those activities whose main purpose corresponds to the business and professional categories (e.g., investors, entrepreneurs, diplomats, conference attendees, guest lecturers, military personnel, participants in professional sports activities, contractors in accommodation and transport services such as guides and other tourism-related professionals for non-resident agencies). Based on this description, UNWTO (2008 [online: no page]) explicitly classifies tourists as *"visitors"* if tourism is part of their activities, even if those undertakings only involve tourism expenditure, as long as travellers travel to and stay in places outside their usual environment for less than one consecutive year for leisure, business, and other purposes.

As a phenomenon, tourism began to rapidly grow during the eighteenth century, driven by the advent of steam engines which made it possible for large numbers of people to travel on trains and steamships within and/or across the seven continents (Crump, 2007). Nearly one and a half centuries later, commercial flights became viable – a mode that gradually began to overtake journeys on trains and ships. While commercial jetliners revolutionised the travel and tourism industry beyond what anyone could have ever imagined then, the advent of steam engines, propellers, and turbines necessitate vast amounts of fossil fuels for travelling to and from different tourism destinations. According to the Foundation for Economic Education, (2019 [no page: online]), 524 million people travelled to a foreign country in 1995. This number increased to 1.245 billion in 2016 – indicative of a 138 per cent upsurge – with the percentage of travellers from upper-middle-income countries raising from 8.5 to 27 per cent, and the percentage of global travel undertaken by people from lower-middle-income countries increasing from 2.5 to 11 per cent. While, most countries are now networked through intercontinental air routes, and this in turn has created both new opportunities and markets for air travel (Banister, 2000) – international travel is only the tip of the iceberg, since domestic travel including air travel in larger countries like the United States, China, and Australia is much larger than that of small and medium-sized countries (Gossling and Humpe, 2020). According to ICAO (2019 [no page: online]), domestic air travel included 2.566 billion passengers in 2018, out of this 590 million in the US, 515 million

in China, and 116 million in India; in contrast, international air travel only comprised 1.811 billion passengers. However, the large-scale combustion of fossil fuels augments environmental degradation through changes in complex biogeochemical cycles. Changes in such complex processes are capable of triggering irreversible climatic changes, by reinforcing further environmental degradation, as a result of habitat loss and the destabilisation of entire ecosystems (Gossling 2000). Inescapably, increases in travel demand began to prompt major concerns pertaining to climate change and the environment (Becken and Hay, 2007; IATA, 2018; UNWTO, 2018; Gossling et al., 2019).

At the same time, the relationship between climate change and tourism is innately strong (Hall and Higham, 2005; Becken and Hay, 2007; Hall, 2009; UNWTO, 2018, Gossling et al., 2019). Tourism is one of the most significant sectors of global economies (UNWTO, 2018) as well as an important aspect of people's existence (Verbeek and Mommaas, 2008; Hall, 2009; Gossling and Stavrinidi, 2016; Gossling et al., 2019). In this regard, tourism as a phenomenon can lead to both significant socio-economic benefits and serious environmental drawbacks. On the one hand, temperature is a vital resource for tourism, apart from an essential element concerning destination choice (Hall and Higham, 2005). On the other hand, extreme climatic variability poses serious risks to tourism, since it can prevent tourists from engaging in their planned activities or even cost their lives during extreme events such as hurricanes and/or floods (Becken and Hay, 2007). This two-way relationship of travel and tourism with climate consists a popular topic of discussion, as tourism inherently increases climatic changes by necessitating immense amounts of fossil fuels for transport, accommodation, and other recreational-based activities (Gossling et al., 2006; Cohen and Higham, 2011; Higham et al., 2014; Gossling and Stavrinidi, 2016).

2.3 – Aviation's Contribution to Climate change

Transport (and particularly air transport) has been widely acknowledged by various scholars (e.g., Gossling, 2000; Page, 2005; Becken and Hay, 2007; Gossling et al., 2019; Paco et al., 2019) as one of the most carbon intensive sectors of modern societies. In 2010, the total anthropogenic GHG emissions from agriculture, forestry, and other land use (AFOLU), electricity generation, industrial processes and transport was equivalent

to 49 $GtCO_2$ – with transport as a sector contributing 23 per cent (or 6.7 $GtCO_2$) of the total energy-related carbon emissions (IATA, 2015; Gossling et al., 2017: 596). On a global average, land-based transport accounted for approximately 72.1 per cent of the total direct transport-related emissions; whilst, air transport and water transport were responsible for 10.6 and 9.3 per cent respectively (Gossling et al., 2017:596).

Undoubtedly, mobility is an indispensable requirement for tourism; however, the exponential growth of aviation clashes with the drastic reductions in GHG emissions that humanity needs to urgently mitigate to avoid what is considered as dangerous climate change (Becken and Hay, 2007; McKercher et al., 2010; Weaver, 2011; Gossling et al., 2017). The environmental performance of aviation has now become an international issue; yet, addressing the industry's fast-growing GHG emissions along with inducing more responsible consumer behaviour is one of the biggest challenges that humanity has to tackle to prevent irreversible climate change. For despite any technological breakthroughs (e.g., fuel efficiency, lean manufacturing, improvements in aerodynamics, air traffic control technology and procedures) air travel still entails the usage of large quantities of fossil fuel – which on combustion yield emissions of carbon dioxide (CO_2), nitrogen oxides (NO_x), soot and sulphur amongst other GHG (Gossling, 2000; Upham et al., 2003; Lee et al., 2009; Sgouridis et al., 2011).

In fact, several climate change-related contributing factors have been attributed to aviation over the past few decades. Including, the potential effects of *"contrails"* (visible trails of condensed water vapour made by the exhaust of aircraft engines) noticed by researchers (e.g., Reinking, 1968) in the late 1960s. Nonetheless, it was not until the early 1970s that these initial speculations (e.g., Kuhn, 1970; SMIC, 1971) regarding aviation's global environmental impacts took serious dimensions when a fleet of civil supersonic aircraft (namely Concorde and Tupolev-144) were launched and associated with potential stratospheric ozone depletion (Lee et al., 2009). During the late 1980s and early 1990s scientists (e.g., Schumann, 1997; Friedl et al., 1997) looked further into the effects of contrails from subsonic aircraft (in particular the effects of NOx emissions on the formation of ozone in the troposphere) and gathered conclusive evidence of significant damage to the ozone layer. As a result, of excessive noise levels (known as 'sonic boom') and rising concerns over the environmental impact (e.g., ozone depletion)

of supersonic aircraft, funding was suddenly dropped, and commercial supersonic flights were banned.

Nevertheless, aviation still contributes to anthropogenic climate change in various ways. Aviation induced cloudiness (AIC), for example, is currently understood to be one of the most significant climate change-related effects of air travel (Burkhardt et al., 2010; Gerritsen, 2012). Because jet engines artificially change upper-troposphere cloudiness by causing ice-cloud formation and disturbing the natural patterns of cirrus occurrence – resulting in a warming or a cooling effect (Schumann, 2005; Lee et al., 2009; Sgouridis et al., 2011; Gerritsen, 2012). One more issue with aviation's contribution to climate change entails its input to radiative forcing (RF) – an input estimated to have two to four times greater effect compared to that of surface-bound emissions (De Forster et al., 2006; Gossling et al., 2006). Additionally, aircraft emissions not only have a positive RF from CO_2, O_3, soot (the primary cause of ghosting for building walls and roofs) and contrails but also have a negative RF from sulphate and reductions in ambient CH_4 (IPCC, 1999; Lee and Sausen, 2000; Upham et al., 2003; Lee et al., 2005; De Forster et al., 2006; Gossling and Upham, 2009; Lee et al., 2009; Gerritsen, 2012).

Notwithstanding, the most severe disadvantage of aviation-induced emissions is understood to be the fact that they are particularly detrimental due to being released at cruise altitudes (height of 10-12 km between the upper troposphere and lower stratosphere) (Gossling et al., 2006; Gossling and Peeters, 2007; Gossling et al., 2007). Under these conditions, emissions are thought to be extremely effective in triggering chemical reactions and aerosol fumes pertinent to climate change (Lee et al., 2009). More specifically, troposphere with a turbulent, rich in water vapour and low on ozone concentrations nature – favours gases to be mixed within several weeks; whilst, stratosphere with a drier, rich in ozone and more stable nature – favours gases to stay there for longer (Gossling, 2000; Becken and Hay, 2007). This implies that the radiative effect of contrails and cirrus clouds is two-fold. *"Solar down-welling radiation is reflected (cooling effect) and upwelling thermal radiation is trapped (warming effect)"* (Gerritsen, 2012:3) – resulting in radical chemical and physical changes to the earth's fragile atmosphere (IPCC, 1999; Gossling and Upham, 2009). These radical chemical and physical changes to the atmosphere, sequentially, have an adverse impact on ozone

generation and cloudiness – both of which subsequently add to RF, and trigger further global warming (Upham et al., 2003; Gossling and Peeters, 2007; Gossling et al., 2007).

As the Intergovernmental Panel on Climate Change (IPCC, 2021) suggests, if humanity was to continue emitting GHGs without any consideration, further warming would occur – accompanied by long-lasting changes in all different components of the Earth's climatic system including land surface, hydrosphere, biosphere, cryosphere, and atmosphere. Whilst, several mitigation scenarios exist, under which global warming could be limited to 2°C[3] (compared to pre-industrial levels),

> [g]lobal surface temperature will continue to increase until at least the mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reduction in carbon dioxide (CO_2) and other greenhouse gas emissions occur in the coming decades.
>
> (IPCC, 2021 [no page: online]).

Implementing drastic reductions over the next few decades, however, poses considerable technological, economic, social, and institutional challenges, which intensify with additional delays. Despite country-specific commitments to global initiatives (such as those procured in the Paris Agreement[4]), research by Friedlingstein et al. (2014) supports that the world's total CO_2 emissions budget, in order to remain within the 2°C limits, will most likely be exhausted before 2050. With this in mind, it is more than apparent that further radical measures must be taken, to adapt to the climatic changes that have already occurred; and most importantly, to mitigate upon additional irreversible environmental impacts that will most certainly occur if drastic action is not taken with immediate effect.

[3] A global average temperature rise below 2°C represents the threshold of *"safety"*, in terms of climate change; whilst, an increase above that level has been unanimously described as *"dangerous"* (IPCC, 2014:20; Gossling et al., 2017).

[4] The Paris Agreement represents a global initiative aiming to reinforce a global response to the threat of climate change by inviting international leaders to act against a 2°C (above pre-industrial levels) rise in global temperature; and to pursue ways of limiting the temperature increase within the 1.5°C threshold (of pre-industrial levels) to avoid the worst impacts of climate change (UNFCCC, 2019).

2.4 – Adaptation And Mitigation Strategies For Climate Change

With reference to Becken and Hay (2007) interventions designed to lessen climate-related threats are divided into two broader strategies, what is known as adaptation and mitigation. The former approach is classified by the United Nations Environment Programme (UNEP, 2019) as a response, which primarily aims to support low-lying countries/regions and small island states, vulnerable to climate change at adapting to changes that are *"already in the pipeline"*. While, the latter approach primarily relies on efforts aiming to slow down anthropogenic climate change through reductions in the levels of GHGs in the atmosphere (IPCC, 2018). Since, the combustion of fossil fuels accounts for more than 80% of all GHG emissions (Olivier and Peters, 2020), eliminating the use of coal, oil, and gas and/or substituting them with cleaner energy sources comprises the main challenge of mitigative strategies. Due to their sheer importance in preventing dangerous anthropogenic climate change, efforts for mitigation are coordinated through a combination of policies (also referred to as a regulatory approach) and best practices (also referred to as a non-regulatory approach). Both adaptation and mitigation are further deliberated below.

2.4.1 – Adaptation

As a strategy, adaptation anticipates the negative effects of climate threats and takes apt action to avert these (or at least minimise the damage they can inflict) (EC, 2019). It usually encompasses soft interventions that minimise the vulnerability of countries or regions with regard to environmental impacts – including, building flood defences, raising the levels of barriers, developing drought-tolerant crops, relocating populations at risk of displacement from rising sea levels. Even so, what individual countries may need to act upon to adapt to climate change significantly varies depending on their geographical area, prevailing climatic patterns, and overall vulnerability to the risks posed by such changes. The Climate Change Vulnerability Index[5] (CCVI) is used to determine a country's overall vulnerability to climate change, based on calculating its exposure to climate-related natural disasters and sea-level rise, human sensitivity (in relation to population patterns, development, natural resources, agricultural reliance

[5] CCVI was compiled by the global risks advisory firm Maplecroft-Verisk.

and conflicts), and adaptive capacity to future climatic changes (whether a country has the infrastructure and/or governmental support to address both current and future risks) (Maplecroft-Verisk, 2020).

Moreover, adaptation as strategy is further divided into two sub-categories, what Giddens (2011) describes as proactive adaptation (before the occurrence of an event) and reactive adaptation (after the occurrence of an event). Some countries owing to their large size and geographical place (e.g., United States) may be required to implement both proactive and reactive adaptation strategies. While, others (e.g., Northern Europe) may not need to consider reactive adaptation strategies due to the mildness of the effects experienced thus far (such as milder winters and warmer summers). In the context of travel and tourism, investments in proactive and reactive adaptation, are perceived by Weaver (2011) as what 'tourism agents' prefer. Because not taking drastic action towards environmental degradation and climate change allows tourism-related representatives to operate mostly under a business-as-usual scenario at the expense of the environment. This may be true to a certain extent, but it is certainly not beneficial either for tourists or for the longevity of tourism-based commerce.

Barnett and O'Neil (2010) have identified five core areas as indicative of whether an adaptation strategy, increases risks or vulnerability. Those are actions that when compared to alternatives increase GHG emissions, disproportionally burden the most vulnerable, bear high opportunity costs, reduce incentives to adapt, and foster path dependency by limiting the availability of choices for future generations. Governmental agents and policymakers must therefore cautiously eliminate these risks or vulnerabilities before endeavouring to allocate resources for adaptation-related planning. Restoration of natural landscapes, reforestation, research and/or development on possible catastrophes based on different temperature scenarios, and other preventive and precautionary measures such as evacuation plans and shelter guidance are considered as primary examples of actions that can help to reduce the vulnerability of those likely to be affected by the consequences of climatic changes (Scott and Becken, 2010; Giddens, 2011; Weaver, 2011, IPCC, 2014).

2.4.2 – MITIGATION

The main goal of mitigation is to prevent dangerous human interference with the climate system. It accepts that humanity will inevitably experience some level of climate change (IPCC, 2018). This will ultimately depend on how fast GHG emissions begin to drop, and on how long it takes for the climatic system to respond to those reductions (NASA, 2019). Now, to measure different GHGs in a common unit, other GHGs – including, Methane (CH_4), Nitrous oxide (N_2O), Sulphur hexafluoride (SF_6) and two groups of super-gases referred to as Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs) had to be converted into equivalents of carbon dioxide or CO_2e. This term is frequently employed to signify the amount of CO_2, which would have triggered an equivalent impact to those GHGs, in terms of global warming (Brander, 2012).

Mitigative approaches are further divided into three sub-categories. The first sub-category aims to reduce the flow of heat-trapping GHGs into the atmosphere by reducing GHG emissions at source (e.g., burning of fossil fuels for electricity, heat, transport) (NASA, 2019). These initiatives largely depend on innovation, research, and development and they aim to reduce GHG emissions through technological breakthroughs pertaining to viable alternative sources of energy. These are termed renewable energy sources and are powered by wind, solar, and tidal energy as well as biofuels (CAT, 2017). The second sub-category proposes an enhancement of Earth's natural carbon sinks (e.g., oceans, forests, soil) through the processes of rebalancing oceans, engaging in reforestation and afforestation, and modifying agricultural practices in ways that result in the accumulation of larger quantities of carbon storage in soil organic matter (NASA, 2019). The third sub-category involves counterbalancing GHGs emissions through cap-and-trade schemes or 'over-the-counter' initiatives (Estrada et al., 2008). These intend to secure emission reductions for sectors with high abatement costs where technological innovations (progressing on the energy efficiency) and other market-based measures (reducing the task itself and/or replacing current energy sources with carbon-neutral alternatives) are either not possible, in realistic terms, or unlikely to happen at a pace which would avert dangerous anthropogenic climate change (Estrada et al., 2008; Peeters et al., 2016; Lyle, 2018).

From a historical perspective, the concept of counterbalancing or offsetting CO_2 emissions was introduced by the European Union under the Kyoto Protocol[6] in 1997, to achieve stabilisation of atmospheric GHG concentrations – at a level that anthropogenic impacts on the global environment would be minimised (Carlsson and Hammar, 2002; Barrow, 2005; Skjaerseth and Wettestad, 2008). To reach this two-fold objective, the carbon market was divided into two segments: compliance and the voluntary offset market (Estrada et al., 2008). The former is often known as 'cap-and-trade' – a compliance system which exists under Kyoto Protocol and its derived successor the European Union's Emissions Trading Scheme[7] (ETS); while, the latter is technically referred to as 'over-the-counter' (OTC) market because it functions outside the compliance market.

Compliance CO_2 offsets rely on industries, governments, and other entities obtaining credits to comply with emissions caps (Skjaerseth and Wettestad, 2008). On the other hand, the voluntary market is mainly represented by individuals who choose to buy offsetting credits to compensate for their individual CO_2 emissions, generated by various activities including air travel. In this latter segment, carbon offsets are usually achieved by financial contributions made to projects designed to reduce an equivalent amount of CO_2 emissions in mostly underdeveloped and unindustrialised parts of the world (Skjaerseth and Wettestad, 2008; Estrada et al., 2008). Depending on the approach employed to attain voluntary CO_2 offsets, OTC schemes are further divided into three broader sub-categories. *Forestry* entails tree-planting projects leading to sequestration through afforestation or reforestation. *Renewable energy* embraces projects focusing on the development of renewable energy sources including solar panels, wind farms, geothermal energy, hydroelectric dams, biomass energy, and landfill methane capture. *Energy efficiency* primarily centres on small-scale community-based projects which

[6] The Kyoto protocol is an international environmental treaty initiated in 1997 under the United Nations Framework Convention on Climate Change (UNFCCC) to reduce concentrations of four greenhouse gases (CO_2, CH_4, N_2O, SF_6) and two groups of super-gases (HFCs and PFCs) produced by 'Annex 1' countries (or else identified as industrialised nations) (Oberthur and Ott, 1999; Grubb et al., 1999; Velders et al., 2007; Skjaerseth and Wettestad, 2008).

[7] The EU ETS utilises Kyoto's Cap and Trade principle, to allow its member parties to either 'receive' or 'buy' tradeable allowances from each other to offset their surplus emissions (Giddens, 2011; EC, 2015).

focus on improving the energy efficiency of developing communities (through low-energy lighting, efficient cooking stoves, insulation of buildings, and installation of water and waste management plants).

While, OTC schemes represent individual voluntary contribution plans to offset the share of CO_2 emitted from human activities, in an attempt to mitigate climate change and its accompanying environmental problems, such voluntary initiatives have also become a common practice at a business level – particularly, in heavily polluting sectors with high abatement costs (Gray et al., 1995; Guthrie et al., 2006; Bows and Anderson, 2007; Estrada et al., 2008; Bows et al., 2009; Higham et al., 2016; Gossling et al., 2019). Commercial aviation is a prime example of this state of affairs since numerous climate change-related contributing factors have been attributed to this industry in recent years (Gossling and Peeters, 2007; Lee et al., 2009; Sgouridis et al., 2011). After nearly two decades of preferential support (including subsidies, exemptions, and other fiscal incentives) and systematic deregulation (e.g., Open Skies Agreement), commercial aviation as a sector is now gradually beginning to face a new era of potentially rigorous re-regulation on environmental grounds (Becken and Mackey, 2017).

CORSIA[8] comprises the world's first agreement exclusively engrossed with the reduction of international aviation's impact on climate change. Under CORSIA, as of 1st January 2021, international aircraft operators (formerly exempt from Kyoto and EU's ETS) are obliged to obtain offsets (or else 'emission units') to mitigate their CO_2-related growth (ICAO, 2017). International flights to or from European airports are subject to this new global agreement; whilst, flights within the European Union (EU) continue to be monitored under EU's ETS or be subject to country-specific national policies (e.g., The UK Climate Change Act 2008) relating to emission reductions for countries outside EU. This new global arrangement has begun to put extra pressure on the environmental performance of international aviation by specifically targeting carbon emission reductions for a segment that based on current progress on energy efficiency and innovations on alternative substitutes cannot safely function in a decarbonised economy. This overall recognition of anthropogenic factors, and the acceptance of the

[8] Or else known as Carbon Offsetting and Reduction Scheme for International Aviation.

call to action, has led commercial aviation to pursue additional 'self-regulation' through VCO schemes – as a practical response to increased consumer environmental consciousness as well as changing trends in macro and micro-environmental forces.

2.5 – Voluntary Carbon Offsetting Schemes In Aviation

Carbon offset schemes (COS) are voluntary instruments that have the potential for mitigating or negating atmospheric pollution derived from various anthropogenic activities including air travel. Information on VCO schemes is increasingly available via airline websites and also independent carbon offset (CO) providers, which are often registered as not-for-profit organisations (Velonaki and Stone, 2015; Babakhani et al., 2017; Zhang et al., 2019). To purchase offsets to cover their flight(s), air travellers are typically prompted to employ an online calculator to estimate CO_2 emissions associated with their flight and, if they subsequently decide to proceed with the purchase of CO credits, to counterbalance resultant air pollution they pay an additional cost – usually, in the same way as extras such as baggage, speedy boarding, in-flight meals and travel insurance are purchased (Velonaki and Stone, 2015). While offering the potential to compensate for emissions caused by flights, the literature review highlights several significant issues and challenges associated with the implementation and take-up of VCO schemes. Some of these issues and criticisms relate to the absence of agreed standards to safeguard that air travellers' contributions result in real offsets, with minimal or no negative socio-environmental repercussions (Gossling et., 2007; Hooper et al., 2008; Gossling et al., 2009; Gossling and Upham, 2009; Gossling, 2011; Becken and Mackey, 2017); whilst others, go a lot deeper by challenging the fundamental principle behind the concept of VCO schemes (Becken, 2007; Gossling et al., 2009; Mair and Wong, 2010; Mair, 2011).

2.6 – Issues And Challenges in the Twenty-first Century

Provider credibility is one of these significant issues. As Gossling (2011) explains, VCO schemes are available from individual air carriers who collaborate with carbon trust companies to offer such initiatives to interested parties. By default, this entire process is not meant to be strictly regulated by any firm legal agenda because it falls under the voluntary realm. This inherent lack of credibility is likely to be a significant factor in

individuals' decision-making over voluntary offset purchase. From this perspective, it may be argued that for VCO marketing attempts to be successful, it is important to communicate individual companies' level of commitment as well as specific initiatives with credibility and impact to maximise the prospects of success when encouraging voluntary participation (May et al., 2007; Scott, 2011). While, earlier research (Tsai and Hsu, 2008) surrounding the concept of VCO schemes argued that such schemes are integrated as components of airlines' voluntary delivery of their ethical commitments towards sustainable development, to mitigate climate change in situations where the law was arguably inadequate – as the current investigation highlights, airlines become 'legitimate' in the eyes of their numerous stakeholders through their efforts to meet societal expectations (Gray et al., 1995; Guthrie et al., 2006) around climate change by engaging in VCO schemes.

Secondly, the current location of most VCO schemes indicates an uneven distribution of global benefits. While carbon offsets can be typically purchased worldwide, most VCO schemes are located in a small minority of developing countries including Brazil, China, Mexico, India, and Indonesia – a factor which for some (e.g., Gossling et al., 2007; Gossling et al., 2009) indicates an uneven geographical distribution of benefits between countries globally. While such an outwardly preferential approach may seem reasonable from an equity and fairness perspective (less industrialised countries are affected more by climate change despite contributing the least to climate change), it is worth remembering that it is people from developed countries, who are more likely to voluntary contribute towards these voluntary carbon funds – due to a combination of higher-income (Gower, 2005; Randles and Mander, 2009; Alcock et al., 2017), higher levels of knowledge and awareness on environmental impacts (Mair, 2011; Becken and Mackey, 2017), and occasionally, a higher sense of personal responsibility too (McLennan et al., 2014; Hinnen et al., 2015).

Whether some of the VCO projects funded by industrialised countries should correspondingly be located closer to those who contribute towards them is arguable. Even so, some researchers (e.g., Koletsou and Mancy, 2011; Smith and Leiserowitz, 2014; Bieniek-Tobasco et al., 2019) suggest that voluntary participation in COS (Carbon Offset Schemes) could be improved through emotional engagement because of its

critical role in increasing climate change relatability (i.e., funding schemes which are based in the UK and intend to help local/national communities to mitigate the worst effects of climate change are likely to be more appealing to British air travellers compared to funding schemes in far and distant places like Uganda or Eritrea). This approach would also put extra pressure on some rapidly developing countries such as China and India, to set in place mechanisms for dealing more effectively with their rapidly-growing aviation emissions (Gossling et al., 2009). If rapidly developing countries continue to reap the benefits of projects funded within their geographic boundaries at no cost, one could easily speculate that there is little motive for them, to go the extra mile to achieve additional offsets at a cost.

Thirdly, calculating carbon emissions is a complex business. Emissions calculations provided by airlines, in collaboration with carbon trust organisations, indicate substantial differences, in terms of carbon estimates and associated charges (Gossling et al., 2007; Broderick, 2008; Hooper et al., 2008; Gossling et al., 2009). This issue is further complicated in the case of aviation, because of the multiplicity of factors involved, including occupancy rates, take-off weight, distance flown, speed, and cruise altitude, as well as the impact of atmospheric conditions (which are highly variable) making precise calculations a real challenge, and therefore comparisons between the various providers difficult to make (Gossling and Upham, 2009). For instance, 3.16 kg of CO_2 is typically emitted per kilogram of aviation fuel combusted, but this percentage usually varies depending on the CO_2 content of the fuel blend used (Carlsson and Hammar, 2002). Consequently, individual passengers endeavouring to calculate emissions using calculators provided by different airlines will often encounter considerable variation in estimates of CO_2 generated and the associated additional costs payable, which will inevitably seem difficult to justify without a degree of expert knowledge (Gossling et al., 2007; Polonsky and Garma, 2008; Hooper et al., 2008; Mair, 2011; Velonaki and Stone, 2015).

Fourthly, it is presently impossible for individual consumers to identify the 'factual value' of the carbon offset credits they decide to purchase. The relationship between the price charged and the precise CO_2 offsetting achieved is typically unclear for the typical traveller, a very significant knowledge gap and one which perhaps adds to the list of

reasons potentially making people reluctant to participate in such schemes (Gossling et al., 2007; Gossling et al., 2009; Becken and Mackey, 2017). According to a report about a major Swedish tour operator, out of 1.3 million flights/trips booked via TUI-Nordic between April and November 2007, only 136 consumers chose to voluntarily offset their share of carbon emissions (Gossling et al., 2009). Results like those revealed by this report indicate the sheer extent of reluctance in relation to VCO participation, a reluctance that seems to prevail even amongst populations known for their close alignment with environmental preservation and sustainable development. A low degree of transparency can therefore be seen as a significant adverse factor in travellers' decision-making about purchasing emission credits (Broderick, 2008; Gossling et al., 2009; Mair and Wong, 2010).

Fifthly, air travellers are usually presented with the option to purchase CO_2 offsets in the same manner with amenities such as additional baggage weight, accelerated boarding, in-flight meals, and travel insurance (Velonaki and Stone, 2015). In this regard, low participation levels in VCO schemes may also be because airlines present them in a less than appropriate manner, one which might deter consumers from participating. While, a single transaction-payment model might seem like a logical choice – at least, as far as simplicity is concerned, rather than having consumers entering transaction at several points – the voluntary nature of CO_2 offsetting schemes for aviation travel militates against this transaction-payment approach (Velonaki and Stone, 2015). This is because the message is likely to get devalued by being offered alongside other seemingly unnecessary services and comforts which on some occasions may even increase an individual's flight-related carbon footprint. Options like hold luggage and supplementary baggage weight allowances, for example, result in additional CO_2 emissions because they increase the take-off weight of aircraft which implies that extra fuel needs to be carried and burnt.

In addition to the matters of technical nature highlighted thus far, there are also significant problems with the perceived responsibility for offsetting in aviation (Velonaki and Stone, 2015). From this perspective, the various issues and challenges associated with VCO schemes, extend far beyond technicalities, and into matters of ethical and behavioural substance. Ethics, as well as economics, play an important role in the

decision-making process of offsetting the adverse environmental impacts of air travel, which debatably cannot be identified wholly as a responsibility of the individual traveller, since airlines make profit out of people's 'need' or 'desire' for air mobility (Becken, 2007; Gossling et al., 2009; Mair and Wong, 2010; Mair, 2011). As a result, it is arguable that the monetary responsibility to offset CO_2 emissions in discretionary air travel should be shared, and that responsible travellers might question the role of the airline apart from their own (Velonaki and Stone, 2015). Since both parties bear responsibility (or the blame) for the situation, they must mutually make an effort to tackle the problem under consideration too.

2.7 – Chapter Summary

This background chapter effectively contextualises the influence of anthropogenic activities on climate change based on scientific evidence from environmental sciences and intergovernmental bodies composed with the aim to assess the current state of scientific, technical, and socio-economic knowledge on climate change, evaluate its impacts and future risks, and identify opportunities for reducing the rate at which climate change is occurring. Situating this research study within this contextual background therefore not only highlighted the technical issues and challenges associated with VCO as an OTC mitigatory strategy, but it also helped to identify and expand upon some of the ethical issues and behavioural challenges associated with them in subsequent chapters. This naturally led into reviewing the main theories underpinning CSR at a notional level in Chapter 3, and consumer behaviour in relation to the decision-making process around discretionary air travel in Chapter 4.

CHAPTER 3 – DEFINING AND CONCEPTUALISING CORPORATE SOCIAL RESPONSIBILITY

3.1 – INTRODUCTION

This chapter provides an overview of the theoretical background behind VCO schemes. It first unfolds the concept of Corporate Social Responsibility (CSR) through a critical review of the main theories underpinning CSR at a notional level. The chapter commences with defining what CSR essentially is. During this stage, a chronological approach to CSR is implemented through which several distinct eras of CSR are identified and expanded upon. Subsequently, this thesis focuses on presenting the ideological aspects that underpin CSR at its very core – Corporate philanthropy, Business ethics, Sustainable development, Stakeholder theory. Through this analytical process of reviewing CSR definitions, theories, and associated approaches to CSR implementation, an imperative need to consider CSR and VCO initiatives in the light of company-specific influences emerges which informs the analysis of the findings in Chapter 6.

3.2 – 'CHRONOLOGICAL' APPROACH TO CSR

A chronological review of the term CSR [or 'Social Responsibility' (SR) as referred to in the period before the rise and dominance of corporatisation] reveals that this notion has significantly transformed and grown in time. Significant discrepancies[9] pertaining to the exact meaning of the term CSR have been observed by numerous researchers (e.g., Carriga and Mele, 2004; Carroll, 2008; Dahlsrud, 2008; Blowfield and Murray, 2008; Crane et al., 2008; Du et al., 2010; Fenclova, 2013). To present an accurate account of such a wide range of definitions, CSR understandings were collated in chronological order, based on Murphy's (1978) timeline of CSR – according to whom, four consecutive eras of CSR were identified up to the late 1970s. This thesis extends Murphy's (1978)

[9] It is frequently also referred to as: 'social responsibility' (Brammer and Pavelin, 2004), 'corporate responsibility' (Blowfield and Murray, 2008), 'corporate citizenship' (Crane et al., 2008), and 'corporate sustainability' (Salzmann et al., 2005).

chronological classification by adding two additional periods to account for the development of this concept beyond the late 1970s and up to the present time.

3.2.1 – PHILANTHROPIC ERA

The period up to the early 1950s was categorised by Murphy (1978) as the *Philanthropic Era*, a historical time whereby firms predominantly focused on the provision of financial support towards charitable donations, in acknowledgement of their social responsibilities. One of the earliest writings (of this period) on SR was Barnard's book *"The Functions of the Executive"* which was published in 1938, followed by Clark's work on the *"Social Control of Business"* in 1939, and Kreps's publication on the *"Measurement of the Social Performance of Business"* in 1940. These early writings on SR laid the foundations for Murphy's subsequent classification of this era, as *Philanthropic*, by highlighting the prevailing trend of charitable contributions to social causes amongst entrepreneurs up to the early 1950s. According to Carroll (2008), these early writings also evidence that SR as a concept remained largely under-defined until 1953 – a year which coincides with the beginning of Murphy's next era.

3.2.2 – AWARENESS ERA

Between 1953-1967, firms began to demonstrate a deeper awareness, which resulted in a greater involvement, in terms of community affairs (Murphy, 1978). In fact, this increased consciousness led Murphy to term this period as the era of awareness. Bowen (1953) moulded the first SR definition during this era when he referred to

> […] the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society.
>
> (Bowen, 1953:6)

Alongside Bowen, other influential figures such as Frederick (1960) began to define SR as

> […] a public posture toward society's economic and human resources and a willingness to see that those resources are utilized for broad social ends and not simply for the narrowly circumscribed interests of private persons and firms.
>
> (Frederick, 1960:60)

Much of Frederick's (1960) work was devoted to multidisciplinary approaches to social responsibility, which to a certain degree is reflected in his aforesaid definition of SR. Another important contributor to SR literature was Walton (1967: 18) who succeeded in expanding the SR notion through his book *"Corporate Social Responsibilities"* – a work which not only focused on *"the intimacy of the relationships between the corporation and society",* but also recognised top managers as the stakeholders who must keep in mind those exact relationships "as *the corporation and the related groups pursue their respective goals"*. Walton's (1967) definition of CSR refers to top managers rather than managers; describing a traditional (or else hierarchical) organisational approach to business which flows down from the top to subordinates below and focuses on expressing the vision of the upper management to determine the implementation of CSR at a business level.

3.2.3 – Issue Era

The third period of Murphy's (1978) classification of SR was labelled as the *Issue Era.* It portrayed the inclination of firms to concentrate their SR strategies on issues such as urban decay, human rights, and environmental degradation. Towards the end of 1960s, business policies and practices on CSR were mostly focused on embracing topics like corporate philanthropy, human rights, customer relations, environmental deterioration, and stockholder relations (Heald, 1970) – which chronologically affirms Murphy's four-period perspective – whilst, it simultaneously highlights philanthropy as a prevalent issue of concern for corporate agendas even beyond the end of what he defined as the *Philanthropic Era*.

Johnson's (1971) definition of CSR comes to reflect the climate of the *Issue Era* by supporting that

> [a] socially responsible firm is one whose managerial staff balances a multiplicity of interests. Instead of striving only for larger profits for its stockholders, a responsible enterprise also takes into account employees, suppliers, dealers, local communities, and the nation.
>
> (Johnson, 1971:50)

It is worth noting that Johnson's definition was truly ground-breaking, considering Freeman's revolutionary book *"Strategic Management: A Stakeholder Approach"* was published in 1984, more than a decade after Johnson's definition. In fact, Carroll (2008) describes Johnson (1971) as an early precursor of the stakeholder theory, considering his original contribution to the notion of CSR through the lens of the stakeholder approach. Building on Johnson's prior work, Davis (1973:312) describes CSR as a *"firm's consideration of, and response to, issues beyond the narrow economic, technical and legal requirements of the firm".* In his landmark article *"The case for and against Business Assumption of Social Responsibilities"* Davis quotes Friedman, one of the most controversial economists of recent times, whose approach, or more accurately objection, to social responsibility became famous through the following quotation

> [The main SR of a business is] to increase its profits [...] to make the most money as possible while conforming to the basic rules of the society, both those embodied in law and those embodied in ethical culture.
>
> (Friedman, 1970:173)

As Friedman (1970) suggests only people as moral entities have moral responsibilities. Corporations as artificial entities may only have artificial responsibilities; but, a business as a whole cannot be accountable for socially responsible or irresponsible actions. The CEO of a corporation may have social responsibilities as a person, which may involve contributions towards charities or any other social causes; however, these count as personal social responsibilities not corporate social responsibilities in Friedman's opinion. What Friedman (1970) claims is that a CEO acting as a corporation would imply indirect use of stockholders' money for broad-spectrum social causes. If stockholders

wish to contribute to charitable causes, Friedman proposes this should be done without them engaging at a business level.

In Votaw's (1973) words,

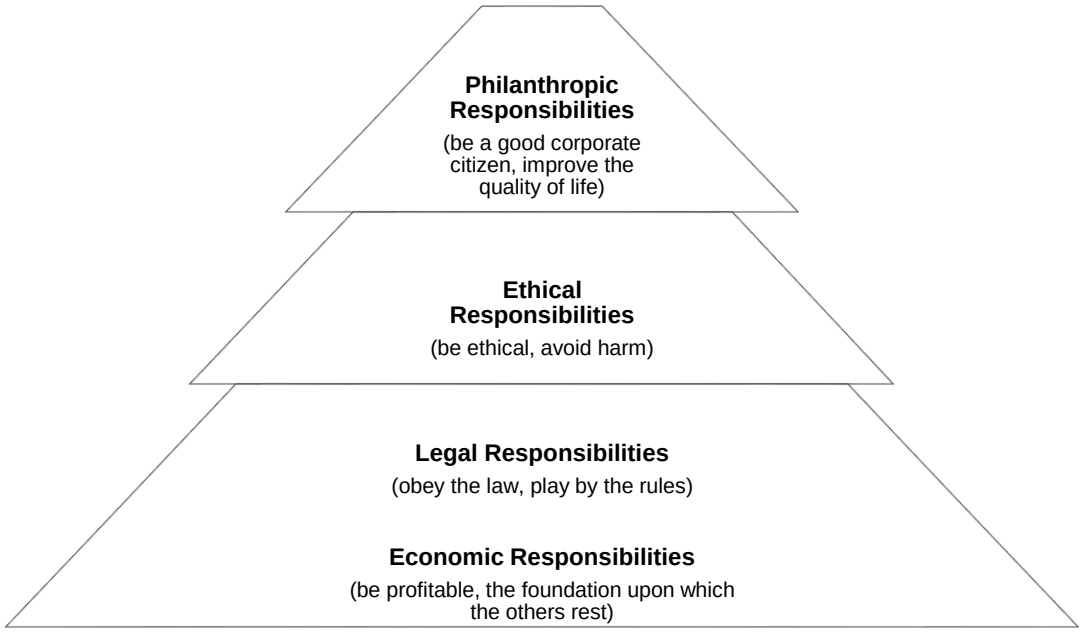
> [t]he term [social responsibility] is a brilliant one; it means something, but not always the same thing, to everybody. To some it conveys the idea of legal responsibility or liability; to others, it means socially responsible *behaviour* in an ethical sense; to still others, the meaning transmitted is that of 'responsible for', in a causal mode; many simply equate it with a charitable contribution; some take it to mean socially conscious; many of those who embrace it more fervently see it as a mere synonym for 'legitimacy', in the context of 'belonging' or being proper or valid; a few see it as a sort of fiduciary duty imposing higher standards on businessmen than on citizens at large.
>
> (Votaw, 1973:11)

As one of the last definitions put forward during this period, Votaw's (1973) account of SR succeeds in articulating the intrinsic problem of endeavouring to describe with accuracy the concept of SR, from the early 1950s up to the present time – in fact, as Fenclova (2013:34) argues, his pronouncement about SR meaning "*something, but not always the same thing, to everybody"* remains intact in time.

3.2.4 – Responsiveness Era

The period from 1974 up to the late 1970s was branded by Murphy (1978) as the *Responsiveness Era*. During this period firms began to integrate social responsibility into business management and organisational processes to address CSR-related issues. Carroll (1979) was a key contributor of this era as a firm advocate of a company's economic, legal, ethical, and philanthropic responsibilities. According to Carroll (1979:500), the SR of a business should thus encompass "*the economic, legal, and discretionary expectations that society has of organisations at a given point in time"*. This early definition of CSR was later portrayed (see Figure 1) as a pyramid-shaped model.

Figure 1 - Carroll's Pyramid of CSR



Source: Adapted from Carroll, 1991:42; Phillips, 2006:73

As Figure 1 illustrates, economic responsibilities form the foundation of Carroll's Pyramid of CSR – arguably, being profitable and operating within legal boundaries is something that a firm does for itself; whilst, complying with ethical and philanthropic responsibilities is what a firm does for others. Even so, what Carroll (1991) claims is that being profitable can be regarded as something that businesses generally do for society as well, to preserve the integrity of society's financial system. Notwithstanding, compliant businesses cannot necessarily be regarded as ethical, since ethical responsibilities rank higher than legal compliance (Johnson, 2003). In terms of discretionary or philanthropic responsibilities, Carroll ardently supports the idea that a company's actions can be moral – thereby, businesses should be held accountable for socially responsible or irresponsible activities. This idea is in stark contrast to Friedman's (1970) highly-contended declaration that businesses as artificial entities have no moral responsibilities.

In 1980, Jones joined the debate over CSR with a different approach to the concept of SR.

> Corporate social responsibility is the notion that corporations have an obligation to constituent groups in society other than stockholders and beyond that prescribed by law and union contract. Two facets of this definition are critical. First, the obligation must be *voluntarily adopted*; behaviour influenced by the coercive forces of law or union contract is not voluntary. Second, the obligation is a *broad one*, extending beyond the traditional duty to shareholders to other societal groups such as customers, employees, suppliers, and neighbouring communities.
>
> (Jones, 1980:59-60)

By looking at the second part of Jones's definition it is evident that his statement mostly aligns with the stakeholder approach and Johnson's (1971) ground-breaking statement that a socially responsible enterprise must take into consideration a multiplicity of interests (employees, suppliers, dealers, and local communities) apart from stockholders. Whilst, examining the first part of his definition reveals that Jones's main contribution truly lies in the way that he approached the voluntary nature of CSR as a notion – by emphasising that CSR as a concept must represent a voluntarily adopted obligation – or else, a responsibility that cannot be forced by laws and regulations. Legalising CSR would unavoidably penalise the voluntary self-regulatory nature of this notion, leading to a completely different regime to what CSR signified in chronological definitions thus far. This is to say that CSR is deeply associated with morals and values and thus goes beyond compliance to represent an ethical way of managing a company, which is not technically required by law, but it is strongly expected from society. In line with this thought, CSR can be viewed as a form of capitalist legitimacy – whereby, businesses engage in CSR for both strategic and ethical purposes.

3.2.5 – Globalisation Era

The period from the early 1980s to the end of the twentieth century was termed by this thesis as the *Globalisation Era*, due to the indisputable spreading of globalisation to all areas of the economic, political, and socio-cultural lifecycle. The author's chronological term also aligns with the World Bank's (2004) three-fold approach to the evolution of globalisation – according to which, the third wave of globalisation completed shortly

after the end of the late 1970s. During the *Globalisation Era*, very few definitions with an original contribution to the notion of social responsibility were established – with the most significant of these initiatives, emerging in the form of business practice under a non-profit organisation known as "Business for Social Responsibility" (BSR). BSR represents a global organisation that helps member companies achieve commercial success in ways that respect ethical values, people, communities, and the environment.

> Through socially responsible business policies and practices, companies can achieve viable, sustainable growth that benefits stakeholders as well as stockholders. By providing tools, training, and custom advisory services, BSR enable its members to leverage corporate social responsibility as a competitive advantage.
>
> (BSR, 2019)

According to Wetherly (2014), globalisation and its effects unsurprisingly provoke various disagreements among and beyond scholars due to unavoidable differences in human perspectives. Pro-globalists, for example, perceive globalisation as the ultimate virtue based on the advantages of free-market capitalism. On the other hand, anti-globalists recognise that owning to the political, economic, and socio-cultural differences between countries (and occasionally amongst social groups within countries) globalisation mostly benefits a small minority, by making the rich richer and the poor poorer (Buchholtz and Carroll, 2012; Wetherly, 2014). As Phillips (2017:444) claims *"inequality in all its forms is the defining global problem and increasingly the defining political problem of our age"*. With that in mind, it is essential to briefly examine the politico-economic landscape that influenced globalisation through fundamental changes in political economy, which successively led to a radical restructuring of social classes across most of the world.

3.2.5.1 – POLITICAL LANDSCAPE

During the early 1980s several radical Conservative Governments – particularly, Margaret Thatcher in the United Kingdom and Ronald Reagan in the United States – came to power promising to fight the recession and the high numbers of unemployment by implementing revolutionary monetary policies which focused on flexible labour markets, privatisation of state-owned companies, deregulation of markets

(predominantly those of the financial sector) and restrictions on the power of trade unions (Bloom, 2017). Structural adjustments as such established an alignment towards neoliberal dogmas – whereby, society is peered through the lens of a universal market and human beings represent profit-and-loss adding machines rather than bearers of absolute rights and duties (Shamir, 2008; Choonara, 2009; Bloom, 2017; Metcalf, 2017). In line with this thought, Shamir (2008) defines neoliberalism, based on Carvalho and Rodrigues's (2006) prior interpretations, as

> […] a complex, often incoherent, unstable, and even contradictory set of practices that are organised around a certain imagination of the 'market' as a basis for 'the universalisation of market-based social relations [..] commodification, capital accumulation, and profit making'.
>
> (Carvalho and Rodrigues, 2006:342; cited in Shamir, 2008:3)

Similarly, Bloom (2017:3) describes neoliberalism as *"a general trend towards greater marketisation and the upward transfer of wealth as well as power to the financial elite"* a classification that both agrees and complements Shamir's (2008) description of neoliberal ideologies.

On the other hand, Harvey (2007) views neoliberalism as

> […] in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterised by strong private property rights, free markets, and free trade.
>
> (Harvey, 2007:2)

On balance, neoliberalism entails or signifies a number of different conceptual rudiments for academics and non-academics alike; however, arguably the economisation of the political system inevitably ends up weakening those exact public authority instruments that a society needs for long-term socio-economic stability (i.e., welfare state based on publicly-funded healthcare, education, equal opportunities and so forth) (Shamir, 2008; Bloom, 2017). In this respect, the enactment of Thatcher's and Reagan's neoliberal agenda resulted in the multiplication of societal 'lingering evils' by deepening inequalities (Chomsky, 1999; Choonara, 2009; Lazzarato, 2009), triggering

global under-development (Ferguson, 2006; Navarro, 2007) and cultivating political authoritarianism (Bloom, 2016; Ostry et al., 2016). As Bloom (2017:4*)* argues *"the concrete realisation of these [neoliberal] ideals in policy has dramatically transformed the national and global economy"* – building upon his statement, the economic landscape during the era of globalisation is briefly examined next.

3.2.5.2 – ECONOMIC LANDSCAPE

In terms of the economy, most of the developed world was hit by a deep global economic recession by the early 1980s – followed by the wide-spread rise of Capitalism, a politico-economic system – whereby, a country's capital is controlled by private for-profit owners rather than by the state (Werhane, 2000; Choonara, 2009). Capitalism's legitimacy is founded on Smith's (1776) dogma which generally supports that markets are innately self-regulating, and as such must not be subject to governmental interference (Choonara, 2009; Bloom, 2017). Under such a capitalist market economy, 'goods' are not manufactured to meet society's immediate needs, but they are produced to sell (or else to increase the circulation of capital) by generating consumerism – an economic system mainly driven by consumer spending (Choonara, 2009). In turn, consumerism leads to materialism – a mentality associated with the tendency to consider material goods as more important than non-material, spiritual values (Burroughs and Rindfleisch, 2002).

In his book *"Capital in the Twenty-First Century"* Piketty (2014) argues that unless capitalism is reformed, the world's democratic order will continue to be threatened because

> [w]hen the rate of return on capital exceeds the rate of growth of output and income, as it did in the nineteenth century and seems quite likely to do again in the twenty-first, capitalism automatically generates arbitrary and unsustainable inequalities that radically undermine the meritocratic [10] values on which democratic societies are based.
>
> (Piketty, 2014:1)

[10] Meritocrats believe economic ascent should be distributed to individuals on the basis of talent, effort, and achievement instead of being judged based on gender, race, sexuality, or wealth.

In agreement with Piketty's (2014) beliefs, Metcalf (2017 [online: no page]) supports that this politico-economic turn towards neoliberalism and capitalism signified a completely new way of *"reordering social reality"* by creating *"a tiny cadre of winners and an enormous army of losers"*. In Piketty's (2014) words, the distribution of wealth is one of the most commonly debated topics of discussion as

> [t]he concrete, physical reality of inequality is visible to the naked eye and naturally inspires sharp but contradictory political judgments. Peasant and noble, worker and factory owner, waiter and banker: each has his or her own unique vantage point and sees important aspects of how other people live and what relations of power and domination exist between social groups, and these observations shape each person's judgment of what is and is not just. Hence there will always be a fundamentally subjective and psychological dimension to inequality, which inevitably gives rise to political conflict that no purportedly scientific analysis can alleviate.
>
> (Piketty, 2014:2)

Additionally, as Choonara (2009) notes, capitalism has proved to be far from the perfect self-regulatory system (which Smith described in his work *"The Wealth of Nations"*, first published in 1776). If capitalism was inherently a self-regulatory system, states would not need to rescue giant corporations from bankruptcy through nationalisations or bail-outs; but governments all over the world throughout the twentieth century have repeatedly intervened to prevent a chain of multinational collapses which may have led to an economic meltdown (Choonara, 2009). In that respect, large multinational corporations not only embody colossal concentrations of power and wealth, but they also represent a huge risk for the global economy (i.e., the collapse of a large firm can trigger a whole chain of secondary failures). As capitalism ages, Choonara (2009:93) expects, new problems will emerge or accumulate for the future, on the basis that *"preventing a big crisis today* [without effectively stabilising the economy] *can simply lead to an even bigger crisis tomorrow"*.

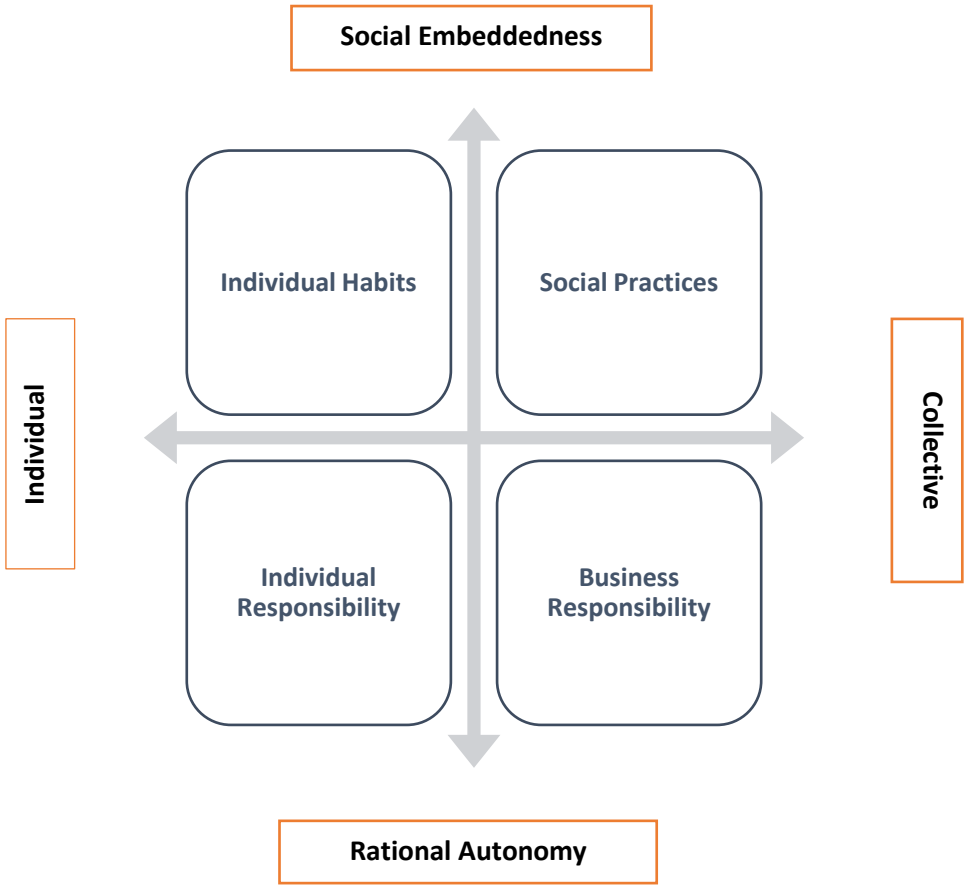
Ultimately, bailing large corporations out comprises no solution to the fundamental flaws of the capitalist system (Choonara, 2009; Bloom, 2017). The 2008 financial crisis (worst economic disaster since the 1929 Great Depression) could be viewed as a wake-up call from all this excessive marketisation since it highlighted the 'need' for a new

'moral order'; whereby 'greedy' individuals would not be permitted to threaten economy and society as a whole. To this end, as Bloom (2017:1) argues, not only the market *"concretely dominates social, political, and economic relations"*, but it also *"extends and shapes the way we see the world, the way we reason and the way we make moral judgements"*. For Shamir (2008:3) *"reframing socio-moral concerns from within the instrumental rationality of capitalist markets"* fits the principle of a reflexive, self-regulatory market-embedded morality – with the notion of 'moral duty' essentially grounded within the 'rationality of the market' itself. In that respect, capitalism and neoliberalism, may not be necessarily incompatible with morality; but, perhaps conclusively built upon the individualisation of morality and ethical responsibility (Shamir, 2008; Bloom, 2017) – a chronological approach that seems to agree with the thesis's historical review up to this point, and fully justifies the decision to classify self-responsibility and moral agency as this study's final CSR era.

3.2.6 – Self-responsibility And Moral Agency Era

From the beginning of the twenty-first century and the third millennium, theoretical contributions to the concept of CSR have largely given way to empirical research on the topic – with scholars mainly focussing on concerns underpinning aspects around market-embedded morality, corporate citizenship, self-responsibility, and moral agency. In the opinion of Shamir (2008), market actors who display unethical behaviour or refuse to assume a wide range of socio-moral obligations ultimately are forced to embed society into the market, through adverse campaigning and boycotts. As Sondermann et al. (2018:10) argue, different notions of agency and meanings of responsibility exist, ranging from *social embeddedness* to *rational autonomy*, and *individual* to *collective* accountability as illustrated in Figure 2.

Figure 2 - Self-responsibility and Moral agency



Source: Adapted from Sondermann et al., 2018:10

In order to assign responsibility or hold a person accountable for misconduct one relies on the presumption that rational autonomous, individual and/or collective actors, exert control over an individual's behaviour – as the bottom end of Figure's 2 vertical axis represents. At the top end of the spectrum, lies the social embeddedness of actors whereby responsibility is riddled through a combination of individual habits and social practices. However,

> [i]n a globalised world, the most important impacts of our choices and decisions are held to be their non-linear or unintentional consequences their "side effects" (in the language of Ulrich Beck [1997]) evidencing our materiality networked "entanglements" (according to French social theorist Bruno Latour [2003]) – which mean that "externalities", previously excluded from the calculations of politics and the market, are now considered as central.
>
> (Chandler, 2018:183)

This is to say that global interdependence and interconnectivity result in substantial complications when attempting to assign responsibilities and liabilities which reach beyond or transcend national boundaries. In the context of global relational ontology, ethical responsibilities stem from the unintentional consequences of our ability to demonstrate social (relational) embeddedness (Beck, 1997; Chandler, 2018). Nonetheless, from a social theory perspective, the concept of self-responsibility also draws on actors' embeddedness in institutional environments (Frericks and Hoppner, 2018). From this point of view, it becomes apparent that neoliberal regimes and corporate agendas have been displaying an inequitable endorsement of the self-responsibility notion. This advocacy has predominantly been exhibited through subliminal marketisation – whereby, individual responsibility for one's decisions has been strategically placed above collective responsibility and/or business embeddedness. As Chapter 8 discusses in more detail, airline VCO schemes can be regarded as a perfect example of this exact point.

Yet, if one accepts the logical assumption that both individuals and firms have moral responsibilities as well as the rational autonomy (subject to the legal system) to act upon these [based on work undertaken by Sondermann et al. (2018) and Ulbert et al. (2018)] the question which remains to be answered is why individual responsibility has been

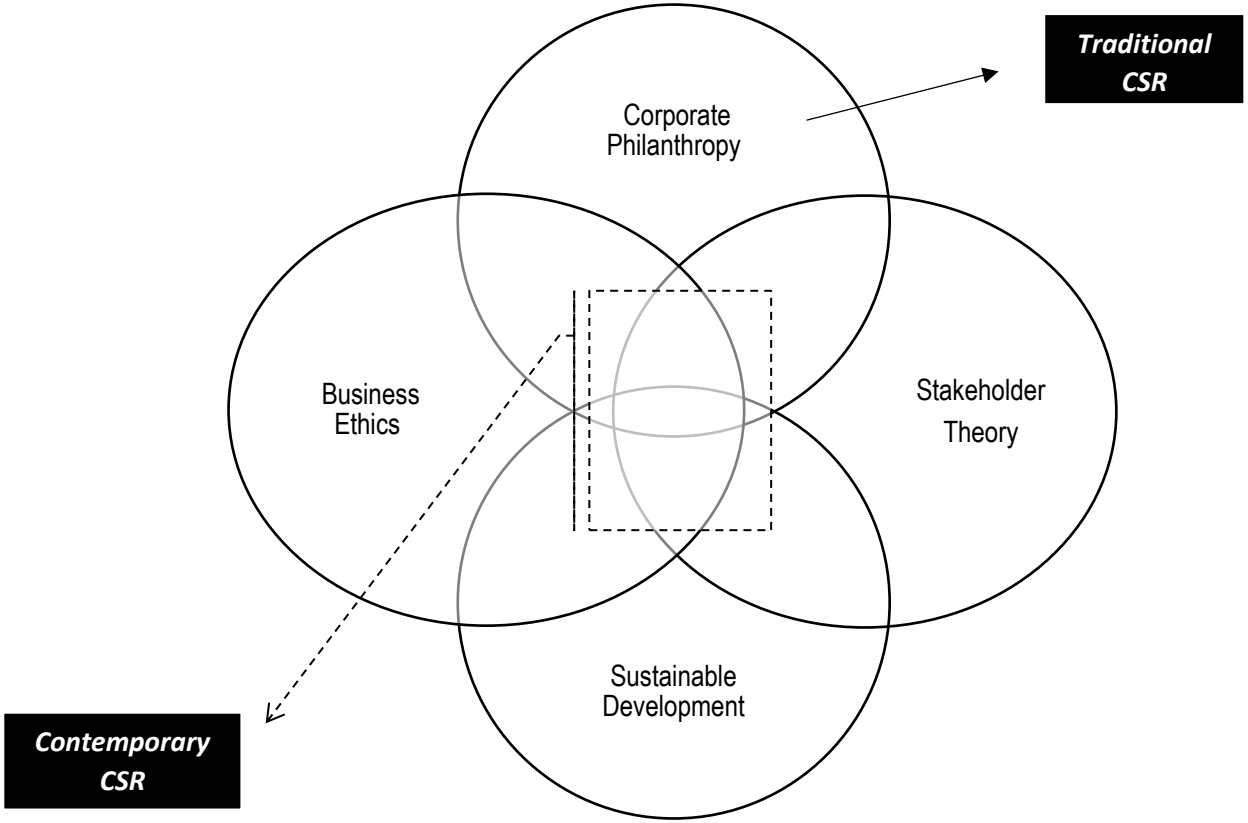
favoured over and/or placed above-shared responsibility. This study addresses this thorny question by challenging our thinking to critically debate whether societies naturally reached an evolutionary turn towards manifestations of self-responsibility – or, state regulators and business executives through monetary policies, business strategies or partnerships, and the economisation of the political acted as a forcing mechanism behind this societal movement towards self-responsibility and moral agency for their narrowly-circumcised benefit. But first, an ideological review of CSR is following, to complete the philosophical conceptualisation of this notion.

3.3 – 'IDEOLOGICAL' APPROACH TO CSR

From an ideological approach, four broader theoretical (see Figure 3) underpinnings to the conceptualisation of CSR have been identified thus far. The main branch of the first theoretical underpinning to the conceptualisation of CSR focuses on *Corporate Philanthropy* – an approach associated with accomplishing economic objectives (maximisation of shareholders value) (Friedman, 1970; Jensen, 2000) through social activities with minimal or no CSR fit (Du et al., 2010; Crane et al., 2014; Crane and Matten, 2016) and cause-related marketing (Varadarajan and Menon, 1988). This ideology is compatible with instrumental theories (Garriga and Mele, 2004) and a traditional approach to CSR (Smith and Higgins, 2000; McWilliams and Siegel, 2001). Traditional CSR (as illustrated in Table 1) is mainly profit-driven and usually fails to consider wider social, economic, and environmental issues in the long term (Crane et al., 2014) as opposed to contemporary CSR which offers a more coherent approach to the responsibilities of a company. *Business Ethics* as a branch comprises the second theoretical underpinning to the ideological conceptualisation of CSR. This sort of approach exists in harmony with ethical theories which focus on 'what is the right thing to do' (Garriga and Mele, 2004). It also fully aligns with frameworks based on human rights, rights at work, anti-corruption, and respect for both the environment and local communities (The Global Sullivan Principles, 1999; UN Global Compact, 1999). The third theoretic branch behind the idea of CSR is represented by *Sustainable Development.* This branch builds upon integrative theories whereby societal prosperity and business success are considered as 'tightly interwoven' aspects. It focuses on the integration of

social demands (Garriga and Mele, 2004) and seeks to balance the interests of various stakeholders on the basis that a 'social contract' exists between societies and businesses (Donaldson and Dunfee, 1994; Suchman, 1999; Garriga and Mele, 2004; Deegan, 2006). This aligns with what is also branded as the Triple Bottom Line (TBL) – Social, Environmental, Economic – or, 3P approach – People, Planet, Profit (Parkin, 2000; O'Rourke, 2003; Najam et al., 2003; Dodds and Joppe, 2005; Movena et al., 2006; Cole et al., 2009; Fenclova, 2013; Hartmann, 2020). *Stakeholder theory* is the last theoretical branch of ideologies underpinning CSR (Garriga and Mele, 2004). This approach is compatible with modern influences and political theories. Its objective is to focus on the relative power of businesses in society – or, more accurately, in the global context, societies. These last three types of CSR all perceive ethical behaviour, sustainable development, and multi-stakeholder networks (alongside corporate philanthropy) as key factors in the 'co-creation of shared value' (Crane and Matten, 2016).

Figure 3 - Theoretical underpinnings of CSR



Source: Author

Table 1 - Traditional Vs Contemporary Corporate Social Responsibility

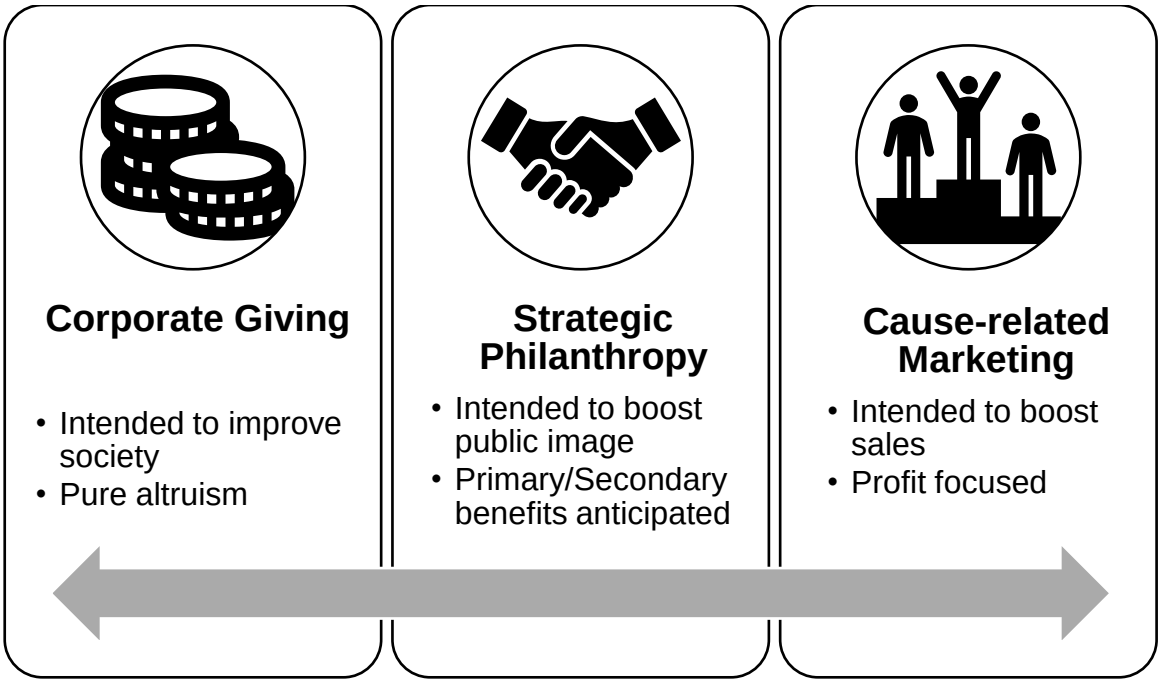
	Traditional CSR	Contemporary CSR
Focus	A way to generate profits and improve brand-image	A way to go beyond compliance, the generation of profits and brand-image
Drivers	Image, Brand, Public recognition	Performance, Innovation, Brand differentiation, Legitimacy
Actors	Corporate Philanthropy	Corporate Philanthropy, Business Ethics, Sustainable Development, Stakeholder Theory
Orientation	Reactive	Proactive
Bottom-line Strategy	CSR is bolt-on	CSR is built-in
Relation to the Bottom-line Strategy	Value Distribution	Value Creation

Source: Adapted from Crane and Matten, 2016:54

3.3.1 – Corporate Philanthropy

Corporate Philanthropy, and *Business Ethics* comprise two of the earliest contributors to the development of the social responsibility concept (Carroll, 1991; Fenclova, 2013) – and as such, they have historically influenced a lot of the discussions around more contemporary disciplines like *Sustainable Development* and *Stakeholder Theory*. CSR, in particular, was strongly associated with *Corporate Philanthropy* throughout most of the twentieth century, to the extent to which Carroll (1991) reported they were viewed as synonymous to each other, at least until the late 1960s – early 1970s. Figure 4 illustrates the conceptual model Varadarajan and Menon (1988) developed to depict the three different types of *Corporate Philanthropy* at the end of the 1980s.

Figure 4 - Types of Corporate Philanthropy



Source: Adapted from Varadarajan and Menon (1988) cited in Fenclova (2013:41)

According to Varadarajan and Menon (1988), corporate giving was considered as the most altruistic form of *Corporate Philanthropy* – whereby, a business voluntarily donates money or contributes to charitable causes 'just to do good' or maximise its positive impact on society. The main criticism of CSR as corporate giving lies in its limited scope and budget. Since, it usually involves companies, who voluntarily decide to allocate small amounts of funding to many different charities or causes – resulting in social programmes with a minimal social and/or business impact (what is called as diluted impact) and short-term benefits which are not always sustainable long-term (Carroll, 1991; Du et al., 2010; Crane et al., 2014). This type of *Corporate Philanthropy*, devoid of any gains for the firm (other than perhaps secondary benefits such as tax relief), represents what Friedman (1970) criticised the most when he proposed that contributions to charitable activities should only be made without stockholders' engagement at a business level.

In contrast, strategic philanthropy appears to be strongly tied to primary or secondary business benefits such as improved brand image, free-publicity (good deeds tend to attract the attention of the media), and prospective recognition of a brand as 'good', or 'responsible' by consumers (Varadarajan and Menon, 1988; Carroll, 1991; Phillips, 2006; Beal, 2013; Crane et al., 2014). In that respect, enterprises who engage in strategic philanthropy anticipate some degree of minimal positive return on investment, which may range from an enhanced brand image and good publicity to new investment potential (as investors are likely to be keen on socially responsible brands) and corporate citizenship awards (Phillips, 2006; Beal, 2013). In terms of disadvantages, strategic philanthropy can be conceived as a way of avoiding further regulation of largely unregulated or deregulated business segments (Phillips, 2006).

Last but not least, cause-related marketing, as means of *Corporate Philanthropy*, refers to the process of generating revenue by donating a specified percentage of a product's profits to a charitable cause (Varadarajan and Menon, 1988). This type of bottom-line strategy is closely affiliated with sales and product marketisation – both of which aim to primarily increase a company's total profit margin. Although CSR is, nowadays, extending way beyond *Corporate Philanthropy*, in practical terms, philanthropic giving still plays a key role in CSR implementation with charitable contributions often

representing the biggest part of the social component of a company's triple-bottom-line (i.e., social, environmental and economic) strategy (Phillips, 2006; Fenclova and Coles, 2011; Fenclova, 2013) and, to a certain extent, much of the environmental component as well (Cowper-Smith and de Grosbois, 2011) – a point which this study discusses in more detail, in the context of commercial aviation and VCO schemes, in Chapter 6.

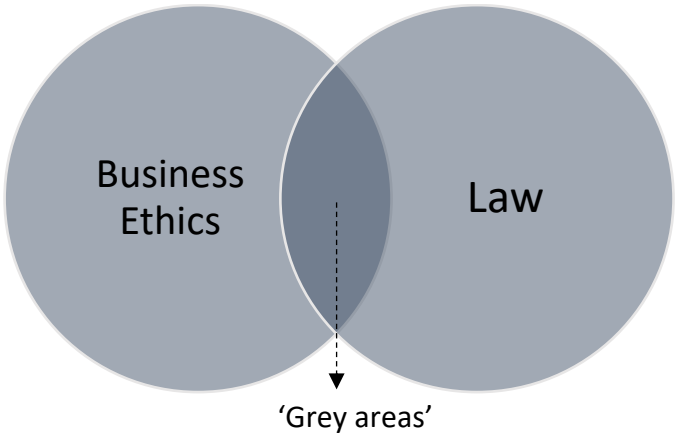
3.3.2 – Business Ethics

For De George (1982) normative judgements about society, commerce, and trade are rooted in ancient Greece and philosopher Aristotle, who spoke about 'greed' and the unnatural use of one's capabilities, to pursue personal wealth or fulfil own interests without consideration for society's welfare or prosperity ("eudaimonia") in its entity (Aristotle, 2000). For others (e.g., Werhane, 2000; Fenclova, 2013) such normative judgements date back to roughly 1800 BC when people commonly used to trade goods with each other. The earliest documented concerns regarding the ethics of merchants and traders were indeed raised in the 'Code of Hammurabi', an ancient Babylonian 'code of law' in Mesopotamia, Middle East (Werhane, 2000). In this regard, societal matters such as 'fair treatment', 'ethics', 'justice', 'social responsibility' – along with 'corruption', 'selfish motives', and 'inequalities' have been part of human existence for a long time. Interestingly, but perhaps not surprisingly, professionals from different backgrounds (or different scientific domains) adopt different perspectives in their analysis of what constitutes *Business Ethics*.

As Mele (2009) suggests, the concept of *Business Ethics* (or else Corporate Ethics) reflects the moral principles, norms, and values that arise in a business environment. For Buchholtz and Carroll (2012) *Business Ethics*, as an ideology, focuses on how business decisions are made by companies to represent what is morally 'right' or 'wrong' in regard to effects, in terms of products and/or services and, in relation to stakeholder relationships. In Crane and Matten's (2016:5) opinion *Business Ethics* represents *"the study of business situations, activities, and decisions where issues of right and wrong are addressed"* – with the words *"right"* and *"wrong"* symbolising *"morally right and wrong, as opposed to, for example, commercially, strategically, or financially"*. In that sense, *Business Ethics* is different from law despite some overlapping between the former and

the latter. Actually, in Crane and Matten's (2016:7) own words *"business ethics can be said to begin where the law ends"*. This implies that ethics in business tend to be predominantly focused on issues (known as 'grey areas') that are not primarily *"covered by the law or where there is no definite consensus on whether something is* [morally] *right or wrong"*. A visual interpretation of the relationship between 'ethics' and 'law' is illustrated in Figure 5.

Figure 5 - Relationship between Business Ethics and Law



Source: Adapted from Crane and Matten (2016:7)

Whether, *Business Ethics*, as a topic has roots in the Middle East, and the Babylonian 'Code of Hammurabi' (Werhane, 2000) – or, ancient Greece, and the 'holistic' Aristotelian idea of 'virtue' (De George, 1982) according to which the ethical stance of an organisation is determined by the character of those in business (Davies, 1997) – what cannot be questioned is the fact that the conceptual foundations of *Business Ethics* were founded long before the advent of modern capitalism. In that sense, concerns around *Business Ethics* preceded industrial societies and modern capitalism ('free-market') as an economic system. Yet, some moral principles, norms, and values tend to shift as time goes by – resulting in more turbulent business environments in which companies may begin to question what was formerly taken for granted. In Wetherly and

Otter's (2014) opinion, companies have been encountering stormy times like these much more frequently since the advent of globalisation. In practical terms, moving away from the concept of self-contained economies and nations, and towards an integrated worldwide marketplace, is associated with complex financial, regulatory, and legal systems (Wetherly and Otter, 2014) which are characterised by supra-ethnic values (Smolicz, 1981). In Blumenthal's (1977) own words

> […] root causes of the questionable and illegal corporate activities [...] can be traced to the sweeping changes that have taken place in our society and throughout the world and to the unwillingness of many in business to adjust to these changes. People in business have not suddenly become immoral. What has changed are the contexts in which corporate decisions are made, the demands that are being made on business, and the nature of what is considered proper corporate conduct.
>
> (Blumenthal, 1977:103)

While Blumenthal (1977) constructively highlights where things are likely to have gone 'wrong', in terms of corporate conduct, as Buchholtz and Carroll (2012) stress a lot of 'unethical' business practices were once considered as acceptable – if not ethical. This indicates that societal values have not necessarily changed to the degree Blumenthal (1977) claims; however, what has certainly changed is the role of media (and more recently social media) in revealing such immoral practices, and in that respect the degree of pressure that citizens began to exercise in demanding new governmental regulations and company laws to minimise unethical business conduct. Through his examination of the legal evolution of firms, Davies (1997:19) concluded that only marginal changes to *"company law"* were implemented up to the end of the nineteenth century. Because of this legal inertia, immoral business practices, corporate greed, and global-scale high-profile business scandals reached a peak during the twentieth century (Davies, 1997; Buchholtz and Carroll, 2012; Crane and Matten, 2016). Family-owned companies with 'unlimited liability' began to be replaced by multimillion, multinational 'limited liability' corporations, marking a completely new phase of business philosophy. As Davies (1997) and Shamir (2008) maintain, this legal divorce of 'ownership' from 'responsibility' turned out to be the tipping point, in terms of *Business Ethics*, and a source of extensive but unforeseen problems. Even so, increasing regulations and

governmental laws cannot automatically solve the problem of immoral corporate practices, because gaps in the law or some aspects of business misconduct inherently revolve around the morality of business practice rather than the legal aspects of it (Davies, 1997; Moon, 2007; Fenclova, 2013; Crane and Matten, 2016). In that sense, *Business Ethics* much like CSR is a voluntary practice and as such must go above and beyond what is required by law.

Yet, *Business Ethics* is not synonymous with CSR (Fenclova, 2013). Whilst, CSR and *Business Ethics* often represent two sides of the same coin (Crane and Matten, 2016) – using these terms interchangeably would hint that there is no significant difference between them (Fenclova, 2013). For Crane and Matten (2016) one of the easiest ways to differentiate *Business Ethics* from CSR is remembering that the former is all about developing good judgement and taking morally acceptable courses of action; whereas, the latter is a voluntary policy (or else an instrument) which companies utilise to demonstrate that they are 'good' corporate citizens and as such, they have a SR to behave ethically. Companies report their CSR-related agenda in an effort to gain society's approval (Guthrie and Parker, 1989) – what Williams et al. (2007) refer to as a 'social license to operate'. This is built upon the concept of *"legitimacy theory"* whereby an enterprise *"agrees to perform various socially desired actions in return for approval of its objectives, other rewards and its ultimate survival"* (Guthrie and Parker, 1989:344). In Davies's (1997:3) own words, a company's *"continued legitimacy (or 'social licence to operate') depends on a public assessment of how it acquits itself, especially in the continuing culture of deregulation"*.

3.3.3 – Sustainable Development

Despite the presence of some terminology around the concept of *Sustainable Development* (SD) before the early 1980s, a solid definition of modern perceptions of what constitutes SD did not arise until 1987 (Holliday et al., 2002). This might be because early definitions of sustainable development predominately focused on environmental degradation (in the context of economic or environmental indicators) – thereby, any initial attempts to define SD failed to take into consideration social and broader issues around fairness and equality (Redcliff, 1987). Notwithstanding, the United Nations (UN) World Commission on Environment and Development (WCED) influenced a shift in

perspective in 1987, when it purposely broadened the concept of *Sustainable Development*, in order to encompass aspects such as equality and social stability (Fenclova, 2013). In WCED's 1987 report, *"Our Common Future"* SD was thus defined as

> […] development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Far from requiring the cessation of economic growth, it recognises that the problems of poverty and underdevelopment cannot be solved unless we have a new era of growth in which developing countries play a large role and reap large benefits.
>
> (WCED, 1987 [not paginated] cited in Holliday et al., 2002:13)

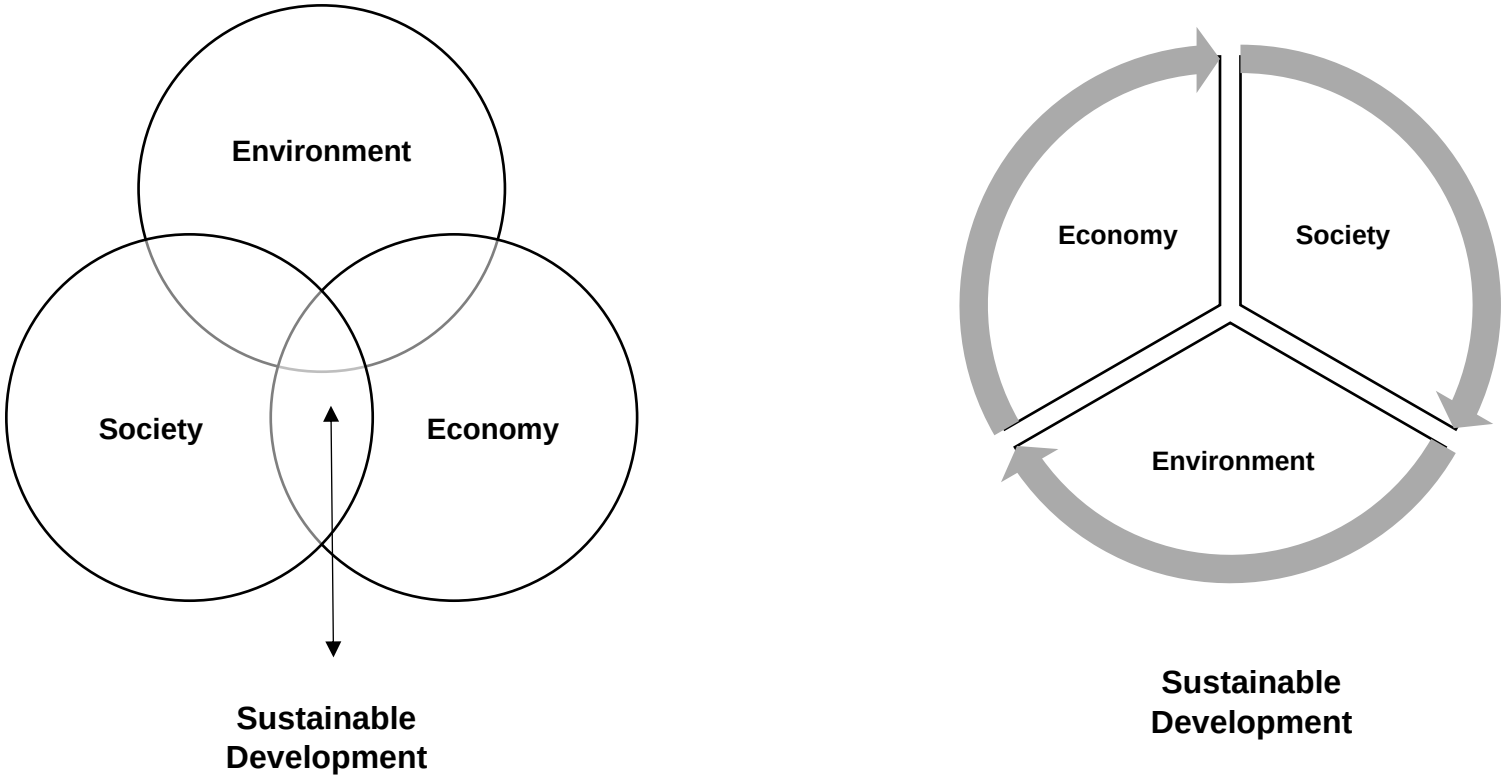
From a *Sustainable Development* perspective, CSR as a concept has been described by the World Business Council for Sustainable Development (WBCSD) *"as the commitment of any business to behave ethically and contribute to financial growth without negatively affecting society"* (cited in Cowper-Smith and De Grosbois, 2011). This trifocal approach to SD was further consolidated by the United Nation's *Declaration on Environment and Development* and *"Agenda 21"* [11], both considered as major outcomes of the *Rio de Janeiro Earth Summit* in 1992. Taking advantage of this momentum, in 2002, the *Johannesburg Declaration on Sustainable Development* was formed by the United Nations in an effort to reaffirm the importance of meeting environmental, societal, and economic sustainable development targets to address global challenges relating to poverty, climate change, inequality, peace and justice, environmental degradation, and prosperity, (UN, 2002). While, the *Johannesburg Declaration on Sustainable Development*, did not mention word by word the phrase 'Corporate Social Responsibility', it explicitly highlighted the great responsibility private businesses have, in terms of supporting governments and local communities, in attempts to induce greater sustainability by advocating that

[11] "Agenda 21" represents a non-binding action plan, which urges every local government to draw its own 'local' Agenda 21 ("21" in Agenda 21 refers to the 21st Century), as means of addressing concerns with regard to SD.

> […] in pursuit of its legitimate activities the private sector, including both large and small companies, has a duty to contribute to the evolution of equitable and sustainable communities and societies. […] there is a need for private sector corporations to enforce corporate accountability, which should take place within a transparent and stable regulatory environment.
>
> (UN, 2002: not paginated)

In that respect, a firm's responsibilities must follow the so-called triple-bottom-line approach to business – whereby an enterprise's commitment to CSR encompasses responsibilities pertaining to the three SD pillars: environment, society, and economy (O'Rourke, 2003). In line with this background, different shapes and/or diagrams have been employed by different academics (e.g., Parkin, 2000; Cole et al., 2009) to aid the visualisation of a company's responsibilities based on the triple-bottom-line approach to SD. Parkin (2000), for example, utilised a Venn diagram (see Figure 6 – left) to show all possible logical relations between elements, with each of the overlapping circles representing one of the three pillars of SD. Whilst, Cole et al. (2009) employed a cycle diagram (see Figure 6 – right) to demonstrate that the aforesaid pillars are related to one another in a repeating cycle with no beginning or end.

Figure 6 - Sustainable Development examples of visualisation



Source: Adapted from Parkin (2000:4) (Left); Coles et al. (2009:5) (Right)

Evidently, the business case for SD appears to have both grown and significantly transformed over the past few decades. Since 2015, a number of "*Sustainable Development Goals"* (SDGs) have been included in the United Nations latest initiative known as *"Transforming our World: the 2030 Agenda for Sustainable Development"* or else *"Agenda 2030"* (UN, 2015). As illustrated in Figure 7, these SDGs consist of the 17 global goals set at the United Nations General Assembly in 2015. While, the SDGs might appear as broad (and inter-dependent) each of these goals has, in fact, a separate list of specific targets to accomplish. In that respect, accomplishing all 17 SDGs necessitates the achievement of 169 specific targets as listed in the United Nations SD programme – which covers topics ranging from poverty and hunger, health and education, gender equality and social justice, to sustainable development and growth, responsible consumption and production, climate change action, and strategic partnerships.

Figure 7 - Sustainable Development Goals

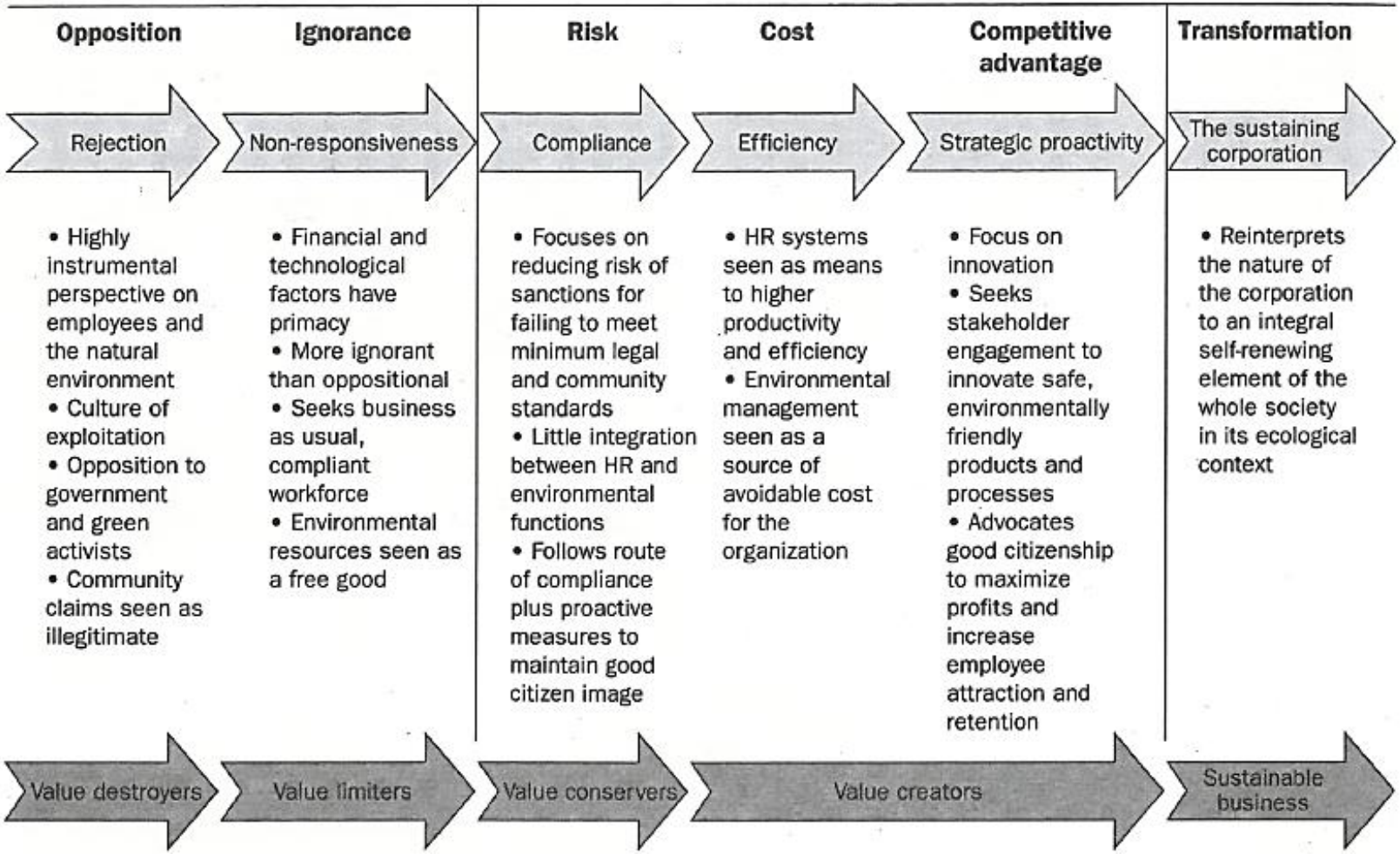
Source: United Nations Organisation [Online: no date] Available from: https://www.un.org/sustainabledevelopment/sustainable-development-goals/ [accessed on 1st March 2019]

Consequently, *Sustainable Development* is to a great extent influenced by social justice. Matters of poverty and underdevelopment and/or issues around the uneven distribution of wealth consequently pose a substantial risk for SD as a concept. Especially, if one considers the enormous political, economic, and socio-cultural differences between countries (and among social groups within countries) in relation to global phenomena like climate change. In Holliday et al.'s (2002) opinion,

> [t]his is one aspect that makes sustainable development seem so challenging. Another aspect is the systemic nature of the concept. Sustainable development cannot be achieved by one nation alone. It cannot be achieved in only one sphere, such as the economic sphere. It will require types of partnership never before witnessed in human history.
>
> (Holliday et al., 2002:13)

However, identifying the gap between *where businesses currently stand* and *where businesses need to be*, to be seen as sustainable, comprises a key stage in the process of determining sustainable ways to move forward. *Waves of Sustainability* as a theoretical model [which was initially introduced by Kemp et al. (2004) and was subsequently modified by Benn et al. (2014)] consists of one way of accurately mapping the pathway towards corporate sustainability. In brief, this model suggests that corporations naturally fall into one of the three waves of sustainability as illustrated in Figure 8.

Figure 8 - Waves of Sustainability



Source: Benn et al. (2014)

The first wave typically incorporates companies who are still either rejecting or non-responsive towards SD. During the 'rejection' phase, a firm's leadership tends to show signs of 'opposition' towards governmental legislation and/or green campaigns (Benn et el., 2014). Whilst, the key characteristic of the second stage of the first phase is 'ignorance' which is accompanied by 'non-responsiveness' – whereby, businesses ignorantly continue to follow a 'business as usual' strategy by focussing on financial and/or technological growth instead of acknowledging the importance of corporate sustainability These two stances are considered by Benn et al. (2014) as 'value destroyers' and 'value limiters' respectively; since the rejection of corporate sustainability ultimately has a negative impact on the value of the business, and non-responsiveness technically halts growth beyond financial and/or technological terms.

The second wave of this model includes: 'compliance', 'efficiency' and 'strategic proactivity'. This part of the wave typically consists of companies who choose to progressively embrace some aspects of corporate sustainability to reduce the 'risk' of legal penalties, minimise 'cost' (e.g., environmental management is seen as a way of cutting down on costs while achieving higher outputs) or gain competitive advantage (e.g., good deeds attract publicity and result in greater stakeholder engagement) (Benn et al. 2014). Companies falling under 'compliance' as classed as 'value conservers' because they manage to conserve their value by meeting the minimum legal standards. Finally, 'efficiency' as well as 'strategic proactivity' are categorised by Benn et al. (2014) as 'value creators' since they are both likely to add value to a business by maximising profits and advocating a good citizenship profile.

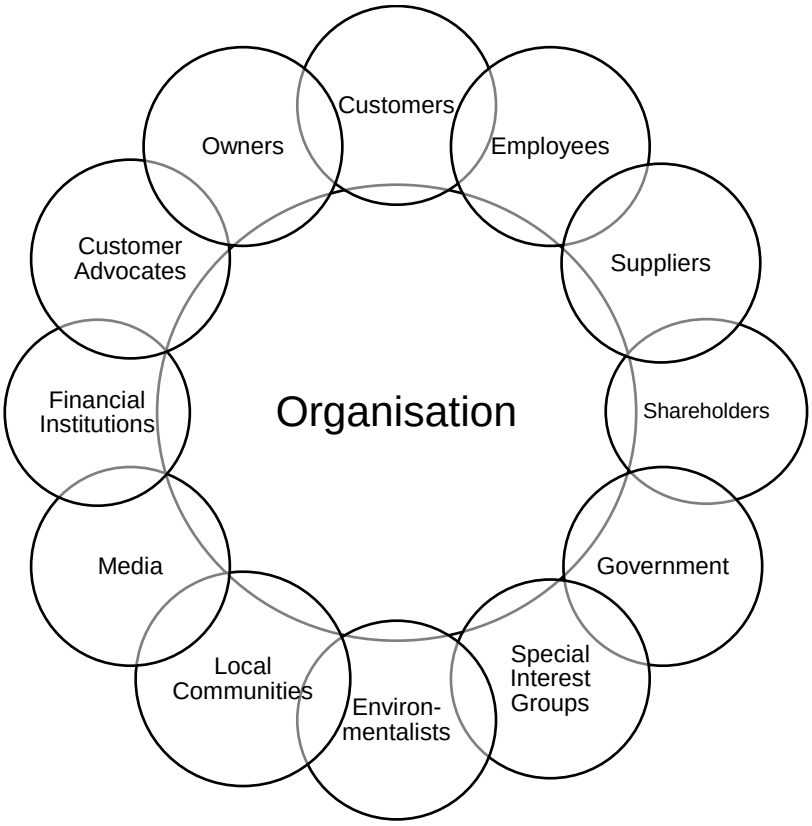
The third wave involves what Benn et al. (2014:22) describe as 'the sustaining corporation' – a concept typically associated with the complete 'transformation' of a company into an *''integral self-renewing element of the whole society in its ecological context''*. This stage technically represents the transformation phase every modern corporation should aspire to belong to, in order to be regarded as a truly 'sustainable business', capable of adding value for both society and the environment beyond the business itself. This latter

classification of ‘the sustaining corporation’ fully aligns with the triple-bottom-line approach to SD.

3.3.4 – STAKEHOLDER THEORY

Stakeholder Theory, as a key modern influence in strategic management, not only succeeded in revolutionising how companies are managed, but it also thrived in gaining widespread popularity amongst both proponents and opponents of CSR – through successfully integrating resource-based and market-based insights at a socio-political level. Freeman’s (1984) innovative approach to organisational management, resulted in the development of a new all-embracing theoretical framework which was deemed to radically transform existing responses on controversial notions like that of CSR – an outcome that as Phillips (2003) supports, Freeman (1984) accomplished by advocating that organisational success depends on ‘constituencies’ – such as customers, employees, suppliers, shareholders, government, special interest groups, environmentalists, local communities, the media, financial institutions, customer advocates, and owners – or else, as cited in Mitchell et al. (1997:858) *"those groups without whose support the organization would cease to exist"*. Below, Figure 9 presents a visual illustration of traditional stakeholder examples.

Figure 9 - 'Stakeholder map': Typical examples of stakeholder groups



Source: Adapted from Freeman 2010:25

While *Stakeholder Theory* (ST) is novel, it seemingly overlaps with a concept originally drawn from the foundational work of other researchers (e.g., Parsons, 1960; Weber, 1978) which was further expanded by Suchman (1995) in his work "*Managing Legitimacy: Strategic and Institutional Approaches*". In terms of similarities, both theories are grounded within the wider domain of political economy. From that point of view, they display remarkable similarities or resemblances which are presented by Van der Laan (2009) as explanations of motivations behind social disclosures. In this latter context, legitimacy theory explains that voluntary CSR disclosures occur as part of a 'legitimation' process, rather than as an explanation of accountability to a diverse audience of stakeholders as proposed by the

stakeholder theory. In this regard, what shapes the foundation of the argument for legitimacy is the explicit consideration of societal expectations – whereby, failure to acknowledge this type of 'unspoken rule' may indeed result in serious implications for the ongoing survival of an organisation (Deegan, 2006). Whereas, ST goes a step further to challenge, or explain accountability, to stakeholders (Van der Laan, 2009). In this way, ST also overlaps with sustainable development. Both theories, for example, recognise that firms have responsibilities beyond the economic sphere – although the former is largely considered more business-oriented compared to the latter (Fenclova, 2013). This is because SD's main doctrine underpins views towards broader sustainability, including equity and social justice, apart from environmental and economic goals. On the other hand, *Stakeholder Theory* remains heavily reliant on strategic management methodologies, which contend that embracing ST is beneficial from a business perspective – as opposed to SD and humanitarian methodologies (Freeman et al., 2010; Fenclova, 2013).

In practical terms, however, as Mitchell et al. (1997) highlight, Freeman's (1984) description is so broad that it effectively results in including 'everyone'. To tackle this issue Clarkson (1994) developed a narrower definition of stakeholders by categorising a company's stakeholders into either *"voluntary"* or *"involuntary"* risk-bearers:

> Voluntary stakeholders bear some form of risk as a result of having invested some form of capital, human or financial, something of value, in a firm. Involuntary stakeholders are placed at risk as a result of a firm's activities. But without the element of risk there is no stake.
>
> (Clarkson, 1994: 5)

Nevertheless, Clarkson's practice of defining *"risk"* as a symbol of *"stake"*, apart from narrowing down a company's stakeholders to those with legitimate rights, hints a powerful message pertaining to the self-centred approaches of businesses to monetary assets – whereby, liabilities can be perceived either as a source of value or risk. This matter did not go unnoticed for long, as Mitchell et al. (1997:857) later claimed that Clarkson's narrower view of a company's stakeholders, failed to capture key attributes beyond that of *"stakeholder salience to managers"*. In Mitchell et al.'s (1997:857) opinion, narrowing down

views of what constitutes a stakeholder should *"attempt to define relevant groups in terms of their direct relevance to the firm's core economic interests"*, rather than leaning to a great extent towards Friedman's (1970) original argument that a corporation is only responsible to its shareholders – or, choose to make no apparent distinction between the social and economic responsibilities of businesses. Favouring a narrower definition of stakeholders aligns with what Mitchell et al. (1997:857) describe as "*normative core of legitimacy"* – whereby, management solely focuses on the rights of a few *"legitimate stakeholders"*. In contrast, favouring a broad view of the stakeholder approach signifies bilateral multi-fiduciary obligations which can be surprisingly complex for managers to put into practise. In this respect, both definitional approaches of a company's stakeholders, have resulted in triggering both great support (e.g., Carroll, 1991; 1999; Crane et al., 2008; Van der Laan, 2009) and great opposition (e.g., Goodpaster, 1991; Jensen, 2001; 2002) from academics and practitioners alike.

On the one hand, Carroll (1991:43), as one of the keenest supporters of the stakeholder approach, supports that *"a natural fit [exists] between the idea of corporate social responsibility and an organization's stakeholders".* Carroll's (1999:290) article *"Corporate Social Responsibility: Evolution of a Definitional Construct"*, in particular, claimed that the ambiguity of the term *"social"* in CSR, was in fact addressed through Freeman's contribution since this word no longer lacks "*specificity as to whom the corporation is responsible"* – because the *"social"* responsibilities of a business were personalised by Freeman's explanation of the explicit groups or persons a business should consider as part of its CSR strategy. In this context, the idea behind Freeman's (1984) stakeholder concept implies a re-definition of the term 'organisation' to the degree that this accurately reflects a firm's dependency on individuals or groups, who can affect or be affected by. According to Van der Laan (2009:17) a stakeholder approach comprises the "best" theory to explain managerial behaviour and/or engagement with identified stakeholders at a micro-level environment.

On the other hand, Goodpaster (1991), as one of the strongest critics of the stakeholder approach, refers to the dilemma of managers that seek a multi-fiduciary approach, in terms of stakeholder orientation, as the *"Stakeholder Paradox"* according to which

> [i]t seems essential, yet in some ways illegitimate, to orient corporate decisions by ethical values that go beyond strategic stakeholder considerations to multi-fiduciary ones.
>
> (Goodpaster, 1991:63)

His decision to name this as 'paradox' is justified by the fact that both broad and narrow approaches to stakeholder synthesis, in Goodpaster's view, ultimately result in the formation of an *"ethical"* problem – whereby, managers effectively can either be ethically responsible and follow a multi-fiduciary approach which entails the danger of transforming the private sector into the public sector [what Goodpaster (1991:53) describes as *"ethics without business"*] – or, to demonstrate loyalty to strategically important stakeholders (such as stockholders) and trade-off ethical resilience with self-serving economic advantages [what Goodpaster (1991:53) describes as *"business without ethics"*]. Jensen (2002) agrees with Goodpaster's argument and with Friedman's (1970) point that this puts managers in an awful position where they cannot make any sort of purposeful decisions because they have not been shown how to make essential 'trade-offs' amongst competing interests. In Jensen's opinion (2001:32), *"it is logically impossible to maximise in more than one-dimension, purposeful behaviour requires a 'single-valued objective function"*. For Jensen (2001:9), this indicates that ST cannot truthfully *"serve many masters".* Even so, taking into consideration the interests of all stakeholders can prove to be instrumentally important for a firm's performance – or, in contrast, important because of the existence of a moral end towards which organisational management should aim (Smith, 2005).

3.4 – CHAPTER SUMMARY

Based on the literature review of the chronological and the ideological approach to CSR, societies have undergone many different periods of turmoil, each of which was filled with different challenges. Although there have been numerous debates about what CSR *is*, as

this chapter extensively discusses, a broad consensus has been obtained on what CSR *is not*. CSR is not equivalent to laws and regulations. Legalising CSR as a process would unavoidably take away the 'voluntary' or 'self-regulatory' nature of this notion, leading to an entirely different regime to what 'social responsibility' is meant to signify in definitional terms. In this regard, CSR extends far beyond 'compliance' to represent an 'ethical' manner to run a business, which is not technically required by law, but it is greatly anticipated by societies. Yet, it is not equivalent to *Business Ethics*. Whilst, a moral dimension ('it is the right thing to do') forms the basis of the latter, CSR tends to rely on the business case for 'socially responsible deeds'. This indicates that even though in theory SR is profoundly associated with morals and values – in practical terms, the main 'real-world' imperative for CSR action is grounded in extant implicit 'social contracts' among businesses and societies.

On this basis corporations secure a 'licence to operate' through meeting or exceeding common societal expectations and demands. This underlying idea of 'shared value' is central to the strategic approach to CSR because it favours a 'win-win' situation, whereby all parties involved can benefit or profit in some way. In this sense, legitimacy theory can be viewed as a conceptual master key, which helps businesses to formulate their CSR motives in a company-specific manner, in tandem with their individual understanding of their various responsibilities to their respective stakeholders. Since, companies, in general terms, practise CSR as a means of demonstrating their individual level of voluntary commitment towards different motivations and expectations, Chapter 6 takes forward this systematic process of reviewing CSR definitions, theories, and related approaches to CSR implementation, to inform this thesis's findings around VCO policies and practices of selected airlines, in the context of CSR. In doing so, new knowledge is expected to emerge based on existing knowledge. Next, Chapter 4 focuses on reviewing prevailing theories and extant literature, in relation to consumer behaviour, green consumerism, air travel decision-making, and the 'value – action' gap.

CHAPTER 4 – CONSUMER BEHAVIOUR, GREEN CONSUMERISM AND THE 'VALUE – ACTION' GAP

4.1 – INTRODUCTION

This chapter presents a critical review of the literature on consumer behaviour, green consumerism, and the 'value – action' gap. It begins to unfold consumer behaviour, in relation to the process of decision-making and air travel – from a broad perspective, before it progressively centres on green consumerism as a meta-theme, in the context of discretionary air travel. Subsequently, it explicitly reflects on the 'value – action' gap, an expression predominantly associated by environmental scholars with the space between people's 'attitudes' and 'behaviour' around environmental issues – what is also known as the difference between '*what people say'* and '*what people do'* about matters of environmental concern. Then, the chapter concludes with a critical discussion surrounding actors of pro-social behaviour. Moral elevation, nudge theory, taxation, VCO schemes, and carbon rationing strategies are explicitly considered as part of this final section on actors of pro-social behaviour. But first, an examination of consumer behaviour in relation to the decision-making process on air travel follows.

4.2 – CONSUMER BEHAVIOUR

According to Loudon and Bitta (1993; cited in Singh, 2016:2), consumer behaviour *"is the decision process and physical activity, which individuals engage in when evaluating, acquiring, using or disposing of goods and services".* Horner and Swarbrooke (1996; cited in Swarbrooke and Horner, 2011:6) defined consumer behaviour as *"the study of why people buy the product they do, and how they make their decision"*. In the opinion of Solomon (1996:3), consumer behaviour *"is the process involved when individuals or groups select, purchase, use, or dispose of products, services, ideas or experiences to satisfy needs and wants"*. Solomon's (1996) definition implies that purchasing decisions can be made by consumers in a group setting, and not merely in an individual context. Engel et al. (2001; cited in Singh, 2016:2) defined consumer behaviour as *"those activities directly involved in*

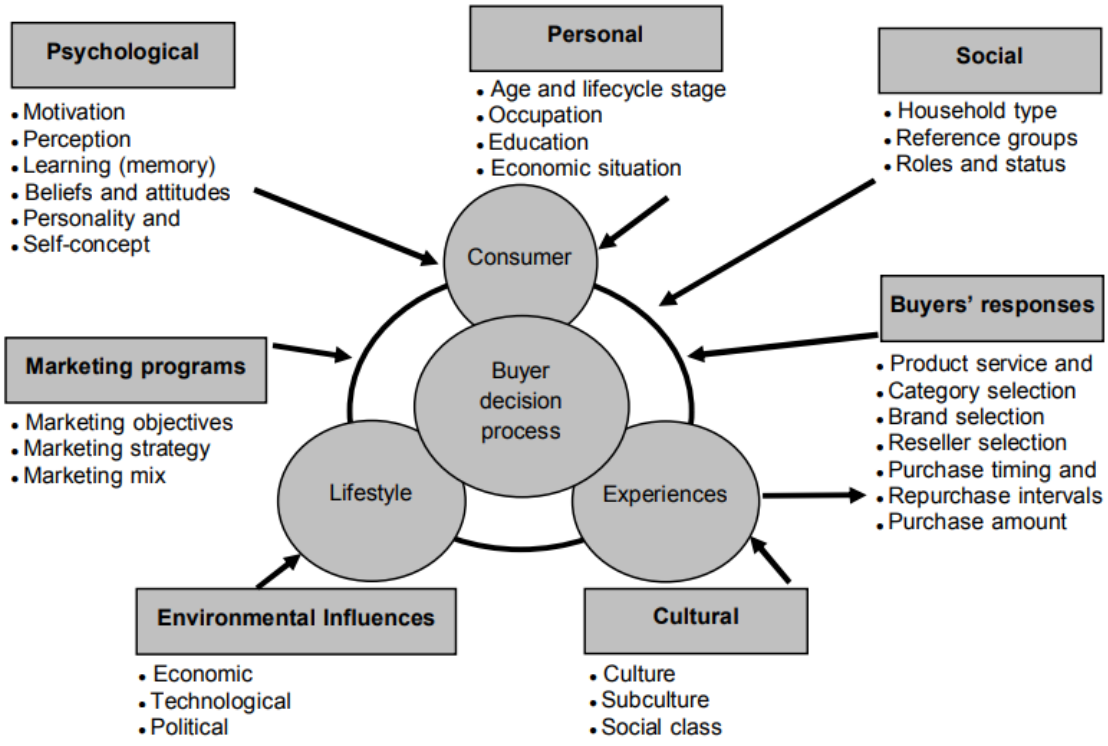
obtaining, consuming, and disposing of products and services including the decision precedes and follows these actions". This last definition comes to highlight the psychological process which consumers experience before and after they make a purchase.

From a marketing perspective, consumer behaviour represents how individuals, groups, or organisations select, buy, use, and dispose of goods and/or services to satisfy their needs and wants (Swarbrooke and Horner, 2011). From this point of view, consumers are actors in the marketplace – actors who can play different roles (e.g., user, payer, disposer) in the decision-making process, and thus they may display different underlying motives for their actions. Consumers' roles, however, are usually not static which implies that they might substantially vary from one consumption scenario to another. These differences in consumer behaviour are further influenced by numerous factors. Examples of some frequently discussed influences include individual factors (such as the nature of the consumers, lifestyle and culture), personal factors (like age, gender, education and income level), social factors (such as social status and family influences), marketing factors (like product design, packaging, pricing), situational factors (such as physical and social surroundings at the time of purchase), cultural factors (like religion), and psychological factors (such as buying motives, perception of the product and attitudes towards the product) (Decrop, 1999; Swarbrooke and Horner, 2011; Singh, 2016).

Figure 10 illustrates the multiplicity of factors that may influence consumer behaviour. It includes internal influences such as consumers' perceptions, attitudes, motivations, and lifestyles – in addition to external influences, such as consumers' values, attitudes, beliefs, and opinions which are usually shaped by their cultural, social, and economic circumstances. The former affects consumers' purchase decisions – whilst, the latter affects consumers' attitudes towards products and/or services (Singh, 2016). For example, personality as an internal influence may affect the way consumers seek information regarding products and/or services they want to purchase. In that respect, one can either seek information actively (known as active-info-seeker) or passively (known as passive-info-receiver). Personality may also dictate consumers' lifestyle choices, including opinions and attitudes

towards products and/or services. Additionally, personality may motivate consumers to undertake certain activities, which may also be accompanied by the need – or, desire to buy pertinent products and/or services.

Figure 10 - Factors Influencing Consumer Behaviour



Source: Singh, 2016:3

Motivation (as another example of an internal factor) influences consumers' desire to obtain certain products and/or services. Consumers' motivation can be potentially affected by multiple aspects, such as financial resources (e.g., whether one can afford the purchase), time constraints (e.g., whether one needs to purchase within a certain timeframe) and the perceived relationship between the value and the risk associated with making purchasing decisions; which is also intriguingly linked to the purchasing involvement of different consumers (Moutinho, 1987; Solomon, 1996; Engel et al., 2001; Singh, 2016). This implies advertising campaigns may primarily target those consumers who demonstrate high percentages of motivation – that is those who enjoy both the mental and physical involvement of the purchasing process. With this in mind, profiling customers' past experiences with similar products and/or services is extremely important from a marketer's perspective, because consumers' past experiences are directly associated with their expectations and thus future decision-making process. As Singh (2016:4) suggests, *"experience is the memory of what has happened in the past";* while *"expectation is an imagination about what will be happening in the future"* – if what happens *"does not match with what was envisaged, the consumers will feel disappointed hence the experience will be negative"*, which could potentially avert consumers from buying similar products and/or services in the future.

In terms of external factors, family comprises a strong influence that may impact consumers' purchasing behaviour in two different ways. First, it might indirectly influence consumers' personality, attitudes, and evaluative criteria towards products and/or services; second, it might directly influence their purchasing decision-making process – since family members are often the first to consult with when consumers' plan to buy products and/or services (Decrop, 1999; Singh, 2016). Influence from friends and colleagues also plays an important role. Although friends and colleagues may not necessarily get directly involved in the purchasing decision-making process, as one's family members would typically do, they indirectly influence the purchasing decision-making process through social networking and word-of-mouth. Similarly, environmental influence, which includes factors such as location, cultural parameters, and financial circumstances, can also play a significant role in

consumers' purchasing decision of products and/or services. In this context, consumers from urban areas often exhibit different characteristics to those living in more rural places. This implies that they are also likely to have different requirements for products and/or services. In terms of culture, influences may range from traditions and moral values to taboos and rudimentary attitudes of the society within which an individual resides (Solomon, 1996). Hence, culture is fundamentally associated with one's ethnicity and/or religious identity. It is deeply grounded in early childhood experiences – whereby, individuals are taught what is right and wrong. From this point of view, culture teaches people acceptable norms, and its influence can be so deeply entrenched that it can become unseen in ordinary daily behaviour (Moutinho, 1987; Singh, 2016). Economic circumstances also influence consumers purchasing decisions by defining what consumers can physically afford to purchase.

Advertisements are also likely to intensify the demand for certain products and/or services. As the work of marketing scholars (e.g., Levitt 1986, Piercy 2002, Kotler and Armstrong, 2004) demonstrate, an in-depth understanding of consumer behaviour is extremely important for advertising purposes; since, it supports marketers in determining which products and/or services are needed in the marketplace – and, how to best target consumers to result in the desired purchasing decision. Influence from advertising campaigns, however, can also draw attention to the various financial inequalities that consumers may be subjected to. This is understood to be particularly noticeable, in the context of travel and tourism. As Cohen et al. (2011) argue, air travel consists of one of those products and/or services that consumers are increasingly urged to purchase in causal or superficial ways – without consideration of monetary discriminations, or wider implications on the global environment. Cheap city breaks, low-cost holidays, and luxury escapes are habitually featured on both traditional media channels such as television, press, and banner ads – and fashionable new media channels such as email marketing, search engine optimisation, and social media platforms like Facebook, Twitter, and Instagram.

For Packard (1957) the ability of a marketer to persuade consumers to purchase products and/or services does not necessarily necessitate an in-depth understanding of consumers' decision-making process. This is because consumers have what he defines as 'compelling

needs' – that is, needs that are so strong that they are compelled to buy products and/or services merely to satisfy them. To this end, marketers may only have to appeal to those compelling needs to persuade consumers to purchase products and/or services; whilst, on the other hand, environmentalists presumably may merely have to appeal to those compelling needs to dissuade consumers from purchasing products and/or services with a 'high environmental tag'. Despite Packard's (1957) view, what Horner and Swarbrooke (2011) assert, is that reaching a consensus on what influences consumers' decision-making process, and subsequently the extent to which marketing centres on consumer persuasion (or dissuasion) rather than consumer sovereignty, is challenging – particularly, in the context of travel and tourism, whereby the decision to purchase is typically of emotional importance and intangible nature (Moutinho, 1987; Decrop, 1999; Horner and Swarbrooke, 2011). While the consumer decision-making process gives the impression of an enigmatic puzzle, all consumers go through basic steps when making purchases – these steps determine what products and/or services best fit their 'needs' and, are examined in relation to air travel next.

4.2.1 – Decision-Making Process And Air Travel

While numerous models have been developed by scholars (e.g., Engel et al., 1986; Hawkins et al., 1992; Kotler et al., 2008; Kozak and Decrop, 2009) in an attempt to outline consumers' decision-making process, some of these theoretic models have proven to be more popular than others. In the context of this study, Kotler et al.'s (2008) model is perceived as the easiest one to deconstruct due to its five-stage approach towards defining consumers' decision-making process. Figure 11 illustrates this model's five stages of consumer decision-making. The first stage describes consumers' need to buy products and/or services. In aftermath of the *need recognition,* consumers begin to *search for information* about the premeditated purchase – which represents the second stage. During the third stage, consumers *evaluate alternatives*, or they may skip this step if prior exposure to a satisfying product and/or service has already occurred. As most products and/or services consist of multiple layers and attributes, consumers typically evaluate them based on their individual perception of attribute importance. This implies that there is no single process of evaluating alternatives when consumers are making purchasing decisions. Even so, as Kotler et al.

(2008) suggest, consumers generally look for solutions that offer the best fit to their problem – or, a product, good, and/or service which delivers the benefits they are presently seeking.

Figure 11 - Consumer Decision-Making Process

Source: Adapted from Kotler et al., 2008:265

However, as Swarbrooke and Horner (1999) have emphasised there is a high risk associated with the monetary expenditure and the intangibility of purchasing services such as air travel and holidays. Buhalis and Law (2008), in agreement with Swarbrooke and Horner (1999), have essentially categorised travel and vacation expenditures amongst the highest regularly occurring costs for consumers. This indicates that air travellers are likely to apply what academics term as 'complex high behaviour' when they are 'evaluating' an airline – because the purchase of air travel is both relatively risky and expensive, which results in higher consumer involvement (Kotler et al., 2008). According to Pizam and Mansfeld (1999), as a result of this implicitly higher consumer involvement, air travellers tend to spend more time on information search and the evaluation of alternatives – compared to consumers concerned with other types of purchasing behaviour like grocery shopping. The fourth and fifth stage, respectively, entail behaviours associated with the *purchasing decision* and *post-*

purchasing conduct (what happens after the product has been bought or the service has been experienced).

From a consumer perspective, distinguishing between the exemplary characteristics of different airline business models was never an easy task to complete due to difficulties surrounding this industry's highly complex market conditions. Since the mid-1990s, for example, new types of business models (e.g., low-cost carriers, domestic/regional carriers, hybrid carriers) have emerged – alongside numerous mergers, take-overs, and types of global alliances (e.g., Oneworld, SkyTeam, Star Alliance) – changes which have resulted in making, those already complex market conditions, even more, complicated for consumers. More recently, changes in the business environment of airlines have contributed to the formation of what is referred to as a 'hybrid carrier' – a model which essentially revolves around the concept of charging cheap ticket fares with the supplementary benefit of taking an instantly flexible approach to pricing whenever consumers demand it (Mintel, 2019; McPartlan, 2020). Hybrid[12] carriers thus comprise one of the industry's latest trends – following the earlier big success of low-cost carriers.

On the other hand, changing market conditions have also resulted in more empowered customers, new distribution channels, and a tendency towards dis-intermediation and re-intermediation (Kossmann 2006; Shaw, 2011). Likewise, advances in Information and Communication Technologies (ICT), as Buhalis and Law (2008) highlight, are seen as contributing factors to the empowerment of air travellers, who have now become more knowledgeable, sophisticated, and focused on 'distinct experiences' and 'independent

[12] Hybrid airlines choose to operate with a low-cost business model, but they offer a standard of service comparable to what consumers would expect from full-service and flag-carriers. After several years of losses on domestic and regional networks, Europe's biggest full-service airlines – Lufthansa, Air France/KLM, and Iberia – began to practically extend their networks by substituting legacy provisions with hybrid tactics for their short-haul flights (McPartlan, 2020). As a result, domestic and regional operations were offloaded to reduce liabilities and losses – without compromising the standard level of service as well as the network integrity between parent and subsidiary carriers. Low-cost carriers, like EasyJet and Ryanair, have also begun to shift away from their strictly 'no-frills' approach by embracing hybrid tactics, in an attempt to satisfy the needs of their more demanding customers (e.g., families, business segment) through the provision of added benefits and extras for those who elect to pay so-called 'premium' or 'flexi' fares.

travel' than ever before. Despite all these changes and advances, what Wilfing (2012) maintains, is that little research has taken place in the context of air travel decision-making. This may mask a lack of in-depth understanding, regardless of successes relating to new operating business models, technological breakthroughs, and significantly simplified processes for booking air travel. In that sense, it is increasingly difficult for consumers to keep up with the environmental credentials of airlines, when they are barely in a position to track on-demand changes to services, due to the fast-changing market conditions. Whether green consumers are in a far better position to keep up with developments surrounding aviation and its impacts on societies, economies, and the environment is a burning question. To answer this question green consumerism as a meta-theme of consumer behaviour is discussed next.

4.3 – Green Consumerism as a 'Meta-theme'

The term green consumption describes the emergence of a new form of consumer consumption, a consumer segment that is compatible with the notion of sustainable development and the protection of the environment both for the present and for the future generations (Connoly and Prothero, 2008). Green consumerism thus represents a concept which assigns responsibility (or co-responsibility) to consumers for addressing environmental complications through the voluntary adoption of environmentally friendly behaviours. Akenji (2014:13) agrees and defines green consumerism as *"the production, promotion, and preferential consumption of goods and services on the basis of their pro-environmental claims"*. Environmentally friendly behaviours such as the preferential use of fair-trade, zero-waste and organic products, energy-efficient technologies like eco-labelled A+++ white goods, smart zero-energy buildings and electric zero-emissions vehicles, however, typically entail higher costs for consumers or comprise part of pricey investment plans (e.g., solar panel equipment and installation) with benefits which tend to outweigh both the cost and the hassle in the long run. In this regard, it is difficult to not contemplate green consumerism as a niche market for those coming from predominantly affluent socio-economic backgrounds – mainly female, well-educated, liberal, and wealthy (Dunlap, 1975;

Eagly, 1987; Hines et al., 1987; Roberts, 1993; Carlsson-Kanyama et al., 1999; Olli et al., 2001; Randles and Mander, 2009; Banister, 2018; Gossling et al., 2020).

Gilg et al. (2005) challenge this view to instead argue that conventional forms of green consumption can be associated with other forms of environmentally friendly actions and that different categories of environmentalism can be identified on that basis. Leal-Millan et al. (2018) agree with Gilg et al. (2005) and recommend categorising environmentalists by drawing upon behavioural aspects. Despite stereotypical views surrounding the impact of gender, education, and income – concerning green consumption – who buys what, when, and why – as Gilg et al. (2005) suggest, depends on different variables including environmental and social values, psychological factors, and socio-demographic status. According to Steel's (1996) research, high levels of socio-environmental values, for example, are commonly present in people with high esteem for the natural environment – yet, those could be affluent and highly-qualified individuals (like physicists, environmental biologists and earth scientists) possibly or perhaps more conventional people who maybe grew up away from urban areas, close to national parks (e.g., Lake District National Park) and Areas of Outstanding Natural Beauty (AONB) (e.g., Dorset, North Pennines, Kent Downs) which they want to protect instead of treating them as a mere commodity.

Hence, environmental values, like displaying high esteem for the natural environment, might align or contrast with one's socio-demographic status – depending on individual psychological factors such as subjective norms, and the perceived control of one's ability to bring about change through own behaviour (known as 'locus of control'). While consumers are often aware their behaviour can positively or negatively influence the environment, those with a greater internal 'locus of control' and perceived feedback about ecological behaviour appear to bridge the so-called 'value – action' gap. This line of thought differs from Inglehart's (1990) work, who argues that only when people manage to achieve a comfortable standard of living, they can become less worried about their own material existence, and thus more willing to contemplate a range of so-called post-materialist values such as political freedom, self-expression, and environmental protection. This post-materialist claim as challenged by many researchers (e.g., Abramson et al., 1997; Cotgrove

and Duff, 1981) is contextually founded in Maslow's 'hierarchy of needs' – an earlier theory structured around fulfilling essential human needs 'in priority', in order to reach what Maslow (1943) refers to as 'self-actualisation' – a state whereby one's talents and potentialities cannot be achieved to the fullest unless lower hierarchical needs (e.g., biological, physiological, and psychological requirements) are first satisfied. In practice, however, no evidence exists to support that individual 'need structures' typically follow Maslow's hierarchy, and that 'unsatisfied needs' motivate – or, 'satisfied needs' incrementally lead to entirely new 'need' levels.

4.3.1 – Green Consumer Decision-Making And Air Travel

In terms of green consumers' air travel decision-making process, the findings of the literature review are rather mixed or inconsistent. A few studies (e.g., Whitmarsh and O'Neill, 2008; Barr et al., 2010; Barr et al., 2011) affirmed a negative association, with individuals who self-reportedly adopted pro-environmental[13] behaviour(s), and/or those who claimed to be more concerned about environmental issues, apparently flying more. Whitmarsh and O'Neill's (2008) work, for example, revealed that people who elsewhere implemented pro-environmental behaviours (such as recycling and switching off lights) fly, and actually fly more, than others – but they are also more likely to compensate for the environmental impact of their travelling habits by participating in schemes that aim to offset the carbon footprint of their flights. To further clarify this rather contradictory finding, Barr et al. (2010) utilised a focus group approach. Following Whitmarsh and O'Neill's (2008) prior study, Barr et al.'s (2010) findings also showed that pro-environmentalists fly, at frequent intervals, but they felt their 'flying sins' was offset by adopting low or zero-carbon land-based transport alternatives on their daily life.

Subsequent findings from another research project led by Barr et al. (2011) also affirmed this negative association between pro-environmentalism and flying – with those who were allegedly 'more concerned' about the environment once again flying more. A more recent

[13] Pro-environmentalism is defined as behaviour which deliberately seeks to minimise the negative impact of one's actions on both the natural and built environment (Kollmuss and Agyeman, 2002).

study by Alcock et al. (2017), who made a clear distinction between self-reported pro-environmental 'household' behaviours (like recycling, switching off lights when not being used and turning the TV off standby) and 'discretionary' flights (air travel taken in pursuit of leisure and recreation), also showed that there was no significant association between people's environmental attitudes, concern around climate change, self-reported pro-environmental household behaviours, and discretionary flights. This unorthodox conclusion seems to agree with prior research led by Randles and Mander (2009), who interviewed frequent flyers about experiences around flight consumption and the climate change debate. Despite some degree of dissonance and discomfort in participants' responses and explanations (over the perceived effect of their frequent flying behaviour on climate) results confirmed a far higher penetration of the flying market (and far higher penetration of the frequent flying segment) by higher income and higher social class clusters. This result confirms that flying remains a privilege of wealthier people – an issue which both prior (e.g., Gower, 2005; Cairns et al., 2006; Barr, 2008) and subsequent research (e.g., National Geographic, 2017 [no page: online]; CNBC, 2017 [no page: online]; Gossling et al., 2019:2) also built upon to reach similar conclusions.

Aero-mobility is unquestionably far from evenly distributed as Hall (2005) argues, both amongst different countries and within different social classes of the same societies (McCabe 2005; Casey 2010). Arguably such a disproportional and uneven distribution of flying is inherently unjust – both in societal terms and from the perspective of the climate change debate (Cairns et al., 2006; Randles and Mander, 2009; Gallet and Doucouliagos, 2014; Buchs, 2017; Alcock et al., 2017). As, on both occasions, it is evident that climate change impacts will continue to disproportionately burden poorer inhabitants in developing nations and working-class low-frequency flyers from developed countries – namely, all those who contribute the least to climate change. For Gossling and Nilsson (2010), this unjust distinction between industrialised and developing nations, or privileged and underprivileged citizens, manifests itself through the privilege of air travel – with those from the former groups enjoying much higher aero-mobility at the expense of the latter. Since most people never fly, numerous sources (e.g., National Geographic, 2017 [no page: online]; CNBC, 2017 [no

page: online]; Gossling et al., 2019:2) correctly highlight the fact that aviation's fast-growing CO_2 emissions, technically correspond to the insatiable travel habits of less than 20 per cent of the world's entire population. From a fairness and equity perspective, such estimates are particularly alarming, because those who contribute the least to climate change are the ones who are unfortunately affected the most, and they are largely anticipated to continue being affected in a highly disproportionate manner if climatic changes intensify any further.

The role of values has also been widely discussed in academic literature around environmental issues and climate change. Values are defined by Schwartz (1994:21) as principles or *"desirable"* standards that are *"varying in importance"*, and are not situation-specific, but they guide people's lives and/or *"serve the interests of some social entity"*. Previous studies on environmental issues and climate change have endeavoured to engage with the broader debate around attitudes and values to justify observed inconsistencies between environmental beliefs and environmental practices. This is identified in the literature surrounding environmental research and social psychology as the theory of the 'value –action' gap. Also known as the 'attitude – behaviour' gap, 'intention – behaviour' gap, 'belief – behaviour' gap, or KAP (knowledge, attitude, practice) – gap. Blake (1999:275) was one of the first UK-based scholars to openly acknowledge the terminological confusion surrounding this area, when he declared that those who studied and reported the differences between "*what people say"* and "*what people do",* often referred to *"attitudes", "opinions", "concerns", "worries", "values", "beliefs", "actions"* and *"behaviour"* – an ill-informed practice which retrospectively, may even have stimulated more confusion than actual benefits.

Ever since, several studies (e.g., Kollmuss and Agyeman, 2002; Barr, 2004; McKercher et al., 2010; McDonald et al., 2015; Alcock et al., 2017) reported increases in global environmental concern but highlighted the fact that these did not essentially result in adjusted environmental engagement with environmental issues like global warming and climate change. McKercher et al.'s (2010) study, for example, identified a significant gap between air travellers' values and actions, with some evidence even suggesting that those who demonstrated better awareness of environmental issues, were less willing or less likely to

change their behaviours. The cluster analysis of this work also labelled frequent international flyers as the most aware cohort of air travellers, in terms of global warming and climate change, despite exhibiting remarkably minimal willingness to change their travel-related habits. Contrastingly, those who McKercher et al. (2010) identified as less-active flyers also appeared to be more willing to fly less. This could be because flying is such an important part of frequent flyer's lifestyle. Additionally, McLachlan et al.'s (2018) study, which focused on assessing whether the environmental impact is a criterion of consumers when selecting an airline, disclosed that air passengers do not exert much pressure for greener flights, simply because they are price-sensitive and thus seek to fly with the cheapest rather than with the greenest airline. In line with this argument, low-cost-carriers (LCCs), contrary to popular beliefs, have essentially empowered well-off flyers to fly even more frequently, apart from allowing people from disadvantaged backgrounds to participate in some flying (Cairns et al., 2006; Randles and Mander, 2009; Alcock et al., 2017; Banister, 2018; Gossling et al., 2020).

On top of the growing evidence surrounding the existence, effects, and implications of the 'value-action' gap, Cohen et al. (2013) have also acknowledged the existence of a second gap. This gap occurs between 'home' and 'away' behavioural practices and poses substantial barriers to changing behaviour(s) around discretional air travel, mostly because it indicates that consumers perceive tourism spaces with 'reduced', 'suppressed', or 'abandoned' environmental concern – in comparison to their everyday domestic scope. In addition to this, most respondents not only divulged lower levels of environmental concern when on holiday, but they also endeavoured to justify their resulting behavioural contradictions (Cohen et al., 2013). This signifies that there was an element of awareness and prior knowledge, in terms of the negative implications of their travel behaviour. Rosenthal (2010) implicitly described this twofold gap between an individual's climate concerns about flying and the numerous personal benefits of tourism and air travel, as 'flyers' dilemma' – a situation whereby a range of ethical, practical and/or moral considerations (related to the air travel decision-making process) are dealt with through each traveller's own inner conflict resolution mechanism which may result in various approaches, ranging from extreme escapism (choose to completely ignore whatever causes feelings of internal conflict), to seeking solutions that

trigger some degree of inconvenience (e.g., modal shift, stop flying) and/or bear additional costs (e.g., flying with the greenest airline rather than the cheapest, participating in VCO schemes). Higham et al. (2014) also studied the 'flyers' dilemma' through a comparative analysis of attitudes towards climate change and discretionary air travel across three European countries – Norway, the United Kingdom and Germany. The findings confirmed that existing discretionary air travel *practices* are profoundly embedded and deeply resilient to change, however, *attitudes* towards the climate catastrophe and *barriers* to behavioural change significantly differ between and within different societies. This result is also consistent with several prior studies that identified income as a major determining factor in relation to flying habits (McCabe, 2005; Cairns et al., 2006; Randles and Mander, 2009; Casey, 2010; Gossling and Nilsson, 2010; Gallet and Doucouliagos, 2014; Buchs, 2017; Alcock et al., 2017; Gossling et al., 2020).

While increasingly evident in academic research and other popular correspondences, responses to the flyers' dilemma remain poorly hypothesised or understood (Higham et al., 2014). On the one hand, there are widespread reports about 'flying shame' (see Gossling et al., 2020; Becken et al., 2021) and research which suggests that we have begun to see *"a 'tipping' of popular discourse against flying for environmental and climate change concerns"* (Randles and Mander, 2009:270). On the other hand, empirical support in favour of this proposition remains rather limited, and largely inconclusive (Higham et al., 2014) based on evidence supported by numerous studies (e.g., Hares et al., 2010; Miller et al., 2010; Cohen et al., 2011; McDonald et al., 2015; Alcock et al., 2017) there is notable reluctance in engaging with responsible tourist and travel behaviour(s), and detaching oneself from 'routine flying' is perhaps one of the most significant barriers for sustainability. Moreover, even those who emerge to adopt pro-environmental practices related to household behaviours in their domestic lives seem to have difficulty in adhering to those values during their air travel decision-making process (Barr et al. 2010; McDonald et al., 2015; Alcock et al., 2017). Then again, perhaps this paradox occurs because specific behaviours concerning discretionary flights can be (or have been) incorrectly interpreted by researchers, as pro-environmental, based on the subject's personal circumstances, rather than environmental

beliefs and actions per se. Monetary and other practical barriers such as household structure (e.g., single-parent, large families) may unavoidably act as controlling factors that curb the number of flights taken due to influencing one's financial ability to engage in certain behaviours (Alcock et al., 2017). In this regard, people with pro-environmental values might seemingly fly more (compared to others), because above-average income is strongly associated with both pro-environmental behaviours like buying organic produce (Dimitri and Dettmann, 2012; Rana and Paul, 2017) and higher penetration of the frequent flying segment (Randles and Mander, 2009; Banister, 2018; Gossling et al., 2020).

Yet, as much of the literature (e.g., Schultz et al., 2005; De Groot and Steg, 2009; Buchs, 2017) on values and environmental behaviour(s) argues, there is a clear distinction between 'self-transcendent'[14] and 'self-enhancing'[15] values – with the former, as akin to the concept of 'rising above oneself', understood to be much closer linked with environmentally-friendly behaviour(s) as opposed to the latter. Even so, many academics (e.g., De Groot and Steg, 2009; Howes and Gifford, 2009; Crompton and Kasser, 2010; Buchs, 2017) have debated that people habitually identify with a number of different values – additionally, these values are usually subject of continuous prioritisation, which a lot of the time is rather context-specific – despite Schwartz's (1994) 'trans-situational' approach to the definition of values. This hypothesis links back to academic literature around the 'value-action' gap. Nonetheless, while some individuals continue to fly irrespective of their concerns about the effect(s) of air travel on climate change, there are also examples of people who voluntarily reduce, substitute, or completely abandon flying as a result of this environmental consciousness.

[14] Self-transcendent values are strongly related to universalism (the philosophical and theological notion that some ideas or ideals have universal rather than relative importance or applicability) and are defined as those values which incorporate both altruistic (e.g., concern for the well-being of others, social justice, equality) and environmental concerns (Stern and Dietz, 1994; Stern et al., 1999; De Groot and Steg, 2009; Buchs, 2017).

[15] Self-enhancing values are defined as values that focus on the financial, status or power-related benefits for the individual and are thus understood to be less relevant or important for motivating environmentally-friendly behaviour(s) (De Groot and Steg, 2009; Crompton and Kasser, 2010; Corner and Randall, 2011; Howell, 2013; Buchs, 2017).

In line with this argument, several studies (e.g., Davison et al., 2014; Hinnen et al., 2015; McDonald et al., 2015; Buchs, 2017) have also shown a degree of positive association amongst those with pro-environmental attitudes and air travel. Davison et al.'s (2014) hierarchical cluster analysis, for instance, identified four environment-based segments, two of which were found to share similar responses to five attitudinal statements around the environment and air travel. Observed similarities in the responses of these two groups highlighted that market segmentation plays a key role in identifying what normative influences, personal values, and psychological factors (which typically affect attitudes and behaviours towards flying) should be considered when somebody wishes to align views on household pro-environmental behaviours (e.g., reducing energy used at home or choosing energy-efficient ways of travelling on a daily basis) with those found in discretionary air travel. This concurs with Hinnen et al.'s (2015:2) results which showed that *"a green segment"* certainly exists in aviation – this green segment displays a much higher self-reported willingness to pay (WTP) for greener supplementary services and/or products, such as participation in VCO schemes, purchasing of direct low-carbon hotel transfer(s), buying organic in-flight meals and sustainable travel packs – compared to those in the *"regular segment"*. This *"green segment"*, as identified by Hinnen et al. (2015) – and contrary to what Alcock et al. (2017) support – is more likely to implement or have implemented numerous other pro-environmental behaviours like purchasing energy efficiency goods, fair-trade and/or locally-sourced food, switching to a green tariff and/or electric land-based transport too. As Hinnen et al.'s (2015) research exposed carbon offsetting comprised a priority of the highest importance for those in the "green segment" – with the majority of respondents opting for a home-market VCO scenario rather than an international project based in developing nations.

This result stands in stark contrast to Choi and Richie's (2014) study which showed a higher WTP for global VCO instead of domestic. Hinnen et al.'s (2015) findings also appear to disagree with a few other explorations (e.g., Mair, 2011) regarding green consumers' demographic profile – as, no clear association was found by Hinnen et al. (2015) between socio-demographic criteria and a higher WTP for carbon offsets. This outcome is, in fact,

highly contradictory, if one considers that Hinnen et al.'s (2015) study also revealed a much higher penetration of the green segment, in relation to higher travel class – with the majority of those who were included in the green segment, reportingly flying in business class – a finding which was justified by the authors through the presumption that higher-value travellers may display a higher WTP for carbon offsets (and other supplementary services and/or products in air travel) due to experiencing a higher level of guilt for their own contribution to climate change.

Another interesting association between consumers' rationale(s) for environmentally friendly behaviour (s) and air travel was reached through McDonald et al.'s (2015) findings about flying – in defiance of environmental concerns. While, this study showed that some of those who are self-reportedly considered as green consumers continue to fly, without attempting to change their travel behaviour at all – many, emerge to have reduced/restricted flights or have completely stopped flying due to concerns around the negative implications of flying on the environment. This finding indicates that there is a broad spectrum of ways through which green consumers might rationalise their resulting behaviour(s) in situations when social norms are fragmented. Discretionary air travel is a prime example of this fragmented coherence in societal conduct – and perhaps, VCO schemes comprise another prime example of this fragmentation between green consumers' values on pro-environmental issues and their actual travelling conduct.

However, values (much like the patterned social arrangements in society) are equally emergent from and determinant of individual behaviours. Despite the research that investigators like Diekman and Preisendorfer (2003), Whitmarsh and O'Neil (2010), Barr et al. (2010) and Cohen et al. (2013) have conducted on the role of values in supporting the adoption of environmentally-friendly behaviour(s) – the role of environmental values, in the context of VCO, has been largely understudied up until now. The nearest empirical research in this subject area was conducted by Buchs (2017) who investigated the role of values in reducing air travel taken in quest of leisure and recreation. While debates surrounding the 'value-action' gap have now begun to shift away from cognitive philosophies, concerning how individuals formulate their attitudes and/or plan their behaviour, in a rational and

systematic manner – and, perhaps much closer to what Blake (1999) defined as the socially-constructed nature of environmental values – empirical research, still seems to remain strongly grounded in cognitive theory models, with only a few and scarce exemptions (Randles and Mander, 2009; Cohen et al., 2013; Buchs, 2017) who made an effort to expose the sociological significance or explanation 'beneath' those behaviours.

4.4 – Review of the Theoretical Background on 'Value – Action' Gap

Thus far this thesis' literature review on consumer behaviour acknowledges that a wide range of accounts and justifications exist in relation to discretionary air travel. It also highlights that the relationship between concerns over environmental degradation and sustainable consumption remains admittedly weak – particularly, in terms of air travel purchasing decisions. As a result, an overarching understanding of the perceptions of environmentally conscious consumers towards mitigation strategies, which primarily necessitate voluntary participation, is lacking. To shed more light on this well-acknowledged gap between people's environmental values and resultant actions over environmental concerns, a critical review of theories underpinning micro-economics ('Theory of Consumer Choice and Behavioural Economics'), marketing research ('Theory of Consumption Values'), and social psychology ('Theory of Reason Action' and 'Theory of planned Behaviour') is imperative. This is subsequently followed by a review of the theoretical background on actors of pro-social behaviour.

4.4.1 – Theory of Consumer Choice and Behavioural Economics

The theory of consumer choice represents the branch of economics, and precisely microeconomics, that analyses preferences to consumption expenditures as measured by demand curves (Paco et al., 2019). What consumer choice theory attempts to explain is why people purchase goods and/or services. In doing so, it conjectures that people choose to buy those products, goods, and/or services that offer maximum satisfaction – subject to disposable income and other monetary constraints (Maniatis, 2016; He et al., 2016). According to what is branded in economics, as the 'law of supply and demand', consumption rates typically decline as the price of the products, goods, and/or services

increases. When prices suddenly increase, usually consumers tend to choose cheaper alternatives to substitute those products, goods, and/or services – this is termed as the 'substitution effect'. If no change occurs to compensate for the upsurge in prices, there is a higher likelihood to experience a decline in overall purchasing power, which may also result in further decline, in terms of the number of products, goods, and/or services demanded – this is known as the 'income effect'. On the other hand, when wealth increases, the demand for products, goods, and/or services also increases, triggering a further shift in the demand curve – in addition to instabilities in pricing.

At the core of this theory, three fundamental assumptions about human nature exist (Maniatis, 2016; He et al., 2016; Paco et al., 2019). The first assumption accepts that *"consumer choices depend on the budget available and their preferences against the underlying principle that consumers are completely rational"* (Paco et al., 2019:998). This suggests that when consumers buy products, goods, and/or services they choose what to purchase based on calculated decisions about what will satisfy them, or what is the best value for money – this is referred to as 'utility maximisation'. The second assumption accepts that regardless of how much people buy they will never feel totally satisfied and thus will always seek to purchase more products, goods, and/or services – this is referred to as 'non-satiation'. The third assumption accepts that the amount of happiness and pleasure consumers experience by buying products, goods, and/or services is declining as consumption patterns increase – this is termed as 'decreasing marginal utility'.

While, the theory of consumer choice and behavioural economics has certainly influenced a lot of different sectors and agendas, ranging from corporate advertising, to government policy and scholarly research – strong criticisms, regarding its limitations, have also been raised. Thaler (1980) as one of its most prominent critics argues that consumer choice is based on a rational economic model, and thus fails to provide an accurate description of how human beings make choices. He strongly argues that an emotional component is likely to be involved in consumers' decision-making process, but it is impossible to capture in an economic function because humans are predictably irrational in ways that defy economic theories. This criticism subsequently led to the advent of a completely new branch of

economics, known as 'behavioural economics', which emerged to contradict deep-rooted assumptions behind consumer choice by utilising conclusions reached through the field of psychology. The focus of behavioural economics lies on the effects of different psychological, cognitive, emotive, and socio-cultural factors on the decision-making process, as means of investigating how consumer decisions differ from those originally inferred by the theory of consumer choice (Teitelbaum and Zeiler, 2018). Insights from this branch of economics highlight key areas for new academic research, but they also contribute to the broader understanding of consumer behaviour and green consumerism, as a form of sustainable consumer behaviour.

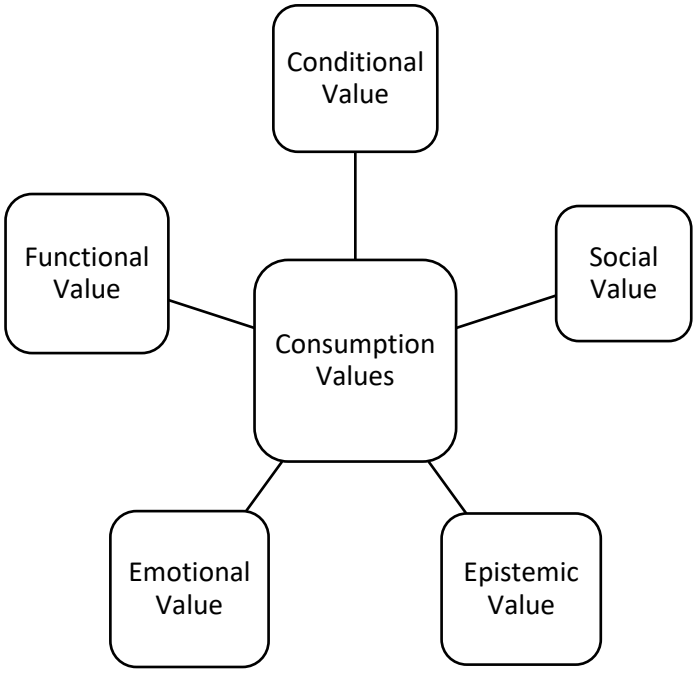
In the context of travel and tourism, what research on the theory of consumer choice and behavioural economics has affirmed to date (Pizam and Mansfeld, 1999; Urry, 2002; Urry, 2010; Reisch and Sunstein, 2015; Reisch and Zhao, 2017) implies that the marginal utility of travelling actually increases, instead of decreasing in line with consumer choice. This suggests that the more people travel the more they want to travel, because it can be addictive (Rosenthal, 2010; Cohen et al., 2011; Gossling and Stavrinidi, 2016) – this affirmation stands in stark contrast to the principle of non-satiation – which assumes that the levels of satisfaction drop with each subsequent purchase. In addition to this, travel and tourism-related studies have also shown that people who travel frequently seek utility maximation, in fulfilment of emotional rather than practical motives (Swarbrooke and Horner, 1999; Randles and Mander, 2009; Barr et al., 2010; Urry, 2011; Horner and Swarbrooke, 2011). In some ways, these unique characteristics evidently confirm the truly irrational ways, in which human beings defy what classical economic theories support. The idea that people's choices, as well as decisions, are influenced by their consumption values is elaborated next.

4.4.2 – Theory of Consumption Values

The theory of consumption values was developed to further explain why consumers make the choices they do. The underlying principles behind this theory were set forth by Sheth et al.'s (1991:159-170) pioneering work on *"why we buy what we buy: a theory of consumption*

values" – from this viewpoint, consumption behaviours are essentially a function of multiple consumption values. While significant differences between each consumption value exist, consumption values are independent of one another. In line with this, what Sheth et al. (1991) accept is that five consumption values are largely responsible for influencing behaviour(s) surrounding consumer choices. Figure 12 illustrates Sheth et al.'s (1991) five consumption values – functional value, conditional value, social value, emotional value, and epistemic value.

Figure 12 - Consumption Values



Source: Adapted from Sheth et al., 1991:160

In any given scenario, consumers' decision-making choices may be influenced by any or all of these five consumption values. In definitional terms, functional value describes

> [t]he perceived utility acquired from an alternative's capacity for functional, utilitarian, or physical performance. An alternative acquires functional value through the possession of salient functional, utilitarian, or physical attributes. Functional value is measured on a profile of choice attributes.
>
> (Sheth et al., 1991:160)

Functional value is understood to be a primary driver of consumer choice. The functional value of an alternative derives from its unique 'characteristics' or 'attributes' which according to Ferber (1973) consist of reliability, durability, and price. This popular assumption underpins several prevalent economic theories such as 'supply and demand' and 'marginal utility' as developed by some of the most influential economists (see Marshall, 1890; Stigler, 1950) of the eighteenth and nineteenth century respectively. On the other hand, conditional value is defined as

> [t]he perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker. An alternative acquires conditional value in the presence of antecedent physical or social contingencies that enhance its functional or social value. Conditional value is measured on a profile of choice contingencies.
>
> (Sheth et al., 1991:162)

Many products, goods and/or services have an admittedly high dependency on conditional value. In the context of travel and tourism, for example, a holiday to Lapland (and other destinations associated with Christmas markets and celebrations) is heavily reliant on conditional value to enhance its seasonal value. In similar ways to functional value, conditional value has also influenced many areas of inquiry. One of the most notable influences of an inquiry area, for the purpose of this study, was developed through Howard and Sheth's (1969) work on defining 'construct inhibitors' as non-internalised forces that impede buyers' preferences. Sheth (1974) extended this work further through his 'attitude-behaviour' relationship model – a relationship model which essentially recognises that

"behaviour cannot be accurately predicted on the basis of attitude or intention alone" (cited in Sheth et al., 1991:162). Ever since, numerous researchers (e.g., Fishbein and Ajzen, 1975; Park, 1976; Bearden and Woodside, 1977; Hini et al., 1995; Blake, 1999; Barr, 2007; Barr et al., 2010; Davison et al., 2014; Alcock et al., 2017; Cerri et al., 2018) have also examined this controversial relationship between attitude(s) and behaviour(s) – as the literature review of this study has explicitly conferred on a number of occasions until now. Social value, as another important alternative, is defined as

> [t]he perceived utility acquired from an alternative's association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. Social value is measured on a profile of choice imagery.
>
> (Sheth et al., 1991:161)

In Sheth et al.'s (1991) opinion, choices which entail purchasing high-visibility, high-status products (e.g., luxury fashion clothing and jewellery), goods and/or services to be shared with family, friends, and colleagues (e.g., holidays, cars, gifts, and electronic gadgets) are frequently driven or motivated by social value. For example, Tesla as a luxury or premium electric brand of automobiles is likely to be chosen by better-off members of the public, more for the social image it evokes, than for its functional performance, and on this occasion for its environmental credentials. Even products, goods, and/or services generally recognised as fully functional or utilitarian, in the context of industrialised societies, like kitchen appliances (i.e., fridge, cooker) are often purchased based on their social value. Veblen (1899) eloquently described this phenomenon as the 'symbolic' or 'conspicuous' value of consumption – a value which by all reasoned means seems to far exceed the designated functional utility of the product, good, and/or service itself.

A significant part of this ground-breaking research, in terms of social value and its wider implications, in relation to the hierarchy of social class, was conducted many decades ago, and specifically in 1941 by Warner and Lunt. This investigation exposed a wide range of implications for social values in terms of consumer choice, based on the societal division

between superior and inferior social classes. Some of the implications of Warner and Lunt's (1941) research are remarkably still applicable nowadays – both, across different parts of the globe and within societies bound by the same national borders. For many (e.g., Piketty, 2013; Alvaredo et al., 2017; Borissov and Pakhnin, 2018), global inequalities have sharply risen further in recent decades, and according to the same empirical evidence it is understood to have reached its highest levels during this decade. From a travel and tourism perspective, air travel is also strongly associated with affluent and higher-class individuals (Gower, 2005; Whitmarsh and O'Neil, 2008; Randles and Mander, 2009; Banister, 2018; Gossling et al., 2020). However, as Horner and Swarbrooke (2011) argue, decisions to undertake air travel or book a holiday, are largely of emotional importance or value. Emotional value is defined as

> [t]he perceived utility acquired from an alternative's capacity to arouse feelings or affective states. An alternative acquires emotional value when associated with specific feelings or when precipitating or perpetuating those feelings. Emotional value is measured on a profile of feelings associated with the alternative.
>
> (Sheth et al., 1991:161)

What is more, emotional value has been influenced by both conceptual and practical examinations in various relevant areas of inquiry. Work on impetus, as conducted by Dichter (1947), for instance, was instrumental in advancing views around non-cognitive and unconscious motives, which tend to act as drivers in consumer choice. Against this backdrop, Rahnama and Rajabpour's (2017) recent work proposes that through the utilisation of emotional value, the consumption behaviour(s) of 'niche' market segments (like green consumerism) can be predicted by eliciting emotional responses to emotional values. This latter account is evidently of particular interest for this study because emotional values are seen as a key component of provoking those exact emotional responses to values that could prompt the required change in order to 'bridge' the gap between environmental values and environmental actions towards environmental issues. While emotional value has a substantial effect on the role of functional value, conditional value, and social value – epistemic value as Sheth et al. (1991) argue – often acts as a conflicting force through which

the effect of emotional, social, conditional, and functional values is moderated. *C*uriosity, novelty-seeking, and variety-seeking motives are commonly associated with epistemic value – because seeking 'new' experiences contributes to human knowledge. In line with this, epistemic value is defined by Sheth et al. (1991:162) as *"the perceived utility acquired from an alternative's capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge"*. The theory of reasoned action is examined next.

4.4.3 – THEORY OF REASONED ACTION

To explain the relationship between attitudes and behaviours within human action, Fishbein (1967) developed the theory of reasoned action (also known as TRA). Ever since TRA has been employed by various scholars across different disciplines as a way of predicting how individuals will act based on their attitudes and behavioural intentions. In summary, Fishbein's (1967) theory infers a hypothetical relationship between one's attitudes and behaviours – according to which, an individual's decision to engage in a particular behaviour is ultimately drawn upon the outcomes (or benefits) that the person anticipates will arise, because of carrying out that specific behaviour. In this regard, TRA accepts that behaviour can be predicted through the systematic consideration of three significant parameters. The intention is understood to be the prime stimulus of behaviour – TRA supports that an individual's intention to achieve a specific behaviour is the main predictor of whether that behaviour will be accomplished. This is to say that an individual's intention to perform a certain behaviour precedes their actual behaviour, this assumption explains why it is often referred to as 'behavioural intention'. Fishbein (1967) describes behavioural intention as a key component of both attitudes and subjective norms towards that behaviour.

The remaining two parameters of Fishbein's (1967) TRA are represented by attitudes and norms. The former typically expresses what individuals feel towards a particular behaviour and can be influenced by two factors. The first factor influencing attitudes is the strength of one's behavioural beliefs about a certain behaviour; while, the second influencing factor entails the evaluation of the potential outcomes – with attitudes towards specific conduct

being positive, neutral, or negative. Moreover, TRA hypothesises the existence of a direct correlation between attitudes and outcomes. In this regard, if one believes that a certain behaviour will lead to a desirable/favourable result, then that person is more likely to have a positive attitude towards it as well. For example, if someone believes that regular exercise leads to better health and/or an improved body image, they are also more likely to start exercising regularly. Likewise, if someone believes that exercising on a regular basis will have no health-related benefits, it is also more likely to have a negative attitude towards exercising regularly too. The stronger the attitude and the more positive the outcome, the higher the 'attitude – behaviour' relationship is anticipated to be. To this end, behavioural belief underpins people's motivations, because their attitudes and behavioural intention depends on the consequences of that behaviour. This idea stipulates that individuals tend to draw a parallel between the act of certain behaviour and the outcomes of the act. In this way, stronger intentions lead to an increased effort to perform a specific behaviour, which also increases the likelihood for that specific behaviour to be performed.

Social (or else subjective) norms similarly tend to influence the hypothetical relationship between attitude and behaviour – which successively contributes to whether a person will result in performing the intentional behaviour. Depending on the individual and the situational scenario, the attitudes towards the act and the social norms associated with the act, are unlikely to carry equal weight in predicting behaviour. For example, some studies have shown that direct prior experiences with a certain activity manifestly result in an increased weight on the attitude component of the behaviour intention function. In this regard, predicting people's voluntary behaviour by examining the underlying rudimentary motivation to perform a certain act, cannot be seen as a way of consistently obtaining reliable information which can be used to predict human behaviour with accuracy. For that reason, TRA was subsequently revised and further extended by the same two theorists to overcome existing discrepancies in the 'attitude – behaviour' relationship. This whole process resulted in the development of the theory of planned behaviour (TPB) which is discussed next.

4.4.4 – Theory of Planned Behaviour

The theory of planned behaviour (TPB), much like the TRA, focuses on identifying the links or relations between one's beliefs and behaviour. TPB, relies heavily on TRA, as it accepts TRA's hypothetical relationship between an individual's attitudes, subjective norms, and behavioural intentions. However, TPB also differs from TRA, as to what Ajzen (1991) describes as the 'perceived behavioural control'. The notion of the 'perceived behavioural control' was essentially introduced by Ajzen (1985), as means of refining the predictive power of the TRA. In this way, TPB entails people's 'non-volitional' behaviour (i.e., behaviour which cannot be simply regarded as a matter of free choice) – unlike the TRA, which did not differentiate between 'volitional' and 'non-volitional' behaviours. Against this backdrop, 'volition' (or will) is described as a predominantly cognitive process, through which individuals choose and pledge to a particular course of action. Yet, 'volitional' processes can either be consciously applied or be automatized as habits over time (Heckhausen and Kuhl, 1985; Gollwitzer and Brandstatter, 1997; Ajzen, 2002). However, one's behavioural intention cannot be exclusively represented by 'volitional' behaviours. 'Non-volitional' behaviours, as determinants of behaviour in situations where an individual's control over the behaviour is limited, by the perceived behavioural control, must similarly be acknowledged as influences on the relationship between behavioural intention and actual behaviour.

In terms of TPB's limitations, critics contend that cognitive processes happen to be, inherently far too complex to be explained through the theory of planned behaviour (and the theory of reasoned action). While the TPB has helped to advance the predictability of intention in certain fields (e.g., health-related research – See Sheeran and Taylor, 1999; McConnon et al., 2012), it fundamentally overlooks an individual's 'needs' before engaging in a certain action – yet, 'needs' might influence predicted behaviour despite expressed attitudes. To illustrate this point with an example, someone might have a positive attitude towards veganism – but, not be vegan due to a pre-existing health condition or because of seeking the approval and friendship of a group of committed non-vegans. Furthermore, an individual's emotions at the decision-making point, are largely ignored by the TPB (and the

TRA), regardless of their significant influence (e.g., emotions can affect beliefs) and close relevancy as determinants of other constructs that are explicit (or implicit) parts of these two models. On top of this, research from the field of environmental psychology (see Koger, 2010) comes to highlight that after behavioural intentions are formed, attitudes, social norms, and perceived behavioural control can and do frequently change – usually, to the point that either a sudden or a gradual shift is observed. This challenges the fundamental hypothesis behind the assumption that intentions and behaviour are merely consequences of attitudes, social norms, and perceived behavioural control. These limitations thus indicate that the relationship between the main elements of the TRA — attitudes, social norms, and behavioural intention – and, TPB's main component of perceived behavioural control, in effect, does not represent a 'one-way' process, but a 'two-way', bi-directional function (Sussman and Gifford, 2019).

While the TPB has been applied to numerous studies and projects that focused on exploring the relationship between beliefs, attitudes, behavioural intentions and behaviours, in several different fields including in advertising, healthcare, sports management, public relations, consumer behaviour, and environmental sustainability – its application, as far as environmental issues are concerned, appears to be rather contradictory and on that basis should perhaps not be employed for that purpose. This recommendation is made based on the findings of prior research (see Kollmuss and Agyeman, 2002; Randles and Mander, 2009; Whitemarsh and O'Neil, 2010; McKercher et al., 2010; Barr et al., 2011; Cohen et al., 2013; Davison et al., 2014; McDonald et al., 2015; Buchs, 2017; Alcock et al., 2017; Paco et al., 2019) on attitudes and behaviours surrounding global environmental issues which underlined the gaps, challenges, and constraints, of acting in an environmentally responsible manner at all times.

Even so, responsible (or sustainable) behaviours are widely promoted as acts that carry normative[16] beliefs. Nevertheless, behavioural intention to practise such beliefs and/or behaviours is likely to be significantly hindered by an individual's perception of whether a positive change could be induced through their own behaviour (Kollmuss and Agyeman, 2002; Stern, 2005; Koger and Winter, 2010). As Kollmuss and Agyeman (2002) advise, most people tend to exhibit what is known as a strong 'external locus of control' – by feeling that their actions are insignificant they convince themselves that positive change can only be brought about by powerful others. Since, the intention to adopt a pro-environmental behaviour is strongly associated with a person's attitudes towards climate change, perceived behavioural control, and subjective norms – low behavioural control in conjunction with high levels of constraints – could compromise predicted behaviour despite expressed attitudes. Applying the TPB in this situational context has admittedly little value. The theoretical background on pro-social behaviour is discussed next, in an attempt to confer what else may motivate people to act in line with their expressed attitudes and behave in environmentally responsible ways.

4.5 – Review of the Theoretical Background on 'Pro-social' Behaviour

Aronson et al. (2004:382), define pro-social behaviour as *"any act performed with the goal of benefiting another person"*. In Penner et al.'s (2005:366) opinion, pro-social behaviour *"represents a broad category of acts that are defined by some significant segment of society or one's social group as generally beneficial to other people"*. This last definition extends the meaning of Aronson et al.'s (2004) earlier description of pro-social behaviour, by bringing two very important determinants into the reckoning – society and social setting. In doing so, not only it highlights the implications at a societal level, but it also recognises the diversity of influences that promote actions for the benefit of others. Alcock and Sadava (2014) go a step further to argue that pro-social behaviour refers to actions carried out to assist other people without being motivated by external incentives – such as rewards, or

[16] Normative beliefs are defined as the beliefs of individuals on the extent to which other people who they consider important to them (e.g., family and friends) consider they should or should not perform particular behaviours.

fear of negative repercussions for not participating in an activity. In this regard, whether an act is seen as pro-social wholly depends on the attributions made by the individuals. Pro-social behaviour can take many shapes (e.g., volunteering, direct help, environmental action, protesting to bring about positive social change, emergency intervention) over a broad continuum that ranges from the most selfless acts of altruism to those seemingly 'good deeds' that might be wholly, or partially motivated by self-interest (Taylor et al., 1997).

Carlo and Randall (2002) identified six different types of pro-social behaviour which are reliant on personal and situational factors, including:

- Altruistic pro-social behaviours (one person voluntarily helps another)
- Compliant pro-social behaviours (a person helps another because she/he is asked to do so)
- Emotional pro-social behaviours (people help others in highly emotionally evocative situations e.g., when someone falls ill or loses a job)

These first three types of behaviours are understood to be positively associated with sympathy, perspective-taking, as well as high-levels of internalised pro-social moral reasoning.

- Anonymous pro-social behaviours (in which help is offered on the condition that anonymity will be maintained)
- Dire pro-social behaviours (help is given in response to an emergency, or crisis situation e.g., natural disaster, civil war etc.,)

These two types of behaviours are understood to be positively associated with sympathy, perspective-taking, and other focus.

- Public pro-social behaviours (are motivated by the possibility of gaining respect and/or approval from others – this type of behaviour is performed in front of an audience to enhance one's feelings of personal self-worth)

This last type of behaviour is understood to be negatively associated with sympathy, perspective-taking, and high levels of internalised pro-social moral reasoning, but it is positively associated with low levels of pro-social moral reasoning. Carlo and Randall (2002) refer to these six types as 'pro-social tendencies', as they measure individuals' likelihood of acting pro-socially in various contexts. Against this backdrop, a number of different tactics could be utilised to promote pro-social behaviours among air travellers. Moral elevation, nudge theory, taxation, VCO schemes, and carbon rationing are specifically considered as part of this chapter's focus on consumer behaviour, green consumerism and the 'value – action' gap.

4.5.1 – Moral Elevation

Moral elevation stimulates those who experience it to open up to, affiliate with, and/or help others – it is experienced as a distinct feeling of warmth and expansion which is accompanied by appreciation and affection for the individual whose exceptional conduct is being observed (Pohling et al., 2019). In Algoe and Haidt's (2009:106) words, moral elevation describes *"a positive emotion experienced when witnessing a virtuous act, one that improves the welfare of others"*. Moral elevation (as an emotional feeling) is thus considered an active component, in the process of linking together motivations around environmental issues. While moral elevation might not change an individual's immediate behaviour, it is possible to modify people's cognitions and impetuses, in ways which are making it easier for them to perform pro-social acts – especially if such opportunities present themselves in one's close environment.

Since moral elevation can make individuals feeling lifted and more optimistic about humanity as a whole, it largely triggers positive emotions. Positive emotions are fundamentally different from negative emotions. While, negative emotions narrow down an individual's focus and/or attention to just solving the problem at hand – positive emotions, in contrast, broaden a person's perspective and act as an impetus for the individual who is experiencing them (Fredrickson, 1998). However, extreme exemplars of moral elevation can also trigger what is referred to as a 'contrast effect' – an unconscious

bias naturally occurring when two people or effects are judged in comparison to one another, rather than being judged at an individual level. When people begin to compare themselves with others, their perceptions about their own merit are likely to change, either for the worse if they perceive themselves as vastly inferior to the exemplar (Dijksterhuis et al., 1998 – or, for the best if they perceive themselves as exceedingly superior to the exemplar (Shiota et al., 2014). Nudge theory, an approach that advocates pro-social behaviour, through positive reinforcement and other indirect methods is examined next.

4.5.2 – NUDGE THEORY

Nudges essentially enable people to make better decisions by indirectly offering them choices that have been designed to facilitate these outcomes (Tyers, 2016). As a form of pro-social behaviour, 'nudging' increases the likelihood that individuals will make a certain choice or behave in a particular manner by changing the environment – in a way that automatic cognitive processes are stimulated to favour the desired outcome (Saghai, 2013; Parkinson et al., 2014). In Saghai's (2013) opinion, nudges are thus considered as small changes in the environment that are both relatively easy and comparatively inexpensive to implement. From Tyers's (2016) point of view, different techniques to 'nudging' exist – these, do typically range from social proof heuristics and the usage of default settings (commonly seen in online purchasing environments) to simpler options like that of increasing the salience of the desired choice.

In the context of social proof heuristics, nudges modify the environment so that when the 'heuristic', or System 1 decision-making process is taking place, the resultant choice will be advantageous to the party who produced that specific set of choices (Campbell-Arvai et al., 2014). Examples of social proof heuristic nudging revolve around the practice of encouraging people to look at how other people are acting, in different social situations or settings. During the COVID-19 pandemic, for instance, people have been looking at how members of the Parliament conduct themselves – actions like, whether they were self-isolating when needed, and/or wearing masks before (and after) mandatory measures came into effect. In this case, one could argue that the nudge theory approach perhaps failed to trigger the desired outcome, because of observed incompliant behaviours on

behalf of the politicians, and general lack of consistency, in terms of communication with the public. This highlights the importance of the environment and the impact that people who fall under the group of 'exemplar behaviour' might have on the rest of the society if they fail to lead by example. Obviously, this hypothesis has explicit implications outside the context of the pandemic as well – since, it could be easily considered as an inhibiting factor for the much-desired pro-environmental change that societies are in desperate need of. From this point of view, if political leaders and all members of the parliament were leading an environmentally-friendly lifestyle, citizens would most likely replicate that sort of behaviour too.

In the context of pro-environmental behaviour and air travel, numerous studies (e.g., Laroche et al., 2002; Becken, 2007; Randles and Mander, 2009; Hares et al., 2010; Cohen and Higham, 2011; McDonald et al., 2015; Alcock et al., 2017; McLachlan et al., 2018; Gossling et al., 2019) have concluded that most people only act in agreement with their environmental concerns, when pro-environmental actions do not come at their own personal expense or do not require substantial lifestyle sacrifices (such as quitting flying). Kahneman and Tversky (1979) justified this behavioural inconsistency by assigning the human-led process of processing information to the existence of two completely different functional systems upon which humans rely when they need to process information. System 1 is described as fast, automatic, and highly susceptible to environmental influences; while, System 2 follows a slow, reflective approach, whereby clear goals and intentions are taken into consideration too. System 1 is programmed to kick in and override the individual's prior decision-making process when overly complex or overwhelming situations (for an individual's cognitive capacity) arise, during which the individual is confronted with various pressures including time constraints, limited finances, and conflicting values.

Now, as System 1 processing heavily relies on numerous 'judgmental heuristics' to make decisions, resulting in a faster decision-making process, sub-optimal decisions are often made through this overrule. Thaler and Sunstein (2008) locate this sort of maladaptive behaviour, to situations in which System 1 processing, overrules an individual's profound

values and goals. Then again, numerous studies on cognitive dissonance (e.g., Festinger, 1957; Aronson, 1969; Eagly and Chaiken, 1993; Thogersen, 2004) have shown the human desire for consistency is innate, and that individuals experience discomfort or internal conflict when their actions do not agree with their pre-existing values (McDonald et al., 2015). In that sense, habitual behaviours are likely to be highly resilient to change, without a sort of disruption to the environmental cues that prompt those behaviours (Campbell-Arvai et al., 2014). In fact, when 'nudging' was employed as part of Tyers's (2016) investigation on the usage of nudges to promote VCO for air travel, evidence suggested that it had a negligible utility in promoting this target behaviour. This implies that in situations in which the interests of citizens-consumers, and those of the environment, or society, are not in convergence, nudging might be insufficient as a driver of pro-social behaviour.

In terms of the usage of default settings, a nudge 'by default' option describes a situation in which an individual must take action to change the pre-assigned value of the default setting – if, the individual does nothing to change it, then the pre-assigned value of the default setting is automatically offered or applied. Pichert and Katsikopoulos's (2008) examination tested this nudge 'by default' approach, in the context of renewable energy tariffs. Their findings showed that more consumers opted for the green electricity tariff when it was offered as a default option compared to when it had to be selected by the individual. Of course, one could argue that this does not necessarily mean that all those who happened to opt for the more environmentally-friendly tariff were consciously undertaking action against less environmentally-friendly alternatives. This implies that nudges 'by default' are not necessarily accompanied by behavioural changes – as many of those who tend to go ahead with a default value or setting may not be explicitly aware of it. In addition to this, setting nudges 'by default' can pose a significant risk to companies – since it might result in increased customer complaints/negative customer experience, or even lawsuits if consumers decide to pursue legal action – both of which come at a high cost for companies (Goldstein et al., 2008).

As far as increasing the salience of the desired choice is concerned, examples of 'nudging' include switching the placement of junk food in food and retail – so that healthier choices are kept on the shelves which are located at the individual's direct eyesight level and/or next to the cash register, whereby many spontaneous last-minute purchases take place. As Kroese et al.'s (2016) and Van Gestel's (2018) studies confirmed, this type of nudge approach has a positive effect on the consumption of healthier foods, and it is therefore generally regarded as an effective way of influencing consumers to purchase fruit and healthy snacks. In the context of this study, 'nudging' by increasing the salience of the desired choice could entail promoting VCO in ways that highlight or make particularly noticeable the importance of participating in such initiatives from a climate change mitigation perspective. In the opinion of Hoenink et al. (2020), salient nudges only work if they are accompanied by equally salient changes in pricing strategies. In reality, however, salient nudges are rarely followed by salient changes in pricing strategies. As a result, salient nudges are likely to be less effective for individuals from low-income households when compared to those from higher-income households (Hoenink et al., 2020). This raises the question of whether salient nudges, unaided by other means, are capable of bringing the desired outcome and/or result in anticipated long-lasting behavioural changes.

4.5.3 – TAXATION

For many centuries, taxation has played a fundamental role in raising money, originally as part of a funding mechanism for monarchs, emperors, and other sovereigns. More recently, it is regarded as one of the main functions of Parliament, to support the Government in obtaining funds to run public and social services such as schools, hospitals, defence, and welfare (Parliament, 2019). Under parliamentary laws and regulations, many types of different taxes and systems of collecting it exist. In the United Kingdom, it is Parliament's responsibility to reflect upon, endorse, and safeguard that all funds collected through different taxation mechanisms are distributed in the Nation's best interests. From pre-war to post-war times, many different taxes have been periodically levied or abolished accordingly. In the light of the climate crisis environmental taxation has recently been brought under the spotlight on numerous occasions, through campaigning, protesting, and

lobbying. In response to this crisis, a growing trend towards low carbon transport has begun to emerge, driven by tax exemption incentives and changes in legal frameworks. As of April 2020, for example, the owners of Battery Electric Vehicles (BEVs) are exempt from paying vehicle road tax; whilst, the owners of conventional vehicles such as those with diesel and petrol engines are subject to a stricter taxation system which is based on CO_2 emissions. The government also announced that all new build homes and existing residential and/or non-residential buildings with more than ten car parking spaces would need to be fitted with electric car charge points – as a part of forthcoming mandatory updates on existing building regulations (DfT, 2019).

While, aviation as a key contributor to both transport and climate change has been classified as a top priority of the global political agenda for the past few decades, taxing airlines and/or passengers could potentially slow down aviation's exponential growth. A decline in air travel would most likely be accompanied by reduced demand for tourism, business travel, and other recreational activities (IATA, 2019) – leading to a general decline in Gross Domestic Product (GDP) (Faber and Huigen, 2018). The COVID-19 pandemic, which began as the SARS-CoV-2 virus spread from the Chinese province of Wuhan to the rest of the world, has given humanity a quick insight into the economic consequences when the demand for air travel drastically falls. Secondly, it is not clear if low-income earners (who typically fly less) would be hit harder through taxation than high-income individuals (who typically fly more frequently and further away). This depends on what type of tax system is followed. Proportional taxes (also referred to as 'flat rate') are usually the same for all individuals regardless of income; whilst, progressive taxes impose a greater percentage of taxation on those with higher-income levels. Obviously, an incorrect or unjust choice of tax system entails the danger of deepening pre-existing inequalities by allowing the richer to continue flying practically unobstructed when the poorer who predictably contribute the least to the growth of air travel are disproportionally burdened.

Thirdly, if some countries follow a stringent tax system for aviation, but others adhere to a much lesser tax system, free competition would be unavoidably distorted – often to the loss of carriers most exposed to the tax burden (IATA, 2019). From this perspective, avoiding

airports or routes on which taxes are levied – through indirect flights and/or longer flying routes – could become the cheapest and thus for many the most popular way of travelling via air, bearing in mind that most consumers are price-sensitive when they choose to fly and seek to travel with the cheapest provider rather than opting for the most environmentally-friendly route (McLachlan et al., 2018). Fourthly, there are also concerns that the financial impact of additional taxation could trigger the collapse of those carriers already struggling to keep up with competition. As IATA's (2019) officials highlight, taxing airlines could hinder a carrier's ability to further invest in greener technologies due to increases in their total expenses. Others (e.g., Faber and Huigen, 2018) contend that airlines would simply pass taxes onto passengers by increasing ticket fares to counteract the environmental taxes they need to pay – in that sense, there would be little need or no urgency for doing anything else about it. While CO_2-related flight taxes have not been introduced up until now, some steps have been taken, in terms of voluntary regimes. VCO schemes as a prime example of the OTC regime are debated next.

4.5.4 – Voluntary Carbon Offsetting Schemes

As Chapter 2 has already discussed in an attempt to offer an early insight into the background and context of VCO, several issues and challenges associated with this largely unregulated voluntary notion have been raised through previous literature. Gossling (2011), for instance, argued that the majority of issues or challenges associate with VCO schemes arise from the fact that offsets are available via individual air carriers, and/or carbon trust companies which are not governed by firm legal agendas – and hence, may lack credibility and independent certification. Against this backdrop, individuals' decision-making process over whether to purchase voluntary CO_2 offsets, is likely to be negatively influenced. On top of this, there are also important issues with the uneven geographical distribution of global benefits, following the voluntary purchase of CO credits. This issue may trigger additional tension between developing and developed countries because there is little incentive for the former in terms of setting in place mechanisms to deal more effectively with their own fast-growing aviation-related emissions (Gossling et al., 2007; Gossling et al., 2009).

Moreover, as VCO calculations are highly complex, air travellers need a degree of expert knowledge to understand what the most 'responsible' decision is (Gossling et al., 2007). In this context, low transparency adds to the tally of reasons affiliated with the low take-up of VCO schemes (Gossling et al., 2009). Low levels of participation in voluntary carbon offsetting schemes may also be a result of the inappropriate manner that airlines utilise to present them at the point of booking –alongside an assortment of other seemingly deemed optional extras, including extra baggage weight, accelerated boarding, in-flight meals, and travel insurance – which again might deter consumers from voluntary participation (Velonaki and Stone, 2015).

Based on the polluter must pay principle, airlines have also been heavily criticised for their controversial approach towards the perceived responsibility for offsetting CO_2 emissions, which debatably should not be identified as the responsibility of individuals only because airlines make profit out of air travellers' desire for global mobility (Becken, 2007; Gossling et al., 2009; Mair and Wong, 2010; Mair, 2011). Hence, a responsible traveller might rationally question the role of the airline, along with their own, and if the 'polluter pays' principle is invoked, circumstances might infer that the financial responsibility for offsetting should be shared between passengers and transport providers (Velonaki and Stone, 2015). Aviation, as a carbon-intensive industry, clearly contributes to climate change by releasing emissions, such as CO_2, during the combustion of fossil fuel; however, whether VCO schemes, in their current form, can radically mitigate this issue is uncertain. A review of the theoretical background on carbon rationing as one of the latest proposals for pro-social behaviour is following.

4.5.5 – Carbon Rationing

The term carbon rationing is utilised to describe the process of restricting CO_2 emissions by allocating to every individual and each company a certain amount of CO_2 to emit or use. Within this hypothetical carbon rationing system, individuals who have low CO_2 emissions (usually those on low incomes who cannot afford air travel and holidays abroad, or those who cannot afford a personal car, large housing, and other carbon-intensive luxuries)

receive additional income, from those who have affluent carbon-intensive lifestyles, in exchange for their unused CO_2 allocation (Fawcett, 2004). The second part of this term – that is, "to ration" is defined by English dictionaries as limiting the amount of a scarce resource that someone is permitted to consume (or use), to ensure that the entire population has access to a reliable and just allocation of rare supplies. In this regard, rationing as a notional concept suggests that some sort of governmental intervention is necessary to guarantee that everyone receives their fair share. Against this backdrop, 'carbon rationing' is defined by The Carbon Rationing Organisation (2020) as an allowance of CO_2 that citizens-consumers would obtain through national digital rationing schemes – then each individual would be able to directly determine how to spend the CO_2 allowance they have been allocated.

In theory, carbon rationing might sound like a relatively straightforward concept, but in experimental settings, which have been trialled in several countries from Finland to Australia, numerous significant issues and challenges were raised and many of those questions remain to be answered. Firstly, there is an obvious argument that carbon rationing should not only be limited to citizens-consumers but extended to the entire supply chain from producers, vendors, warehouses, energy providers, to freight and transport companies, human resources and financial services, distribution centres, and retailers – what is termed as 'total carbon rationing'. There are several impediments concerning how carbon rationing could practically be launched, monitored, and controlled on a global scale (e.g., technological obstacles, particularly for less developed countries). In this context, it is highly questionable whether proceeding with the implementation of the carbon rationing principles can be done fast enough to lower CO_2 emissions and stay on track with the targets set in the Paris Agreement.

Secondly, despite being labelled by The Carbon Rationing Organisation (2020) as more equitable than direct taxation (e.g., flat carbon tax system), carbon rationing could still disproportionally burden the poorer citizens-consumers – as they might unavoidably have an above-average household energy use because they might be living in less efficient buildings (which they do not happen to own, or are unable to retrofit according to the latest

energy-efficient standards) and cannot afford to purchase A^{+++} energy-efficient appliances like fridges and washers/dryers. This could also be the case for other significant contributing sectors in their livelihood since those less fortunate might only be able to afford old vehicles with high levels of CO_2 emissions (this inequality would increase their travel and transport-related carbon footprint). Likewise, purchasing organic locally-sourced food has a lower carbon tag and is associated with more environmentally-friendly consumption patterns, but it is also much more expensive than buying highly-processed bulk-imported foods (this inequality would have an adverse effect on their food-related carbon footprint).

Thirdly, since the Industrial Revolution, industrialised nations have been deeply engrossed with leading carbon-intensive lifestyles, which are constantly reinforced through advertising and the wide-spread promotion of carbon-intensive ways of consuming, living, and travelling, this raises questions around whether modern lifestyles can remain functional under a personal/total carbon allowance scenario. Now, for some, fossil fuels might seem like an infinite reservoir of energy, not a scarce commodity, but there is sufficiently strong evidence to support the idea that humanity has already depleted Earth of a large percentage of its natural resources – including, oil, gas, and coal (Klare, 2012). From this point of view, modern economic systems, behavioural norms, and the social identity associated with those norms are simply not compatible with any sort of emission restrictions or carbon budgets. This explains why actions of pro-social behaviour must be accompanied by other significant changes in behavioural norms and the economic order, apart from technological advances and infrastructural developments, to stand a chance of reducing CO_2 emissions drastically and prevent dangerous anthropogenic climate change.

4.6 – Chapter Summary

This chapter's literature review on consumer behaviour, green consumerism, and the 'value – action' gap, showed that existing research on consumer behaviour and green consumerism (as a meta-theme of the former), is extremely fragmented in nature – predominantly, in relation to the decision-making process surrounding air travel. On the one hand, as the review of the theoretical background on the 'value – action' gap highlighted, no single theory

is capable of adequately explaining why people's values and actions over environmental concerns fluctuate to such a significant degree. On the other hand, as prior investigators (e.g., Kollmuss and Agyeman 2002; Diekman and Preisendorfer, 2003; Whitmarsh and O'Neil, 2010; Barr et al., 2010; Cohen et al., 2013; McDonald et al., 2015; Alcock et al., 2017; Paco et al., 2019) have identified, numerous variables including, knowledge of issues and action strategies, locus of control, individual sense of responsibility, and pro-social attitudes have been associated with less profound or no significant discrepancies between environmental values and action. While, existing literature on pro-social behaviours around climate change, mostly concentrates on finding ways to achieve CO_2 emissions reductions through the potential usage of equitable and fair mechanisms at a global scale (Ostrom, 2010), encouraging people to re-evaluate their air travel purchasing decisions is likely to necessitate both voluntary and regulatory involvement. Yet, little is known up until now, about the role of ecological values, in the context of VCOs. Buchs's (2017) investigation on the role of values for voluntary reductions of holiday air travel, perhaps represents the closest empirical evidence on this topic area. This constitutes a gap in knowledge that the current thesis addresses by analysing CL citizens' perceptions towards discretionary air travel, and the role of VCO schemes, in relation to climate change mitigation, in Chapter 7. The methodological approach of this thesis work is presented next in Chapter 5.

CHAPTER 5 – METHODOLOGY

5.1 – INTRODUCTION

This chapter outlines the research process of this study. It explains the research philosophy that underpins the investigation and the overall research approach adopted by this thesis. The appropriateness of the entire research design is also highlighted and justification for the primary data collection instrumentation is explicitly detailed. The chosen sampling method for each part of the study is described before explaining the exact ways in which the data were collected, recorded, and subsequently analysed. In conclusion, ethical implications, as an important element of any scientific research, were considered and appropriately addressed – to promote the aims of the research, expand knowledge, and enhance the reliability and validity of the study findings.

5.2 – RESEARCH PHILOSOPHY AND PARADIGMS OF SCIENTIFIC RESEARCH

Understanding and selecting a research philosophy comprises an important stage of scientific research (Creswell, 2007; Saunders et al., 2009; Creswell and Poth, 2018). A research philosophy encompasses a researcher's belief about the way(s) in which data about a phenomenon should be gathered, analysed, and interpreted (Zukauskas et al., 2018). Epistemology, ontology, and axiology are the main dimensions underpinning research philosophies in academia (Maxwell, 2005; Saunders et al., 2009; Gray et al., 2014; Creswell and Poth, 2018). Epistemology focuses on addressing facts through defining what is known to be true, or what is referred to as an acceptable level of knowledge about a research field, also ways in which knowledge might be obtained (Gray et al., 2014). Ontology reflects on the differences between what constitutes reality, our perception of it, and how it may affect people's behaviour (Saunders et al., 2009; Gray et al., 2014). Axiology acknowledges and embodies the influence a researcher might have when collecting and/or analysing data (Saunders et al., 2009; Creswell and Poth, 2018).

In Zukauskas et al.'s (2018) words, research philosophy is defined as the development of a research assumption, its knowledge, and nature. Different researchers make different assumptions when carrying out research; however, those who adhere to the same research paradigm are largely directed by the same rules and guidelines for research conduct (Cohen et al., 2007). In line with this, methodological choice stems from the researcher's philosophical stance on the phenomenon of interest (Holden and Lynch, 2004). Publications on research methods (e.g., Mackenzie and Knipe, 2006; Cohen et al., 2007; Saunders et al., 2007; Easterby-Smith et al., 2008; Cooper and Schindler, 2013; Zukauskas et al., 2018) draw attention to four main branches of research philosophy – the positivist research philosophy, the interpretivist research philosophy, the realist research philosophy, and the pragmatist research philosophy.

Positivism states that social phenomena can be understood in an "objective" manner and that the researcher plays the role of an objective analyst, to generate a hypothesis that will be tested to measure results against accepted knowledge (Walliman, 2005; Creswell, 2009; Gray, 2014; Kumar, 2014; Zukauskas et al., 2018). Cooper and Schindler (2013) suggest that the notion of "positivism" is directly related to the concept of "objectivism". Scientists espousing this philosophical stance tend to follow quantitative approaches to data collection and analysis and tend to focus on identifying "causes" which subsequently trigger certain "effects" (Saunders et al., 2007). The positivist research philosophy aims to gather large-scale data samples through quantitative means such as experiments, tests, quasi-experiments, and surveys – to confirm or reject the research hypothesis (Kumar, 2014).

Interpretivism firmly rejects what positivism supports. Interpretivist research philosophy supports that social phenomena can be understood in a "subjective" manner and that the researcher performs a specific role in observing the social world (Zukauskas et al., 2018). Scientists adopting this philosophical stance adhere to qualitative approaches to data collection and analysis, and endeavour to understand how people experience social phenomena through different interpretive frameworks based on meticulous observations, interviews, phenomenology, ethnography, focus groups and case studies (Creswell, 2007; Creswell and Poth, 2018). In that respect, interpretivist researchers are often seen as *"respectful co-constructors of knowledge"* and enact these beliefs by openly acknowledging

the axiological assumption that epitomises qualitative research *"all researchers bring values to a study, but qualitative researchers make their values known"* (Creswell and Poth, 2018:21) – as opposed to quantitative researchers who attempt to detach themselves from personal morals and values (Zukauskas et al., 2018).

Realism is founded on the broader principle that human knowledge captures only a small part of a deeper and vaster reality. In this sense, reality does not depend on the human mind, or causal mechanisms. Even so, knowledge is grounded in history, because facts that form the basis for shared assumptions about reality, have been and will continue to be, socially constructed by humans and societies, surrounding the time in which they occur (Lancaster, 2005; Zukauskas et al., 2018). Realists believe that all theories can be revised – because no scientific method quantitative, or qualitative is perfect (Saunders et al., 2009). In terms of data collection and analysis, realism advocates the employment of multiple research techniques to achieve triangulation and thus enhance the validity and reliability of the study findings; whilst, it acknowledges that bias might occur as a result of different world views, cultural experiences, and upbringings (Saunders et al., 2009; Gray, 2014; Creswell and Poth, 2018).

Pragmatism does not entirely adhere to any of the previously mentioned philosophies (Alghamdi and Li, 2013). Pragmatists choose to focus on the research problem, and they can utilise quantitative, qualitative and/or mixed methods designs to understand, and further investigate a phenomenon of interest, or an issue of concern (Creswell, 2009; Saunders et al., 2009; Gray, 2014; Creswell and Poth, 2018; Zukauskas et al., 2018). For Creswell (2009), the pragmatist research philosophy is indeed regarded as a perfect canvas for multi-phased, or mixed-methods research designs. This is because pragmatists have what he calls freedom of choice, and they can opt for the data collection and data analysis techniques that best fulfil the aims and objectives of the research study – or, shed light on the research problem. Table 2 summarises all four research philosophies and highlights aspects relating to their epistemological, ontological, and axiological underpinning dogmas.

Table 2 - Summary of key research paradigms

Dimensions (= underpinning research philosophies) / **Paradigms** (= research assumptions, knowledge, and nature)	**Epistemology** (= assumptions associated with the best way of gaining knowledge on phenomena of interest)	**Ontology** (= assumptions associated with existence, reality, and truth)	**Axiology** (= assumptions associated with the role of researcher's own values on all stages of the research process)	**Research Methods** (= process of carrying out research includes the systematic ways, procedures, or tools for data collection and analysis)
Positivism	Social phenomena can be understood in an objective manner	Reality is objective	The researcher is an objective analyst	Quantitative methods dominate with a focus on experiments, tests, surveys, and quasi-experiments
Interpretivism	Social phenomena can be understood in a subjective manner	Reality is subjective	The researcher performs a specific role in observing social phenomena	Qualitative methods dominate with a focus on interviews, observation, case studies, phenomenology, and ethnography
Realism	Human knowledge only captures a small part of a deeper and vaster reality	Reality is independent of causal mechanisms and the human mind; however, knowledge is situated in history because facts have been socially constructed by humans and society	The researcher acknowledges bias by world views, cultural experience and upbringing	Research methods depend on the subject but are typically in-depth historically situated and may include either quantitative or qualitative methods with a focus on causal mechanisms theory and variations of grounded theory such as feminist grounded theory
Pragmatism	The research problem determines the choice of research philosophy	Reality is ambiguous	The researcher has “freedom of choice”	Research methods depend on what the researcher’s interests are and may include quantitative, qualitative and/or mixed methods with a focus on interviews, observations, case studies, surveys, and experimentation

Source: Author

5.3 – Research Approach And Strategy

Quantitative methods heavily rely on an objectivist philosophical background and aim to "quantify" the magnitude of a phenomenon by gathering a large quantifiable sample to boost the validity and reliability of research findings (Kumar, 2014). Examples of quantitative research methods typically include surveys (via mail, online, e-mail, collective, self-administered or administered in public places), structured interviews, experiments, tests, and quasi-experiments (Creswell, 2009; Kumar, 2014). In terms of advantages, quantitative methods are suitable for structured modes of inquiry, quantifiable aims and objectives, standardisation and reduced bias, generalisation and large samples, advanced statistical analysis, and enhanced validity and reliability of the study findings (Creswell, 2009). Whilst, disadvantages include a high degree of rigidity, potentially a high-cost (due to requirements for obtaining large datasets), narrow focus (e.g., quantitative findings can be much narrower when used to provide elaborate accounts of human perception), and/or superficial in the way that they provide numerical descriptions rather than detailed narrative (Kumar, 2014).

Qualitative methods are grounded in subjectivism and focus on exploring diversity, feelings, opinions, and experiences – rather than their quantifiable measurement (Creswell, 2009). Examples of qualitative research methods include semi or unstructured interviews, focus groups, ethnography, observations, and phenomenology (Creswell, 2009; Kumar 2014). In terms of advantages, qualitative methods are more suitable for open or unstructured modes of inquiry, narrative, human experience, in-depth observations, smaller samples, flexibility, diversity, and creativity (Creswell, 2009; Kumar, 2014). On the other hand, disadvantages for qualitative methods include difficulties in obtaining and analysing in-depth and/or unstructured information, which depend upon the experience of the researcher (e.g., it can be difficult to replicate results, the researcher might influence outcomes if biased, or not experienced enough to handle the data collection process) (Creswell, 2009). The accepted wisdom is that qualitative research is strong on validity, but weaker on reliability and quantitative research is strong on reliability, but weaker on validity.

Mixed methods research integrates both quantitative and qualitative characteristics to counter the limitations associated with each individual method (Kumar, 2014). Sequential, concurrent, and transformative mixed methods research comprises three of the most common types of mixed methodology (Creswell, 2009). In sequential mixed methods research starts with a quantitative method to test a hypothesis followed by a qualitative method to explore in-depth what has been revealed, or vice versa. In concurrent mixed methods, data is collected simultaneously with the intention to incorporate further elements, if necessary, to obtain reliable findings at a later stage. Transformative mixed methods can virtually adopt either a sequential or concurrent design depending on the anticipated outcomes of the study. The main advantage of mixed methods is its built-in mechanism which neutralises the inherent defects of single study tactics (Creswell, 2009; Kumar, 2014). In terms of disadvantages, mixed methods require extra time, effort, knowledge, and skills – all of which usually result in higher costs for researchers (Kumar, 2014).

The deductive, inductive, and abductive approach to research represent the three different approaches to reasoning. A deductive approach to research starts with a theory, formulation of a research hypothesis, data collection, data analysis, and confirmation or rejection of the research hypothesis (Saunders et al., 2009; Gray, 2014; Kumar, 2014). Quantitative research is mostly associated with a deductive approach. On the other hand, an inductive approach to research starts with a research question, data collection, data analysis, and results in the emergence of theory (Creswell, 2009). Qualitative research is mostly associated with an inductive approach. Last but not least, an abductive approach to research starts with surprising facts, or puzzles that cannot be fully understood by existing theories – as a result, the research process is dedicated to discovering the most likely, or best explanation to the problem identified at the beginning of the research process (Bryman and Bell, 2015). An abductive approach fundamentally overcomes weaknesses intrinsic in deductive and inductive tactics by assuming a pragmatist perspective which can be utilised in both quantitative and qualitative research.

As Saunders et al. (2009) advise research questions and objectives play an important role, in terms of classifying the purpose of research. Exploratory research intends to seek

new insights or shed light on previously studied phenomena that have not been fully understood yet. Descriptive research aims to accurately portray individuals, procedures and/or circumstances. While explanatory research focuses on establishing causal relationships between variables. In this regard, research strategies may range from experiment, survey, case study, and action research – to grounded theory, interviews, ethnography, phenomenology, and archival research.

Experimental designs are mainly employed to test causal effects on a group, which subsequently are compared to a control group – that is, a group that has not been subjected to any phenomena (Saunders et al., 2009; Gray, 2014). Experimental studies follow a rigid scientific structure to generate data that can be replicated by other scientists. Surveys are often associated with a deductive approach and aim to collect a large amount of quantifiable data to explore relationships between variables (Gray, 2014). Most surveys are rigidly structured and utilise probability sampling techniques to enhance the reliability and validity of study findings (Saunders et al., 2009; Gray, 2014). Case studies focus on real-life examples and collect data via observations and in-depth interview techniques (Saunders et al., 2009). Action research aims to improve practice. It typically involves action, evaluation, and critical reflection which – based on the evidence gathered – results in changes in practice. This type of research is often funded by organisations or is part of collaborative projects (Gray, 2014).

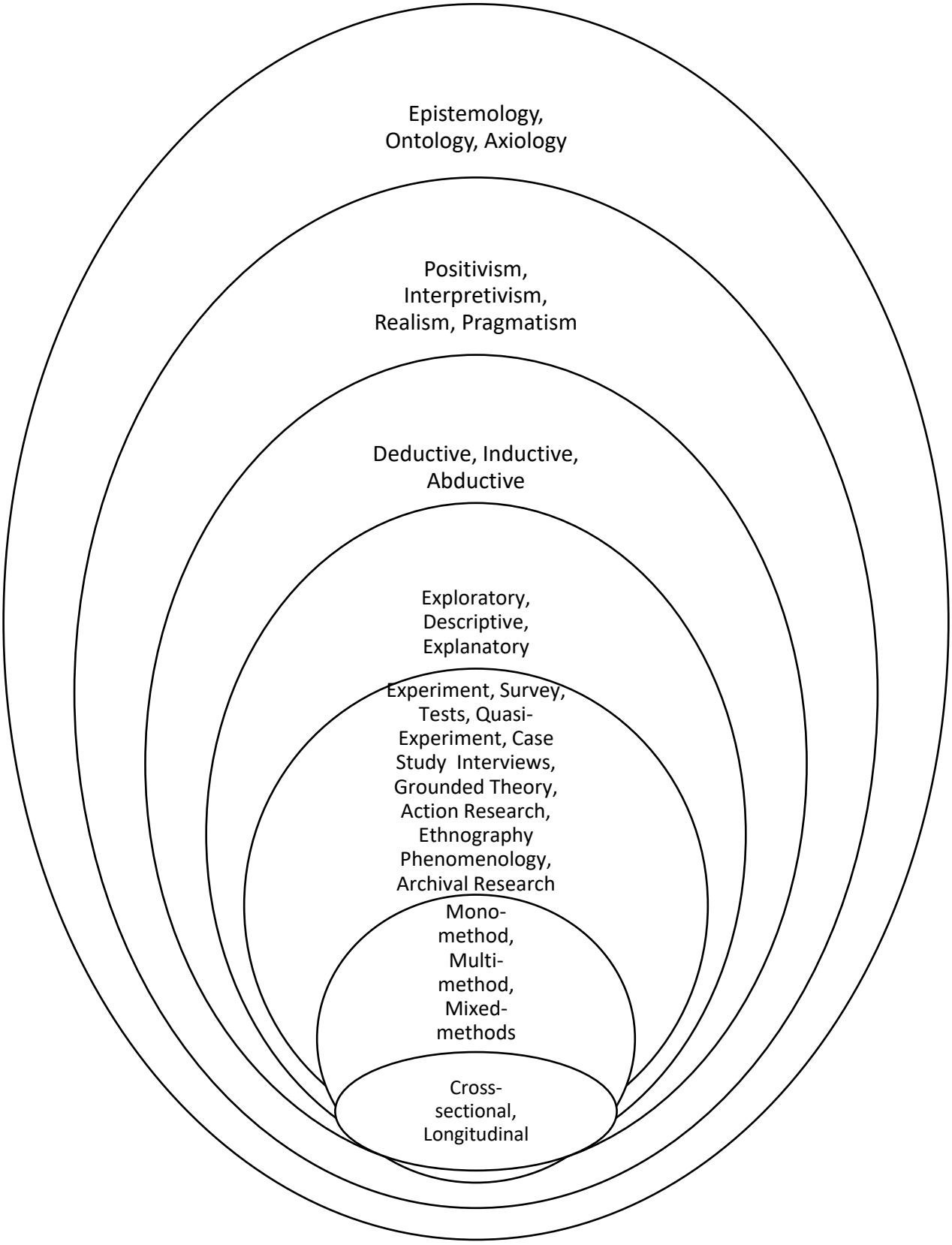
Grounded theory utilises an inductive approach, starting with data collection and data analysis to form new theories; whilst, grounded in existing theories on the subject area (Saunders et al., 2009). Ethnography usually necessitates the full integration of researchers into communities, or sub-groups of the society that are part of the study (Saunders et al., 2009). Phenomenology focuses on the commonality of a lived experience within a group, so that the researcher may construct the universal meaning of the event, situation, or experience and reach a more profound understanding of the phenomenon under investigation. Archival research entails collecting or archiving secondary data to track or pinpoint changes over a long period (Saunders et al., 2009; Gray, 2014).

Interviews focus on collecting in-depth information on people's opinions, thoughts, experiences, and feelings. Interviews are extremely useful in situations that the topic of

inquiry relates to issues that necessitate complex questioning and considerable probing (Creswell and Poth, 2018). Interviews can be designed differently depending on what information one seeks, and they can be grouped into three types: structured, semi-structured, and unstructured interviews. Structured interviews are typically employed when a set of pre-determined questions about a topic must be asked in a specific order to gather data like that of surveying. Semi-structured interviews are excellent tools when there is a need to collect in-depth information systematically from several respondents or interviewees. Unstructured interviews are particularly valuable for getting the stories behind respondents' experiences or when there is little information about a topic.

In terms of research time horizons, two routes are widely available – what is referred to as cross-sectional and longitudinal time horizon (Saunders et al., 2009). The former measures either quantitative or qualitative research aspects, issues, and/or behaviours at a single point in time. While, the latter examines either quantitative or qualitative research aspects, issues and/or behaviours over a long time. For longitudinal studies, time horizons can be further sub-divided into two research designs – prospective (i.e., looking at future outcomes and/or intentions) and retrospective (i.e., looking backwards to examine outcomes and/or intentions) (Saunders et al., 2009; Kumar, 2014). Figure 13 summarises the main components of scientific research, as elaborated in this study's research methods chapter thus far.

Figure 13 - Key components of scientific research

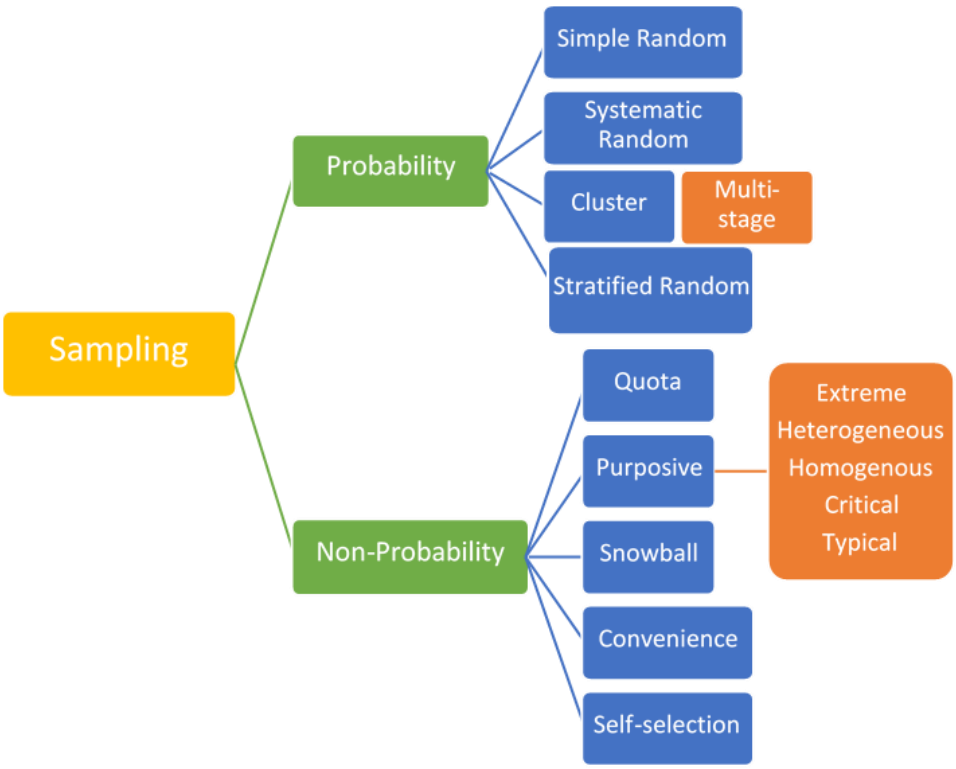


Source: Adapted from Saunders et al., 2009: 138

5.4 – Sampling Methods

In terms of sampling methods, several commonly used probability and non-probability sampling techniques exist – as illustrated in Figure 14. Simple random (selecting sample randomly), systematic (selecting sample at regular intervals), stratified random (population is divided into subsets before drawing a simple random or systematic sample), cluster (population is divided into clusters before using random sampling), and multi-stage (like cluster but for geographically dispersed populations) are amongst the most popular options of probability sampling (Kumar, 2014; Creswell, 2009; Saunders et al., 2009). Quota (non-random stratified sample, usually is good for interviews), purposive (use judgement to select cases), snowball (identify one or two potential participants and ask them to identify further cases), self-selection (participants select themselves or volunteer) and convenience (selecting cases based on what is convenient) are amongst the most popular choices of non-probability sampling.

Figure 14 - Types of Sampling



Source: Adapted from Saunders et al. (2009:213)

Sample size and its composition have commonly been disputed by academics – predominantly, in the context of qualitative interviews. On the one hand, researchers like Beitin (2012:243) advocate towards a complete shift from what is identified as a clearly *"defined"* sample with a *"pre-determined"* number of interviewees – to a *"fluid"* or else *"emerging"* sample size – which is technically underpinned by all different stages of a research design, from the research question to data analysis. On the other hand, investigators like Guest et al. (2006:59) disagree with this entirely *"open"* approach and identify a *"pre-determined"* number of interviewees – as a crucial step that should not be thoughtlessly omitted. From this latter point of view, the cut-off point is usually reached after conducting approximately twelve interviews – or, when the researcher strikes what is termed as saturation *"the point at which no new information or themes are observed in the data"* (Guest et al., 2006:59).

In the context of qualitative research studies, as Morse (2012:199) argues further, the sample size must be representative of the phenomenon, rather than representative of the population – because *"the necessity for purposeful sampling in qualitative inquiry negates the use of random sampling"*. This implies that the purpose and one's research question(s) should determine the sample size of qualitative studies. In that respect, a qualitative study's sample size should be large enough to adequately describe the phenomenon of interest, and to address the research question at hand – but, small enough to produce an in-depth case-oriented analysis – as one of the most fundamental characteristics of this inquiry mode (Vasileiou et al., 2018). Qualitative samples are thus inherently purposive that is chosen by their capacity to provide information-rich cases, about a phenomenon of interest. This postulation also concurs with Van Rijnsoever's (2017) research-based claims which affirm that purposive sampling techniques demonstrate greater efficacy in qualitative studies.

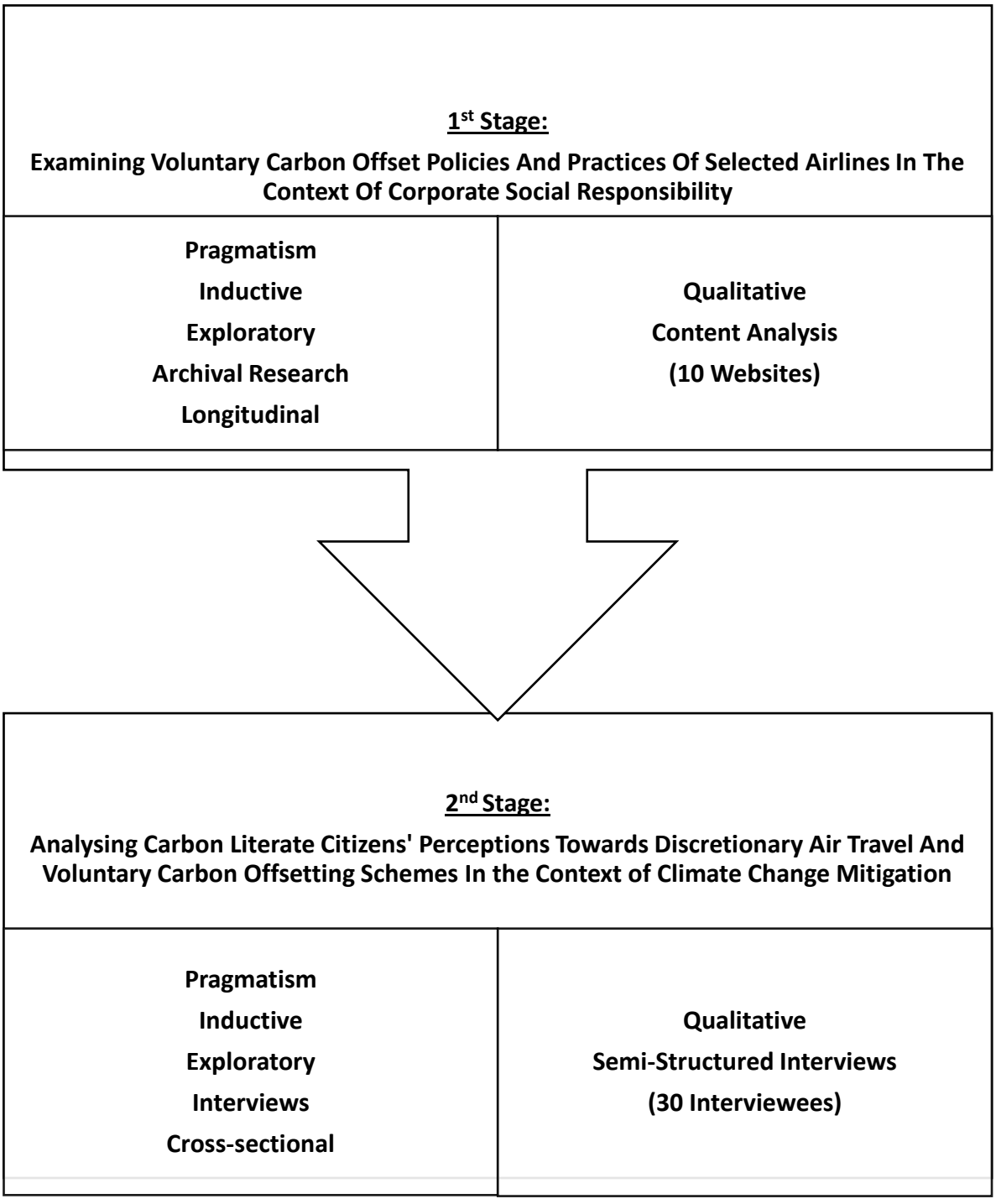
5.5 – Synopsis of this Study's Research Design

To analyse the perceptions of CL citizens-consumers towards discretionary air travel, and the role of VCO schemes in the context of climate change mitigation, the investigator chose to proceed with a multi-phase, multi-method approach. This research design best reflects the pragmatic research philosophy which underpins the

investigator's research assumptions, knowledge, and nature. Philosophical assumptions are often described as one of the first steps in developing research studies; however, articulating the direction of one's research goals and outcomes, is rarely a straightforward process. This is to say that the complexity of a research study may essentially require one set of data for developing a better understanding of a social phenomenon, and another set of data to start understanding the social phenomenon in more depth, or from a different perspective (Kumar, 2014). In this regard, how research problems are formulated is what determines which research methods should be implemented (Walliman, 2005; Saunders et al., 2009; Creswell and Poth, 2018).

From this thesis's viewpoint, developing a contextual understanding of the social phenomenon in question necessitated – first, an examination of airline policies and practices towards VCO schemes, in the context of CSR. The goal of this examination is to enable identification in real-world terms or aspects surrounding the implementation and take-up potential of VCO schemes as currently applied, in the context of discretionary air travel. This exploratory stage is then followed by an analysis of the perceptions of knowledgeable and ecologically conscious citizens-consumers, with a view to advance understandings surrounding the 'value – action', or 'attitude – behaviour' gap, in relation to discretionary air travel and 'carbon literacy', as a meta-theme of 'green consumerism'. Figure 15 illustrates this study's overall research design to facilitate an overarching understanding of its methodological choices.

Figure 15 - Synopsis of this study's research design



Source: Author

5.5.1– Appropriateness of the Research Design

Content analysis comprises a research method for studying documents and communication artefacts. In Berelson's (1952:18) opinion, content analysis provides an underlying basis for textual analysis as a *"research technique for the objective, systematic and quantitative description of the manifest content of communication"*. Bryman (2016:285) defines content analysis, as an approach to *''the analysis of documents and texts that seeks to quantify content, in terms of predetermined categories and in a systematic and replicable manner''*. As Williamson et al. (2018) explain, researchers typically utilise content analysis to study patterns in communication, in a replicable and systematic manner. In that respect, websites, social media platforms, forums, and other virtual environments can be regarded as "rich" sources of data, and thus potential material for carrying out content analysis (Neuendorf, 2002; Bryman, 2016).

The process of content analysis typically entails the systematic categorisation of text units (such as sentences, quasi-sentences, paragraphs, documents, webpages) to construct a dataset that allows the researcher to interpret texts and draw logical inferences. Whilst, content analysis is often associated with quantitative methods – a high degree of qualitative interpretation is usually required to obtain a meaningful output. As Williamson et al. (2018) suggest, it is the roots of content analysis that reside in quantitative research; however, from a contemporary perspective, the adoption and growth of qualitative content analysis have outgrown developments related to the predominantly quantitative use of it. From this contemporary point of view, content analysis represents a qualitative approach to research that displays both inductive and deductive characteristics and is capable of transforming raw data into findings that go beyond mere counts of words or extracts of objective textual content, to contribute to new knowledge and provide a better understanding of the social phenomenon studied (Downe-Wamboldt, 1992; Goodman, 2011).

Numerous researchers (e.g., Glaser and Strauss, 1967; Budd et al. 1967; Lincoln and Guba, 1985; Downe-Wamboldt, 1992; Miles and Huberman, 1994; Cavanagh, 1997; Krippendorff, 2004; Babbie, 2006; Wildemuth, 2009) have both discussed and debated

the application of content analysis. This strong scientific interest, in essence, manifests that content analysis can underpin research from different conceptual contexts, subject to the scope of inferences drawn through its analysis (Williamson et al., 2018). In terms of analysing environmental performance, content analysis comprises a powerful way of evaluating companies based on the information that they choose to – voluntarily, strategically, or lawfully reveal on their websites. Jose and Lee's (2007) work, for example, examined the environmental considerations, planning, leadership, control, and certification of the world's 200 largest corporations through website content analysis. Likewise, De Grosbois's (2012) study evaluated the level of commitment, initiatives, and environmental performance of global hotel groups through an analysis of their CSR reporting content. Whilst, Eijgelaar's (2011) research focused on assessing communication aspects relating to CO providers' and the mitigation potential of COS through analysing the content of both relevant publications and websites.

Even so, existing academic studies (Jose and Lee, 2007; Eijgelaar, 2011; Cowper-Smith and De Grosbois, 2011; Cohen and Higham, 2011; De Grosbois, 2012; Lu and Shon, 2012) have focused on examining some – or, limited aspects of the broader subject area, rather than focusing on the underlying meaning of communication tactics on environmental phenomena and their wider social implications. While, VCO is marketed by airlines, as a consumer-led method of neutralising emissions associated with discretionary air travel, academic studies (e.g., Gossling et al., 2009; Mair, 2011; McLennan et al., 2014) have shown that the uptake of these programs has been reportedly extremely low. Yet, little research has explored the consumer segments who voluntarily undertake carbon offsetting (McLennan et al., 2014) – or, those consumer segments who are more likely to undertake VCO due to their pre-existing green consumer tendencies. Hence, existing gaps in knowledge provide a strong rationale to analyse CL citizens' perceptions towards discretionary air travel and VCO – a market-based environmentally-driven concept that has drawn a lot of controversial attention, as Chapter 2 and Chapter 4 have already discussed in more depth.

In this regard, interviews are particularly useful for getting the story behind people's experiences. Since interviewers can pursue in-depth information around a topic by seeking to cover different levels of meaning. As Kvale (1996) supports, qualitative

research interviews seek to describe and explain the meanings of central themes in the life world of subjects. The main role of interviewing is thus to understand both the factual and deeper meaning of what interviewees say. On this basis, this thesis's semi-structured interview approach ensures that information is sought in a flexible, but uniform format; while, it still allows a degree of freedom and adaptability in prompting and probing information from interviewees to expose the deeper meaning of what they say (Brinkmann and Kvale, 2015; Creswell and Poth, 2018).

5.5.2 – Appropriateness of the Sampling Methods

Considering the overall design of this research project, a non-probability sampling approach was selected to fulfil the aim and objectives of this study. During the first stage, a purposive sampling strategy with heterogenous and homogenous groups is used to examine the VCO policies and practices of the Top10 UK-based airlines, in the context of CSR. In the second stage, a convenience sampling with both self-selection and snowball sampling characteristics is chosen to analyse the perceptions of CL citizens-consumers towards discretionary air travel and VCO. The justification behind the decision to choose a non-probability sampling for both parts of this investigation lies within its extreme usefulness for qualitative research with limited resources – whereby, a relatively smaller number of carefully considered cases can explain a phenomenon of interest by yielding in-depth information, which result in further expansion of both human and academic knowledge (Patton, 2001; Morse, 2012; Van Rijnsoever, 2017; Vasileiou et al., 2018).

While, representativeness is not the aim of non-probability sampling (and qualitative research) by using what Black (2010) refers to as 'sound judgement', it is possible to obtain virtually representative samples of elements, without having to spend a substantial amount of time and/or money to achieve this outcome. Yet, there are also certain disadvantages associated with non-probability sampling – for example, researchers can technically introduce bias, when choosing their study population. Hence, non-probability sampling should not be employed to reach statistical generalisations; however, it might help make some logical generalisations, when used cautiously and without errors in judgement by researchers. To avoid introducing bias and/or errors in judgement, as already explained in the previous paragraph, this thesis

work utilised a combination of non-probability sampling. In terms of airlines, homogenous (three low-cost carriers, two full-service carriers, three charter carriers, and two domestic/regional carriers) and heterogenous (low-cost carriers, full-service carriers, charter carriers, and domestic/regional carriers) cases were selected due to their indisputable importance concerning the phenomenon of interest. For the Carbon Literate Group, a convenience sample with attributes of self-selection and snowball sample was used – whereby, initial CL volunteers were asked to help recruit other CL participants for subsequent interviews. This is known as the 'snowball approach' and it is usually employed in surveying to help eliminate bias, as participants eventually happen to be completely unknown to the investigator due to the growing referral chain. All these different practices not only ensured diversity and maximum representation and/or variation amongst cases but they also enhanced reliability and eliminated bias.

As far as this research study's first sampling strategy is concerned, a market-driven dataset (which reflected the market share of UK-based airlines during the period under investigation) was retrieved from Mintel – the world's leading market intelligence agency on market research and analysis. Based on this market-driven dataset, the "Top 10 UK-based Airlines" (by passengers uplifted globally in 2015) were chosen for coding and interpretation by the means of qualitative website content analysis. Table 3 presents Mintel's "Top 10 UK-based Airlines" alongside figures of passengers carried.

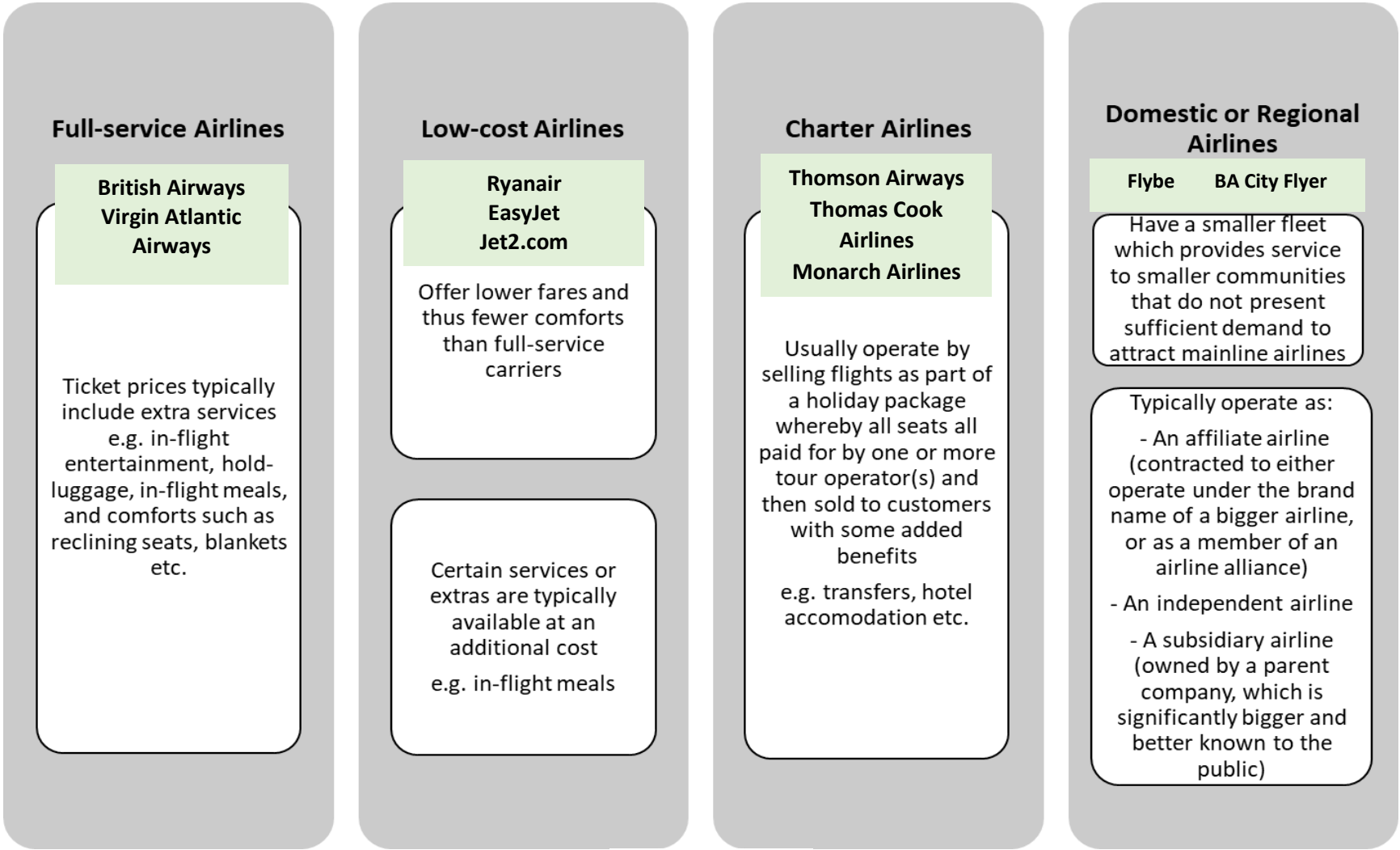
Table 3 - Top 10 UK-Based Airlines (by passengers uplifted globally in 2015)

Ryanair*	101,400,000
EasyJet**	58,646,000
British Airways***	41,256,000
Thomson Airways	10,611,000
Flybe	7,773,000
Thomas Cook Airlines	6,396,000
Jet2.com	5,853,000
Virgin Atlantic Airways	5,768,000
Monarch Airlines	5,723,000
BA City Flyer	1,933,000
* Although Ryanair was "logistically" based in Ireland, it carried the most passengers from UK Airports, and has a massive extent of operations and recruitment in the UK **Excluded subsidiary EasyJet Switzerland ***Excluded subsidiary BA City Flyer	

Source: Adapted from Mintel (2016) Available [Online] [Accessed on 01/03/2016] http://academic.mintel.com.ezproxy.mmu.ac.uk/display/786626/

The "Top 10 UK-based Airlines" as already discussed were further grouped into four homogenous groups based on their actual operating model – that is, Full-service, Low-Cost, Charter, Domestic/Regional. The evaluation of both homogenous and heterogeneous purposive cases with indisputable logical importance, in terms of passenger numbers carried, made the entire process of analysing airline VCO policies and practices more transparent. In this way, diversity and maximum variation amongst proposed cases were guaranteed, reliability was increased, and bias was largely eliminated (Patton, 2001; Black, 2010). Figure 16 illustrates the business models of the Top 10 UK-based airlines, in conjunction with their exemplary characteristics.

Figure 16 - Business models and exemplary characteristics



Source: Author

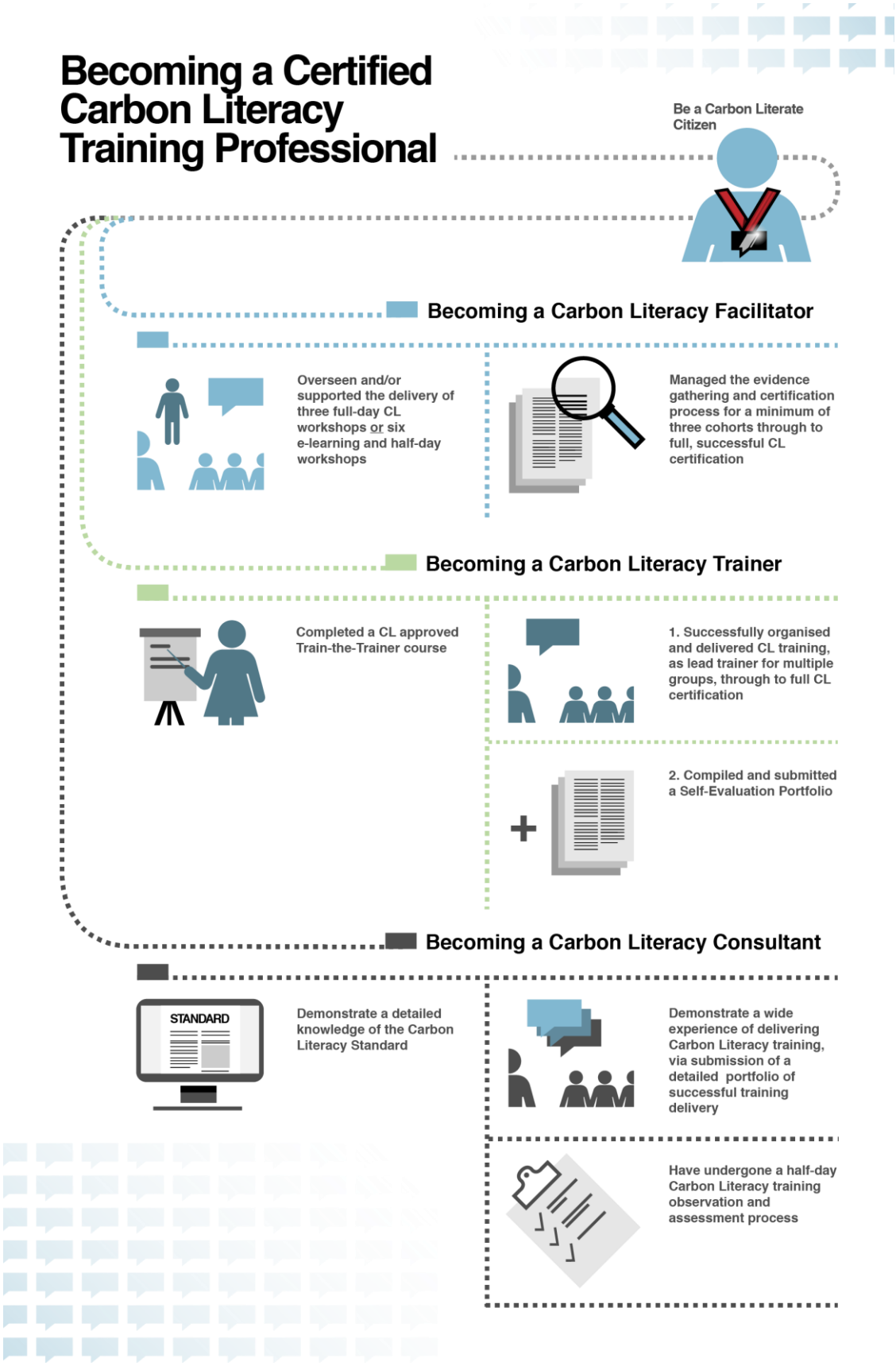
As far as this research study's second sampling strategy is concerned, thirty interviews with CL citizens-consumers took place before the end of the final data collection period. The sample size for this part of the study was determined by (theoretical) saturation. Glaser and Strauss (1967) suggest that this point of saturation is usually reached when new incoming data produce little or no change to the existing coding frame. In the context of this study, signs of saturation were evident after the completion of the last two interviews – which coincidentally happen to be scheduled and completed shortly before the end of the final data collection period. The sample definition for this second part of the study, is heavily reliant upon the official "Carbon Literate" definition provided by "The Carbon Literacy Project" – a not-for-profit organisation originally developed by the social enterprise "Cooler Projects" in 2012, as part of Manchester's Climate Change Action Plan ("Manchester: A Certain Future") which was recently recognised by United Nations, at the twenty-first session of the Conference of the Parties (COP21), in Paris, as one of one hundred Transformative Action Programs (TAP) worldwide.

Under the specifications of The Project, what distinguishes carbon literate individuals from the rest of the public is *"the knowledge and capacity required to create a positive shift in how mankind lives, works and behaves in response to climate change"* through a collective *"awareness of the carbon costs and impacts of everyday activities and the ability and motivation to reduce emissions, on an individual, community and organisational basis"* (Carbon Literacy Project, 2019 [online: no page]). In essence, CL training represents relevant climate change-related learning that catalyses action to reduce GHG emissions. All learners who have completed a day's (or two half days') worth of CL learning – covering aspects such as the science behind climate change, CO_2 footprints, equity and fairness, climate change action, and climate change communication strategies – are certified by The Project as "Carbon Literate". Organisations can also be accredited as CL if they have a CL workforce, the higher the percentage of the accredited workforce, the higher the level of CL organisational accreditation – based on a scale ranging from bronze to platinum.

In terms of individuals delivering CL training to others, four distinct tiers of certification exist. The first level of certification is 'becoming a CL citizen' and is awarded following the successful completion of an approved CL course. This is considered as an entry-level

certification for receiving further training and progressing with The Project's certification tier for individuals. Individuals who facilitate the delivery and administration of CL training within their organisation can be certified as CL Facilitators. A certified CLF usually has an elementary level of experience and expertise in arranging, organising, and supporting CL initiatives for entry-level participants. Individuals who have a broader breadth of CL training and expertise in delivering CL workshops are certified as CL Trainers. To gain this certification, prospective CLT are observed (either by senior CL Trainers or CL Consultants) whilst delivering CL training to entry-level participants. After the successful completion of two formal assessments and the submission of a reflective portfolio, applicants are accredited as CLT. Individuals who have the most experience in developing and delivering multiple CL courses to a range of organisations can be then certified as CL Consultants. To achieve this final tier of CL certification one must demonstrate an in-depth knowledge of the CL standard and submit a comprehensive portfolio of CL workshops as evidence. In addition to this, the candidate must undergo half a day's worth of CL observation for assessment purposes. The entire spectrum of the process of becoming a certified CL citizen-professional is summarised in Figure 17.

Figure 17 - Becoming a certified Carbon Literacy Citizen/Professional



Source: The Carbon Literacy Project (2020 [no page: online])

Since CL citizens were explicitly chosen through non-probability sampling due to their pre-existing values, and environmentally conscious background, analysing their perceptions towards discretionary air travel and VCO schemes could provide further opportunities to effectively reshape existing choices and influences for the better. To ensure maximum representation across all different tiers of the CL spectrum, attempts were made to include individuals from all four CL training levels. Nevertheless, it was accepted from the onset of this research investigation that the likelihood of an equal representation was highly unlikely – because, in practical terms, higher CL tier certifications are only completed by a relatively small percentage of CL citizens. In fact, the higher the CL tier the lower the percentage of successful completions. Likewise, some middle-level tiers of certification (e.g., CL Facilitators) are virtually redundant as most individuals chose to either stay at an entry-level certification level or proceed with becoming CLT/CLC.

5.6 – INSTRUMENTATION

Instrumentation refers to the tools (or means) by which researchers strive to measure variables – or, issues of interest during the data-collection process (Salkind, 2010). While, data collection (as a research process) is predominantly associated with the design, choice, structure, and specific conditions under which the designated instruments are administered – it also encompasses aspects pertaining to the testing and evaluation of the research tools. This chapter, therefore, aims to not only explain this study's data collection process, from a purely qualitative point of view, but also to address developments surrounding its evaluation – by deliberating processes around pilot studying, and the critical role of reflection in academic research.

Pilot studying or pilot testing allows scientists to practise mapping out the field by evaluating the effectiveness and usefulness of a research instrument (Gubrium et al., 2012; Flick, 2013; Brinkmann and Kvale, 2015). In the opinion of Malmqvist et al. (2019), two different types of pilot studying can be used by social scientists – "feasibility" and "pre-testing" studies. The main purpose of the former is to analyse practical aspects relating to the implementation and value of the main study design; while, the latter aims to test a certain research instrument – to assess its efficacy, in relation to the aim and

objectives of the main study. From this viewpoint, the process of analysing the findings of pre-testing studies logically leads to the identification of in-build weaknesses which should be addressed to avoid further complications. In other words, running a pre-testing study effectively informs subsequent parts of the research process.

On the other hand, reflection is defined by Steier (1995:163) as *"a turning back onto a self"* – a situation through which the subject (or the inquirer) engaged in the reflective practice, is also the subject who reflects, and the object who is reflected through that reflective process. In Mortari's (2015:1) own words, *"reflection is a crucial cognitive practice in the research field"* – particularly for qualitative research – where, it is ordinarily employed to *"legitimate and validate research procedures"* to make the *"politics of research"* more transparent. In that respect, the focus of a reflective researcher extends far beyond merely reporting study findings – and, into questioning as well as explaining how those findings were constructed. In other words, through reflexivity, a researcher shapes oneself as an instrument of ethical conduct by scrutinising themselves (and their practices) and acknowledging complexities around the ethical dilemmas that permeate research (McGraw et al., 2000; Cannella and Lincoln, 2007; Mortari, 2015).

5.6.1– Content Analysis: Data Collection, Pilot Study, Reflections and Amendments

Through content analysis, VCO policies and practices of selected airlines (in the context of CSR) were analysed – based on the information that airlines communicated, had available, or disclosed through their corporate websites. Data were obtained from each airline's corporate website on a longitudinal basis. Data collection, for this part of the study, began on March 1st, 2016 and was completed on March 1st, 2020. The NCapture web browser extension of NVivo 10 for Windows was utilised to accurately capture content, such as web pages and online PDFs, for later analysis within the software. Subsequently, carefully chosen content (such as keywords or phrases) was highlighted, and nodes were created with 'in vivo' coding. The main advantage of utilising NCapture lies behind the fact that all web content imported into the software following this procedure, gets automatically saved as PDF documentation in NVivo 10. On this basis,

sudden loss of data due to the dynamic[17] settings of most (if not all) corporate websites did not represent a problem for this study – despite its relatively long duration.

Furthermore, the data collection process for this first part of this study's instrumentation, also happened to act as a pilot testing 'filter' – since, the process of selecting material for coding not only led to the formation of a coding frame, which was subsequently applied to the selected material during two rounds of coding in the data analysis phase, but it also eliminated potential overlapping between categories or existing inconsistencies amongst subcategories. This naturally led to some minor modifications mostly aimed at improving the overall consistency of the data collection process. In this context, a few non-substantial amendments were implemented after the pilot study, including updates on the coding frame to correct existing inconsistencies within categories, updates on the coding frame to include additional categories, and updates related to the abrupt pause of data collection from some websites[18] due to airline bankruptcies.

As this (entire) study is evidently situated within the pragmatic philosophical approach to research – reflection as a process was ultimately conceived as a two-fold path, what Schön (1983) describes as *"reflection-in-action"* and *"reflection-on-action"*. The former is defined as *"thinking on your feet"*, or *"thinking about doing something while doing it"*; while, the latter is considered as thinking with hindsight to understand how one's *"knowing-in-action"* may have possibly contributed to the solution of the problematic situation (Schön, 1983:54). Reflection-on-action is hence ordinary *"practical knowledge",* and it is, as Schön (1992:123) infers, perhaps the simplest component of reflective practice. For this part of the study, "reflection-in-action", involved using the researcher's analytical skills on the spot, in an intuitive manner to solve problems surrounding inconsistencies in the CSR reporting processes of the "Top 10 UK-based Airlines". On many occasions, lack of clear corporate communication on the role of VCO

[17] The content of dynamic websites tends to get updated often as opposed to static websites whereby content remains the same. Most dynamic websites derive their page content from a database – changes in the database content result in changes on page content.

[18] Enough data was collected before these incidents occurred to justify minor rather than major amendments.

schemes and/or evidence of a much stronger focus on the business case for emission reductions led the researcher into gaining new perspectives on why citizens-consumers are largely unaware of these schemes or demonstrate low participation 'in action' – as Chapter 8 deliberates at a later stage. On the other hand, "reflection-on-action", required occasional stepping back from the situation, on behalf of the researcher. This last reflective practice was indeed perfectly compatible with the longitudinal horizon of this first stage of the research investigation, since it helped the researcher to view the collected data with fresh eyes, and pinpoint or uncover changes that occurred over a long period.

5.6.2 – Interviews: Data Collection, Pilot Study, Reflections and Amendments

Through the process of interviewing, the perceptions of CL citizens towards discretionary air travel and the role VCO schemes (as a means of climate change mitigation) were collected (see Appendix A) based on a semi-structured protocol. The interview protocol included an informed consent form (see Appendix B) to provide interviewees with sufficiently detailed information on the study and obtain their voluntary consent to participate in this investigation, a brief questionnaire (see Appendix C) to gather basic demographic information useful in facilitating the analysis of the data collected, and lastly, the interview schedule (see Appendix D) which was employed to keep the interview focus on the research questions and guide the conversation constructively – without limiting the opportunity for identifying new ways of seeing and understanding the topic at hand. As far as interviewing is concerned, the first few minutes were spent familiarising interviewees with the interview process. The interviewer also took the opportunity to check that interviewees had completed and handed in both the demographic information questionnaire and the informed consent form before commencing to record audio.

This brief opening stage was followed by three warm-up questions (for more details please refer to 'Appendix D' – Questions 1-3) utilised to further ease interviewees and make them slowly open up to discussion. The core of the interview schedule included the main questions (for more details please refer to 'Appendix D' – Questions 4-15) through which the interviewer aimed to gradually elicit information about the research

question. During this part of the interview process, prompting and probing played an important role by maximising opportunities to gain a more in-depth understanding of the interviewees' experiences and responses to the research question. The last stage of the interview process (see Appendix D "Closing") was designed with a dual purpose – to first signal the closure of the interview; and secondly, to provide interviewees with an opportunity to feedback and/or ask additional questions.

In practical terms, all interviews were conducted on a one-to-one, face-to-face basis. The data collection for this part of the study began on January 20th, 2020 – and, it was completed nearly nine weeks later on March 20th, 2020. During this period, thirty semi-structured interviews were conducted. The duration of each interview was approximately one hour. All interviews were audio-recorded for transcription purposes. Otter.ai as an increasingly popular voice-to-text web application based on artificial intelligence (AI) technology was used to capture and simultaneously transcribe the interviews for later analysis within NVivo 10 for Windows. To improve Otter's accuracy, a discreet portable omni-directional PC microphone was utilised. It guaranteed that the best audio quality was consistently obtained by blocking noise, eliminating echo, transmitting fluently and clearly conversations with an optimal 360° sensitivity pickup range. Live conversations were recorded on the web and the audio processing and final transcript[19] were available shortly after the end of each interview. All data collected were synchronised over an encrypted connection[20] and it was stored within Otter's secure data centre until files had to be exported into NVivo 10 for analysis purposes.

Irrespective of the type of pilot study, or whether it is situated within qualitative or quantitative research, a well-executed pilot study constitutes an important part of any scientific study (Brinkmann and Kvale, 2015; Malmqvist et al., 2019). On this basis, the interview schedule was pre-tested on CL interviewees twice. This was regarded as a crucial step for recognising potential limitations and addressing them before the launch

[19] The processing of the final audio recorded transcript varied depending on the internet connection, the length of the recording, and how busy the otter.ai service was at the time of each interview.

[20] Further information on security and data protection matters are provided in 5.8 – Ethical Considerations.

of the main data collection stage. As a result of this process, a few questions were revised – to improve clarity, eliminate repetition, and avoid leading participants to give a particular answer, rather than an open-ended response to an open-ended question. Apart from improvements on mostly structural areas of questioning, conducting a pilot test was also helpful for practising interview probing and prompting techniques, and mastering how to sensitively elicit information through that interaction, to construct knowledge. A further argument in favour of conducting a pilot study is research validity, and this is routinely accomplished, by viewing the pilot study phase as a crucial part of a research design – rather than a necessary evil that must comprise part of a study for examination purposes.

Pilot studies are also an excellent tool for exploring the "usability[21]" of different software to assist data collection and/or analysis – particularly for qualitative researchers who tend to be largely reluctant as far as the usage of software or web applications is concerned because of limitations related to the manipulation of data within older programs – and, also perhaps due to the erroneous belief that usage of software programs results in disengaging scientists away from the raw data, in interpretations (Miles and Huberman, 1994; Franklin et al., 2010). Since, technological developments have radically transformed the role that software programs can play in qualitative data collection and data analysis, social scientists are increasingly likely to use software or web applications to assist with qualitative research (Berg, 2004; Franklin et al., 2010). Espousing the idea of utilising software as a tool for rigorous analysis (not as a replacement), meaningfully enhances both the reliability and the validity of qualitative studies, by facilitating a more focused approach to research and prioritising other important tasks (e.g., synthesis of arguments, writing up) as opposed to spending valuable time on manually transcribing verbatim interview recordings.

In terms of amendments, minor changes to the schedule of the interview protocol and/or other interview-related documentation (e.g., informed consent form) took place – these minor changes mainly focused on correcting errors, providing minor

[21] In software engineering "usability" represents the degree to which a software or an application can be used to achieve the objectives of a project with an effective, efficient, and satisfactory manner.

clarifications, changing the order of some questions, re-wording certain questions, omitting questions due to repetition, and extending data collection beyond the period that was initially specified on the initial informed consent form. Some minor changes in the logistical arrangements for recording interviews were also implemented following the completion of the first pilot study. More specifically, an omnidirectional PC microphone was utilised as the best audio quality was not consistently attainable beforehand.

5.7 – Synopsis of this Study's Data Analysis

Data analysis is defined as the process of methodically applying statistical and/or logical techniques to describe, explain, outline, and/or summarise data. In the opinion of Shamoo and Resnik (2003), various systematic procedures may provide means of drawing inductive inferences from data and/or distinguishing the 'signal' (i.e., the phenomenon of interest) from the 'noise' (i.e., the statistical variations that are commonly present in the data). Yet, the precise form of data analysis is ultimately determined by one's explicit scientific approach to research. In this regard, data analysis in quantitative research is typically associated with obtaining adequate quantitative evidence, to either support or reject a hypothesis, which was formulated at an earlier stage of the research process; while, data analysis in qualitative research represents an ongoing iterative process – whereby, 'data' is unremittingly collected and concurrently analysed to look for similarities, or differences, which may reveal themes and/or patterns within a particular dataset.

In many cases, qualitative scholars are thus expected to look for themes and patterns and/or analyse data throughout the entire process of data collection. As this study is positioned within the qualitative approach to research, this ongoing iterative process of data collection – data analysis played an important role, in safeguarding the integrity of data and ensuring appropriate analysis of research findings. For that reason, presenting one research stage (i.e., data collection) without referring to the other research stage (i.e., data analysis) – was particularly challenging, from this thesis's point of view – albeit necessary, for the purpose of writing up and structuring this methodology chapter. In line with prior structure and reporting strategies, the data analysis process (much like

the data collection process) has been constructed by following the same order – that is, describing the data analysis of the website content analysis first, followed by the thematic data analysis of the interviews.

5.7.1 – Content Analysis: Websites

Content analysis can be utilised in both quantitative and qualitative research designs to help researchers analyse textual information such as reports and transcripts, or visual data such as images, pictures, and videos (Vaismoradi and Snelgrove, 2019). It is extremely useful as a method of data analysis because it can determine how words and word patterns are used within a context (Mayring, 2000; Graneheim and Lundman, 2004; Hsieh and Shannon, 2005; Bengtsson, 2016; Vaismoradi and Snelgrove, 2019). While, content analysis can be used with a large amount of both visual and textual information, to generate codes with categories and subcategories – some quantification of data may unavoidably occur, even when a qualitative approach to data analysis is employed – because content analysis relies on counting instances of codes. In this regard, contemporary applications of content analysis indicate three different approaches to data analysis – known as conventional, directed, and summative (Hsieh and Shannon, 2005). In conventional content analysis, coding categories directly stem from the textual/visual data. With a directed approach, analysis begins with some sort of theory, or relevant prior research findings – as guidance for initial or first-level codes. A summative content analysis entails counting keywords and content comparisons, followed by the interpretation of the underlying context.

In terms of this study, a qualitative directed approach to content analysis was chosen to analyse the VCO policies and practices of selected airlines in the context of CSR. As part of this 'inductive – deductive' iterative process, the airline websites were coded to analyse parameters related to the research question, without limiting the actual likelihood for new categories, subcategories, or patterns to emerge from the data. Websites were revisited at six-monthly intervals to check for changes in the relevant content – with the exemption of the websites of the airlines that ceased operation during the time of data collection. During this phase, websites were scrutinised through qualitative content analysis to establish whether the option of VCO was offered to air

travellers before, during, or straight after the booking process. Those websites which did not offer the option to voluntarily offset the carbon footprint of one's flight(s) were revisited every six months to monitor potential changes – but, they were not further analysed unless such a change was first confirmed through the content analysis.

In contrast, those websites which offered the option to voluntarily offset the carbon footprint of one's flight(s) were further analysed straight away, in relation to six literature-based parameters – that is, provider credibility, global benefits, offset calculations, transparency of carbon offset schemes, presentation of carbon offset opportunities, and perceived responsibility for offsetting in aviation. Table 4 presents a brief outline of the deductive coding schedule as emerged through the review of literature on VCO schemes.

Table 4 - Deductive Coding Schedule

Category 1:	**Provider Credibility**	» Which carbon offset provider was used by each airline? » Was it a Registered Charity or a Certified Supplier?
Category 2:	**Global Benefits**	» What benefits can be identified through the promotion of each VCO opportunity? » Were these benefits of global or local scale?
Category 3:	**Offset Calculations**	» What methodology was used to calculate carbon offsets?
Category 4:	**Transparency of Carbon Offset Schemes**	» Was the transparency of VCO schemes safeguarded?
Category 5:	**Presentation of Carbon Offset Opportunities**	» In which stage of the booking process or section of the website was VCO displayed?
Category 6:	**Perceived Responsibility for Offsetting in Aviation**	» Who was responsible for paying to offset flight-related emissions?

Source: Author

In terms of provider credibility, all airline websites that offered VCO schemes were studied with the intention to establish the carbon offset organisations that airlines collaborated with and their respective accreditation credentials (e.g., Voluntary Gold Standard[22], ISO14001[23], Registered charities, etc). Global benefits analysed aspects around the disclosed local and/or global pro-environmental benefits of each carbon offset opportunity – as advertised by airlines, or their respective partners if external collaborations with carbon offset providers were established. As far as offset

[22] A standard guaranteeing high-quality emission reduction projects via the Clean Development Mechanism (CDM), Joint Implementation (JI) and the Voluntary Carbon Market (Gold Standard Org, 2016).

[23] ISO 14001 is an environmental management certificate that outlines a framework that any company or organization (regardless of its activity or sector) should adhere to effectively manage its environmental impact (ISO Org, 2016).

calculations are concerned, those websites which happen to offer VCO schemes were further studied to establish (if possible) the methodology employed to calculate VCO. Transparency of COS looked at how the transparency of these schemes was safeguarded. While, presentation of CO opportunities focused on 'presentation' aspects – and more specifically, the exact website location (e.g., website footer, part of the booking process) that airlines utilised to advertise VCO schemes. Finally, the perceived responsibility for offsetting in aviation looked at who was held responsible for paying to offset CO_2 emissions from discretionary air travel.

This deductive process fed a layer of inductive coding, as the findings of the first level coding (or else deductive coding), necessitated a second-level coding (or else inductive coding) to make further sense of the collected data. During the inductive coding process, there were clear indications some segments of the text were only related to a single category; whilst others, were not directly related to any of the categories but they were implicitly feeding into multiple categories. Segments of text, concerning the category of "presentation of carbon offset opportunities" were easily identifiable during the inductive coding process. In contrast, categories such as "global benefits", "offset calculations" and "transparency of carbon offset schemes" were not made explicit through the textual/visual content analysis of the websites – however, there were clear indications as to what could be implicitly identified as part of this second level coding. Table 5 summarises the additional codes which were generated as a result of the first phase of inductive coding.

Table 5 - 1st Phase Inductive Coding Schedule

<table>
<tr><th colspan="2">Single Category</th></tr>
<tr><td><u>Category 5:</u>
Presentation of Carbon Offset Opportunities</td><td>» Website Footer Approach – External
» Website Footer Approach – Integrated
» Variable Stepped Approach – External
» Variable Stepped Approach – Integrated</td></tr>
<tr><th colspan="2">Multiple Categories</th></tr>
<tr><td><u>Category 1</u>
Provider Credibility</td><td rowspan="4">» Biomass & Biogas
» Forestry/Reforestation
» Renewable Energy
» Clean Energy Projects
» Small-scale Energy Efficiency Community-based Projects</td></tr>
<tr><td><u>Category 2:</u>
Global Benefits</td></tr>
<tr><td><u>Category 3:</u>
Offset Calculations</td></tr>
<tr><td><u>Category 4:</u>
Transparency of Carbon Offset Schemes</td></tr>
</table>

Source: Author

This process was then repeated for a third time and resulted in the development of a final coding schedule that emerged from the data within the second level of coding. Table 6 summarises this second phase inductive coding schedule and highlights the emergence of a new category which directly feeds into some of the previously identified/emerged categories like that of ‘Offset calculations’ and ‘Presentation of carbon offset Opportunities’.

Table 6 - 2nd Phase: Inductive Coding Schedule

(Emergence of a new theme)	What methods are airlines using to charge for voluntary carbon offsetting? What are the implications for each approach?
<u>Category 7:</u> **Methods of Charging for Carbon Offsets**	» **Carbon offset Calculator – External** » **Carbon offset Calculator – Integrated** » **Donation – External** » **Donation – Integrated**

Source: Author

In terms of internal validity, the distribution of coding frequencies across the subcategories of each main category was what determined the validity of the entire coding frame. If coding frequencies were indicative of residual categories, supplementary subcategories were formed to capture those additional aspects. For instance, "methods of charging for carbon offsets" was identified as a residual category which led to the formation of supplementary subcategories – as Table 6 illustrates in detail.

5.7.2 – Thematic Analysis: Interviews

In terms of data analysis on the interviews, thematic analysis was employed to analyse all interview transcripts. Thematic analysis has numerous advantages when someone endeavours to analyse people's views, experiences, perceptions, or values from a set of qualitative data (Braun and Clarke, 2006; Roulston, 2010; Guest et al., 2012; Bryman, 2016). During this stage, qualitative data was closely examined to identify common themes – topics, ideas, and/or patterns of meaning that reoccurred within the datasets. Themes are mostly described as overarching categories of common data across multiple responses and thus they are generally understood to be much broader than codes, which tend to describe the idea or feeling articulated in a specific part of the text (Braun and Clarke, 2006). In this regard, all textual data that are confined in each theme, tell a

story about that theme – and those stories are somehow related since they represent different dimensions of the studied phenomenon. For that reason, not only thematic analysis helps investigators to understand those aspects of a phenomenon that interviewees frequently express, or talk about in more depth – but, it also helps them to further explore the unique conducts or behaviours through which those aspects might connect or interweave (Braun and Clarke, 2006; Guest et al., 2012; Nowell et al., 2017).

While, thematic analysis allows researchers to analyse large datasets more easily, by sorting them into broader themes, it also offers a degree of flexibility in terms of how data is interpreted – which entails the risk of missing nuances in the data (Braun and Clarke, 2006; Creswell and Poth, 2018). This implies that thematic analysis can be relatively subjective and heavily reliant on the researcher's judgement, hence one should strive to continuously reflect on their choices and interpretations. Moreover, two different approaches to conducting thematic analysis can be undertaken, what is known as the deductive (or theoretical) approach and the inductive approach (Braun and Clarke, 2006). These are further categorised, based on the researcher's decision surrounding the primary level at which themes are to be identified, into semantic (referred to as 'explicit'), or latent (referred to as 'interpretative').

An inductive approach typically allows data to determine prevalent themes (Patton, 1990; Braun and Clarke, 2006). A deductive approach involves the analysis of thematic data based on some theoretic or literature-based pre-conceptions which are stereotypically anticipated to be reflected through data (Boyatzis, 1998; Hayes, 1997; Braun and Clarke, 2006). Semantic level analysis exclusively focuses on the explicit content of data (i.e., stated opinions or ideas); while, latent level analysis entails revealing assumptions underlying the data, or the social context behind those underlying assumptions (Boyatzis, 1998; Braun and Clarke, 2006). Regardless of what approach researchers adopt (as part of their research projects) Braun and Clarke (2006) suggest six-steps are commonly applied in thematic analysis – including, *familiarisation* (e.g., getting to know the data), *coding* (e.g., highlighting text and labelling it with an initial code that best describes their content), *generating themes* (e.g., identifying patterns and coming up with themes which are generally broader than codes), *reviewing*

themes (e.g., looking at the data to ensure there is an accurate representation), *defining and naming final themes*, and *writing up*.

For the purpose of this study what exactly counts as a theme was defined based on Braun and Clarke's (2006) prior work on *"Using thematic analysis in psychology"*. According to them, all themes emerge from researchers' thinking about the data and depend on what associations they create to make sense of the data or understand it better. In this regard, this study's themes (as illustrated in Table 7) encapsulate the researcher's understanding of the interviewees patterned response(s) or meaning(s) of significant aspects concerning the research question. While that judgement was of utmost importance in determining what was defined as a theme – acknowledging these decisions and recognising them as decisions, made this thesis's thematic analysis a rich transparent description of the dataset, or a detailed transparent account of each aspect across it. To this end, more occurrences of a certain theme across the dataset did not automatically imply one theme was more significant than others, but rather that one theme might have succeeded to capture an important aspect of the overall research question more pertinently.

Against this backdrop, the present study adopted an inductive latent level approach to thematic analysis, through which it went beyond integrating interviewees' voice to illustrate significant meanings or patterns in the data, and commenced to identify or study the underlying ideas, assumptions, conceptualisations, and ideologies conceived as what precisely informs or shapes the semantic content of data itself. In this regard, the development of the themes for this part of the research entailed loads of interpretative work, and therefore what is produced through this latent thematic analysis – is not merely descriptive, but rather deeply theorised due to the researcher's critical engagement with data – based on existing theories and prior research on consumer behaviour, green consumerism, and the 'value – action' gap. Furthermore, the researcher chose to export the interview transcripts from Otter.ai, as text in PDF format, to conduct this systematic coding and qualitative analysis in a predominantly qualitative software – NVivo10 for Windows. This decision was taken upon the realisation that Otter.ai did not offer cutting-edge features for qualitative data analysis. Since overarching themes had already been identified by the interviewer, while

scrutinising the accuracy of each transcription generated through Otter's automated machine-learning processes, NVivo10 was primarily utilised to develop and apply codes to the imported data – rather than determining and highlighting, what theme patterns emerged from the interview transcripts. In this way, all imported data were systematically coded and organised based on similarities, or reoccurring patterns which led to a hierarchical or tiered structure between codes, subthemes, and themes.

Table 7 - Summary of initial themes, subthemes, and codes

Themes	**Subthemes**	**Coding**
1: Not changing behaviour (but provided justification)	Travel Product	Long-haul flights
	Travel Context	Business Travel
		Visiting Friends and Relatives (VFR)
	Personal Identity	Experiences/Cultural Enrichment
		Social Status
	Social Norms	Flying is a social norm
		Peer Pressure
	Constraints	Financial
		Infrastructural
		Time
2: Modal Shift	Less carbon-intensive transport alternatives	Train/Highspeed Railway
3: Destination Shift	Travelling/Holidaying	United Kingdom
		Continental Europe
4: Self-curbing	Reducing	Number of Flights taken
	Restricting	Flights to medium/long-haul
5: Changing other behaviour(s) to compensate for flying	Dietary changes	Vegan/Vegetarian
	Commuting changes	Walking/Cycling
6: Participating in VCO initiatives	Pro-social Behaviour	VCO led by airlines
		VCO led by carbon offset organisations
		VCO led by airlines in collaboration with CO organisations
7: Stopped flying	Committed Environmentalist	Locus of Control
		Self-transcendent Values
		Individual Sense of Responsibility

Source: Author

While no themes or sub-themes needed to be completely discarded, through this study's latent level – inductive coding process, some of the initial themes presented in Table 7 were subsequently either merged into four broader themes or formed sub-themes and codes under one of the remaining themes. This study's final themes, subthemes, and codes are presented in Table 8.

Table 8 - Summary of final themes, subthemes, and codes

Themes	**Subthemes**	**Coding**
1: Not changing behaviour (but provided justification)	Travel Product	Long-haul flights
	Travel Context	Business Travel
		Visiting Friends and Relatives (VFR)
	Personal Identity	Experiences/Cultural Enrichment
		Social Status
	Social Norms	Flying is a social norm
		Peer Pressure
	Constraints	Financial
		Infrastructural
		Time
2: Self-curbing	Reducing	Number of Flights taken
	Restricting	Flying only short-haul
		Flying only medium/long-haul
	Modal Shift	Train/High-speed Rail
	Destination Shift	United Kingdom
		Continental Europe
	VCO	Guilt-free flying
		Short-term solution
3: Changing other behaviour(s) to compensate for flying	Dietary Changes	Vegan
		Vegetarian
		Flexitarian
	Commuting Changes	Public Transport
		Walking
		Cycling
4: Stopped flying	Committed Environmentalist	Internal Locus of Control
		Self-transcendent Values
		Individual Sense of Responsibility

Source: Author

5.8 – ETHICAL CONSIDERATIONS

Ethical concerns commonly arise from collecting, analysing, and/or reporting information related to a research project. Ethical considerations are described by Saunders et al. (2009:183) as *''the appropriateness of your behaviour in relation to the rights of those who become subject of your work or are affected by it''*. To avoid ethical implications arising from their work, investigators should always demonstrate the highest standards of research ethics by adhering to the "Code of Ethics" of their respective institutions. This study has adhered to Manchester Metropolitan University's guidelines on conducting postgraduate research. Since ethical concerns were not raised through the website content analysis, owning to the fact that this research stage was exclusively based upon the retrieval of open-source[24] data, ethical considerations for the current study were mostly centred on the process of interviewing CL participants to analyse their perceptions towards discretionary air travel and VCO. As part of minimising, if not completely eliminating, incidences of ethical misconduct the following steps were taken. First, all responses pertaining to the data collected through interviews were kept anonymous and any practical challenges (e.g., none of the direct quotations used made a speaker recognisable through contextual reference) associated with anonymising qualitative interview data were appropriately addressed. Secondly, a contextually contingent approach to anonymising collected data was implemented – as part of this, interviewees were assigned numbers instead of pseudonyms, to avoid revealing too much information about their ethnic and/or cultural background. Thirdly, only non-sensitive personal data was collected transparently, and for specified explicit and lawful reasons. Fourthly, all information collected were kept safely stored in a password protected local hard drive and/or within the passcode protected mobile app (otter.ai.) which features Touch ID technology.

Similar steps were also taken in terms of ascertaining the reliability and validity of interview transcripts. The former (also widely termed transcriber reliability) was routinely boosted through the usage of otter. ai – an artificial intelligence software with

[24] Gatekeeper access and informed consent are not required, when publicly available textual and/or visual information is captured and analysed for research purposes.

an estimated ability to recognise speech with up to 95% accuracy. While, there is no true 'correct' or 'universal' form – or, code for objective transcription of scientific interviews, as Brinkmann and Kvale (2015:213) support "legitimate choices" can be made by considering the "intended use" of interview scripts. Since, the intended usage of interview transcripts, in the context of this study, was the analysis of CL citizens' perceptions towards discretionary air travel and VCO – non-verbatim notes kept in the researcher's reflexive journal along with verbatim key quotes, helped the investigator to expedite coding and analysis without compromising the reliability of the obtained record of transcripts.

In the opinion of Brinkmann and Kvale (2015), guaranteeing the validity of interview transcripts is perhaps far more complex than assuring their reliability, because different written constructions can easily originate from the same oral passage. From this perspective, Poland (2003) argues that differences in rhetorical forms of oral and written language are integrally responsible for triggering this effect since oral language transcribed verbatim may easily appear as 'incoherent' and/or 'confused' speech – which in Brinkmann and Kvale's (2015:213) own words, could be even perceived by some as a *"lower level of intellectual functioning"*. Then again, transforming interview recordings into non-verbatim transcriptions may unavoidably introduce bias – if the transcriber deviates from cleaning the speech by removing filler words, stutters, false starts, and repetitions – and begins to make unnecessary structural changes that alter the meaning of uttered speech (Poland, 2003).

For Braun and Clarke (2006), anonymisation strategies and aspects related to data reliability and validity simply cannot be seen in isolation from other methodological issues around qualitative research methods because of the researcher's profound personal involvement in all the different stages of qualitative data collection and analysis. In this regard, the usage of automated machine learning transcription (otter.ai for verbatim key quotes) in combination with reflexive qualitative practices (research journal for non-verbatim notes) not only enabled a deeper level of involvement, but also a deeper level of qualitative analysis – critical for fulfilling this study's aim and objectives in ways in which new knowledge is successfully constructed. As most of this section's discussion on ethical concerns in qualitative research revolved around the process of

conducting semi-structured interviews with CL participants, aspects related to the evaluation of this entire research design also form part of extensive discussions in Chapter 8 – whereby, the aim and objectives of this investigation are explicitly reviewed one after another, prior to articulating its original contribution to knowledge.

5.9 – Chapter Summary

In this chapter, an outline of this research study's methodological approach was presented. The appropriateness of the overall research design was defended, and the sampling strategy was justified by means of instrumentation, and pilot study. In qualitative studies, like this one, as one would typically anticipate, reflections and amendments comprised a central part of the entire research process – as reliability, validity, and ethical clearance heavily rely upon reflexivity and the researcher's ability to revise instruments to obtain findings which provide meaningful answers to the research question. Considering the admittedly unique nature of qualitative studies, the interaction between the 'researcher' and the 'participants' can become ethically challenging for the former, since they are personally involved in all different phases of the research study. Developing explicit guidelines concerning the researcher's role is hence a high priority for qualitative investigators. For this reason, a lot of attention was paid to ethical considerations related to interviewing – from designing and conduction to analysing and reporting – as this chapter already discussed in great depth. The findings of this study's first method of inquiry are presented next, in Chapter 6.

CHAPTER 6 – VCO POLICIES AND PRACTICES OF SELECTED AIRLINES

6.1 – INTRODUCTION

This chapter presents the findings of the website content analysis. In fulfilment of this thesis's second objective, information related to the VCO policies and practices of selected airlines (in the context of CSR) were digitally captured from corporate web resources for further analysis in NVivo 10 for Windows. NCapture (a feature of NVivo 10 for Windows) was utilised to 'capture' all relevant information – from 1st March 2016 to 1st March 2020. During this time, airline websites were scrutinised bi-annually for changes in relevant content, with the exemption of airlines that ceased operation within the specified timeframe. The content analysis centred on VCO to examine practical aspects surrounding its implementation and take-up potential – based on six literature parameters (as previously explained in Chapter 2 and Chapter 5). Non-regulatory influences on CSR (as deliberated in Chapter 3) and primary data accounts (as emerged from the data analysis) are drawn together interpreting the findings in relation to both theory and prior research.

6.2 – PROFILE OF SELECTED AIRLINES

As described in Chapter 5, ten UK-based airlines were chosen for website content analysis due to their indisputable importance, in terms of market share, by passengers flown globally. A short description of each airline's profile follows, to provide historical information and some sort of contextual background in relation to their business models and exemplary characteristics. In regard to profiling, airlines are ranked in order of market share from the highest to the lowest.

6.2.1 – RYANAIR

Ryanair is a European low-cost, no-frills airline, founded in 1984 – with headquarters in Dublin, Ireland. Ryanair's strategy is to operate flights from and to smaller regional airports, rather than from and to larger airport hubs, as a result of significantly lower charges for both landing and handling services. In 2000, Ryanair launched its own

booking website (www.ryanair.com) – a few months later, Ryanair's site was already known as the booking platform with the lowest airfares in Europe, taking over 50,000 bookings per week (Ryanair, 2016). In 2010, passenger numbers reached 66.5 million and by 2015, were as high as 101,400 million (Mintel, 2016). Ryanair's fleet consists of approximately 470 – Boeing 737-800 aircraft, used to operate flights from 72 bases to over 240 destinations in Europe, Africa, and the Middle East.

6.2.2 – EasyJet

EasyJet is a British transnational low-cost airline with headquarters at London Luton Airport. It operates both domestic and international flights on over 1,000 routes, in more than 30 countries (EasyJet, 2020). The company has been subject to continuous expansion, since its establishment in 1995, due to its strategic combination of acquisitions and franchise services, which has been fuelled by exponential demand for no-frills, low-cost flights on behalf of consumers. In 2015, EasyJet was recognised by Mintel (2016) as the UK's second-largest airline (after Ryanair) – with 58,646 million passengers uplifted globally. EasyJet operates more than 300 aircraft from the Airbus (A319, A320, A321) family group to serve routes from and to both primary and secondary airports in Europe, Africa, and the Middle East.

6.2.3 – British Airways

British Airways (BA) is United Kingdom's flag carrier. BA has headquarters in London, near its main hub at Heathrow Airport. In 2011, BA merged with Iberia, forming the International Airlines Group (IAG) – IAG is the parent company of Aer Lingus, British Airways, Iberia and Vueling. While, as a holding company, it is registered in Madrid, Spain – IAG's shares are officially traded on both English and Spanish Stock Exchanges. In 2015, British Airways was recognised by Mintel (2016) as the third-largest UK-based operator, behind Ryanair and EasyJet – with 41,256 million passengers carried worldwide. In its current form, IAG is the world's sixth-largest airline group, in terms of annual revenue, and the third-largest in Europe. BA operates an aircraft fleet of approximately 240 – Airbus and Boeing – planes to serve over 160 destinations, including eight domestic routes and twenty-six transatlantic routes. As a full-service network carrier (FSNC), BA's business model relies on providing an inclusive range of

pre-flight and onboard services, which may include different service classes, in-flight amenities such as entertainment, meals, and blankets – alongside connecting flights through formed alliances and network hubs.

6.2.4 – Thomson Airways

Formed from a long line of forerunner airlines, Thomson Airways began to operate in 2008. Its head office and Registered Office is in Luton, Bedfordshire. In 2015, Thomson Airways uplifted 10,611 million passengers and was therefore recognised by Mintel (2016) as the fourth largest UK-based airline by total volume of passengers carried internationally – after Ryanair, EasyJet, and British Airways. Due to its charter business model, most flights operated by Thomson Airways were run for leisure purposes on behalf of different tour operators. In 2017, Thomson Airways was rebranded to TUI Airways, after TUI Group – its parent company decided to restructure its operations and rebrand all of its five airline subsidiaries [ArkeFly (now TUI fly Netherlands), JetAirFly (now TUI fly Belgium), Thomson Airways (now TUI Airways), TUIfly (now TUI fly Deutschland), and TUIfly Nordic (now TUI fly Nordic)] under one brand name. TUI is recognised as one of the world's biggest tour operators and comprises the world's largest charter airline operator. Through its extensive network of leisure, travel, and tourism affiliations, TUI Airways (formerly known as Thomson Airways) offers flights on a fleet of 64 Boeing 737, 757, 767 and 787 (Dreamliner) aircraft, from approximately twenty-two UK-based airports to over 80 destinations around the Mediterranean, the Caribbean and the Indian Ocean.

6.2.5 – Flybe

Flybe was a British UK-based regional airline with headquarters in Exeter, England. It officially entered into administration and ceased all operations in March 2020 – due to financial difficulties which according to Flybe were compounded by the impact of the COVID-19 pandemic on bookings and air travel. Prior to Flybe's recent collapse, the company was classified as Europe's largest independent regional carrier. Flybe uplifted 7,773 million passengers between 56 airports in the UK and Europe, after Ryanair, EasyJet, British Airways, and Thomson Airways (Mintel, 2016) – with more than 210 routes across fifteen countries. Birmingham International Airport and Manchester

International Airport comprised its two primary secondary hubs, however, Flybe also operated several connection routes from other hub airports (including London Heathrow, Paris Charles De Gaulle, Dublin and Amsterdam) through strategic alliances (code-sharing) with FSNC's, which intended to accommodate passengers who required connection services between regional and hub airports to access long-haul flights.

6.2.6 – THOMAS COOK AIRLINES

Thomas Cook Airlines was a British UK-based charter airline operator, with headquarters in Manchester, England. In its latest form, Thomas Cook Airlines was founded in 2007, when Thomas Cook Group and MyTravel Group merged to create Thomas Cook Group Airlines. Thomas Cook Airlines ran most of its flights from Manchester International Airport and Gatwick International Airport, while it also operated charter flights from eight other UK bases. Thomas Cook Group operated a diverse fleet of 85 Airbus and 31 Boeing aircraft which were based across Western Europe. In the UK, Thomas Cook Airlines maintained an aircraft fleet of approximately 44 – Airbus 321 and 330. In 2015, Thomas Cook Airlines carried 6,396 million passengers worldwide and was ranked by Mintel (2016) as the sixth biggest UK-based operator after Ryanair, EasyJet, British Airways, Thomson Airways (currently known as TUI Airways) and Flybe – with nearly 31,000 flights – to countries in Asia, America, Africa and Europe. Yet, Thomas Cook Airlines entered compulsory liquidation in September 2019, after failing to secure a rescue deal of £200 million from its bankers, including government-owned RBS.

6.2.7 – JET2.COM

Jet2.com, commonly refer to as Jet2, is a British low-cost airline operator offering scheduled and charter flights from the United Kingdom. Its headquarters are located at Leeds Bradford Airport, with nine (Belfast, East Midlands, Edinburgh, Glasgow, London–Stansted, Manchester, Newcastle, Birmingham, Bristol) additional operating bases across the United Kingdom, alongside three overseas bases at Alicante–Elche Airport, Palma de Mallorca Airport, and Tenerife South Airport. The company operates flights to over 70 destinations across Europe, with a prominent focus on Spain, France, Greece, Italy, and Turkey. In 2015, Jet2 uplifted 5,853 million passengers internationally – according to Mintel (2016) this figure implies that Jet2.com comprises the seventh-

largest UK-based flight operator, after Ryanair, EasyJet, British Airways, Thomson Airways (currently known as TUI Airways), Flybe and Thomas Cook Airlines. Jet2's fleet mainly consists of 91 Boeing (B737-200, B737-300, B737-800, B757-200) aircraft.

6.2.8 – Virgin Atlantic Airways

Virgin Atlantic, a trading name of Virgin Atlantic Airways Limited and Virgin Atlantic International Limited, is a British UK-based airline with its head office in Crawley, England. The airline was founded in 1984, under the brand name British Atlantic Airways, before changing its name to Virgin Atlantic Airways. Virgin Atlantic operates a mixed fleet of 37 Airbus and Boeing wide-body aircraft to serve over 30 destinations in North America, the Caribbean, Africa, the Middle East, and Asia, from its main base at London – Heathrow Airport, and its secondary base at Manchester International Airport. The company also operates seasonal regional flights from Glasgow Airport and Belfast International Airport to Orlando, Florida. In 2015, Virgin Atlantic was recognised by Mintel (2016) as the eighth largest UK-based operator with 5,768 million passengers carried universally – after Ryanair, EasyJet, British Airways, Thomson Airways, Flybe, Thomas Cook Airlines, and Jet2.com.

6.2.9 – Monarch Airlines

Monarch Airlines was a British UK-based charter flight operator, established in 1967 – with headquarters in Luton, England. It had five operating bases at Birmingham International Airport, Leeds – Bradford, London – Gatwick, Manchester International Airport and London – Luton Airport. Monarch airlines operated a mixed fleet of 35 aircraft and served about 43 destinations with a focus on the Canary Islands and countries encircled by the Mediterranean Sea – including Cyprus, Egypt, France, Italy, Greece, Spain, and Turkey. In 2014, Monarch Airlines publicised that the company would undergo a strategic review to implement a wide range of cost reduction initiatives, in an attempt to regain financial stability. In 2015, Monarch was ranked by Mintel (2016) as the ninth largest UK-based operator by passengers uplifted internationally – with 5,723 million passengers recorded during that period. In 2017, Monarch Airlines went into administration, due to years of persistent financial losses. It was the largest airline

operator to have ceased trading in the UK until Thomas Cook's subsequent financial collapse in 2019.

6.2.10 – BA CITYFLYER

BA CityFlyer is an entirely owned subsidiary airline of British Airways with its headquarters in the Didsbury area of Manchester, England. As a domestic/regional carrier, BA CityFlyer operates a lucrative network of internal routes and European services from its main base at London City Airport. Apart from its scheduled flights from London City Airport, the Company also operates several scheduled and charter flights from Edinburgh Airport, Glasgow Airport and London – Stansted Airport to meet the demand for popular leisure destinations, including Granada, Malaga, Ibiza, Palma (Mallorca), Mahon (Menorca) and Faro. Its fleet consists of 21 narrow-bodied, short-medium range aircraft, known as Embraer 170 and Embraer 190 – with which BA CityFlyer serves approximately 26 destinations in the United Kingdom and Europe. BA CityFlyer, as BA's subsidiary, operates all its services with the full colours of the parent company, inclusive of titles and flight numbers. BA CityFlyer uplifted over 1,933 million passengers in 2015 – according to Mintel's (2016) dataset on market share, which implies it actually ranked tenth amongst UK's largest home-based airline operators.

6.3 – VCO INITIATIVES

This section of the present chapter focuses on the analysis of website findings in relation to VCO schemes. Based on the content analysis, six out of ten airlines were found to disclose information concerning their respective engagement with VCO initiatives. Thomson Airways (rebranded as TUI Airways), Flybe, Thomas Cook Airlines, and Jet2.com were found to provide no information pertaining to VCO schemes. In the light of this outcome, these four airlines were not considered any further. Ryanair, EasyJet, British Airways, Virgin Atlantic Airways, Monarch Airlines and BA CityFlyer were found to be participating in different types of VCO initiatives. These different types of VCO initiatives were grouped into three broader categories based on each airline's approach to the adoption and implementation of voluntary CO_2 offsetting initiatives. The first tactic involved opt-in donations for a fixed amount of money per person per booking. Ryanair and British Airways – BA CityFlyer were found to have adopted this type of

practice in demonstration of their environmental commitment towards sustainable development. The second tactic focused on the usage of carbon calculators as part of a third-party collaboration with carbon offset providers. This implies that air travellers who wished to participate in VCO would need to enter a transaction on two separate occasions, once to book and pay for their flight(s) and once again to calculate and pay to offset their flight-related emissions. British Airways – BA CityFlyer, Virgin Atlantic Airways, and Monarch Airlines were found to have aligned their VCO strategies with this type of optional contributions towards CO_2 emission reductions and climate change mitigation. The third tactic entailed net-zero carbon flights at no additional cost on behalf of consumers. EasyJet and British Airways – BA CityFlyer were found to have espoused this relatively new approach to voluntary CO_2 emission reductions. These three[25] categories of airline tactics as presented thus far are summarised in Table 9 and further discussed in the remaining subsections of this findings chapter.

[25] British Airways and BA CityFlyer as its subsidiary are examined under all three different categories because they have adopted a combination of tactics, as part of their VCO policies and practices.

Table 9 - VCO Policies and Practices of Top 10 UK-based Airlines

VCO Initiatives*	**Opt-in Donations**	***Ryanair in Partnership with First Climate*** ▪ Integrated into the booking process ▪ An energy efficiency small-scale community-based project in Uganda ▪ A forestry project in Portugal ▪ Perceived responsibility for offsetting: Air Travellers
		British Airways – BA CityFlyer in Collaboration with Pure Leapfrog ▪ Integrated into the booking process ▪ Energy efficiency small-scale community-based projects in the UK and overseas ▪ Renewable energy small-scale community-based projects in the UK and overseas ▪ Perceived responsibility for offsetting: Air Travellers
	Carbon Offset Calculators	***British Airways – BA CityFlyer in Collaboration with Pure Leapfrog*** ▪ Separate transaction is required ▪ A forestry project in Cambodia ▪ An energy efficiency small-scale project in Sudan ▪ A forestry project in the Amazon basin ▪ An option to contribute towards all of the above ▪ Perceived responsibility for offsetting: Air Travellers
		Virgin Atlantic Airways in Partnership with ClimateCare* ▪ Separate transaction is required ▪ Forestry projects in Africa, Asia, and South America ▪ Renewable energy projects in India and Tajikistan ▪ Energy efficiency small-scale community-based projects in Africa ▪ Perceived responsibility for offsetting: Air Travellers
		Monarch Airlines in Partnership with ClimateCare ▪ Separate transaction is required ▪ Energy efficiency small-scale community-based projects in Ghana, Kenya, Uganda ▪ Perceived responsibility for offsetting: Air Travellers
	Net-zero Carbon Flights	***EasyJet in Collaboration with Climate Focus*** ▪ No action is required on behalf of Air travellers ▪ Forestry projects in South America and Africa ▪ A renewable energy project in India ▪ An energy efficiency small-scale community-based project in Uganda ▪ Perceived responsibility for offsetting: Airline
		British Airways – BA CityFlyer in Collaboration with Pure Leapfrog ▪ No action is required for those booking/travelling on domestic flights ▪ Forestry projects globally ▪ Perceived responsibility for offsetting: Airline domestic only CO_2 emissions

Note:
* During this study's data collection period, Thomson Airways, Flybe, Thomas Cook Airlines and Jet2.com did not support any specific VCO initiatives.
**Prior to Virgin's partnership with ClimateCare, which began in 2019, Natural Capital Partners (formerly known as The Carbon Neutral Company) was their CO provider.

Source: Author

6.3.1 – Opt-In Donations

From a CSR perspective, providing financial support towards charitable donations has been historically associated with *Corporate Philanthropy* – as Chapter 3 discussed in more detail. An ideology largely compatible with acts of corporate giving, strategic philanthropy, and cause-related marketing on behalf of companies, in acknowledgement of their social responsibilities (Varadarajan and Menon, 1988; Fenclova, 2013). Despite being chronologically one of the first, and therefore oldest theoretic influences, numerous corporations in sectors with a high-CSR profile still choose to donate money to charitable causes as a prominent part of their CSR agenda. This is because firms in high-CSR profile industries are likely to have higher requirements for CSR engagement and thus necessitate a much greater level of voluntary participation in initiatives (which are designed to make them look as 'good' corporate citizens) to evade further legislation and avoid public disapproval over their detrimental socio-environmental impacts (Gray et al., 1995; Guthrie et al., 2006; Scott, 2011; Cowper-Smith and De Grosbois, 2011; Becken and Mackey, 2017).

Whilst, in the past airline contributions towards charitable causes, were likely to customarily support initiatives with a strong focus on the social element, environmental protection and climate change-related causes have now replaced a big part of such charitable donations, due to their potential to offer a better CSR-fit and improve stakeholder engagement. To declare their willingness to pay an additional charge to voluntarily purchase carbon credits, air travellers need to actively take action to check an unmarked box as part of their online booking process. This enables airlines (and their corresponding carbon offset partners) to reimburse for – or, neutralise CO_2 emissions by sponsoring projects which intend to remove GHGs from the atmosphere through forestry schemes, reduce CO_2 emissions from other sources through small-scale community-based energy efficiency projects – or, entirely eliminate CO_2 emissions from other sources through direct investments towards renewable resources like wind farms and solar photovoltaic panels.

Studies on consumer marketing and cause-related marketing have revealed both benefits and drawbacks concerning opt-in donations. On the one hand, existing research

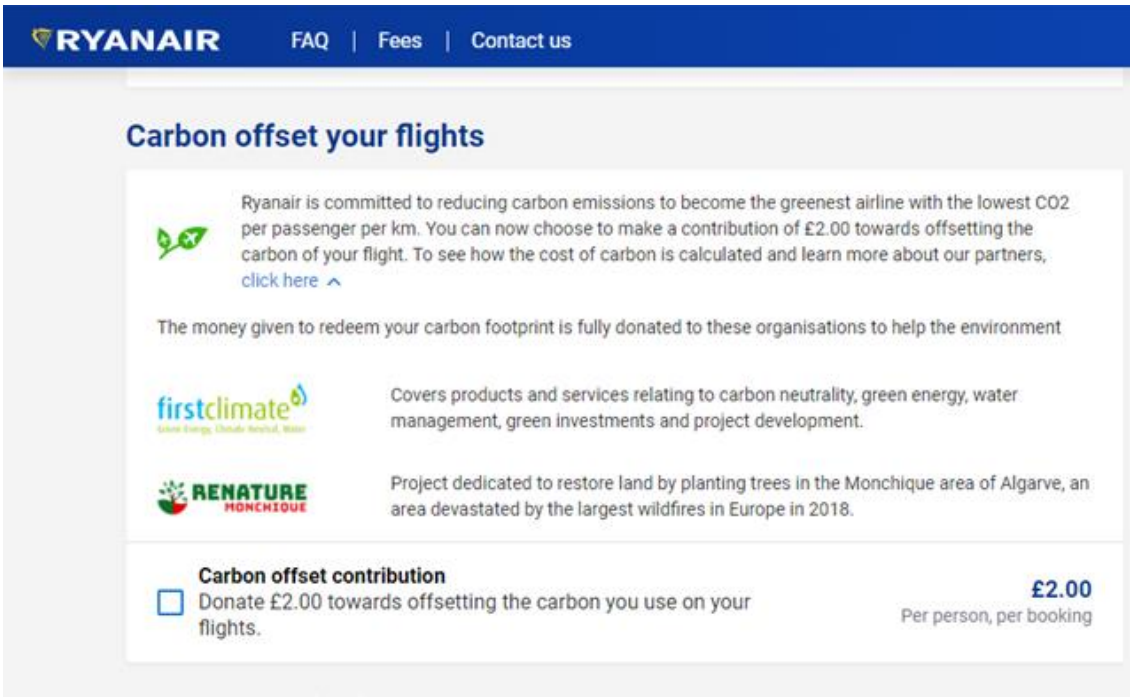
on cause-related marketing (e.g., Santoso et al., 2015; Melero and Montaner, 2016; Patel et al., 2016; Howie et al., 2018; Lee and Johnson, 2019) supports the fact that consumers are familiar with this style of donations, because it has been used by different companies, in several sectors, for many years in pursuit of a wide-range of philanthropic deeds – including cancer research, animal protection, refugee aid, and children welfare-related causes. Since opt-in donations require a relatively small amount of money to be paid on top of the cost of the service purchased, consumers are more likely to participate in such campaigns. On the other hand, studies on consumer marketing (e.g., Kim and Lee, 2009; De Pechpeyrou and Odou 2012; Muller et al., 2014; Chaabouni et al., 2020) have also shown that consumers have become more suspicious and sceptical of the business case for such campaigns. Since, it is practically impossible for individual air travellers to determine their effectiveness, as voluntary initiatives whose goal is to mitigate climate change through CO_2 emission reductions, but, in essence, fund small-scale community-based projects which tend to concentrate on social aspects (e.g., distribution of energy-efficient cookstoves in poorer countries) and/or have a strong social impact on disadvantaged populations, but result in relatively small CO_2 emission reductions – rather than focusing on projects with strong environmental impact (e.g., renewable energies) and large-scale reductions in carbon emissions.

6.3.1.1 – RYANAIR: "CARBON OFFSET YOUR FLIGHTS"

Ryanair's opt-in donation strategy was launched in 2018, with the aim to enable its customers to offset some of the environmental impact associated with their individual contribution to flight-related CO_2 emissions. As part of its online booking process, Ryanair (see Figure 18) urges its customers to donate £2 (per person per booking) towards the offsetting of the carbon emitted during their flight(s). Ryanair advises its customers that all money raised from these optional donations will be distributed (on an annual basis) to certain environmental charities and non-governmental organisations. First Climate, as a provider of consultancy services on voluntary mitigation of carbon emissions, is Ryanair's partner choice for VCO. During this study's data collection period, First Climate was found to support two different types of VCO projects with Ryanair's customer-led funds. An energy efficiency, small-scale community project based in Uganda, which aims to distribute energy-efficient cookstoves to local

households in the Kampala region, and a forestry project in Portugal, whose goal is to support the restoration of unique forest habitats in the fire-devasted areas of Monchique in the Algarve. Ryanair's first collaborative VCO project (in partnership with First climate) was claimed to have a positive impact on climate change mitigation, in addition to improving the lives of thousands of local families, through the endorsement of new stove technology which raises awareness in the local community. The second VCO project was presented as an excellent opportunity to revitalise the ecology of the Monchique region, whilst offsetting tonnes of fight-related CO_2 through reforestation.

Figure 18 - Ryanair 'Carbon offset your flight' in Partnership with First Climate



Source: https://www.ryanair.com/gb/en [accessed on 1st March 2020]

While both projects are likely to have a positive effect, in terms of CO_2-related emissions reductions [subject to growing concerns about issues around the additionality[26], leakage[27] and permanence[28] of tree-planting projects (Hamilton et al., 2007)], Ryanair's opt-in donation tactic does not take into consideration the estimated amount of carbon emissions associated with booking different types (e.g., short-haul, medium-haul, long-haul) of flights. In this regard, claiming that all flights can be carbon offset through a £2 donation is misleading. This is technically described as 'false marketing' – or, 'green-washing'. 'Green-washing' by definition involves conveying unsubstantiated 'green' claims to mislead consumers into believing that a company's products and/or practices are environmentally friendly – or, superior to those of its competitors. Persuading air travellers that a £2 donation towards VCO initiatives can potentially offset the CO_2-related emissions of their flight is considered by its very nature as the epitome of 'green-washing'. Other than being unethical as a business practice, 'green-washing' entails the danger of misleading environmentally-conscious consumer segments into acting in ways that do not address their environmental concerns. Ryanair's attempt to capitalise on the growing demand for carbon-neutral flights (by overstressing the positive impacts of its VCO initiatives without providing any means of comparison in relation to the detrimental impacts of its core business) can lead air travellers into becoming increasingly sceptic towards the concept of VCO schemes altogether. This may result in boycotting all sorts of VCO initiatives regardless of their respective methods and offsetting potential, in terms of neutralising CO_2-related emissions.

[26] Additionality is defined as the difference between emissions occurring in a baseline scenario (if nothing happens), and emissions that occur as a result of VCO. Despite some tests and/or toolkits developed by UNFCCC to help determine additionality, there is no single formula for it (Parliamentary Office for Science and Technology, 2007).

[27] Leakage is defined as the unforeseen loss of CO_2 reductions outside a project's boundary. For example, preventing deforestation through VCO schemes in one geographical area may cause wood extraction (or similar activities) to migrate to another geographical area (Parliamentary Office for Science and Technology, 2007; Kollmuss et al., 2008).

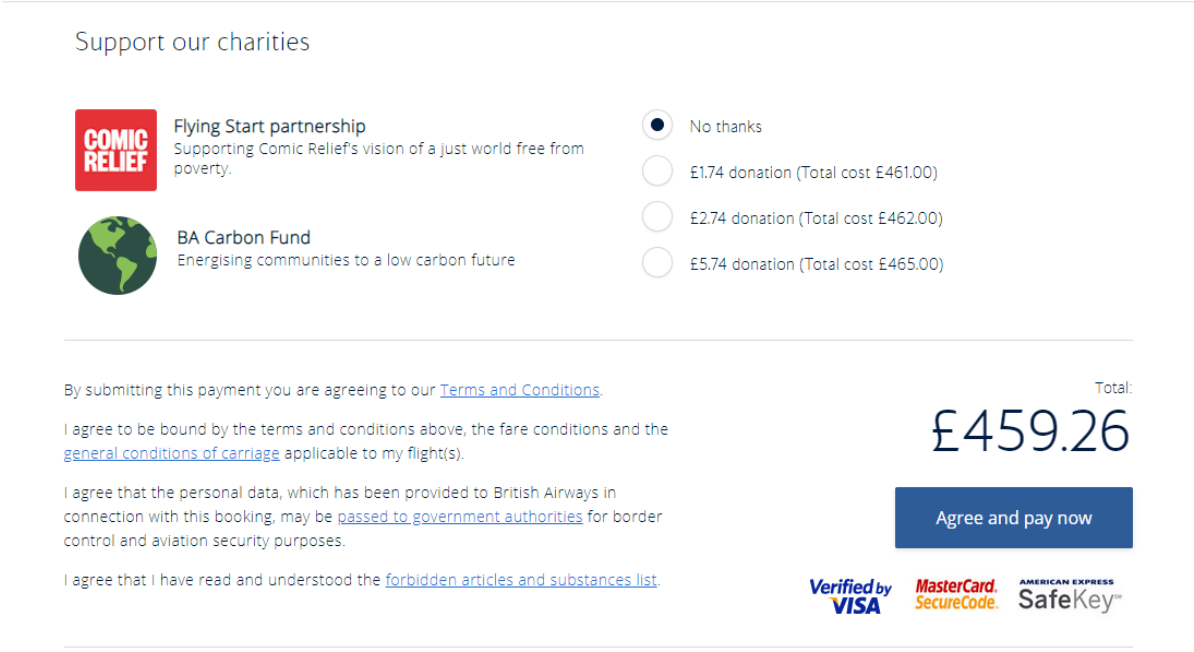
[28] Permanence refers to the ability of an offsetting scheme to preserve the reductions achieved over a period of time (Parliamentary Office for Science and Technology, 2007).

6.3.1.2 – BRITISH AIRWAYS – BA CITYFLYER: "CUSTOMER CARBON FUND"

British Airways and its fully-owned subsidiary BA CityFlyer chose to launch their customer carbon fund initiative in 2011. This initiative was British Airways – BA CityFlyer's first attempt to engage in customer-led VCO campaigns. To participate in VCO, air travellers were urged to actively check one of the three[29] radio buttons (illustrated in Figure 19) during the online booking transaction. All customer-led donations were administered by Pure Leapfrog (BA's preferred charity partner) and aimed to support small-scale, community-based, energy efficiency (LED lights on community buildings) projects and renewable energy (solar panels on school roofs and/or biomass boilers in leisure centres) projects both in the United Kingdom and overseas. Both organisations worked in collaboration to identify appropriate community-based projects with a strong social impact on communities and small reductions in carbon emissions. The main goal of these projects was to help underprivileged communities adopting cleaner technologies and living greener lives. Since reductions in carbon emissions for these small-scale community-based projects were recognised by Pure Leapfrog as not significant enough to qualify under the category of certified CO projects, British Airways – BA CityFlyer (in partnership with Pure Leapfrog) set in place a second voluntary mechanism. This subsequent voluntary initiative aimed to cater for perhaps more environmentally-conscious air travellers who sought to fully (rather than partially) offset their flight(s) by calculating their respective CO_2 emissions and purchasing credits to counterbalance an equal amount of CO_2 emissions somewhere else. This latter initiative falls under carbon offset calculators and is explored in more detail next.

[29] All options were automatically rounded up to the nearest Sterling pound (£) based on the cost of the flight about to be booked.

Figure 19 - Support Our Charities



Source: https://www.britishairways.com/travel/booking/public/en_gb/#/checkout/payment [accessed 1st March 2020]

6.3.2 – Carbon Offset Calculators

Carbon offset calculators are employed to estimate the CO_2-related emissions associated with flights. To balance these emissions an equivalent amount of carbon dioxide is reduced (usually) in other parts of the world to compensate for flight-related emissions (Carbon Footprint, [no date: online]). Offsetting as a concept, therefore, centres on providing a voluntary mechanism through which reductions can be achieved both at an individual and a business level. While, CO calculators can realistically play a vital role in relation to climate change mitigation in cases where emissions cannot be completely avoided or eliminated at source through technological breakthroughs, advances in energy efficiency, and the substitution of current energy sources with carbon-neutral alternatives, numerous technical issues and challenges have been associated with the complexity of CO calculations – as Chapter 2 highlighted in more detail.

Occupancy rates, distance flown, take-off weight, speed, and cruise altitude, in addition to the impact of highly variable atmospheric conditions make accurate calculations challenging (Gossling and Upham, 2009). CO calculations provided by airlines, in partnership with carbon trust organisations and/or CO consultancies, indicate considerable differences, concerning CO_2 estimates and accompanying charges (Gossling et al., 2007; Broderick, 2008; Hooper et al., 2008; Gossling et al., 2009). This hints that individual air travellers who make an effort to calculate their emissions via CO calculators will routinely come across various sizable disparities in estimates of CO_2 produced which also impact the associated costs payable (Gossling et al., 2007; Polonsky and Garma, 2008; Hooper et al., 2008; Mair, 2011; Velonaki and Stone, 2015). Additionally, in factual terms, the value or else the relationship between the money charged for CO_2 offsets and the explicit CO_2 offsets accomplished through such participation is largely undefined for the average consumer (Gossling et al., 2007; Gossling et al., 2009; Becken and Mackey, 2017; Zhang et al., 2019).

Despite these mostly technical issues and challenges, CO calculators are still understood to be one of the best ways to estimate flight-related CO_2 emissions, considering the multiplicity of factors influencing CO_2 estimates and associated charges, in conjunction with the lack of current and perhaps also future alternatives for certain types of transport like long-haul flights. From a behavioural viewpoint, CO calculators can help consumers to develop a better understanding of how their own travelling habits have a negative impact on the environment. In turn, improving consumers' understanding of carbon footprints by providing them with basic CO_2-related information when they need it the most, can help them to make informed decisions based on scientific estimations rather than convenience and costs. This sort of behavioural effect is lacking from approaches which either do not entail the element of calculation (e.g., opt-in donations) at all – or, do not involve consumers in the process of offsetting CO_2 emissions (e.g., net-zero carbon flights) by calculating and offsetting flight-related emissions (on consumer's behalf) behind closed doors.

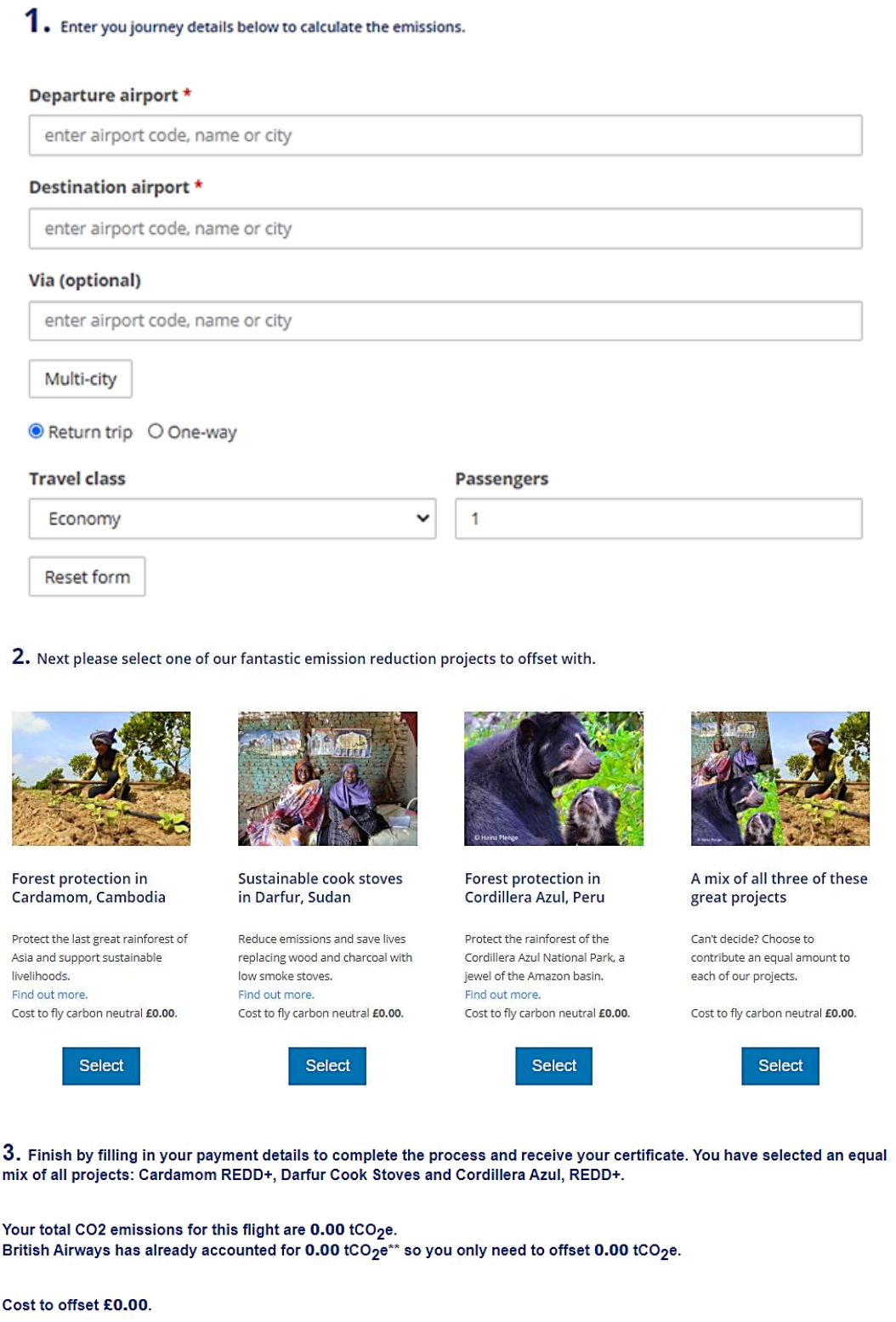
6.3.2.1 – BRITISH AIRWAYS – BA CITYFLYER: "FLY CARBON NEUTRAL"

British Airways (and its subsidiary BA CityFlyer) were found to have adopted a second VCO initiative as part of their CSR programmes. This initiative was launched in January 2020 and focused on offering customers the opportunity to offset CO_2 emissions originating from international flights exclusively[30]. British Airways – BA CityFlyer partnered with Pure Leapfrog again, this time to allow air travellers to estimate their international flight-related emissions by employing a carbon offset calculator. As Figure 20 illustrates, all customers who wished to participate in this VCO initiative would need to go through a separate transaction to that of the flight/holiday booking process. To purchase credits and offset all associated charges three steps had to be followed.

The first step involved entering the details of the journey booked or to be booked – including the number of passengers, type of trip (one-way/return), and class flown to calculate CO_2 emissions with as much precision as possible. The second step urged customers to choose an emissions reduction project to offset with. Four options were available. A forest protection scheme in Cardamom – Cambodia, which aimed to protect the last great rainforest of Asia and support sustainable livelihoods, a sustainable cookstoves project in Darfur – Sudan, which intended to reduce emissions and improve livelihoods by replacing the burning of wood and charcoal with low smoke energy-efficient cookstoves, and a forest protection scheme in Cordillera Azul – Peru, which planned to protect the rainforest of the Cordillera Azul National Park in the Amazon basin. If customers could not decide which project to support, there was an option to contribute an equal amount of funds to all three VCO initiatives. The third step entailed completing the requested payment details to finish off the purchase process and receive a certificate in recognition of this voluntary contribution.

[30] British Airways clarified that there was no need to offset UK-based emissions because all domestic flights were already made carbon neutral by the airline on behalf of consumers at no additional cost for them.

Figure 20 - British Airways – BA CityFlyer: 'Fly carbon neutral' in partnership with Pure Leapfrog



Source: https://www.pureleapfrog.org/ba/carbon_neutral/ [accessed on 1st March 2020]

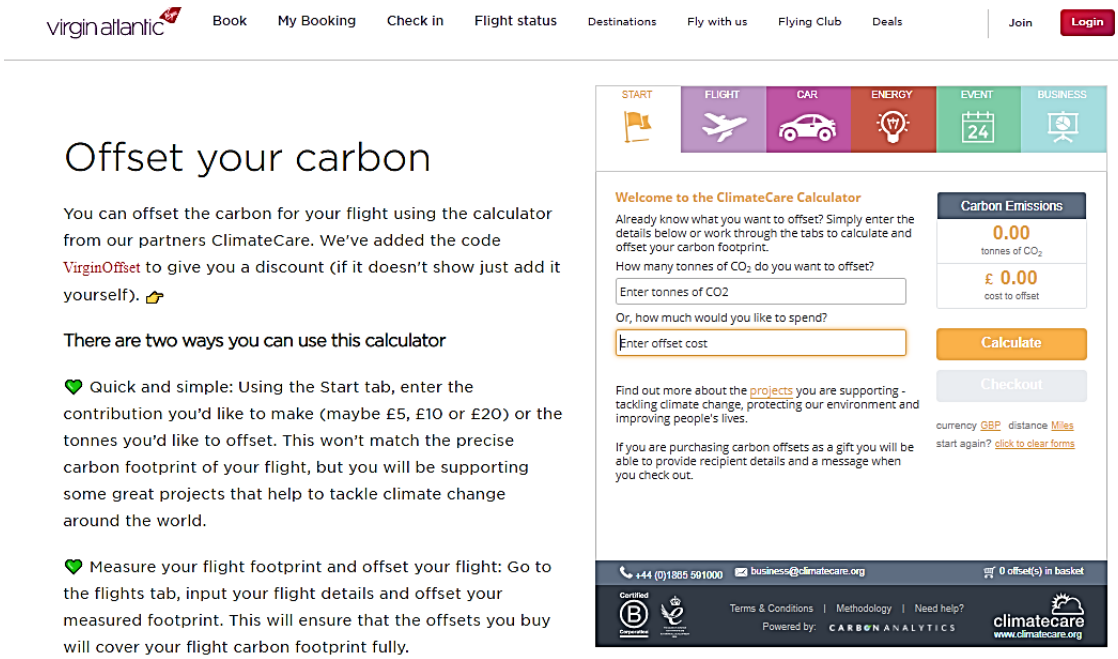
6.3.2.2 – VIRGIN ATLANTIC AIRWAYS: "OFFSET YOUR CARBON"

Virgin Atlantic Airways was found to have also embraced the concept of VCO calculators as part of its sustainability programme. To participate in Virgin's 'Offset your carbon' initiative, air travellers would need to head to its homepage, then either knowingly or coincidentally head to the website footer[31], find the sub-heading 'Sustainability' (under the heading 'Policies') and click on it, at that point the vertical scroll bar (located on the far right side of the webpage) would need to be scrolled down (subject to the size of the displaying monitor and/or mobile device) to move towards the end of the webpage viewing area (as illustrated in Figure 21) and come across Virgin's VCO initiative. To offset flight-related emissions air travellers are urged to make use of ClimateCare's carbon calculator. ClimateCare, as Virgin Atlantic's chosen CO partner (from 2019 onwards[32]) offers two different options in which the calculator could be used to offset carbon emissions. The first possibility involves making a contribution based on how many tonnes of CO_2 a person would like to offset (or else how much they would like to spend towards offsetting emissions).

[31] Like a document footer, a webpage footer contains information listed at the bottom of the page.

[32] From 2016 to 2018 Virgin Atlantic Airways collaborated with Natural Capital Partners (formerly known as The Carbon Neutral Company) to offset CO_2 emissions through two renewable energy projects – an agriculture biomass energy project in Ayutthaya, Thailand and a wind power project in West India.

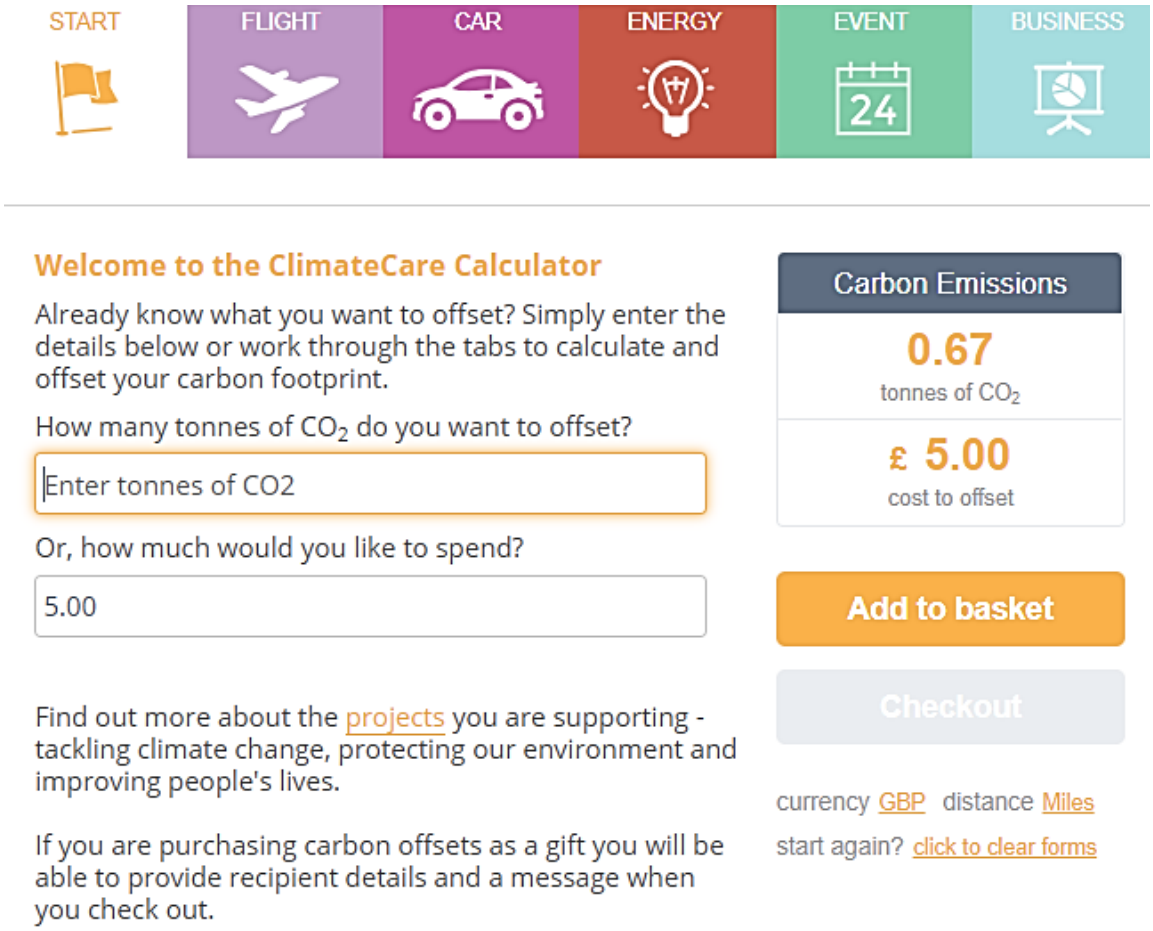
Figure 21 - 'Offset your carbon'



Source: https://corporate.virginatlantic.com/global/en/sustainability/climate-action.html#offset-your-carbon [accessed 1st March 2020]

This first approach is termed by Virgin Atlantic (in collaboration with ClimateCare) as a 'quick' and 'simple' solution (see Figure 22) whereby air travellers can choose to pay an indicative amount of money (e.g., £5, £10 or £20) – or, put down the amount of CO_2 tonnes that they wish to offset. While these 'quick' and 'simple' options do not match with precision the carbon footprint associated with one's flight(s), both partners claim that funding climate change mitigation projects across the world is still important. In terms of project range, Virgin Atlantic in collaboration with Climatecare was found to mainly fund initiatives that support rainforest protection in Africa, Asia, and South America, renewable (solar, wind, hydro) energy projects in India and Tajikistan, and energy efficiency (cookstoves) projects in Africa.

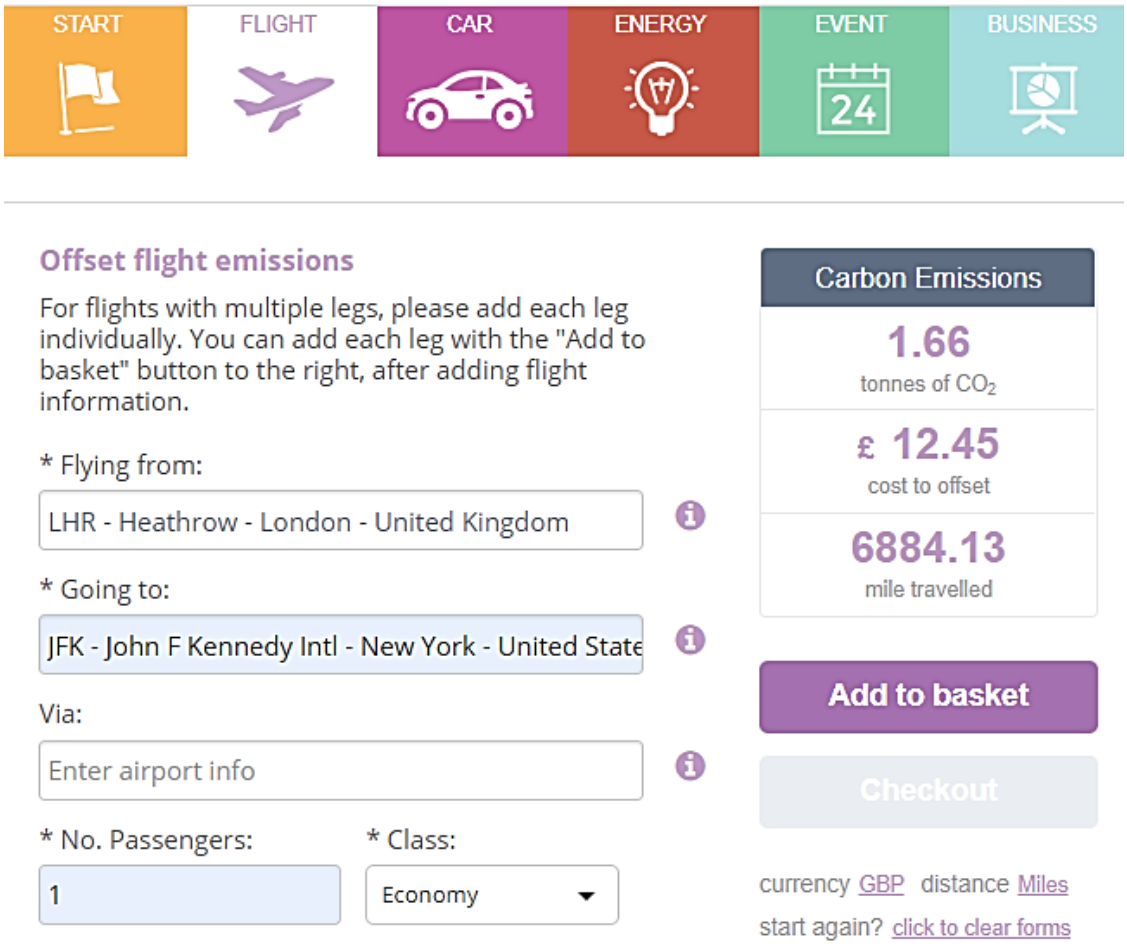
Figure 22 - Option 1 'Offset your Carbon': 'Start tab' example



Source: https://corporate.virginatlantic.com/global/en/sustainability/climate-action.html#offset-your-carbon [accessed 1st March 2020]

As a 'seemingly' second choice, Virgin Atlantic in partnership with ClimateCare, urge air travellers to measure the carbon footprint of their flight(s) (see Figure 23) in order to offset emissions. This latter approach involves selecting the flights tab (instead of the start tab) and inputting flight details, including departure/arrival airports, number of passengers travelling, class of service flown on, and type of flight (e.g., return/one-way) to get an accurate estimate of one's measured flight-related carbon footprint. Through this calculation process, it was claimed that a person's flight-related CO_2 footprint is fully offset.

Figure 23 - Option 2 'Offset your Carbon': 'Flight tab' example



Source: https://corporate.virginatlantic.com/global/en/sustainability/climate-action.html#offset-your-carbon [accessed 1st March 2020]

Irrespective of which method an individual chooses to follow what became clear through the website content analysis is that these VCO initiatives were not integrated into Virgin Atlantic's online booking process. This has both benefits and drawbacks. In terms of benefits, it is perhaps easier for air travellers to distinguish between the necessity of so-called 'extras' and/or additional amenities such as fast track boarding, extra baggage weight, travel insurance and flight meals (commonly part of the booking process) and the importance of supplementary charges associated with environmental protection and climate change mitigation. In this sense, it is made clear that VCO initiatives are not another 'extra' service that passengers are tactfully urged to add to their booking to

enhance their overall flight or travel experience. As for drawbacks, it is perhaps less convenient for air travellers having to enter into a separate transaction to pay for VCO. Additionally, one could easily claim that participating in Virgin's VCO initiatives involves a great deal of 'digging around' its website to unearth information regarding calculating fight-related CO_2 emissions and/or some level of prior knowledge or awareness of how corporate websites are built to stand a chance of finding the location of its VCO partnership with ClimateCare. Considering that most typical air travellers are largely unaware of VCO as a concept, Virgin Atlantic's approach to offsetting is highly unlikely to result in substantial contributions towards climate change mitigation.

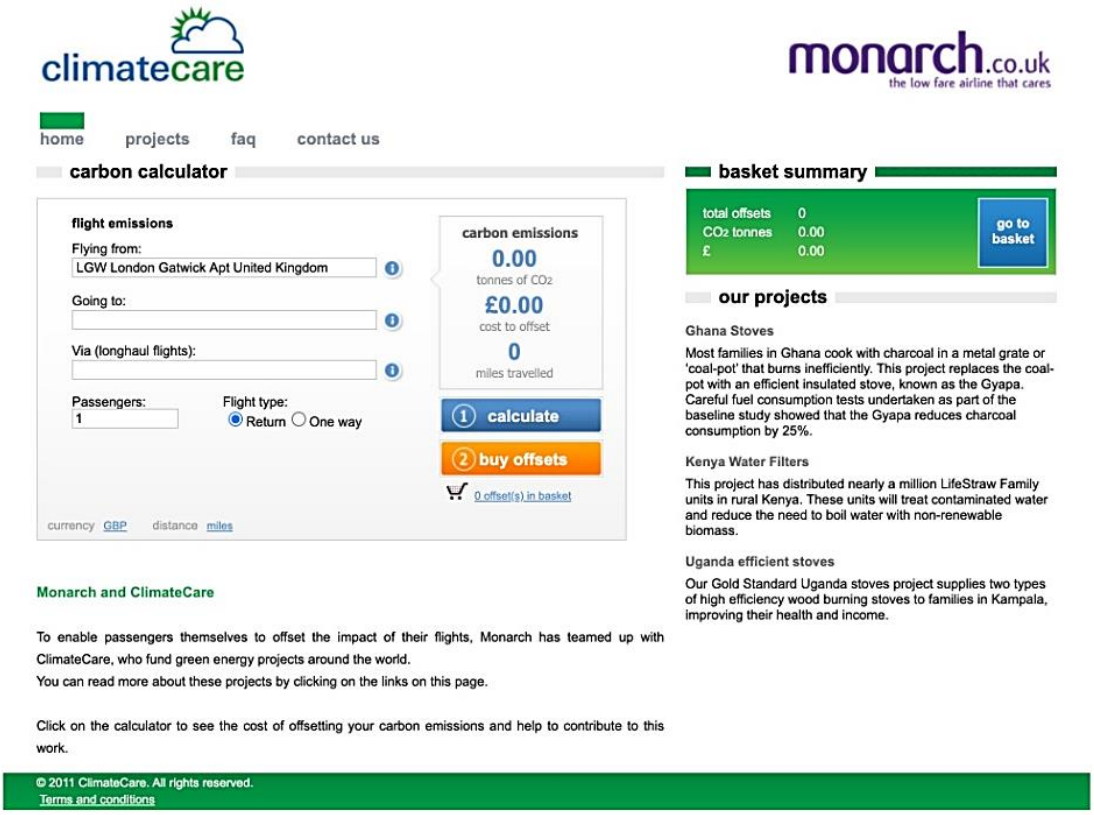
6.3.2.3 – MONARCH AIRLINES: "CARBON CALCULATOR"

Monarch's collaboration with ClimateCare began in 2011, as part of its wider commitment to minimise negative impacts on the environment and improve its environmental performance. In a similar approach to that of Virgin Atlantic Airways, Monarch's VCO initiative was not part of its online booking process. In this regard, customers who wished to participate had to head to its website footer, find the heading 'about us' and click on it, then select 'carbon calculator offset your emissions – more details' under the sub-heading 'environment and CO_2 offsetting' to be redirected (see Figure 24) to ClimateCare's website. Then, air travellers were urged to enter the details of their departure and arrival airports alongside information regarding the number of passengers and the type of flights (one-way/return) to enable air travellers to offset the impact of their flights. Carbon emissions were estimated in tonnes of CO_2, based on miles travelled, to calculate the cost to offset.

In total, three VCO schemes were funded through Monarch, in partnership with ClimateCare. All three initiatives focused on small-scale community-based energy efficiency projects. The first VCO initiative funded the use of efficient cookstoves in Ghana to reduce coal consumption by 25%. The second VCO initiative distributed water filters in Kenya to reduce the need to boil contaminated water using non-renewable biomass. The third VCO initiative supplied two types of high-efficiency cookstoves to families in the Kampala area of Uganda to reduce CO_2 emissions and improve their

health and livelihoods. 'Net-zero' flights as the latest addition to VCO initiatives are explored next.

Figure 24 - 'Carbon calculator' in collaboration with ClimateCare



Source: https://www.monarch/environmentCO2offsetting/climatecare/calculator/ [accessed on 1st September 2017]

6.3.3 – Net-Zero Carbon Flights

'Net-zero' is defined as a 100% reduction of GHG[33] emissions. The 'net' implies that some CO_2-eq emissions will still exist, but these must be offset (i.e., an equivalent

[33] To compare GHGs with each other, a metric measure called CO_2 equivalent (CO_2-eq) is used to convert the amounts of the other gases into the equivalent of carbon dioxide.

amount of GHG's must be removed from the atmosphere) through new technologies like carbon capture and storage, planting trees and/or by trading in carbon units. The term 'net-zero carbon' is thus increasingly employed to describe a wide-ranging more comprehensive commitment to decarbonisation[34]. In practical terms, reaching net-zero CO_2 emissions requires switching to clean energy sources (known as renewables) by shifting subsidies from fossil fuel industries to green energy suppliers. Increasing the share of low – or, zero-carbon energy sources, helps to meet the Paris Agreement targets and prevent the global temperature from rising to 2°C above pre-industrial levels, whilst striving to limit the temperature increases to below 1.5°C (Sokolov et al., 2017).

This movement beyond sheer carbon neutrality necessitates more activities to be included under the scope of indirect[35] emissions and typically involves a science-based deadline or target which explicitly states by when net-zero carbon reductions should be achieved, instead of relying exclusively on VCO policies and practices. Scientific studies (e.g., Sokolov et al., 2017) suggest that reaching this goal will necessitate net anthropogenic CO_2 emissions (referred to as anthropogenic emissions minus anthropogenic sinks, such as carbon capture through sequestration and reforestation) to be reduced to zero between 2050 and 2100. In other words, Scope 1 direct emissions must be completely eliminated – or, if not possible offset in full, whilst all scope 2 indirect GHG emissions from purchased electricity must be substituted with renewable energy purchases. This implies that only a small amount of residual scope 3 indirect emissions should be offset through tree-planting and carbon capture and storage methodologies.

In the context of commercial aviation, direct emissions include all the jet fuel that is burned, whereas indirect emissions account for aircraft manufacturing and disposal processes, electricity consumed to power its buildings and other premises (such as

[34] Decarbonisation refers to the eradication of carbon dioxide from energy sources.

[35] Scope 1 covers direct emissions from owned or fully-controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity consumed by the reporting party. Scope 3 covers all other indirect emissions that occur as part of a company's value chain (Carbon Trust, 2013).

hangars) and the day-to-day emissions from employee travel to and from work. Since the United Kingdom became the first major economy to pass a net-zero emissions law in June 2019, new UK-based targets involve reducing all GHG emissions to net-zero by 2050 (UK Parliament, 2019). In February 2020 UK's aviation industry pledged its commitment to net-zero emissions by 2050, in line with UK Government targets (Sustainable Aviation, 2020). This has led some airline providers in accepting the responsibility for offsetting fuel-related CO_2 emissions in acknowledgement of their social responsibilities towards anthropogenic climate change mitigation. EasyJet as the world's first major airline to operate net-zero carbon flights is examined first.

6.3.3.1 – EASYJET: "CARBON OFFSETTING FUEL EMISSIONS"

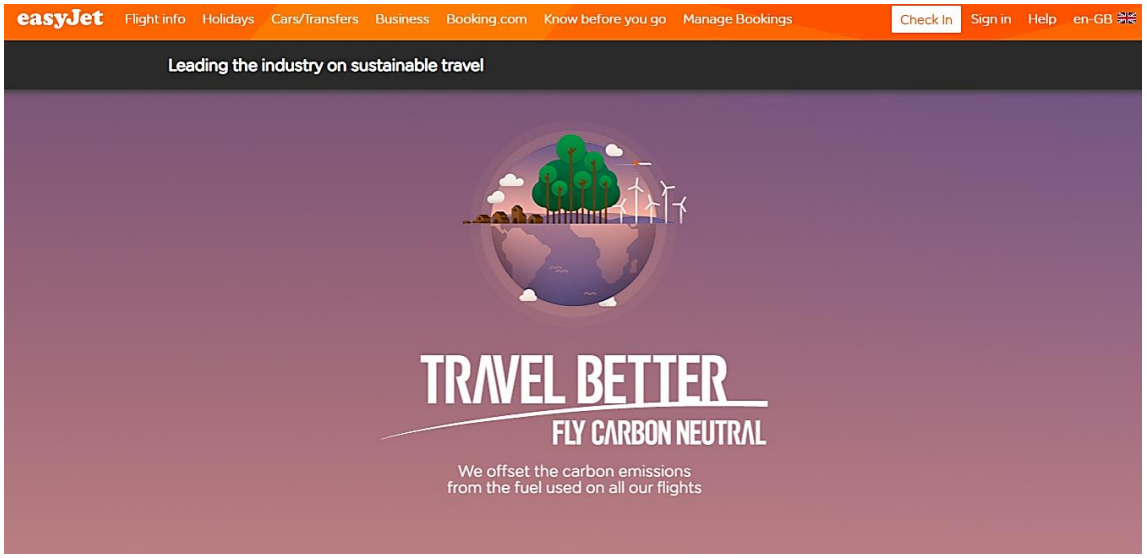
In November 2019, EasyJet first publicised its decision to offset carbon emissions from the fuel used for all flights across its entire network at no extra cost for air travellers. EasyJet aims to reduce its flight-related levels of atmospheric CO_2 in two different ways. Reductions are achieved by directly reducing its emissions through technological innovations and operational efficiencies, and by pledging to financially support VCO schemes that remove emissions from the air through investments in tree-planting, renewable energies, and other small-scale community-based energy efficiency projects. Moreover, EasyJet acknowledges that VCO is only an interim measure until new technologies such as hybrid and electric planes are fully developed and commercialised. In this regard, EasyJet aims to reduce the amount of VCO undertaken as new technologies emerge.

According to EasyJet, partnering with Climate Focus, an international advisory firm dedicated to the development of policies and practices that help to both mitigate and adapt to the impacts of climate change, provides assurances that CO_2 reductions claimed by its VCO programmes would not have materialised without the existence of that scheme – or, that by reducing CO_2 emissions in one location other geographical areas would not become inadvertently impacted. EasyJet claims to undertake a rigorous process in selecting its VCO projects, with all of its programmes being accredited by the two highest global verification accreditations – Gold Standard and Verified Carbon

Standard (VCS). During this study's data collection period, three VCO projects were advertised by EasyJet, in collaboration with Climate Focus.

The first VCO initiative supported two forest regeneration schemes in South America and Africa respectively. Apart from being a habitat for flora and fauna, forests are one of Earth's natural defences against climate change because they help to absorb large amounts of CO_2 from the atmosphere which helps to control global emissions. The second VCO initiative funded solar energy in India, whereby coal accounts for 75% of the total energy consumption. This scheme helps to lessen India's reliance on coal by reducing its overall carbon intensity. The third VCO initiative sponsored a community-based project in Uganda, whereby people collect contaminated water from rivers and lakes, and then boil it (by burning firewood) to make it safer to drink. As families will no longer need to boil drinking water, CO_2 emissions will be reduced. Figure 25 summarises EasyJet's commitment to carbon-neutral flights.

Figure 25 - Travel Better Fly Carbon Neutral



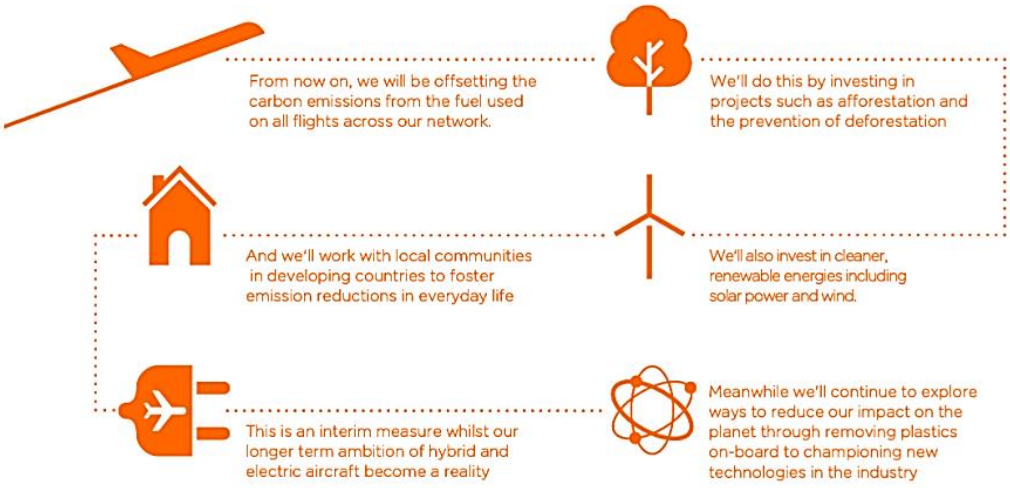
Our commitment

Flying is fantastic, it allows us to explore, relax and restore ourselves and it leads to amazing memories with old and new friends. But it's time that we took responsibility for the effect flying has on the environment.

That's why, for every single flight we operate, we'll offset the carbon from the fuel used, by investing in projects that include the planting of trees or protecting against deforestation and renewable energies.

We believe it will make us one of the largest investors in carbon offset projects globally. And even better, it will come at no cost to you, our customers.

We know carbon offsetting is not perfect, but right now we believe it's the best way to address the carbon emitted from flying. It's just part of our drive to become a more carbon neutral airline. We'll continue to research and implement other ways to reduce emissions, such as removing weight from our aircraft or taxiing on one engine. We're already championing the development of electric and hydrogen aviation technologies and will continue to do so.

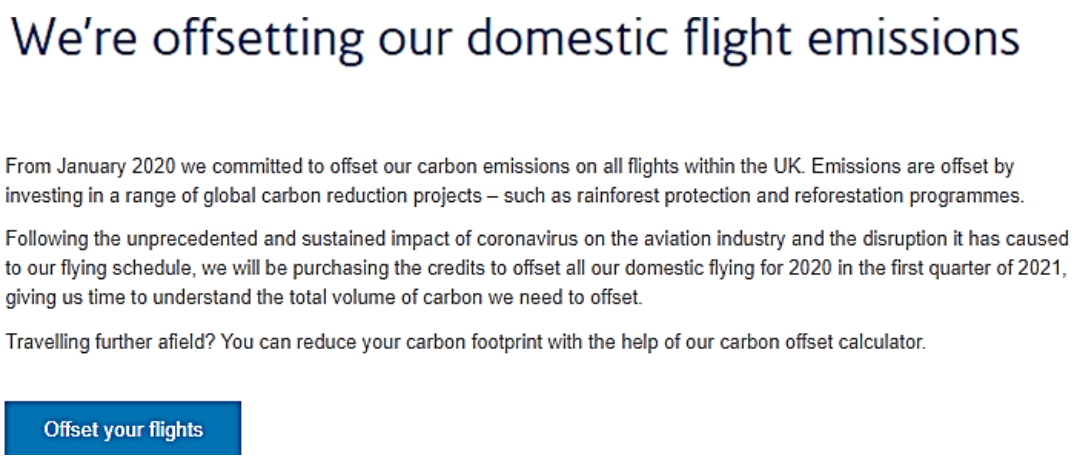


Source: https://www.easyjet.com/en/sustainability [accessed 1st March 2020]

6.3.3.2 – British Airways – BA CityFlyer: "Carbon Offsetting Fuel Emissions From Domestic Flights"

In January 2020 British Airways – BA CityFlyer announced their commitment to voluntarily offset CO_2 emissions for all flights within the United Kingdom. This implies that all of their domestic flights (see Figure 26) have become carbon neutral at no additional cost on behalf of consumers. Domestic emissions are offset through participation in a range of global carbon reduction projects – including rainforest protection initiatives and reforestation programmes. For those who are travelling further away, British Airways (and its subsidiary BA CityFlyer), in partnership with Pure Leapfrog, recommend the usage of a carbon offset calculator to offset flight-related emissions from international flights at an additional cost for consumers.

Figure 26 - Carbon offsetting domestic flight emissions



Source: https://www.britishairways.com/en-gb/information/about-ba/csr/corporate-responsibility [accessed 1st March 2020]

Taking everything into account, to make the process of comparing and contrasting airline VCO policies and practices (in the context of CSR) more straightforward and transparent, a brief visual illustration of the most significant advantages and disadvantages associated with each VCO strategy has been compiled. This tabular data, as recapped in Table 10, broadens understanding around all the different offsetting options, with the view of contributing towards the adoption rate of airline VCO initiatives and improving their effectiveness as integral elements of the industry's strategy on sustainable development and responsible tourism behaviour in the twenty-first century.

Table 10 - VCO Initiatives: Outline of advantages and disadvantages

VCO Initiatives					
Opt-in donations		***Carbon Offset calculators***		***Net-zero Carbon flights***	
Advantages (+)	Disadvantages (-)	Advantages (+)	Disadvantages (-)	Advantages (+)	Disadvantages (-)
▪ Familiarity (used for many years in pursuit of different philanthropic deeds) ▪ Small cost ▪ Easy to locate (part of the booking process) ▪ Single transaction point	▪ People are increasingly cynical and/or distrustful of the business case for such campaigns ▪ 'Green-washing' (may result in boycotting all VCO initiatives regardless of their respective methods and offsetting potential) ▪ Diluted impact (multiple causes are usually supported via opt-in donations) ▪ Questionable effectiveness (at best-case scenario donations can only offset a small fraction of the CO_2 released through air travel)	▪ More precision ▪ 'Behavioural effect' more likely to raise awareness and result in taking significant action ▪ Entering a separate transaction to pay for offsets makes it easier to distinguish between the necessity of so-called 'extras' and the importance of supplementary charges for environmental protection and climate change mitigation	▪ Hard to locate (not part of the booking process) ▪ Must enter a transaction point twice ▪ Issues of 'technical nature' (e.g., complex calculations, factual value) impact on transparency and credibility of CO calculators ▪ Behavioural and ethical challenges as only individuals are perceived as responsible for calculating/offsetting flight-related CO_2 emissions	▪ Airlines assume responsibility for voluntarily offsetting flight-related CO_2 emissions ▪ No action is required on behalf of individuals	▪ Is unlikely to raise people's awareness as they are not technically involved in the process of paying for offsets ▪ Hidden costs might be passed onto air travellers behind closed doors

Source: Author

6.4 – CHAPTER SUMMARY

This chapter presented the findings of the website content analysis of the "Top 10 UK-based Airlines". It revealed that six out of ten airlines disclosed information on their VCO initiatives. As Table 9 outlines, three broader categories of VCO initiatives were identified as part of the website content analysis. The first category entailed 'opt-in donations' for a fixed amount of money per person per booking. This practice was adopted by Ryanair and British Airways – BA CityFlyer. The second category focused on 'carbon offset calculators', which were run in partnership with Pure Leapfrog (British Airways – BA CityFlyer) and ClimateCare (Virgin Atlantic Airways[36] and Monarch Airlines) as specialists in creating independently audited carbon offsets based on international quality standards for OTC schemes. British Airways – BA CityFlyer, Virgin Atlantic Airways, and Monarch Airlines were found to have aligned their VCO policies and practices with the calculation of voluntary contributions towards CO_2 emission reductions. The third category concentrated on 'net-zero carbon flights' at no additional cost to air travellers. EasyJet and British Airways – BA CityFlyer were found to have implemented this comparatively new approach to VCO initiatives. Lastly, Table 10 summarises the most noteworthy benefits and shortcomings associated with these three VCO participatory strategies. Concentrating on VCO from a consumer's point of view, Chapter 7 presents CL citizens' perceptions towards discretionary air travel and VCO next.

[36] Virgin's collaboration with ClimateCare began in 2019, after its partnership with Natural Capital Partners came to an end.

CHAPTER 7 – CL CITIZENS' PERCEPTIONS TOWARDS DISCRETIONARY AIR TRAVEL AND VCO SCHEMES

7.1 – INTRODUCTION

This chapter presents the findings on the interview analysis. It articulates the emerging themes and explains what they mean – by bringing forward all the underpinning assumptions behind those themes and highlighting the implications of each theme in relation to literature. In that respect, this analytical reflexive process interweaves theories and prior research with the findings to construct a story around what the different themes reveal about the topic. Interviewees' voice is purposefully integrated to illustrate key topics or central ideas behind their patterned response(s) or even meaning(s) of important aspects about the research question. Critical engagement with the data, based on both theory and prior research on consumer behaviour, green consumerism, pro-social behaviour, and the 'value – action' gap, occurs innately, as a result of this study's latent – inductive approach to thematic analysis. Themes, subthemes, and codes are also illustrated for each section, in the format of thematic mind maps, as a visual reminder of emerging relationships between themes, subthemes, and codes. But first, a brief description of the analysis of interviewees' basic demographic characteristics is following.

7.2 – PROFILE OF INTERVIEWEES

In total thirty Carbon Literate citizens-consumers were interviewed – a profile of whom is presented in Table 11. In terms of the level of CL training, more than half of the participants had only completed (at the time of the interview) the Carbon Literacy standard training (labelled by The Carbon Literacy Project as a 'prerequisite' for meeting the requirements for additional training). Eleven said that they had completed Tier 2, known as the 'Carbon Literacy Trainer' Level – while, the remaining two said that they had completed Tier 3, referred to as the 'Carbon Literacy Consultancy' Level. This outcome was in line with what the investigator was expecting, since most candidates only complete the basic CL training, and a much smaller percentage go beyond that to complete further training, which essentially focuses on training others to become

Carbon Literate, through additional training and formative assessments surrounding learning styles and pedagogy in teaching and learning. While arguably those who completed Tier 2 and Tier 3 of the CL programme are likely to have a higher level of overall understanding, in terms of 'carbon literacy', since a deeper and much more critical level of comprehension, is usually required to be able to teach others and help them grow in their knowledge and understanding, compared to being on the receiving end – these implicit differences in the levels of CL were not really noticeable in the analysis of the narratives. This might be because all three ['extra-curricular', 'embedded', 'Continuous Professional Development' (CPD)] CL attendance routes at Manchester Metropolitan University entail to some extent – either a degree of pre-existing 'green' tendencies (e.g., 'extra-curricular' route) or prior engagement with the broader subject area (e.g., 'embedded' route) or else job role relevancy (e.g., 'CPD' route) or even occasionally a combination of all the above – to lead to its subsequent 'entry-level' attendance.

In terms of age, the age groups of interviewees were mixed but rather skewed towards young adults and those in their early thirties or mid-forties. This result was also not surprising because most participants were recruited through the researcher's professional network as a Carbon Literacy Trainer at Manchester Metropolitan University. This implies that many of the CL participants were either students or alumni – with some exemptions – revolving around former students who were subsequently employed by the University (or external organisations) and members of staff who completed the CL training (through their job role) based on CPD, or for the purposes of embedding the 'Carbon Literacy Standard' into relevant Undergraduate (UG) (e.g., Geography, Chemistry, Ecology and Conservation, Nutritional Sciences) and Postgraduate (PG) units/courses (e.g., Responsible Enterprise, Carbon Management, Environmental Sciences) that they might be teaching as lecturers and/or leading as programme leaders.

While both genders were interviewed, female participation was significantly more dominant – with nineteen out of thirty participants – identifying themselves, as of female gender. This finding essentially agrees with previous studies (e.g., Eagly, 1987; Hines et al., 1987; Roberts, 1993; Olli et al., 2001; Gilg et al., 2005; Whitmarsh and O'Neil,

2010; Alcock et al., 2017) on environmental issues, green consumerism and other pro-environmental behaviours – which have largely affirmed that female participants demonstrate greater environmental concern and engagement with green behaviours (like buying organic and Fairtrade produce). Other variables such as education (e.g., Whitmarsh and O'Neil, 2010; Gifford and Nilsson, 2014) and income (e.g., Chen et al., 2011; Fisher et al., 2012) were previously found to be associated with pro-environmentalism too. The findings of the present study support those of earlier investigations (Whitmarsh and O'Neil, 2010; Gifford and Nilsson, 2014) as far as education is concerned, since younger people with higher-than-average levels of education were recruited and interviewed as part of it – this evidence provides a clear indication that higher education can play an important role in influencing more environmentally friendly behaviours. Despite the fact that income was not explicitly found to be directly related to pro-environmental values – some indirect links might exist – in that individuals from more advantaged backgrounds are more likely to study in higher education, on the premises of financial limitations which are often also reflected through their higher career aspirations.

Last but not least, all those who claimed to be students were studying full-time, some were also employed on a part-time basis. Students who complete the CL trainer certification, for instance, tend to be employed through Jobs4Students to deliver CL training to other entry-level students/staff within the University or externally, in collaboration with other institutions and/or external partners. For these CL individuals working hours are usually capped to a maximum of 16-hours during term-time[37] (providing that they have the 'right to work' in the United Kingdom) depending on specific circumstances such as course level (UG, PG, PGR) as well as mode (full-time/part-time) of studying. Four members of staff were employed on a full-time position, and three on a part-time job role. No self-employed or retired participants took part in this study. Next, discussions are centred on the perceptions of the Carbon Literate group.

[37] There are usually no restrictions outside term dates for UG and PG students – with the exception of full-time PRG students who are limited to 16-hours throughout the year.

Table 11 - Profile of Interviewees

Interviewee Number	Q1: Level of Carbon Literacy	Q2: Age Group	Q3: Gender Identity	Q5: Highest level of education	Q:6 Employment status	Q7: Personal annual income
N1	CL Standard	18-24	Male	Master's Degree	Student (F/T)	Under £15,000
N2	CL Trainer	18-24	Female	Bachelor's Degree	Student (F/T) Employed (P/T)	Under £15,000
N3	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N4	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N5	CL Trainer	18-24	Male	Bachelor's Degree	Student (F/T) Employed (P/T)	Under £15,000
N6	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N7	CL Standard	35-45	Female	Bachelor's Degree	Employed (F/T)	I prefer not to state
N8	CL Standard	25-34	Female	Bachelor's Degree	Employed (P/T)	Between £15,000 and £29,999
N9	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N10	CL Trainer	25-34	Male	Bachelor's Degree	Student (F/T) Employed (P/T)	Under £15,000
N11	CL Standard	18-24	Male	Bachelor's Degree	Student (F/T)	Under £15,000
N12	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N13	CL Standard	25-34	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N14	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N15	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000
N16	CL Trainer	25-34	Male	Bachelor's Degree	Employed (P/T)	Between £15,000 and £29,999
N17	CL Standard	18-24	Female	Bachelor's Degree	Student (F/T)	Under £15,000

Interviewee Number	Q1: Level of Carbon Literacy	Q2: Age Group	Q3: Gender Identity	Q5: Highest level of education	Q:6 Employment status	Q7: Personal annual income
N18	CL Trainer	18-24	Female	Master's Degree	Student (F/T) Employed (P/T)	Under £15,000
N19	CL Standard	18-24	Male	Bachelor's Degree	Student (F/T)	Under £15,000
N20	CL Trainer	25-34	Male	Bachelor's Degree	Employed (P/T)	Between £15,000 and £29,999
N21	CL Trainer	18-24	Male	Bachelor's Degree	Student (F/T) Employed (P/T)	Under £15,000
N22	CL Standard	25-34	Female	Master's Degree	Student (F/T)	Under £15,000
N23	CL Trainer	18-24	Female	Bachelor's Degree	Student (F/T) Employed (P/T)	Under £15,000
N24	CL Trainer	25-34	Female	Master's Degree	Student (F/T) Employed (P/T)	Under £15,000
N25	CL Standard	18-24	Male	Bachelor's Degree	Student (F/T)	Under £15,000
N26	CL Trainer	18-24	Female	Bachelor's Degree	Student (F/T) Employed (P/T)	Under £15,000
N27	CL Consultant	45-54	Female	Professional Degree	Employed (F/T)	I prefer not to state
N28	CL Standard	18-24	Male	Bachelor's Degree	Student (F/T)	Under £15,000
N29	CL Trainer	35-44	Female	Master's Degree	Employed (F/T)	Between £15,000 and £29,000
N30	CL Consultant	45-54	Male	Professional Degree	Employed (F/T)	I prefer not to state

Source: Author

7.3 – Perceptions Of Carbon Literate Group And the 'Value – action' Gap

Four thematic mind maps, along with supporting excerpts from the data analysis of the interview transcripts are presented theme by theme. As King (2004) advises the usage of direct quotes from interviewees' responses represents a critical component of qualitative data reporting. Short quotes are thus included as part of this analysis to support the meaning of specific points of interpretation and validate both the prevalence and importance of the themes under discussion. Whereas, some longer passages of quoted text are selectively embedded into the narrative to give a better sense of the original textual accounts (Braun and Clarke, 2006; Nowell et al., 2017) and demonstrate how the investigator established the 'fit' between interviewees' views and her own logical and trustworthy representation of them (Lincoln and Guba, 1985; Tobin and Begley, 2004; Nowell et al., 2017). All quotes are accompanied by unique identifier tags (as illustrated in Table 11 under the interviewee number column) to exemplify the actual frequency with which different interviewees were represented across the dataset, without compromising anonymity. As Chapter 5 has already deliberated, the real names of interviewees (and the actual names of any people they might have mentioned/referred to in the interviews) have been removed and potential relationships were substituted – on occasions that the investigator deemed that they revealed information which could be used to identify those individuals or some of the other people who participated in this research project.

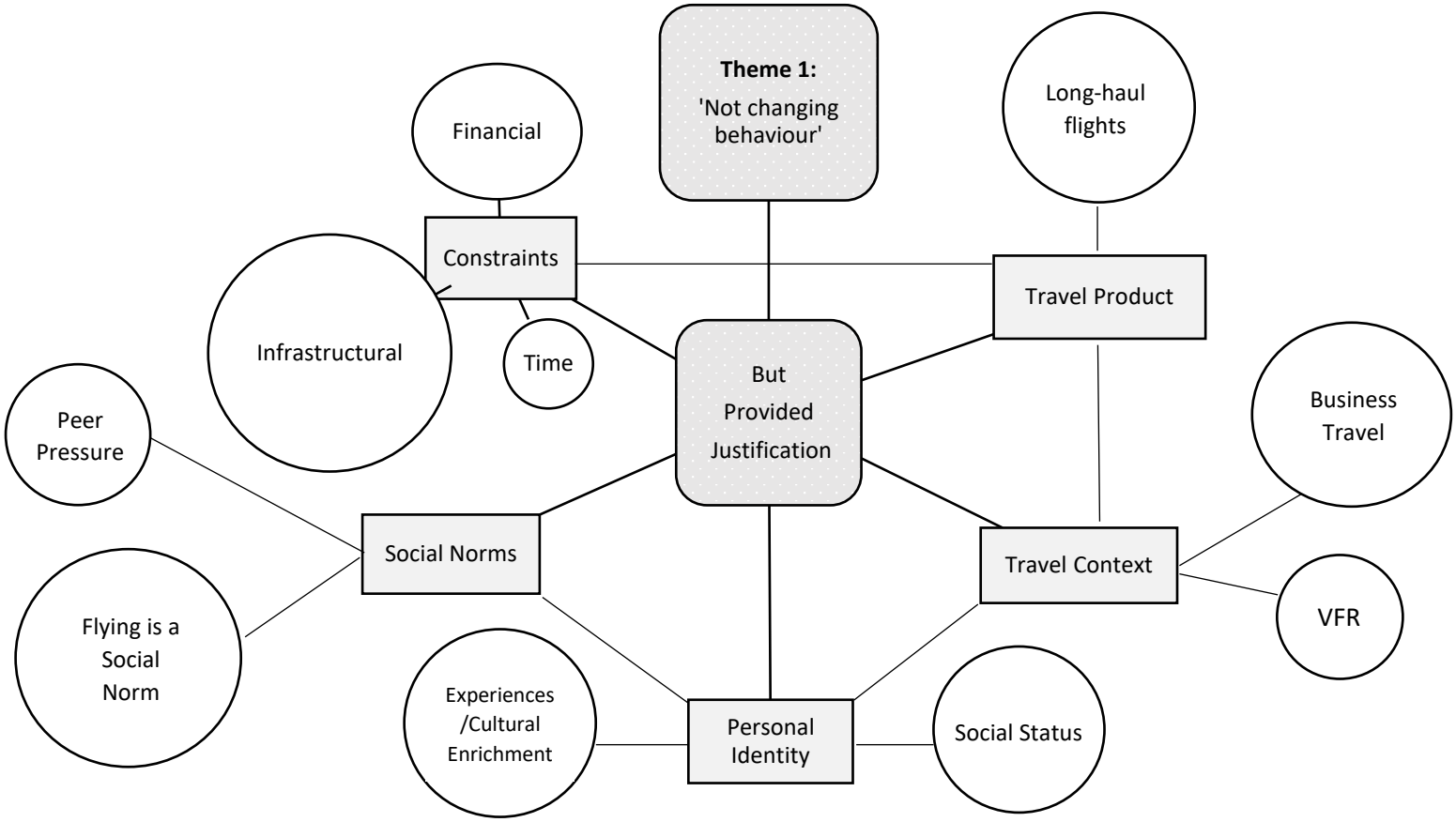
An analysis of the 'not changing behaviour' segment is presented in the following subsection. As part of this (and each subsequent) subsection, a thematic mind map is included, to be read in parallel with the findings – to facilitate the act of visualisation, between themes and subthemes (as emerged from the data) and the developed final codes for each category. Although results, at this stage, are presented by engaging critically with theory and prior literature, to bring forward all the underpinning assumptions behind those themes, and draw attention to the implications of each theme in relation to literature – a comprehensive in-depth discussion occurs in Chapter 8 – which is designed in ways that bring together this study's two separate analyses, to draw conclusions in relation to its aim and objectives and articulate its meaningful contribution to knowledge.

7.3.1 – THEME 1: 'NOT CHANGING BEHAVIOUR'

Not changing behaviour was perhaps one of the most prevalent themes according to the thematic analysis on the perceptions of the carbon literate group. This behaviour was actually exposed on a number of instances, and on this ground, several different pathways to justification were identified by the investigator. The first justification focused on the indispensability of the travel product as detailed in the following subsection. Figure 27 gives the visual representation of the interpretation of CL citizens' perceptions about 'not changing behaviour'.

Figure 27 - Thematic Map for Theme 1: 'Not changing behaviour'

<u>Note:</u> Circles represent codes, rectangles represent subthemes, and squares represent themes



Source: Author

7.3.1.1 – TRAVEL PRODUCT

This rationale was based around the central argument that there are little/no other reasonably practical alternatives to some types of flying. While, many respondents expressed a wide range of attitudes and behaviours in relation to short-haul and medium-haul flights, in comparison to long-haul ones – most of those who described various alternatives (including rail, coach travel, and car transport or a combination of the above) to short-haul flying, did not feel the same way when the discussion centred on medium-haul, and particularly long-haul flights.

> *N22: "I feel a bit helpless about flying. I know it's bad for the environment, but I don't believe I can stop flying altogether. Although I have reduced the number of short-haul flights I take – it's impossible to do the same with medium and long-haul flights. I wish…there was a way…to reach more remote places in a less damaging way, but there isn't! To answer your question, despite feeling bad about flying I still fly occasionally".*

> *N5: "I do fly when I have to. I use rail for most of my journeys and public transport for my daily commuting".*

> *N17: "I feel flying cannot be completely avoided, for many different reasons, but it can be reduced to a more sustainable size – if people become more aware of the negative impacts of flying and more open to the use of alternative modes of transport".*

Environmentally friendlier alternatives (such as high-speed trains) were mentioned or considered by interviewees, as a way of substituting predominantly shorter trips – however, the environmental benefits of such alternatives were not perceived, or prioritised in the same manner when longer journeys were involved. The most commonly stated reasons for not embracing lower carbon alternatives on longer journeys included duration of the trip, comfort and convenience, and cost. This finding affirms the results of a previous study by McDonald et al. (2015) which supported that amongst green consumers journey duration comprised one of the most prevalent rationales for not taking up alternate greener travel options. This line of thought has also emerged through the work of Randles and Mander (2009) as well as Hares et al.

(2010) – who highlighted that expressed ideals, such as that of not flying, are often compromised, in favour of practical aspects like journey time. As N2 explains,

> *"I feel that there is a lack of alternatives to flying, particularly in relation to medium-haul and long-haul flights".*

In many ways, justifications related to travel product were strongly associated with explanations provided concerning different types of constraints. For that reason, accounts which predominantly focused on limitations or inhibitors, in the context of travel product and beyond that, are further analysed under the theme constraints at a later part of this chapter.

7.3.1.2 – TRAVEL CONTEXT

Travel context included another justification behind the decision of some CL individuals to continue carrying out some flying. In this subgroup, CL participants' responses mostly centred on the desire to travel, to be with and/or visit one's, extended family and friends. VFR (Visiting Friends and Relatives) travel, as a substantial form of (both tourism and) travel worldwide, involves a visit whereby the purpose of the trip (or the type of accommodation) entails staying with friends and/or relatives. Since, this study's sample population included mostly students, seven of whom came from abroad to study at Manchester Metropolitan University – perceptions related to VFR travel varied significantly between foreign students and those who come from parts of the United Kingdom. For the former, the emotional need to reunite with family and friends, at frequent intervals, largely outweighed any environmental concerns regarding the negative consequences of flying. As one of the international students cited when referring to her feelings about air travel in relation to the environmental impact:

> *N8: "That's an area of personal inner conflict! I fly more than I'd like to because I feel the emotional need to visit family living abroad. I feel guilty for flying, but I can't stop because it's important to reunite with family and there is no other way to get to them".*

Although other subtler influences or justifications on travel context (e.g., attending specific events like the wedding of a family member in a different country to one's country of origin) have been associated with such travel choices by scholars – including Urry (2002) and Buckley (2011) – such comparable types of subtle variances in notion did not emerge as part of this research study. Yet, signs of cognitive dissonance were strongly evident, as far as VFR travel was concerned.

> *N9: "Feeling guilty, no matter what decision I make…it's…so stressful! Flying is against what I believe is right on environmental grounds, but the idea of cutting ties with family is horrifying".*

In certain ways, some of the perceptions of the VFR subgroup happened to evidently overlap with other themes – as explicitly identified through this study's thematic analysis of the interview findings. In line with this, different strategies to reduce instances of cognitive dissonance were manifest within this subgroup. For this study, however, some of the most dominant strategies that CL participants mentioned, in the context of VFR travel, to reduce cognitive dissonance are further explored under *'Theme 2: Self-curbing'* and *'Theme 3: Changing other behaviour(s) to compensate for flying'*. Now, in terms of the current theme's, the second most prevalent justification related to travel context, business travel was highlighted as a 'grey' area or a topic of 'increased concern' – predominantly from those who were employed (either internally or externally) and those who were already aware that their future career/job role would most likely necessitate some degree of frequent work-related travel.

> *N7: "Sometimes we have to follow rules set by others. I have to fly to […] once a month for work purposes – I don't agree with this – yet, it's a big part of my current job at the time being!"*

While, it was explicitly voiced that how often (or how far) employees are required to travel for work depends on the needs of the business, rather than their own individual preferences – interestingly, responsibility for offsetting CO_2 emissions originating from business travel was not directly placed with employers. This finding may be vindicating peoples' ongoing fears about losing a secure job if they were found to be speaking

against the environmental commitment and initiatives of their workplace. Of course, attributing one's own actions to external forces could be equally perceived as means of attempting to rationalise their behaviour, by placing some of the responsibility on factors that they feel they cannot directly control or influence. While, few and scarce writings (e.g., Wreford and Leston, 2011) have provided valuable insights into questioning the business case for travel – acknowledging that under the Paris Agreement (see Chapter 2) emissions from aviation would essentially need to drastically decline, travelling by plane on business grounds should be viewed as an act which is frowned upon – as opposed to somewhat businesses and business delegates should continue to pursue with little or no consideration to the negative impacts on the global environment.

7.3.1.3 – PERSONAL IDENTITY

Another subgroup of justifications for disregarding pre-existing green tendencies and environmental concerns, in favour of air travel, related to the benefits of cumulative experiences to the personal identity of individuals. The thematic analysis on the interviews essentially highlighted experiences around cultural enrichment and social status, as two of the most frequently self-expressed justifications in relation to aspects around personal identity.

> *N6: "[…] despite being harmful to the environment, air travel is in great demand because there is no other way to explore the world in short bouts of time – We are [referring to the UK] a society addicted to flying and there is no easy way to give it up!"*

> *N15: "It's a tough situation […] yet, how can people give up flying when we live in a world that promotes flying and heavily relies on flying for economic and socio-cultural purposes?"*

> *N25: "Travelling by air has both its benefits and drawbacks. It's hard to choose what's best, I understand that! Based on my circumstances I can't fly much, for now, but I know that travelling around the world is one of the most common things that people of my age dream to do after University if they can afford it. It's an expectation I'd say – just taking a gap year to travel before start working or studying again would mean so much to me – it could be the best year of my life! How can I say no to a one in a lifetime experience?"*

Stone and Cooper (2001) suggest that cognitive dissonance, when associated with justifications related to personal identity, may indeed manifest itself with a two-fold outlook. This discomfort or internal conflict can arise either at a personal level or at a normative level. In terms of the former, cognitive dissonance can be triggered when a person compares their current behaviour against their own pre-existing tendencies, values and standards – while, cognitive dissonance, in the context of normative standards, centres on the comparison between an individual's personal standards and society's broader socio-cultural standards. Personal norms and values are undoubtedly important in guiding and directing behaviour because they provide a sense of order and predictability in social relationships which sequentially helps to make better sense of each other's actions.

According to Schwartz (1977), personal standards tend to influence altruistic behavioural intention and action. In the context of this study, evidence from previous research (see De Groot and Steg, 2008; Steg and Vlek, 2009; Alcock et al., 2017) suggests that people with strong self-transcendent or altruistic values tend to demonstrate greater engagement with pro-social behaviours – with the notable exception of air travel. While, findings on interviewing CL people (as presented up until now) generally appear in agreement with those of earlier researches on behavioural intention and action, and therefore reinforce the existence of a gap between one's values on environmental issues and actions towards discretionary air travel – some thought-provoking original insights have also emerged, concerning the personal standards or norms of those who have stopped flying due to experiencing strong feelings of internal conflict – as *'Theme 4: Stopped Flying'* reveals in a subsequent part of this chapter.

7.3.1.4 – SOCIAL NORMS

Yet, there are numerous ways in which societies also influence people's behavioural intention and action (Ajzen and Fishbein, 1975). Justifications related to social norms, therefore, provided a wide range of stimulating understandings into how behaviour tends to change, to fit expectations set by ourselves and by others. The analysis here revealed that peer pressure played an important role in the decision-making process of some CL individuals, who continued to undertake flights, for the sake of 'being' in line with the norms of their peer groups around discretionary air travel – despite feeling entirely out of line with their 'own' green ideals.

> *N5: "I flew to [destination removed] to celebrate an achievement with some of my best friends and classmates. I didn't consider the environmental impact of taking that flight because I didn't want to make everyone feel awkward about it…I guess I felt they wouldn't understand or accept going somewhere in the UK instead".*

> *N22: "I feel super conscious about the last time I flew. I flew to [destination removed] with a group of friends. I didn't think of the environmental consequences before booking flights to [destination removed] – had I thought about it, I know I wouldn't be able to join my friends on this once of a lifetime journey".*

For others, air travel simply constituted a broader social norm that is closely intertwined with personal identity, experiences, and higher social class status.

> *N4: "I consider air travel as a modern necessity, but I also know it is misused by many […] It's an important part of all developed countries because their societies rely on air travel for trade, commuting, leisure, tourism, business – yet, many people chose to fly for the sake of flying".*

In this regard, one way of determining 'normal' or 'appropriate' ways of behaviour, based on different social scenarios, is observing the numerous role(s) that different people play within societies. While, individuals are generally "expected" to behave in certain ways, in particular situations – each social situation itself, gives rise to its own set(s) of expectations. In line with this, the social role(s) that individuals play, as

members of a particular social group, are largely dependent upon conforming to the expectations of others. For most people, according to McLeod (2008), there are considerable pressures to customarily conform to the guidelines that have been provided as part of their roles in society. In the context of travel and transport, however, for many decades social norms have been rationalised or appraised frequent travel behaviours through associations that focused on some of the most constructive implications of it, such as that of cultural enrichment, social status, and financial affluence (Urry, 2011).

Since the onset of commercial aviation and its subsequent development and expansion into a global system of both lifestyle and commerce – air travel has been progressively gaining immense prominence – to the degree where individuals nowadays basically identify themselves with, what Gossling and Stavrinidi (2016:723) defined as *"liquid mobility-focused"* self-identities. In Gossling and Stavrinidi's (2016) terms, the act of travelling by air has recently ended up gaining even more prominence due to the embellished glamorisation of mobility on social media platforms. Such underpinnings were not made explicit through this study's analysis on CL citizens' perceptions – although noteworthy changes in the evolution of moral and social norms surrounding air travel were strongly evident. On multiple occasions, for example, interviewees referred to the addiction to flying as a modern phenomenon, and they claimed that existing *"in a world that promotes flying and heavily relies on flying"* unavoidably makes people want to travel more by air, rather than considering giving up air travel.

On the other hand, as stated by Gossling et al. (2020) earlier old-fashioned 'jolly' perspectives on air travel have lately started to be questioned by newly initiated pro-environmental global movements, like Fridays For Future and Extinction Rebellion. Because of these campaigns travelling by air has finally begun to be seen as a 'selfish' and 'harmful' activity which remains largely unaligned with global goals on sustainable development. 'Flight-shaming' as popularised by (climate change activist) Greta Thunberg could therefore signify the beginning of the end for 'binge-flying' – if social norms surrounding discretionary air travel progressively evolve to the extent that people's *"perceptions, interpretations and actions"* (Hargreaves, 2011:79) towards it align with new social norms such as that of flight shame. According to the thematic

analysis on the interviews, however, people's behaviour is habitually rooted within structures of provision which are usually made up of time constraints, infrastructural access, financial resources, and wider common structures such as peer groups – all of which, either directly or indirectly impact on the needs and the wants of individuals. These interrelationships are further complicated by people's personal and social 'self-identities' (Hibbert et al., 2013), alongside numerous other circumstantial factors (Schwanen et al., 2011) related to transport behaviour.

> *N6: "I feel totally defeated when it comes to flying…"*

> *N11: "There is not much we can do about it – not many alternate ways to get across oceans unless you are Greta Thunberg [referring to Greta's carbon-neutral transatlantic crossing in 2019 to attend a climate conference in New York]".*

Nevertheless, as Steg (2005) argues where sentimental or symbolic dimensions motivate transport behaviour, behavioural change becomes increasingly complicated, even where 'change' is somewhat feasible, in terms of substitutes. In Thogersen's (2004) words, behavioural change is more about weighing the relative moral importance of green ideals – to decide whether to risk transgressing against one's own moral principles (referred to as 'idiographic dissonance') or succumb to peer pressure and wider social norms (referred to as 'nomothetic dissonance') and overrule own beliefs.

7.3.1.5 – CONSTRAINTS

The final subgroup of justifications is related to financial, infrastructural, and time constraints. In agreement with Eckhardt et al.'s (2010) prior work, financial constraints were often voiced by CL respondents, in an attempt to justify choices typically related to the travel product, but occasionally beyond that – to include the travel context and experiences around personal identity and social status.

> *N12: "There is no real substitute [to flying] – both timewise and moneywise".*

N21: "In terms of air travel, substitutes are usually more expensive and less convenient. On most routes, flying to Europe with Ryanair or EasyJet is cheaper than booking a train. Under these circumstances, one's internal drive [for sustainability] must kick in to opt for the second – for most people that never happens!"

N4: "Since low-cost airlines emerged flying doesn't cost as much – most people can afford to fly several times a year…that says it all!"

N22: "I can't directly influence society's wider attitude or infrastructure towards green energy – in that way, I don't feel morally responsible for flying long-haul because I'm not in a position to make a decision on moral grounds – it's not like I have an option to fly on an electric or carbon-neutral plane, but I choose a fossil fuel one..."

Moreover, when N4 referred to the last time that she flew, she claimed that booking flights with multiple connection points was significantly cheaper (compared to taking a direct flight) – which implies that opting for less environmentally friendly travel alternates is heavily reliant upon price. This finding concurs with McLachlan et al.'s (2018) conclusions, regarding consumers not exerting pressure for greener travel (through their purchasing decisions) because they are inherently price-sensitive and hence seek to fly with the cheapest carrier when booking a ticket. In Gossling et al.'s (2020) opinion, fresh common understandings surrounding air travel must first penetrate existing or already established social norms before subsequently translating into behavioural change, in practice, at the level of the individual. As N29 describes,

"There is an expectation or assumption that those of us who work in sustainability-related roles, have sustainable-living all figured out. Well, we don't – we face exactly the same barriers that average citizens do – money, time constraints, scepticism, willpower, and of course, the benefit of convenience!"

In summary, whereas, some of these concerns surrounding justifications related to different constraints (financial, infrastructural, time) – and the indispensability of the travel product depending on different travel contexts, were occasionally reported to a

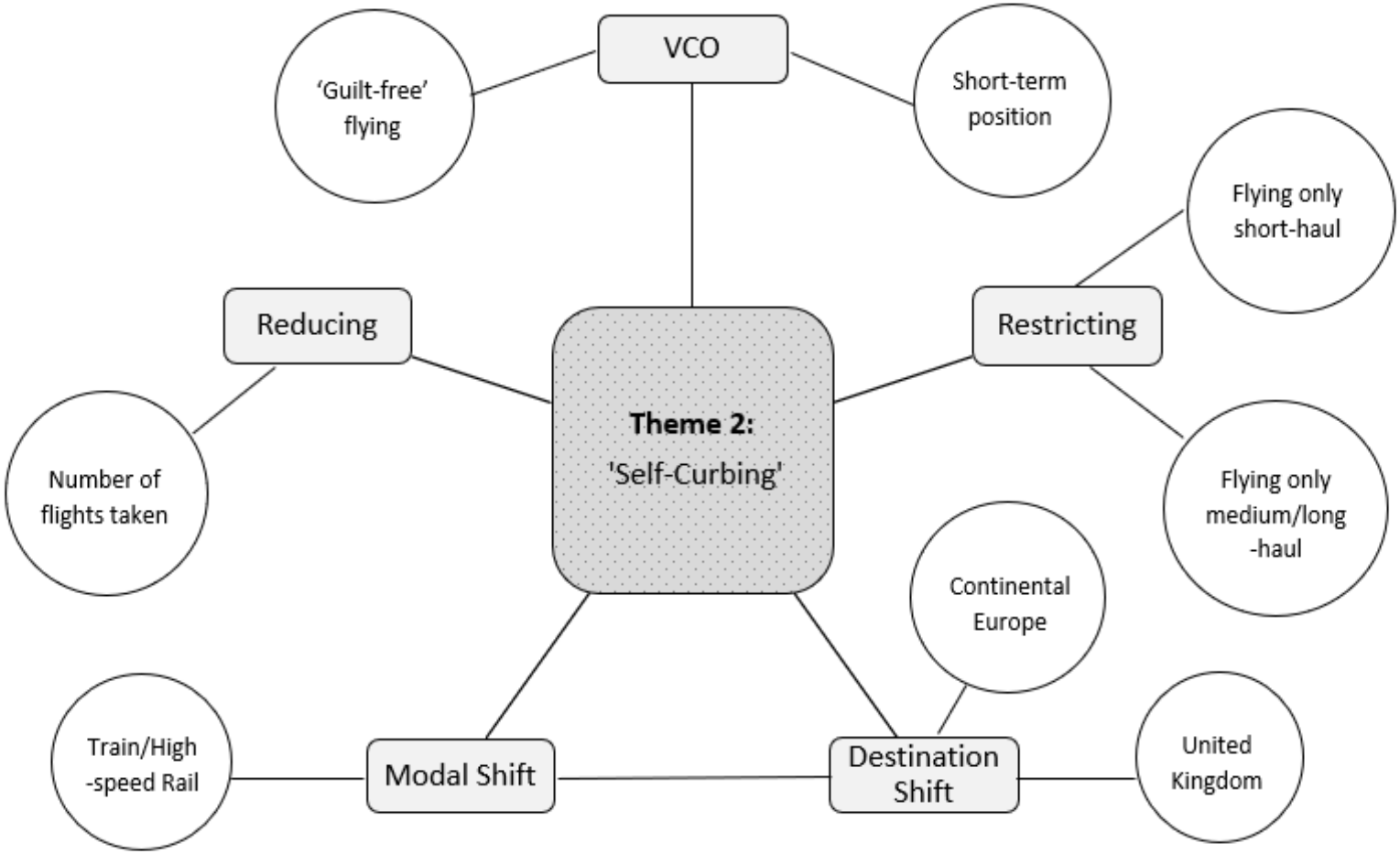
certain degree by most CL respondents – the modal shift was more evident, in those who had pro-actively pledged to reduce the total number of flights they are taking each year through 'self-curbing'. The concept of 'self-curbing' is explicitly considered in the next thematic subsection of this chapter.

7.3.2 – THEME 2: 'SELF-CURBING'

The thematic analysis on the interviews, apart from justifications related to those of not changing behaviour, revealed three interpretations for changing behaviour(s) to allow a closer alignment with one's own pre-existing green tendencies and ideals. This second theme mostly describes aspects around reducing the number of flights taken – or, restricting flights to only those which are impossible or difficult to substitute through a modal shift and/or destination shift. Instead of radically changing their travel-related behaviour some of the CL participants also chose to address their environmental concerns about the negative consequences of air travel, through what is known as voluntary participation in CO_2 offsetting schemes – led by airlines, independent carbon offset providers, or in collaborative contexts. Figure 28 gives the visual representation of the interpretation of CL citizens' perceptions about 'self-curbing'.

Figure 28 - Thematic Map for Theme 2: 'Self-Curbing'

<u>Note:</u> Circles represent codes, rectangles represent subthemes, and squares represent themes'



Source: Author

7.3.2.1 – REDUCING

Many CL interviewees stated that they have consciously reduced the number of flights taken each year, in response to feeling increasingly worried about the global effects of air travel on climate change.

> *N2: "I fly but rarely. I try to find ways to get to places without taking a plane".*

> *N18: "If I can get from A to B without flying then I don't need to fly – it's as simple as that!"*

This shows that those CL participants who have been diligently seeking to reduce their air travel-related consumption on environmental grounds are more open or willing to explore all other options before considering the act of travelling by air. Yet, changing behaviour over the number of flights taken is aimed at reducing the gap between an individual's values on environmental issues and action towards it, not eliminating it – McDonald et al. (2015) have dubbed similar findings as a way of getting a grip on a difficult situation, by first starting to understand it and then progressively taking some control of it, with the ultimate goal of repairing self-consistency or reducing feelings of internal conflict.

7.3.2.2 – RESTRICTING

In contrast to changing behaviour over the number of flights, restricting flights to only a certain type (e.g., flying only on short-haul, medium-haul, or long-haul routes) essentially highlights the array of diversity in the idiosyncratic criteria that people utilise to help them decide which flights to give up, to narrow down the gap between their pre-existing values on environmental issues and resultant actions – without drastically changing their air travel consumption patterns. Some people from this subgroup, for example, felt that abstaining from long-haul flights is the best course of action they can take to reduce their CO_2 emissions and thus help the climate crisis.

> *N24: "I haven't flown long-haul for three years and that was a decision I consciously took because I know that emissions are proportional to the distances flown".*

Others only perceived medium to long-haul flights as an acceptable type of air travel behaviour and condemned all those who fly, for no apparent reason to places that are merely a couple of hours away and can be easily accessible by land-based transport.

> *N19: "I don't understand why anybody would decide to fly – let's say from London to Paris or Glasgow to London when opting for an environmentally friendlier alternative is a no brainer".*

For the first subgroup, flying long-haul is morally unacceptable based on the hefty amounts of CO_2 emissions that are associated with higher altitude long-distance flights. In contrast, the second subgroup considers taking short-haul flights as a travel behaviour that can be avoided without difficulty due to infrastructural access and negligible personal sacrifices in terms of convenience, time, and cost. While, it is true to say that long-haul flights can easily double or triple an individual's total annual CO_2 footprint, travelling frequently by air on short-haul routes can be equally damaging because take-off and landing are the most carbon-intensive phases of a flight. On this occasion, perhaps what matters the most is whether respondents are favouring one type of flying over the other based on common misconceptions rather than moral motives as it was explicitly stated.

7.3.2.3 – MODAL SHIFT

Many CL interviewees were found to have espoused a modal shift approach as part of their efforts on reducing air travel consumption – travelling by train (within the United Kingdom) and/or the usage of high-speed rail on cross-border networks (in Continental Europe) dominated discussions around self-curbing through a modal shift.

> *N13: "I just stopped flying on short-haul routes – [referring to travelling by train] it's actually a lot easier and more enjoyable than I thought when I pledged to not fly unless I really…really need to".*

> *N30: "Travelling through Europe by train is an excellent alternative to flying – there's no better way of getting a real feel for a place than travelling on cross-border high-speed trains from country to country".*

Changing behaviour by choosing to replace less environmentally friendly modes of transport (like that of air travel) with greener substitutes (such as trains) makes reducing an individual's air travel consumption feasible – when alternatives are generally available at a relatively similar cost and they happen to offer elements of added convenience (e.g., sleeper or overnight train services) without compromising travel time substantially. On this basis, the likelihood of substituting long-haul flights with railway travel is highly unlikely. Moreover, modal shift as a behavioural change brings into question whether people are likely to continue feeling the same level of climate-related motivation towards railway travel permanently – especially once the 'novelty' of this type of journey has begun to wear off and perhaps their personal everyday inhibitors have begun to kick in again.

Another common concern regarding replacing short-haul to medium-haul flights with railway travel relates to the travel context. For leisure travellers, travelling by train perhaps could be regarded as an important part of the individual's entire travel experience – what some CL respondents indirectly described as a somewhat 'added bonus' when talking about being able to look out of the carriage's window and take inspiration for future trips from different landscapes and landforms. For business travellers (who as a segment are likely to travel regularly but only stay at a given place for a short time) longer travel duration could be considered as an outright deal-breaker – both from a business point of view and a work-life balance viewpoint. As N7 explains,

> *"To be honest, I can't see myself replacing business-related flights to foreign countries with other types of journeys…even if it was feasible – spending more time away from my family…wouldn't be practical [referring to herself as a person with increased work and family commitments] maybe [referring to train travel] could appeal to younger professionals with fewer responsibilities outside work".*

As it is evident from the analysis and interpretations concerning modal shift, the rationales of CL participants emphasised the fact that when the mode of transport is replaced or substituted with surface travel alternates – this behavioural change is unavoidably accompanied by an alteration or a compromise in terms of destination.

Understandings around destination shift, however, are not always located around the notion of modal shift – for that reason destination shift is examined as a separate subcategory that centres on addressing perceptions associated with destination shift for motives beyond that of modal shift.

7.3.2.4 – DESTINATION SHIFT

Destination shift comprises another area that was highlighted by CL respondents in respect to reducing the number of flights taken. Explanations for this subcategory were predominantly focused on aspects around putting an end to the marketing 'brainwashing' of travel giants and helping local tourism-related businesses to recover – after many years of struggling to attract a domestic influx of tourism due to the extremely competitive pricing of abroad package holiday experiences and other status-related connotations around the cultural importance of travelling to far away or exotic destinations as a means of portraying an upper-class position in society. According to N14,

> *"British people should make an effort to visit different places or attractions within the United Kingdom before deciding that this country has nothing to offer in terms of holidaying".*

Others appeared to compare travelling within a person's country of origin or residence (in cases where people do not actually reside in the country of their origin) with the environmentally friendly household behaviour of buying locally made goods and products.

> *N10: "If a person can understand or acknowledge that purchasing locally sourced ingredients is good for the environment because it reduces the carbon footprint of food – destination shift is a matter of drawing a parallel line between what kind of behaviours can reduce the carbon footprint of travel".*

While, in theory taking a holiday in an individual's home country, what is termed as a 'stay-cation' should be as easily done as said, at least for those people who are openly self-expressing that they acknowledge the negative effects of air travel on climate

change and/or feel increasingly concerned about it – in practice, numerous prior research inquiries (e.g., Randles and Mander, 2009; Barr et al., 2010; Hares et al., 2010; Higham et al., 2014; McDonald et al., 2015; Alcock et al., 2017) have established that pro-environmental attitudes related to household behaviours do not apply to discretionary air travel. This finding indicates that the decision-making process of consumers concerning discretionary air travel is perhaps much more complicated than that of other behaviours – possibly because when an individual perceives themselves to have little or no choice over their behaviour, cognitive dissonance is simply not occurring according to the theorists and experimental psychologists Festinger and Carlsmith (1959) and Collins and Hoyt (1972).

In this way, the person manages to escape any feelings of discomfort or internal conflict through attributing this inconsistency between values and action to external forces beyond one's control as Thogersen (2004) argues. The thematic analysis of this study's interview transcripts has some interesting insights to offer – particularly, in relation to the subgroup of CL participants who have stopped flying, as a result of their concerns over aviation's contribution to climate change. But first, 'self-curbing' through participation in VCO and changing other behaviour(s) to compensate for some flying are discussed next.

7.3.2.5 – VCO

Participation in voluntary carbon offsetting schemes was brought up by some of the CL respondents, as a way of neutralising the environmental impact of fights that they felt cannot be avoided or substituted with an environmentally friendlier mode of transport. Overall CL respondents gave the impression that participation in VCO represented a temporary position for them – not a permanent solution to the problem of mitigating anthropogenic climate change.

> *N4: "It's not a long-term solution [referring to VCO], but I think it can momentarily slow down climate change".*

N17: "It can make a difference for the time being, but if we only rely on this approach to reduce CO_2 emissions and do not also try to reduce the number of fights taken, we will probably run out of physical space to run those schemes in the near future".

While some argued that offsetting the carbon footprint of one's flight is better than taking no action at all – others, drew attention to the rudimentary business-as-usual message which underlies voluntary participation and they highlighted that such initiatives ultimately fail to force people to rethink their travel consumption.

N1: "I don't like the 'business-as-usual' logic behind voluntary offsetting […] I believe that the best way of making a difference is consciously avoiding air travel as much as possible".

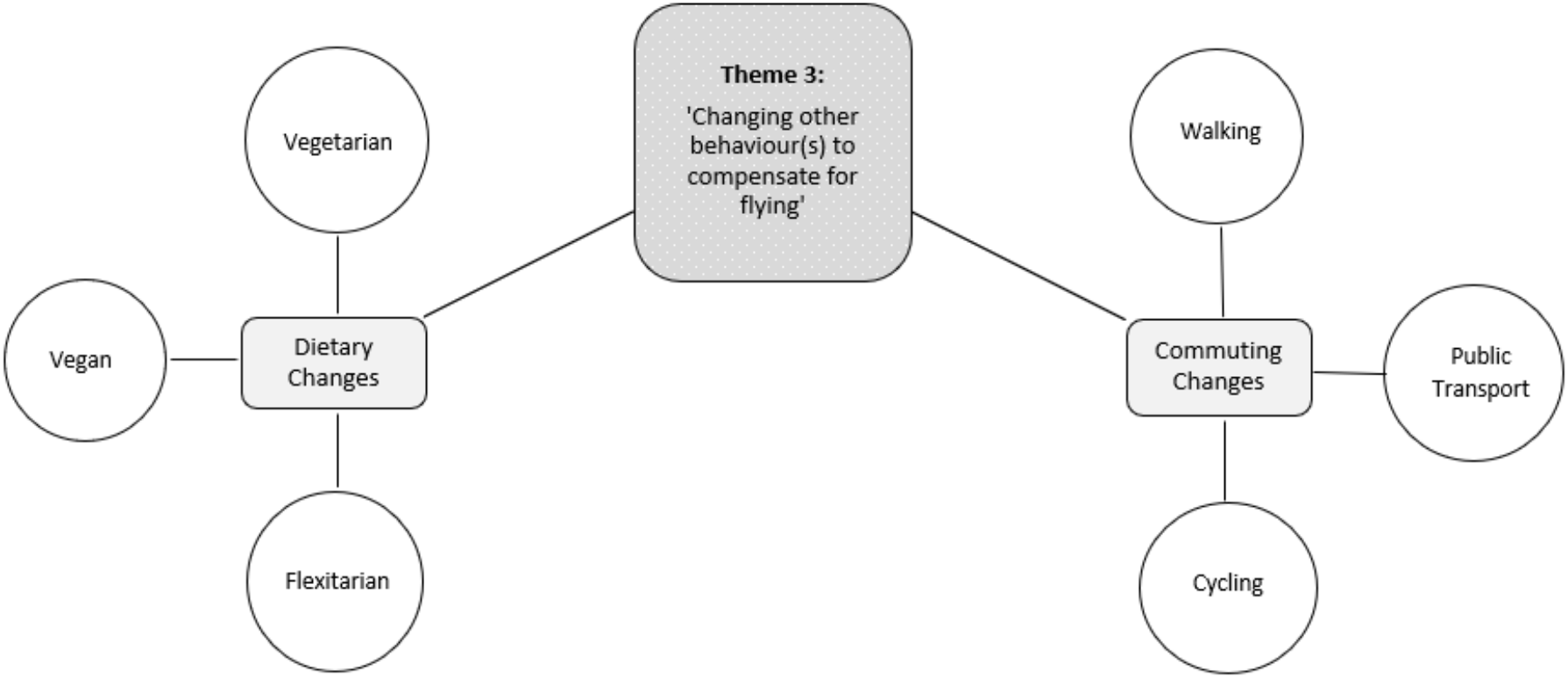
This finding agrees with the outcomes of previous studies (e.g., Whitmarsh and O'Neil, 2008; Randles and Mander, 2009; Cohen et al., 2011; Cohen et al., 2013) surrounding VCO as an 'atypical' pro-environmental behaviour – whereby, those who do not offset (or do not feel concerned about the effects of air travel on the global environment) turn out to fly less often than off-setters. From this perspective, offsetting flight-related emissions appears to be counterproductive – as it allows 'guilt-free' air travel miles for those who choose to continue taking flights, but offset their CO_2 emissions voluntarily, rather than re-evaluating their travel behaviour.

7.3.3 – Theme 3: 'Changing Other Behaviours to Compensate for Flying'

The thematic analysis on the interview transcripts identified changing other lifestyle behaviours to compensate for flying as the third main theme of this research investigation. This subcategory involved changing secondary not flight-related behaviours, such as dietary changes and commuting changes, to counterbalance for travel-related emissions. VFR travel was perhaps one of the main types of travel behaviour that CL participants attempted to mitigate through other lifestyle behavioural changes. Figure 29 gives the visual representation of the interpretation of CL citizens' perceptions regarding 'changing other behaviours to compensate for flying'.

Figure 29 - Thematic Map for Theme 3: 'Changing other behaviours to compensate for flying'

<u>Note:</u> Circles represent codes, rectangles represent subthemes, and squares represent themes



Source: Author

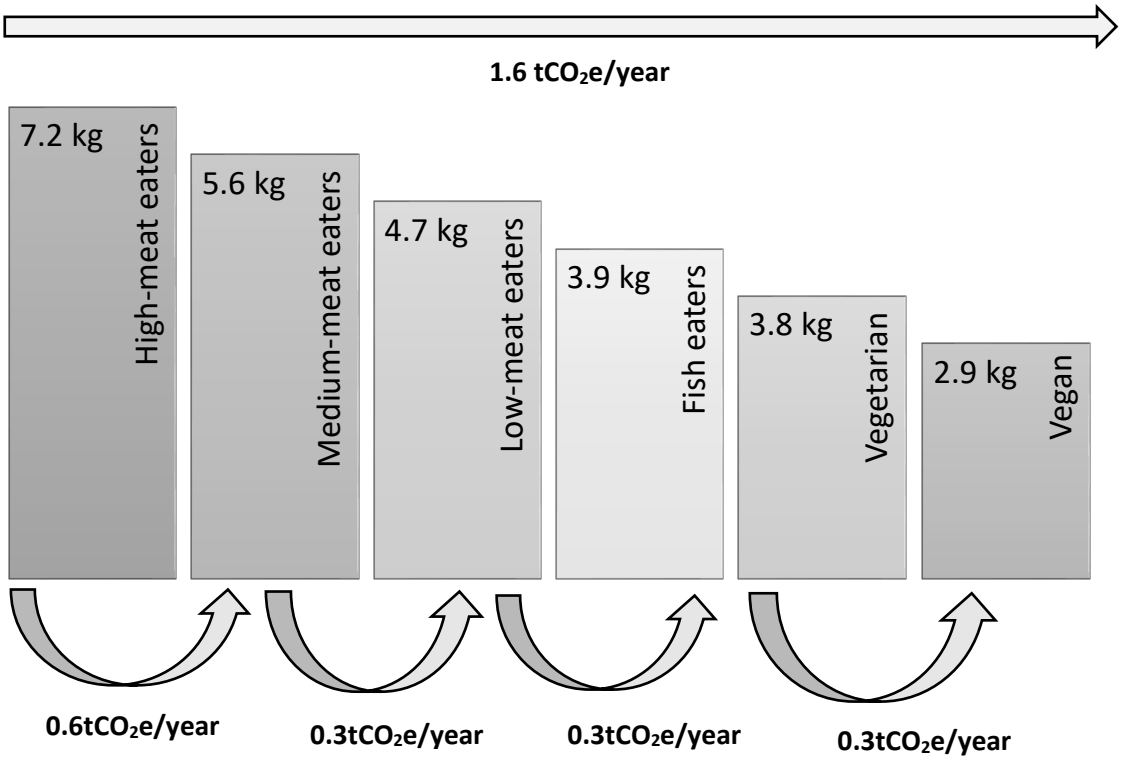
7.3.3.1 – DIETARY CHANGES

In terms of nutrition, three dietary changes were brought up by CL respondents as means of addressing their concerns over climate change, without completely giving up air travel. For those CL individuals, who pledged dietary changes as a trade-off for their flights – switching to a vegan, vegetarian, or flexitarian (also known as semi-vegetarian) diet was perceived as the easiest solution to reducing their personal annual carbon footprint. Rather than changing their flying behaviour directly by abandoning the idea of air travel – or indirectly by participating in VCO schemes, this subgroup opted to reduce their cognitive dissonance by either eliminating (e.g., veganism) or limiting (e.g., vegetarians, flexitarians) the consumption of meat and other animal-based products from their diets. As N8 explains when talking about her dietary changes,

> *"I shop locally and buy in-season fruit and vegetables […] I eat no meat whatsoever and consume only a limited amount of dairy foods such as milk, cheese, and yoghurt once or twice a month".*

While, consuming little or no meat (and animal derivatives) have been proven to help to reduce one's personal carbon footprint to a more sustainable size (Poore and Nemecek, 2018) – in many ways, that type of behavioural change is not big enough to be able to mitigate flight-related emissions due to the disproportional amount of CO_2e productions associated with the act of air travel. To put this finding into perspective, according to Scarborough et al. (2014:185) the daily carbon footprint of a vegan diet (based on 2000 kcal/day) is roughly 2.9 $kgCO_2e$/per day – if a person was classed as a high meat-eater (equivalent to 7.2 $kgCO_2e$/per day) before committing themselves to a specified dietary change, transitioning to a vegan diet would typically reduce this person's total carbon footprint by approximately 1.6tCO_2e/per year. Here, it is worth pointing out that those numbers reflect the best-case scenario, in terms of emissions cuts, any other combination of in-between options would therefore yield a significantly lesser effect – as Figure 30 illustrates, in an attempt to highlight the challenges associated with adopting dietary changes as a means of mitigating flight-related CO_2 emissions.

Figure 30 - The carbon footprint of different UK diets (based on 2000kcal/per day)



Source: Adapted from Scarborough et al., 2014:185

Flight-related CO_2e emissions from aviation fuel, on the other hand, are estimated at around 100-123 grams of CO_2 per passenger kilometre (based on 80% load factor) as Miyoshi and Mason's (2009:41) investigation on the evolution of aircraft fuel consumption for different airline business models revealed. This implies that there is practically little chance for someone to counterbalance air travel-related carbon emissions through dietary changes. In this regard, committing oneself to such behavioural changes seems to be more about reducing feelings of internal conflict, which are experienced when individuals take actions that do not correspond to their values – in this case, what triggers this specific type of response to the problem is the direct sense of control individuals may feel they possess when accomplishing to self-restrict their meat/animal-related consumption. This finding departs notably from

previous research and provides new insights into the implicit reasons behind changing secondary behaviours to compensate for flying.

7.3.3.2 – COMMUTING CHANGES

Another behavioural change of some CL respondents entailed changing their daily commuting habits in order to counter the negative impact of their flying behaviour on the global environment. One of the rationales for directing their efforts on day-to-day commuting routines involved the wider sociological barriers to changing discretionary air travel behaviours. In their opinion, travelling by air was regarded as an act with numerous undesirable effects but ultimately essential in maintaining the social structures that modern societies are built upon.

> *N3: "I think of flying as a necessary evil! Bad for the environment, but good for economies, education, tourism, business and personal fulfilment".*

In some ways, this subgroup gave the impression that they were already aware of the 'inconvenient truth' surrounding the fact that the usage of public transport, walking, cycling – or, a blend of commuting changes cannot possibly outweigh emissions originating from air travel – for the same reason that dietary changes cannot be seen as an effective solution to the mitigation of flight-related CO_2 emissions. As N6 explains,

> *"There are negative repercussions regardless of what compromises we make. If we stop flying economy, businesses, and social structures will suffer – but, the worst effects of climate change are likely to be avoided. If we continue flying without taking some sort of action to halt climate change, people's livelihoods are in danger. I feel that cycling instead of driving makes a difference. I know it doesn't exactly nullify flight-associated releases, but I'm doing the best I can to help out – that's a bearable burden on my conscience…"*

According to McDonald et al. (2015), this sort of 'I am doing my best' attitude has been observed by previous research inquiries too. In the context of the current investigation, this finding essentially brings into question whether CL citizens-consumers need to

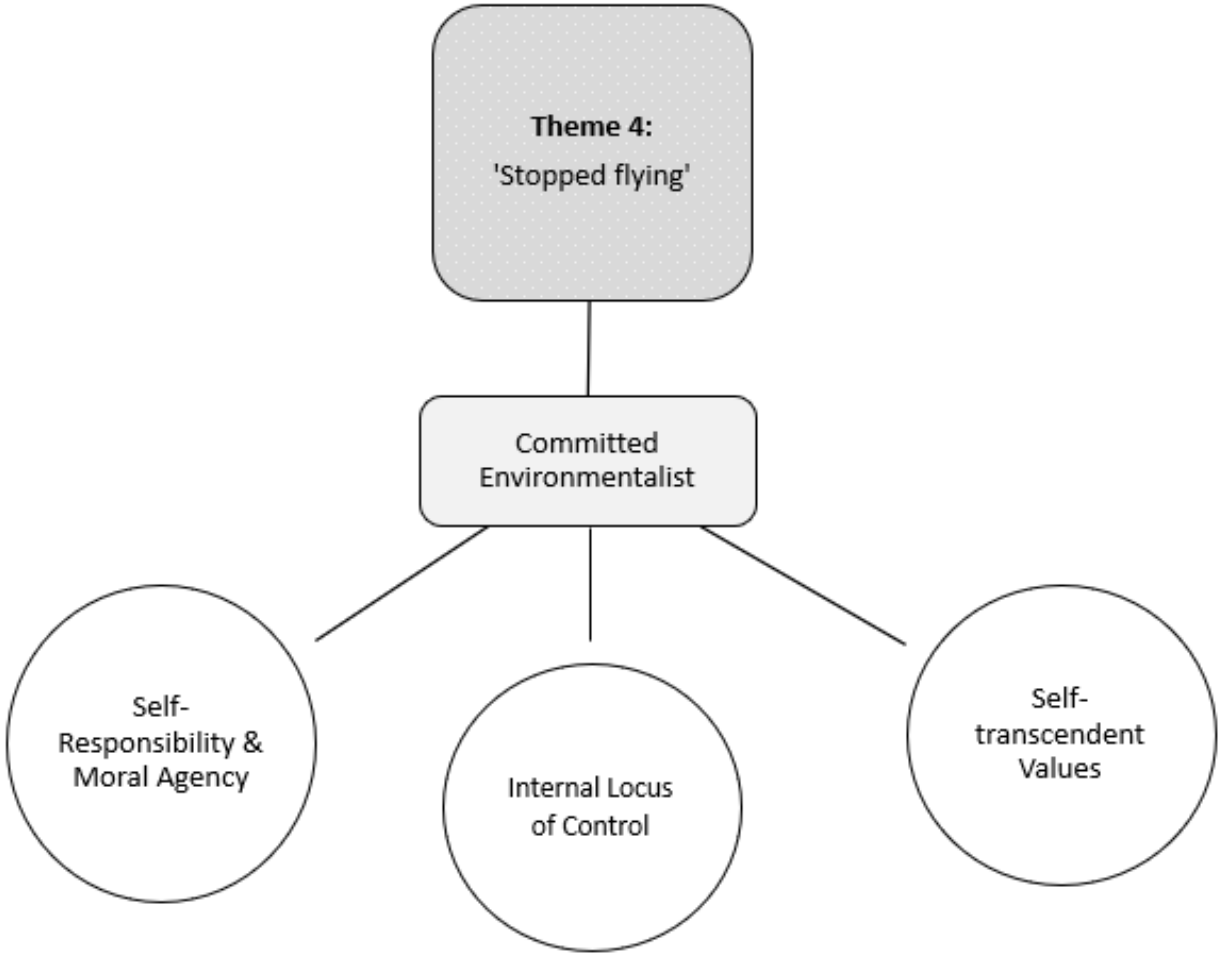
change their flight-related behaviour to reduce their cognitive dissonance or just convince themselves that they 'are doing their best to align their values on environmental issues with their actions towards air travel. In any case, drawing on principles from the Theory of Reasoned Action and the Theory of Planned Behaviour hypothesises that such inconsistencies ultimately result in undermining the credibility of the act itself.

7.3.4 – THEME 4: 'STOPPED FLYING'

This final subsection of the interview findings chapter centres on those CL respondents who have stopped flying because they were concerned over the effects of climate change in relation to air travel. For this subgroup tackling CO_2 emissions at source was the only appropriate course of action amidst the urgency of issues surrounding climate change. While only three CL participants appeared to wholeheartedly espouse this view, it certainly comprised an interesting twist – in the light of all the previously raised concerns, perceptions, and experiences concerning the fiery debate between climate change and air travel. The main subtheme of the thematic analysis on the interview transcripts revealed that mentalities similar to those found in 'committed environmentalists' were behind CL respondents' rationale for withdrawing themselves from all types of air travel – to preserve and protect both natural ecosystems and build environments. Figure 31 gives the visual representation of the interpretation of CL citizens' perceptions regarding 'stopped flying'.

Figure 31 - Thematic Map for Theme 4: 'Stopped flying'

<u>Note:</u> Circles represent codes, rectangles represent subthemes, and squares represent themes



Source: Author

7.3.4.1 – COMMITTED ENVIRONMENTALIST

For these CL individuals, not changing behaviour, self-curbing, or changing other lifestyle behaviours to compensate for discretionary air travel, did not really reiterate the message that humanity is, in fact, heading towards an uncharted territory (in climatic terms) due to historically avoiding taking drastic action – to prevent the climate crisis that civilisations are currently experiencing in most parts of the world or are about to experience soon. Against this backdrop, three different interpretations of this subgroup's perceptions emerged through the inductive thematic analysis of the interviews. The first interpretation centred on the locus of control – this represents an individual's perception of whether people can bring about change through their own exemplary behaviour.

According to Kollmuss and Agyeman (2002), individuals with a strong internal locus of control have confidence in that they can make a difference through their own actions – in contrast to those with a strong external locus of control, who perceive their own actions as rather insignificant and believe that change can only be brought about by powerful others. In terms of this study, what was highlighted through the interview findings is that individuals with a strong internal locus of control are also much more likely to engage in significant pro-social behaviour in relation to air travel. For this subgroup, not taking substantial action to lower their individual impact on the environment is what triggers strong discomfort or feelings of internal conflict.

> *N23: "I believe in taking action on issues that impact our lives. We can actually have a big impact on climate change if we have confidence in ourselves. As one of my favourite quote stresses, whether you think you can, or you think you can't – you're right!"*

What this interpretation comes to highlight is that success or failure are both determined by the attitude of the individual towards a situation. In this regard, what appears to motivate or inspire individuals with a strong internal locus of control lies within themselves. In other words, persons with that type of control do what they do because they are intrinsically motivated or driven to meet their personal needs. On this occasion, not flying was perceived as an impactful way of expressing their attitudes

towards aviation's contribution to climate change. This finding represents another prominent departure from extant work since the results of the present study have not merely confirmed existing theories and studies – but, they have also extended current knowledge by going some way towards addressing this prior state of under-research in the literature surrounding the role of internal forces in supporting or determining the adoption and preservation of drastic pro-social behaviours about discretionary air travel.

The second interpretation for this subgroup highlighted the importance of self-transcendent values. While, individuals usually identify with a wide range of values (De Groot and Steg, 2009; Buchs, 2017), which they tend to prioritise based on different situational influences (Howes and Gifford, 2009; Davison et al., 2014), discretionary air travel has emerged as a cut-off point for determining the values associated with those who commit themselves to significant changes in relation to air travel. The findings of the thematic analysis on the interviews showed that self-transcendent values, which according to De Groot and Steg (2009) and Buchs (2017) include both altruistic (i.e., being selflessly concerned for the well-being of others) and biospheric (i.e., feeling concerned for the living organisms and their environmental habitat) values play an important role in motivating significant pro-environmental behaviours in relation to discretionary air travel. In this regard, the act of not flying was understood as an expression of self-transcendent values based on the explanations of those who stopped flying due to their concerns over climate change.

> *N27: "I feel everyone should care about the environment because we are all together in this – climate change concerns all human beings; the livelihood of future generations is reliant upon our actions – we should definitely make good use of our actions to reiterate the message that climate is absolutely essential for all forms of life".*

This account indicates that those who stopped flying, owing to values that are greater than the 'self', in essence, decided to change their attitudes and behaviour for the benefit of others – and more specifically for the benefit of future generations. In this regard, self-transcendent values seemed to play a more important role, concerning air

travel, than some other pre-existing 'green' tendencies or values – since, the former resulted in taking significant action towards the issue of climate change mitigation, while the latter failed to consistently produce this sort of significant reaction to feelings or concerns over environmental degradation.

Last but not least, this study's third and final interpretation focused on the role of self-responsibility and moral agency. Founded on notions surrounding norm activation and the 'value – belief – norm' theory (Schwartz, 1977; Stern et al., 1999) individuals with a greater sense of personal responsibility are seen as more likely to engage in significant actions about ecological behaviour. This theoretical assumption is affirmed by this study's thematic analysis of the interviews – as the following account from N1 explicates:

> *"I feel morally responsible to protect the environment from being wrecked without consideration for the long-term effects – it's part of our rights and obligations to future generations. We are all responsible both collectively and individually".*

While, the perceived feedback about one's ecological behaviour (i.e., a person has to receive positive reinforcement to continue undertaking a certain behaviour) was not explicitly identified as a variable that influenced the pro-environmental behaviour of CL participants – there were some indications that peer pressure from other CL individuals played a catalytic role in the context of self-responsibility and moral agency, particularly amongst CL trainers – with some indirectly voicing concerns that it would be hypocritical to attempt to influence others on taking significant action(s) to alleviate climatic changes if they did not first lead by example. This represents another area of significant original contribution as it shows that peer pressure can not only act as an inhibitor, in terms of taking pro-environmental action(s) (like the theme of 'not changing behaviour' exemplified in relation to social norms), but also as a prime drive or impetus for doing so. This chapter's findings are briefly summarized in the following paragraphs before bringing the two separate analyses of this research investigation together in Chapter 8.

7.4 – Chapter Summary

This chapter presented the findings of the interview analysis on the perceptions of CL citizens-consumers. Interview data were analysed through an inductive – latent approach to thematic analysis. Thematic mind maps were employed to help with the clustering of developed codes, as emerged from themes and subthemes. These maps were also useful in structuring the skeleton of this chapter. As a result of the interview analysis, four main themes around the perceptions of CL individuals towards discretionary air travel were identified – 'not changing behaviour', 'self-curbing', 'changing other behaviours to compensate for flying' and 'stopped flying'. In terms of 'not changing behaviour', the justifications provided by CL participants related to five different aspects: travel product, travel context, personal identity, social norms, and constraints.

The notion of VCO, contingent on the researcher's interpretation of the narratives, emerged as a subtheme or a secondary description of behaviours in the context of 'self-curbing'. Reducing the number of flights taken, restricting flights to either short-haul or long-haul, modal shift, and destination shift comprised the rest of the secondary descriptions or sub-strategies sought amongst CL individuals to self-curb flight-related consumption. Other behavioural changes entailed dietary changes and commuting changes, as means of a 'trade-off' rationale – which relied on consumption reductions in other areas of life, in compensation for air travel. Finally, the analysis of the perceptions of those who 'stopped flying', owing to their growing concerns around air travel's contribution to climate change, revealed that factors such as 'internal locus of control', 'self-transcendent values', and 'self-responsibility and moral agency' played an important role in motivating this subgroup's exemplary environmental commitment.

In conclusion, themes, subthemes, and codes – as described, developed, and interpreted – in this findings chapter, encapsulate the researcher's understanding of what interviewees meant with what they said, and as such, they involve a gradual progression from description (whereby data was organised in a manner that revealed patterns in semantic content) to interpretation (whereby the significance of these patterns and their broader meanings and wider implications were theorised) in relation

to existing theories and literature (Braun and Clarke, 2006). Yet, it is worth pointing out that the analysis of these thematic categories and the 'description – discussion' included in this chapter, is just one of the steps taken to fulfil the aim and objectives of this research study. In this regard, to move this inquiry, in the right direction, both qualitative parts of this primary research investigation need to be brought together in Chapter 8 – whereby study conclusions are drawn in relation to the final outcome of this thesis, to articulate its original contribution to knowledge.

CHAPTER 8 – DISCUSSION AND CONCLUSIONS

8.1 – INTRODUCTION

Chapters 6 and 7 presented the analysis of the data collected relating to VCO policies and practices of selected airlines, in the context of CSR, and CL citizens' perceptions towards discretionary air travel and VCO schemes respectively. Based on the separate analyses of these two findings chapters, tables of publicly divulged airline policies and practices on VCO, and mind maps of thematic analysis on CL citizens' perceptions towards discretionary air travel and VCO were developed. The purpose of the current chapter is thus to enhance this thesis's analysis of the data – by bringing together secondary research (from Chapter 3 and 4) and primary findings (from Chapter 6 and 7) in order to synthesise the key outcomes of this multi-phase research investigation. Following on from the synthesis of key outcomes, study conclusions are drawn which logically lead to the review of the aim and objectives. The present chapter also articulates this study's original contribution to knowledge and finishes with an evaluation of the entire research process, in which the researcher's positionality as a Postgraduate Research (PGR) student at Manchester Metropolitan University and Carbon Literacy Trainer at the same institutional establishment, is reflected upon – in the light of the strengths and limitations of this research investigation. Last but not least, potential directions for future research are recommended and external implications are discussed too.

8.2 – SYNTHESIS OF KEY OUTCOMES

In line with the fourth objective of this research investigation, this part of the present chapter seeks to develop a conceptual model underpinning the analysis of airline VCO initiatives and CL citizens' perceptions towards discretionary air travel, and VCO , in the context of climate change mitigation. The first step in this process involves placing this study, within the context of existing literature, to make a case for why further research was needed. This leads rather rationally through to the second and third step – whereby, key points emerging from the two separate analyses are highlighted to link holistically this thesis's findings with extant research and begin to articulate its contribution to

knowledge. In doing so, the blending of the secondary research and primary research facilitates the development of an overarching understanding in relation to the 'value-action' gap, discretionary air travel, carbon literacy (as a meta-theme of 'green consumerism') and VCO schemes (as a means of mitigating CO_2 flight-related emissions). These underlying linkages between VCO policies and practices of selected airlines, and CL citizens' perceptions towards discretionary air travel and the role of VCO in climate-change mitigation, formulate this study's fourth step and thus comprise the backbone upon which study conclusions were built.

8.2.1 – Secondary Research Findings

As Chapter 2 revealed human-induced climate change is the largest environmental challenge we face. Tourism globally accounts for a significant percentage of GHG emissions since it contributes to climate change in several ways – including, travelling by air, water, rail, and road – and also, by necessitating the consumption of tourism-related goods, products and/or services, for recreational or professional purposes (Gossling et al., 2019). In acknowledgement of travel and tourism's two-way relationship with climate, as an essential resource about destination choice, travelling to and from different tourist destinations is recognised as an important contributor to climatic changes, apart from an important contributor to global economies and societies in general (Hall and Higham, 2005; Becken and Hay, 2007; Verbeek and Mommaas, 2008; Hall, 2009; Gossling and Stavrinidi, 2016; UNWTO, 2018; Gossling et al., 2019). In this regard, relationships amongst tourism growth, environmental degradation, and sustainable development are important topics for academic research, with many researchers becoming increasingly concerned about the implications of travel and tourism in relation to climate change.

The environmental performance of aviation has also become an issue of global concern because commercial aircraft require large amounts of fossil fuels to transport passengers to different destinations, which upon combustion produce CO_2 emissions alongside other so-called GHG. If dangerous anthropogenic climate change is to be prevented, the industry's fast-growing CO_2 emissions must be addressed (IPCC, 2018; Gossling et al., 2019). From a policymaker's perspective, two distinct ways to respond to

climate change have been agreed upon. The first is adaptation and it aims to support those vulnerable to the effects of climate change at adapting to climatic changes *"already in the pipeline"* (UNEP, 2019). The second is mitigation and it aims to delay human-induced climate change by reducing the amount of atmospheric GHGs (IPCC, 2018). VCO schemes, as instruments with a potential to reduce dangerous climate change, have an important role to play in the context of climate change mitigation. However, recent literature related to the most frequently raised issues and challenges associated with VCO schemes also contends that the adoption of such initiatives is neither straightforward nor uncontentious – both for aviation as a sector and for air travellers as individuals (Gossling et al., 2009; Gossling, 2011; Velonaki and Stone, 2015; Becken and Mackey, 2017). This perhaps justifies why VCO schemes have been associated up until now with a 'cosmetic' use on behalf of the industry, and an extremely low 'take-up' on behalf of consumers.

To move this investigation forward in a constructive manner, Chapter 3 focused exclusively on the non-regulatory background behind VCO schemes. Key findings revealed that, on the one hand, CSR reporting (as a private form of business self-regulation) has become both an integral part of most business strategies, particularly for large international corporate entities, and a subject of considerable criticism due to its lack of 'factual' substance (Phillips, 2006; Scott, 2011; Cowper-Smith and De Grosbois, 2011; Becken and Mackey, 2017). Unsurprisingly, most criticisms around the superficial motives for CSR disclosures are principally aimed at sectors (e.g., Travel and Tourism Industry) with high-abatement costs and negative environmental impacts. Companies in such industries are likely to be subject to additional CSR costs, because they are likely to require a greater level of engagement in CSR reporting, compared to those companies that are less likely to experience significant CSR costs based on their negligible environmental impact (Gray et al., 1995).

In agreement with this, Guthrie et al. (2006) also argue that highly polluting companies or industries *must* maintain a 'high CSR profile' to tactfully disguise their environmental shortfalls, evade stricter governmental regulations, and deflect negative attention by changing public perceptions towards their abatement potential – whereas, there are no such explicit *needs* for companies or industries with low abatement costs and therefore

a ‘low CSR profile’. This proposition was also supported by this study’s empirical investigation as deliberated in Chapter 6 and highlighted through this chapter’s synthesis of key outcomes with regard to primary research. Given the significance of the CSR debate, and the largely inconclusive results of prior research (e.g., Guthrie and Parker, 1989; Campbell et al., 2003; Jose and Lee, 2007; Cowper-Smith and De Grosbois, 2011; De Grosbois, 2012) around the factors that possibly influence CSR disclosures, a ‘chronological’ and an ‘ideological’ approach to CSR were theorised as part of Chapter 3.

Against this backdrop, six different eras of CSR and four ideological underpinnings to CSR were explicitly identified through the review of extant literature. Overall, the process of reviewing all the different CSR eras, and ideological influences behind this self-regulatory notion highlighted that despite the numerous arguments on what CSR *is*, a broad scientific agreement on what CSR *is not* has been obtained. CSR is surely not equivalent to regulations and legalities. Penalising companies based on aspects that theoretically fall under their respective CSR policies and practices would inevitably invalidate the non-compulsory nature of this entire conceptualisation, resulting in a wholly different representation to what SR embodies in definitional standings. This is to say that CSR as an idea is meant to rise above legal compliance to symbolise an ‘ethical’ way of running a business, which is not mandated or contained in the law, but it is unreservedly anticipated by societies.

At this point, some might erroneously mistake CSR as equivalent to *Business Ethics*. However, CSR is different to *Business Ethics*, as moral aspects (‘it is the right thing to do’) comprises the foundation of the latter – in contrast to CSR which largely relies on the business case for ‘good deeds’. This literature-based postulation suggests that even if SR is deeply associated with morals and values, from a business point of view, the call for CSR action is grounded in existent unspoken ‘social contracts’ – according to which companies secure a ‘licence to operate’ by meeting or surpassing societal expectations or societal demands. From this perspective, ‘legitimacy theory’ is considered as the theoretical master key for the formulation of CSR strategies. This implicit idea of creating shared value (CSV) is fundamental to the strategic or contemporary approach to CSR

since it results in a 'win-win' situation, from which all stakeholders can profit or benefit in one way or another.

On the other hand, if one accepts that both companies and individuals have moral responsibilities, in addition to the rational autonomy to act upon these, subject to legalities, what becomes clear through this literature-based investigation, based on Sondermann et al.'s (2018) and Ulbert et al.'s (2018) prior work, is that societies did not naturally reach an evolutionary turn towards manifestations of self-responsibility. On the contrary, state regulators and business executives through monetary policies (e.g., capitalism), business partnerships, and the economisation of the political (e.g., neoliberalism) acted as a forcing mechanism behind undertakings related to self-responsibility and moral agency. Taking into consideration that the interests of all stakeholders can prove to be instrumentally important for a firm's performance (Freeman, 1984) or, in contrast, important because of the existence of a moral end towards which organisational management should aim (Smith, 2005) – literature on consumer behaviour and green consumerism was reviewed in relation to the decision-making process around air travel, in an attempt to reconcile airline VCO policies and practices (in the context of CSR) with CL citizens' perceptions towards discretionary air travel and VCO schemes.

To this end, Chapter 4 revealed that existing literature on consumer behaviour, green consumerism and the 'value-action' gap, was rather scarce and tremendously fragmented around decisions surrounding air travel. More precisely, the relationship between people's concerns over environmental degradation and their consumption patterns was surprisingly weak when purchasing decisions were specifically focused on discretionary air travel. This indicates that green marketing campaigns have little influence on the citizens-consumers decision-making process for discretionary air travel – a theme central to the purpose of this thesis. Then again, it is critical to question whether airlines, whose present existence and future growth depends on the monetary principle of increasing business by encouraging people to fly superfluously, are the appropriate agents to promote initiatives that ultimately aim to raise consumers' awareness towards the environmental implications of discretionary air travel – a second theme central to the purpose of this thesis. In response, the current thesis work centred

on understanding ‘what carbon literate people do’ and ‘why they do the things they do’, ‘what decision-making process they follow when making travel decisions’, and ‘to what extent they perceive airline VCO schemes have a role to play, in relation to climate change mitigation’. Through this study’s focus on CL citizens’ perceptions, richer empirical accounts of practices underpinning discretionary air travel within wider contextual infrastructures arose, and entailed interpretations for undertaking carbon reduction behaviours, with the purpose of repairing self-consistency and/or reducing feelings of strong internal conflict, as well as justifications related to different explanations for not pledging carbon reduction behaviours in the context of discretionary air travel too.

8.2.2 – Primary Research Findings

To move away from the fragmented approach taken in earlier research (e.g., Campbell et al., 2003; Jose and Lee, 2007; Cowper-Smith and De Grosbois, 2011; De Grosbois, 2012; Becken and Mackey, 2017), this study initially identified up-to-date evidence concerning the VCO policies and practices of the 10-Top UK-based airlines based on a market-driven dataset of passengers carried globally in 2015. Three broader categories of initiatives on airline VCO policies and practices were acknowledged in Chapter 6. These records were summarized in a tabular format in Table 9. The first tactic focused on opt-in donations for a fixed amount of money per person per booking. Ryanair and British Airways – BA CityFlyer were found to have espoused this practice in acknowledgement of their environmental commitments. In terms of benefits, air travellers are familiar with opt-in style donations since they have been used for many years in recognition of the philanthropic responsibilities of businesses to societies (Santoso et al., 2015; Melero and Montaner, 2016; Patel et al., 2016; Howie et al., 2018; Lee and Johnson, 2019). Also, air travellers are more likely to participate in opt-in donations because of the relatively insignificant cost to them. The main disadvantage of this approach is that citizens-consumers are nowadays more distrustful and cynical concerning the business case for such voluntary campaigns than ever before (Kim and Lee, 2009; De Pechpeyrou and Odou, 2012; Muller et al., 2014; Chaabouni et al., 2020).

In the context of this research investigation, there are also substantial problems concerning their actual effectiveness, as voluntary mechanisms whose aim is to mitigate dangerous anthropogenic climate change by subsidising schemes that result in significant CO_2 emissions reductions, rather than focussing on small-scale community-based projects with a robust social impact on poor communities, but minor overall reductions in carbon emissions. This is an important issue as the fee charged and the exact CO_2 offsetting attained is typically unclear for those who contemplate participating in opt-in donations on environmental (rather than social) grounds. In fact, a low degree of transparency has been previously associated with adverse decision-making around the purchase of CO_2 credits on behalf of air travellers, as Chapter 2 already discussed as part of its examination of the six literature-based issues and challenges associated with the implementation and take-up of VCO schemes in the twenty-first century.

The second approach centred on carbon offset calculators and entailed a third-party collaboration with different carbon offset providers. British Airways – BA CityFlyer, Virgin Atlantic Airways, and Monarch Airlines were found to have linked their VCO strategies with the calculation of optional contributions towards carbon emission reductions. One of the main problems with this second method is perhaps that air travellers must enter a transaction on two separate occasions. This is likely to defer some individuals from participation in this type of VCO initiatives as common sense suggests. There is also a valid argument regarding the perceived responsibility for offsetting CO_2 emissions deriving from discretionary air travel because if the polluter pays principle is put into effect, endeavouring to tactfully convince air travellers to act ethically when airlines themselves are not prepared to share the financial responsibility of offsetting CO_2 emissions is highly confrontational from a responsible air traveller's point of view (Becken, 2007; Gossling et al., 2009; Mair and Wong, 2010; Mair, 2011; Velonaki and Stone, 2015).

The third approach involved 'net-zero' carbon flights at no supplementary cost on behalf of air travellers. EasyJet and British Airways – BA CityFlyer were found to have adopted this relatively new approach to VCO initiatives. While this third method might look like an ideal solution at a first glance, there are significant drawbacks associated with this sort of VCO initiatives too. The most important weakness of promoting net-zero CO_2

fights lies in its significantly limited potential in helping air travellers to become more aware of their own carbon footprint and flight-related impact on the environment. Since air travellers are not directly involved in the process of offsetting the negative effects of their flight-related practices, it is also less likely to realise that flying contributes to human-induced climate change to a significant degree. This is counterproductive from a mitigation perspective, as drastic reductions in GHG emissions necessitate behavioural changes (such as possible reductions in the demand for air travel) apart from technological advances, operational efficiencies, and the substitution of fossil fuels with clean energy alternatives where feasible and safe (Becken and Hay, 2007; Bows et al., 2009; Becken and Mackey, 2017; Gossling et al., 2019). To outline the explicit and implicit strengths and weaknesses associated with each airline participatory strategy towards VCO, data from the website content analysis was drawn and compiled into a tabulated model (see Table 10) in Chapter 6. This information is useful as a means of expanding existing understanding around offsetting opportunities and offers practical insights which contribute towards the adoption rate of aviation VCO initiatives and aim to improve their overall effectiveness as an essential component of the industry's policies and practices on sustainable development and responsible tourism behaviour.

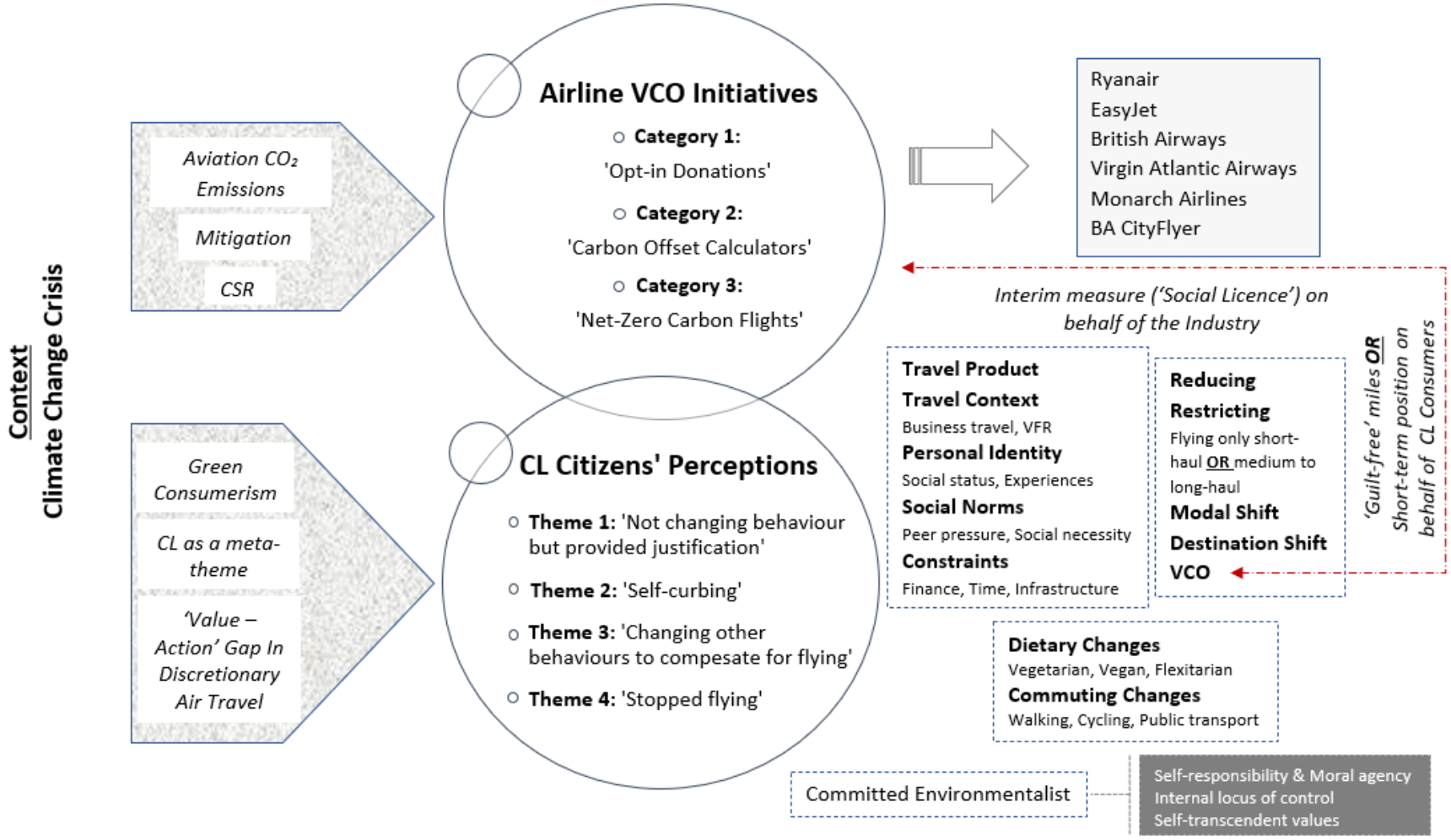
Examining VCO schemes from a consumer's viewpoint comprises the next step in the process of reconciling airline VCO policies and practices, in the context of CSR, with CL citizens' perceptions towards discretionary air travel and the role of voluntary participation in such initiatives. As part of the interview analysis, four main themes about the perceptions of CL individuals towards air travel and VCO schemes were evident – 'not changing behaviour', 'self-curbing', 'changing other behaviours to compensate for flying' and 'stopped flying'. In terms of 'not changing behaviour', justifications provided by CL participants were grouped into five sub-themes: travel product, travel context, personal identity, social norms, and constraints. For this sub-group, the thematic analysis on the interviews mainly affirmed the findings of previous studies (e.g., Randles and Mander, 2009; Hares et al., 2010; McDonald et al., 2015) which found that justifications or explanations for not changing behaviour about discretionary air travel were focused on expressed reasons around the lack of comfort and convenience of alternative modes of transport (particularly when taking longer

journeys) together with increases in both cost and journey time. Personal identity and social norms were also found to play an important role, mainly through their long-standing relationship with cultural enrichment, social class, and financial prosperity – what Urry (2011) recognises as some of the most constructive implications of people's travelling habits.

Travel context comprised another central justification behind the decision of some CL individuals to keep flying. The emotional desire to fly regularly to visit one's family and friends was highlighted by this study as a dominant justification particularly for CL participants' who came from other countries to the United Kingdom for educational purposes. This emotional need was found to have basically overshadowed their environmental concerns about the negative effects of air travel. To reduce feelings of internal conflict (cognitive dissonance) some CL individuals were found to have adopted self-curbing carbon reduction behaviours; whilst, others concentrated on changing secondary behaviours to compensate for their flying. Self-expressed changes in behaviour were grouped into three broader thematic categories: 'self-curbing', 'changing other behaviours to compensate for flying' and 'stopped flying'. Reducing the number of flights taken, restricting flights to either short-haul or medium-haul and long-haul journeys, modal shift, destination shift and VCO were strategies sought amongst CL individuals to self-curb their flight-related consumption.

Other behavioural changes entailed dietary changes and commuting changes, as part of a 'trade-off' rationale that relied on CO_2 consumption reductions in other areas of the CL citizens' lifestyle, to compensate for some discretionary air travel. Last, the perceptions of those who stopped flying, owing to their growing concerns around aviation's contribution to climate change, were analysed to reveal what factors played an important role in motivating their environmental commitment. Self-responsibility and moral agency, self-transcendent values, and strong internal locus of control were found to be strongly associated with this exemplary type of behaviour. Figure 32 gives a visual representation of this thesis's overall analysis of airline VCO initiatives and CL citizens' perceptions towards discretionary air travel, and VCO as a means of climate-change mitigation. Based on the present synthesis of this thesis's secondary and primary research outcomes study conclusions are drawn next.

Figure 32 - Conceptual model underpinning the analysis of airline VCO initiatives and CL citizens' perceptions towards discretionary air travel and VCO as a means of climate-change mitigation.



Source: Author

8.2.3 – STUDY CONCLUSIONS

Albeit an academic consensus (e.g., Henderson, 2007; Falck and Heblich, 2007; Rodriguez and Armas-Cruz, 2007; Fenclova, 2013) on what CSR *is not* was largely reached (see Chapter 3) through the critical analysis of the theoretical background behind CSR – in practical terms (see Chapter 6), CSR *still* represents a broad-spectrum business-led concept which is characterised by disjointed efforts to contribute to broader societal goals by engaging in or supporting practices of seemingly 'ethical' orientation and 'voluntary' nature. This thesis concludes that VCO initiatives, much like CSR, are likely to be a feature of corporate reporting for legitimacy purposes. While making VCO initiatives legally compulsory is not advisable based on this thesis's review of chronological eras and ideological theories underpinning CSR at a notional level, which highlighted that legalising the 'self-regulatory' nature of this notion would inevitably lead to a different concept to what CSR means in definitional terms, new hybrid forms of CSR policies and practices that combine voluntary and mandatory elements, for both airlines and air travellers, are strongly recommended based on the primary findings of the website content analysis and the interview analysis of CL citizens' perceptions towards discretionary air travel and VCO schemes – especially, if one considers how little time, we have left to tackle the climate crisis before irreversible changes in Earth's fragile climatic systems are triggered.

In policy terms, responses that primarily attempt to close the 'value–action' gap through information campaigns aimed at changing individuals' beliefs and attitudes, to bring about behaviour change, are unfortunately deemed to fail, bearing in mind 'carbon literacy' did not totally change CL respondents perceptions towards discretionary air travel, despite increasing their overall awareness – which, in turn, acted as a catalyst for either providing justification for not changing their flight-related behaviour, or in many cases for taking some course of action towards reducing their flight-related carbon emissions. As this study's last subtheme of the thematic analysis on the interview transcripts exposed, mindsets akin to those found in 'committed environmentalists' were responsible for withdrawal from air travel – these mentalities, however, are understood to be extremely rare, and therefore openly embodied by only a small percentage of CL individuals. If typical consumers were explicitly considered, this

percentage of 'committed environmentalists', is likely to be even smaller than what suggested by the primary findings of this investigation, as CL individuals usually complete this course due to pre-existing green tendencies, which are further reinforced through their participation in the CL programme, apart from demonstrating an increased awareness of the environmental impacts associated with their flight-related habits, as a result of attending this training – elements that are usually lacking from otherwise typical consumer segments.

In agreement with Laininen's (2019:169) iceberg metaphor *"doing things better"* at a *"con-formative level"* entails *"cognition"*, what he describes as *"first-order change"*, con-formative actions, however, mainly concentrate on events with *"direct observability"* – in precisely the same way that the *"tip"* of the iceberg represents the only *"visible clue"* that something larger exists beneath the sea surface. In this context, the Top 10 UK-based airlines were found to have adopted VCO schemes as 'con-formative responses' to climate change mitigation. Yet, a much deeper analysis of the social and systemic structures behind anthropogenic climate change is required, to devise long-term, permanent solutions to climate change mitigation – as the thematic analysis on the interview findings with CL participants highlighted in Chapter 7. This *"second-order change"* is usually associated with *"meta-cognition"*, and it involves *"doing things better"* at a *"re-formative level"*. Focusing on changing existing infrastructure, production systems, and consumption patterns through investments in renewable energy, circular economy, and dematerialisation are considered as *"re-formative responses"* to climate change mitigation.

However, according to the synthesis of this thesis's findings, non-regulatory responses to climate change – both in theory and in practice – have mostly had a 'con-formative' effect up until now. From this perspective, neither airlines' business strategies nor citizens' current lifestyles have categorically changed to address concerns around rapid irrevocable climatic changes. This indicates that *"meta-cognition"* and *"epistemic learning"* has not occurred, and therefore companies and individuals have not commenced *"doing things better"* at a *"re-formative level"* or *"seeing things differently"* at a *"trans-formative level"* – in line with Laininen's (2019:169) Iceberg-metaphor. In the absence of reforming and transforming extant infrastructure and mindsets, we simply

cannot achieve *"third-order change"*. This is perhaps better explained as a means of 'co-evolving' – since, CL citizens' behaviours were generally found to be structurally, institutionally, and socially shaped, and thus both constrained and dependent upon social structures and institutional, technical, and physical infrastructure. This infers that radical changes in non-CL citizens' behaviour towards discretionary air travel and VCO schemes are equally (if not even more) unlikely to be brought, as part of autonomous, isolated, or rationalised decision-making processes (Southerton et al., 2004; Randles and Mander 2009; Buchs, 2017; Laininen, 2019). Profound structural changes need to go hand in hand with pro-environmental behavioural changes to tackle issues surrounding the gap between environmental values or concerns, and behaviour or actions towards environmental issues. This latter statement summarises why narrowing down the 'gap' between people's values and actions is indeed so challenging – considering that new mutual understandings surrounding discretionary air travel, in essence, need to first breach present or pre-existing social norms (Gossling et al., 2020) and infrastructural developments (Laininen, 2019) before leading into behavioural change, in practical terms, at the level of the individual.

Yet, at a global level, significant benefits arise from global mobility and air transport, and many countries and societies, have increasingly become highly dependent upon the aviation sector (Cohen et al., 2011; Gossling and Stavrinidi, 2016; Gossling et al., 2019). On reflection, it took an outbreak of a pandemic disease, as dramatic as COVID-19, to essentially stop people from flying, and to bring in that sort of necessary structural change to societies, businesses, and worldwide trade. While the current experience of the global pandemic provides tangible evidence that complex social, political, and economic systems, as well as cultural determinants, can change rather swiftly, when potential threats pose existential fears for human health (Friedl, 2020; Becken et al., 2021), airline traffic has repeatedly hit record levels after previous global crisis (e.g., 1st oil shock recession, 9/11, and 2008 global financial crisis). This has a 'rebound effect', whereby any potential environmental gains arising from reduced numbers in expected air passenger traffic, are diminished by huge increases in passenger flow straight after the end of a period of crisis.

In earlier crises, leisure trips and VFR travel rebounded first, whereas business travel took longer to recover, and even then, numbers did not exactly return to pre-crisis levels, as was the case after the 9/11 attacks on the World Trade Centre in New York City (Bouwer et al., 2021). As the pandemic subsides, it is hence projected that the growth in leisure travel will outpace once again the recovery of the business segment – with best estimations from industry experts (e.g., Baldanza, 2020 [no page: online]; Bouwer et al., 2021 [no page: online]) predicting a likely recovery to roughly 70-80 percent of pre-pandemic levels by 2024. This is because remote work and other flexible working arrangements that were radically accelerated by the pandemic, are likely to remain in place, at least to some degree, post-pandemic. This implies that corporate delegates will probably continue to take fewer business-related flights for the foreseeable future, due to the digital transformation of societies and economies across the globe, who are irrevocably transitioning, at a rapid pace, from an Industrial Age to an era characterised by digital technologies and digital business innovation.

In the context of this research study, decreases in corporate flights will have a positive impact in terms of carbon emission reductions and climate change mitigation, even if leisure travellers compensate for some of the empty spaces by booking economy-class seats. From an airline standpoint, however, fixed costs are unlikely to be covered by leisure passengers because their financial contributions and travel frequency are negligible, in net marginal terms, compared to profits earned by the lucrative business segment (Bouwer et al., 2021). Since this small pool of high-yielding passengers has shrunk significantly due to the pandemic and it is unlikely to recover completely at a sustainable pace for the industry, debt-ridden, cash-strapped airlines will need to increase ticket fares to stay afloat – or, alternatively, they will need to borrow huge sums of money, in the form of government bailouts, in order to cope with negative cash flow. According to Bouwer et al. (2021 [no page: online]), *"a re-emergence of, or increase in, the level of state ownership and influence"* is already visible in Europe with many airlines (e.g., TAP Air Portugal, Lufthansa Group, and Air Baltic) having received subsidies, in exchange for a larger state role in the sector which is *"combined with an increase or reintroduction of government shareholdings"*.

Since the threat of climate change to human health is not dissimilar to the coronavirus crisis if predictions about 2°C – 3°C global warming are taken into account, political responses in relation to the climate change emergency must be reviewed to reflect the lessons learnt from the pandemic. From a sociological perspective, any efforts to respond to accelerating climatic changes, on a global scale, through discretionary air travel, must acknowledge and cater for the unique issues and conflicting perspectives that are deeply entrenched between and within the social order of different nations. The effective implementation of this endorsement is reliant upon global policies (a regulatory action) and large-scale collaboration (non-regulatory action) which can be only achieved through joined efforts that correlate climate change adaptation and mitigation with common wider societal objectives such as those developed by the United Nations General Assembly in 2015 and exemplified through "The 17 Sustainable Development Goals" (illustrated in Chapter 3 – page 53). Unlearning what we have all learnt is perhaps the best action that we must all take – like Albert Einstein (cited in Laininen, 2019:165) has said *"we cannot solve our problems with the same thinking we used when we created them"*. A review of the aim and objectives follows next.

8.3 – Review Of Aim And Objectives

The overarching aim of this thesis was to analyse airline policies and practices on VCO, as a means of mitigating CO_2 emissions from discretionary air travel, in relation to 'carbon literacy', as a meta-theme of 'green consumerism'. To achieve this research aim, four detailed objectives had to be accomplished – as Chapter 1 has already explained in more detail. This thesis revisits each of these objectives separately and explains how exactly they were accomplished by this research investigation. This retrospective process comprises the foundations upon which study conclusions were drawn, with an implicit view to provide a sense of resolution, in pursuance of its aim and objectives. It is worth remembering that even though objectives are reviewed separately, study conclusions were synthesised in a manner that focused on bringing together findings from all the different stages of this multi-phase research inquiry.

8.3.1 – OBJECTIVE 1

This thesis's first objective was to *"provide an overview of the theoretical background behind the broader subject area through an extensive review of existing literature"*. This initial goal has been achieved through this study's systematic review of previous literature, which was accomplished in the three chapters after the Introduction. Chapter 2 centred on 'setting the Anthropocene', and by doing so, acted as a means of giving readers some essential background information, to better understand the rationale for this investigation and its subsequent underlying notional positioning, in terms of previous literature. Chapter 3 concentrated on reviewing the non-regulatory background behind VCO schemes. Through this literature-based exploration, Chapter 3, addressed two significant issues. First, it underscored the theoretical challenges of defining and visualising CSR through the lens of its core contributing discourses – *'Business Ethics', 'Corporate Philanthropy', 'Sustainable Development' and 'Stakeholder Theory*'. Secondly, it emphasised the actual need for more sector-specific research, concerning commercial aviation, to account for common discrepancies in current CSR understandings, in addition to conflicting approaches to CSR management – both of which are responsible for shaping the exact role that VCO schemes are meant to play, as components of airlines' voluntary delivery of their ethical commitments towards sustainable development (Tsai and Hsu, 2008).

In contrast, Chapter 4 focused on unfolding the behaviour of consumers – as agents who are both physically and emotionally involved in decisions around discretionary air travel. While numerous studies (e.g., Jose and Lee, 2007; Eijgelaar, 2011; Cowper-Smith and De Grosbois, 2011; Cohen and Higham, 2011; De Grosbois, 2012; Lu and Shon, 2012) have previously attempted to examine aspects around this subject area, only a very small percentage of research has studied the consumer segments who voluntarily participate in carbon offsetting schemes (McLennan et al., 2014) or those who are naturally more likely to participate in VCO due to their pre-existing green consumer tendencies (Buchs, 2017). To fill in some of the observed gaps in knowledge, this research project intended to analyse CL citizens' perceptions towards discretionary air travel and VCO – a consumer segment that based on their pre-existing values, and environmentally conscious characteristics could shed light on the matter of low participation in VCO

schemes and contribute towards the establishment of new participatory strategies, which might result in narrowing down the 'value – action' gap, usually observed when the environmental values or concerns of an individual do not correlate to their actions towards environmental problems.

8.3.2 – Objective 2

This thesis's second objective intended to *"examine the VCO policies and practices of selected airlines in the context of Corporate Social Responsibility"*. To accomplish this primary research objective, the investigator digitally captured information about the VCO policies and practices of selected airlines from publicly available web resources – from March 1st, 2016 to March 1st, 2020. During this phase, the websites of the Top-10 UK-based airlines were inspected every six months to check for changes in relevant content – exempt the airlines who went into liquidation within that time. All relevant information was both captured and further analysed within NVivo 10 (for Windows) – a qualitative data analysis (QDA) computer software package which allows qualitative researchers to both organise and analyse non-numerical or unstructured qualitative data like web content, social media, and interviews.

In fulfilment of this thesis's second objective, the analysis of the content analysis findings revealed that six out of the ten airlines examined as part of this study disclosed information related to their VCO initiatives. Three types of airline VCO initiatives were identified. The first strategy involved 'opt-in donations' for a fixed amount of money per person per booking, and it was adopted by Ryanair and British Airways – BA CityFlyer. The second strategy employed by British Airways – BA CityFlyer, Virgin Atlantic Airways, and Monarch Airlines indirectly prompted air travellers to calculate their estimated flight-related CO_2 emissions by utilising 'carbon offset calculators', which were operated in collaboration with external CO providers, based on private third-party service agreements. The third and final type of VCO practice centred on 'net-zero' carbon flights at no added cost on behalf of air travellers. EasyJet and British Airways – BA CityFlyer were found to have implemented this fairly new approach towards VCO initiatives. While, for EasyJet, all flights fell into this 'net-zero' carbon strategy, for British Airways – BA CityFlyer only domestic flights were included, and international emissions were

openly exempt by advising customers to seek to offset emissions arising from international travel through one of the other two approaches to VCO. Detailed records (see Table 9 and Table 10) on what the different categories of airline VCO initiatives revealed about the research topic were presented in Chapter 6.

8.3.3 – Objective 3

This thesis's third objective intended to *"analyse CL citizens' perceptions towards discretionary air travel, and the role of VCO schemes, in relation to climate change mitigation"*. To achieve this primary research objective thirty face-to-face semi-structured interviews with CL participants were conducted. Interview data were analysed by means of an inductive – latent approach to thematic analysis. The findings on the interview analysis revealed four broader themes: 'not changing behaviour', 'self-curbing', 'changing other behaviours to compensate for flying', and 'stopped flying'. These themes were organised in smaller sub-thematic groups for each theme, which were coded in a manner that revealed the underpinning assumptions behind those subthemes and highlighted the implications of each broader theme in relation to existing literature. This critical engagement with the data was inherently grounded in both theory and preceding research on consumer behaviour, pro-social behaviour(s), and the 'attitude – behaviour' or 'value – action' gap, owing to the thesis's inductive latent approach to thematic analysis. A story around what these different themes revealed about the research topic was constructed and visually represented through four thematic mind maps, which were presented in Chapter 7, as graphic representations of emergent relationships between themes, subthemes, and codes.

8.3.4 – Objective 4

This thesis's fourth objective intended to *"develop a conceptual model underpinning the analysis of airline VCO initiatives and CL citizens' perceptions towards discretionary air travel and VCO, in the context of climate change mitigation"*. In fulfilment of this fourth objective, the findings of this study's primary research highlighted that CL consumers', as citizens with pro-environmental value orientations and expressed concerns over climate change, behaved in different ways when discussions centred on what contributed to their decision to take a flight – bearing in mind their feelings about air

travel in relation to the environmental impact. These differences in perception were extremely thought-provoking from the point of this thesis. Based on the analysis of elicited narratives from CL participants about their perceptions towards discretionary air travel and VCO schemes – two overarching tactics were found to be employed, as a temporary relief to the stress and anxiety experienced when their pre-existing environmental values did not correspond to their resultant actions. The first tactic involved 'not changing behaviour' but providing 'justification' as to why this inconsistency was occurring. In total, five sub-tactics were employed by CL citizens in relation to the theme of 'not changing behaviour' – these incorporated justifications related to: 'travel product', 'travel context', 'personal identity', 'social norms', and '(other) constrains'. A closer analysis of the rationales behind those who did not change behaviour shed further light on some of the most commonly voiced barriers in the context of forsaking air travel. While most (if not all) CL citizens may face similar obstacles (e.g., money, time constraints, scepticism, willpower, the benefit of convenience), not all CL citizens endeavoured to resolve their cognitive dissonance by providing specific justifications for 'not changing behaviour'.

On the contrary, many CL respondents did choose to 'change behaviour' – this second tactic represents CL citizens' who decided to 'self-curb' their air travel consumption through five different sub-tactics (reducing the number of flights taken, restricting flights to only short-haul/medium-haul to long-haul, VCO, modal shift and destination shift), chose to 'change other (subordinate or secondary) behaviours' (which focused on dietary changes and commuting changes) as a means of reimbursement towards discretionary air travel, and those CL individuals who opted to 'stop flying' in response to their growing concerns over the effects of climate change in relation to air travel – this exemplary type of behaviour was characterised by an increased sense of individual responsibility, self-transcendent values, and an 'internalised' locus of control. For this last CL subgroup, addressing the root of the problem represented an unrivalled course of action considering the urgency of the climate change emergency. While only a small minority of CL respondents seemed to unreservedly espouse this view, it represents an exciting twist – in the light of all the formerly raised concerns, perceptions, and experiences surrounding climate change in relation to air travel. This newly developed

understanding of the 'value – action' gap, in the context of discretionary air travel and 'carbon literacy' (as a meta-theme of 'green consumerism'), as explicitly highlighted in Figure 32, perhaps represents this thesis's greatest contribution to knowledge. The different ways through which this research study contributed to knowledge are discussed in more detail next.

8.4 – Contribution To Knowledge

This research study's first contribution to knowledge is the theoretical advancement that carbon literacy is a meta-theme of green consumerism. This theoretical contribution is significant because it highlights the existence of a newly identified consumer segment. A market segment that is characterised by an increased "*awareness of climate change, and the climate impacts of mankind's everyday actions"* (The Carbon Literacy Project, 2020 [no page: online]) but, whose perceptions have not been explicitly analysed before, in relation to controversial solutions to environmental issues like that of voluntary participation in COS. Through this explicit focus on CL citizens' perceptions towards discretionary air travel and VCO schemes, literature is taken forwards by advancing the state of the art in several scientific fields, from travel and tourism management and environmental sustainability to marketing, green consumerism and the 'value-action' gap surrounding decision-making processes around air travel in a carbon-constrained world. In a world whereby technological and operational efficiencies cannot yet outweigh, neither the ever-growing demand for air travel (Alcock et al., 2017; IATA, 2018) nor the rapidly increasing accompanying emissions originating from it (Peeters et al., 2016; IPCC, 2018; Gossling et al., 2019).

By focusing on the initiatives of the Top-10 UK-based airlines, this thesis provides an up-to-date review of VCO opportunities as currently applied in discretionary air travel. Three categories of VCO initiatives were identified through this process. The examination of these three categories of VCO initiatives contributes to the pool of knowledge by providing up-to-date evidence (see Table 9 and Table 10) pertaining to airline VCO policies and practices, in the context of CSR. Shedding light onto the self-regulatory strategies of these airlines highlighted two important aspects. Firstly, airlines do mostly offer VCO, as an optional choice, for those air travellers who choose or wish

to mitigate their flight-related impact on a voluntary basis. In practical terms, however, their participatory strategies vary significantly – from not requiring any action on behalf of air travellers to necessitating a small contribution at the time of booking process – to requiring advanced and complex searches to precisely estimate the carbon footprint of flights and then entering a separate transaction to purchase offsetting credits. Ultimately, this is unlikely to be perceived positively by CL individuals, and beyond the green consumer sample by typical air travellers too.

Secondly, appropriate steps were not always taken to maximise the chances of coming across such initiatives. This sort of practice was particularly evident in relation to carbon offset calculators, whereby customers would essentially need to dig around an airline's website to unearth information on how to calculate and offset their flight-related CO_2 footprint. This may discourage the average air traveller from taking action via carbon offset calculators, and perhaps also explains why participation in some VCO initiatives have been previously associated by other studies (e.g., Gossling et al., 2009; Choi and Ritchie, 2014; Becken and Mackey, 2017; Babakhani et al., 2017; Zhang et al., 2019) with an awfully low 'take-up' on behalf of air travellers. From this point of view, it is questionable whether airlines, whose existence and growth depends on encouraging people to keep flying, are the appropriate agents to also promote VCO policies and practices.

This is particularly important, in the context of carbon offset calculators, because if airlines were totally successful in raising awareness through this sort of individualised estimations, consumers might be persuaded to reduce, restrict, or stop taking flights due to this newly acquired increased consciousness over the true extent of their individual flying habits. In the context of this study, there is also a strong argument concerning the perceived responsibility for offsetting CO_2 emissions originating from air travel. If the polluter pays principle is invoked, attempting to persuade air travellers to behave ethically when airlines are not prepared to share the financial responsibility of offsetting CO_2 emissions (Velonaki and Stone, 2015), is once again unlikely to be perceived positively by the former – who must assume full responsibility for the environmental impacts of discretionary air travel as whole.

This thesis's third area of original contribution to knowledge was accomplished, when CL citizens' perceptions towards discretionary air travel and VCO schemes were analysed to reveal empirical accounts of practices underpinning discretionary air travel as a social norm within the wider contextual infrastructures of modern societies. As emergent relationships between themes, subthemes, and codes revealed, subject-specific knowledge does not always result in changes with regard to flight-related behaviours. While, findings on interviewing CL participants generally appear in agreement with those of earlier research (e.g., Randles and Mander, 2009; Barr et al., 2010; Cohen et al., 2013; McDonald et al., 2015; Buchs, 2017; Alcock et al., 2017) on behavioural intention and action, and therefore reinforce the existence of a gap between one's values on environmental issues and actions towards discretionary air travel, a number of thought-provoking original insights have emerged too.

These unique insights involve interpretations for changing behaviour or behaviours to provide space for alignment with one's own pre-existing green tendencies and environmental ideals, with the ultimate goal of restoring self-consistency and/or reducing feelings of internal conflict. This discovery is dissimilar to extant work (e.g., Whitmarsh and O'Neil, 2008; Randles and Mander, 2009; Eckhardt et al., 2010; Hares et al., 2010; Higham et al., 2014; Alcock, et al., 2017; McLachlan et al., 2018) and includes new insights into the implicit reasons behind the substitution of secondary or subordinate behavioural changes with flight-related consumption. What seems to activate this particular type of response to climate change mitigation is the direct sense of control individuals typically experience when succeeding in self-curbing or self-restricting other more easily conquered parts of their CO_2 consumption. This outcome, in essence, calls into question whether consumers and specifically environmentally aware individuals need to adjust their flight-related behaviour to reduce their cognitive dissonance or persuade themselves they 'are doing their best' to align their concerns or values over environmental issues with their air travel-related behaviours. Based on the findings of this research study, the latter postulation seems more likely as most CL participants opted for secondary changes or provided justifications for not changing their behaviour towards discretionary air travel.

While the perceived feedback about a person's ecological behaviour was not openly recognised by this research investigation as a factor that can positively influence the environmental behaviour of CL participants, some accounts did indicate that peer pressure from the CL community and other CL people had a catalytic effect in relation to self-responsibility and moral agency displays. For instance, CL trainers shared concerns regarding how unnatural and uneasy it felt to them to influence others on acting upon climate change mitigation without leading by example. This points to another area of substantial original contribution as it exemplifies that pressures arising from peer circles can act as impetuses for committing oneself to meaningful environmental actions, apart from acting as inhibitors of behavioural changes, such as in the case of theme 1 – 'not changing behaviour' in relation to social norms.

In terms of practical implications, there is a clear contribution in the direction of developing new participatory strategies which could help 'bridge' the gap observed when people act in ways that contradict or fail to support their values or concerns over environmental problems. The original approach of classifying 'carbon literacy', as an emerging meta-theme of 'green consumerism', contributes to the development of new practical insights, apart from new theoretical insights, upon which future research and practice can be drawn. This contribution takes two distinct forms of output. First, it advances the understanding of the 'value – action' gap, in relation to 'carbon literacy' as a meta-theme of 'green consumerism'; and secondly, concerning VCO schemes as a means of mitigating CO_2 flight-related emissions. Overall, the findings of this thesis are thus expected to be of great benefit to other researchers in this field, because they provide new insights into the technical, ethical, and behavioural challenges of climate change mitigation by drawing attention towards bigger problems related to moral and social norms, and wider politico-economic structures which fundamentally underpin climate change as a global problem with inadequate responses to it.

8.5 – Research Evaluation

In many ways, the process of research evaluation is comparable to the process of research analysis except it takes place upon completion of a research project and intends to articulate the strengths and limitations of a study, through reflexivity,

subjectivity, and a retrospective approach to whether the aims and objectives of the study were successfully met. Adhering to good research principles, from the onset of the research process, certainly helps to stir away from bad research practices; however, irrespective of one's research philosophy or positionality – all paradigms and methods of scientific research have inherent advantages and disadvantages, as Chapter 5 discussed more in-depth. From this perspective, learning to reflect on own behaviour and thoughts, apart from striving to reflect upon issues surrounding the phenomenon under investigation through theory and practice, unveiled an important lesson – one which perhaps many researchers (like myself) happen to learn the hard way: *failure is simply the opportunity to start again*. It is important to get results from research, but the most important process in getting those results is learning, this learning occurs when we can use our newly acquired ability or knowledge, in conjunction with skills and the understanding we already possess, to make sense of a subject. This part of the thesis reflects on the process of undertaking this study in a twofold way. It covers the huge learning journey, in terms of methodology and research experience, but also what it meant from a personal perspective.

8.5.1 – Positionality Of The Researcher

According to Holden and Lynch (2004), positionality in research stems from methodological choices. Coghlan and Brydon-Miller (2014:629), on the other hand, describe positionality in research as *"the stance or positioning of the researcher, in relation to the social and political context of the study – the community, the organization or the participant group"*. This indicates that my own philosophical position as a qualitative researcher has had an impact on all the different phases of the research process – from the way the research question or research problem was originally formulated, to how the research was conducted, and discussions were interpreted to draw study conclusions (Roulston, 2010; Zukauskas et al., 2018). While, in methodological terms, all investigators make different assumptions when conducting research, those who conform to the same research paradigms are typically directed by the same underlying research principles (Cohen et al., 2007; Zukauskas et al., 2018). Against this contextual background, qualitative researchers, like myself, are unavoidably part of the studies that they conduct, even if they do not explicitly acknowledge existing

influences between their subject positions, and how their positionality features, have an impact on the findings of their research explorations (Roulston, 2010). In Chiseri-Strater's (1996) terms,

> [a]ll researchers are positioned…by age, gender, race, class, nationality, institutional affiliation, historical-personal circumstance, and intellectual predisposition. The extent to which influences are revealed or concealed when reporting data is circumscribed by the paradigms and disciplines under which we train, work, and publish.
>
> (Chiseri-Strater, 1996:115)

While, many different meanings and wordings are commonly utilised by qualitative researchers when referring to the topic of 'knowing oneself' (as individuals who conduct academic or scientific research) – in line with Roulston's (2010) writings, the words 'reflexivity' and 'subjectivity' represent cornerstones in discussions around the investigator's place and contribution in research. The remainder of this subsection thus centres on these two terms, as primary tools of research evaluation, with a view of reflecting on all the different roles that I played in my academic role as a Postgraduate Research (PGR) student at Manchester Metropolitan University, and in my professional role as Carbon Literacy Trainer at the same educational establishment.

In terms of the former, my pathway to reflexivity generally encompassed elements of critical self-reflection on my personal inner thoughts, actions, as well as interpersonal interactions with interviewees, and the textual deconstruction involved in analysing webpages and interpreting interview transcripts. In this reflexive journey, my subjectivity or *"subjective-Is"* was critically examined in relation to the research topic and research participants/key actors (Roulston, 2010:119). Consistent with Peshkin's (1988:17) writings, the act of examining one's subjectivities is significant because investigators can *"learn about the particular subset of personal qualities that contact with their research phenomenon has released"* – while, research generally provides an environment where different sets of "subjective-Is" are logically invoked, the exploration of subjectivities centre on the relationships and interactions between participants/key actors and the researcher (Preissle, 2008) as opposed to the examination of personal experiences and autobiography.

For Roulston (2010), several different strategies (e.g., subjectivity statements, researcher journals, interviews of the researcher, analysis of the interviewer's work) can be employed in the process of examining one's personal subjectivity – all of which can be also used collectively, to inform each other, if investigators wish to respond to the calls for 'multi-faceted' reflexivity in qualitative research. In the context of this study, I chose to espouse two approaches to reflect upon my subjectivity and reflexivity. Subjectivity statements and a researcher journal were my main choices of reflexive communication, in the process of examining my own perspectives and assumptions about key elements of this research project, and recording my reflections, ideas, and commentaries – about all the different parts of the entire research process – with a particular focus on both parts of primary research. In this way, my professional role as a CLT at Manchester Metropolitan University was also acknowledged as well as reflected upon, alongside my academic role as a PGR student.

Concerning subjectivity statements, some subjectivities (or 'subjective-Is') were systematically brought forward throughout this project. First of all, I made clear in Chapter 1 and Chapter 5 my philosophical stance, apart from being the subject of research evaluation in the current chapter, as a fundamental aspect of my entire reflexive journey. Secondly, no attempt was made to conceal my role as a CLT, and my relationship with some of the other trainers-interviewees; on the contrary, I openly acknowledged the fact that those who I interviewed were selected[38] for an interview through my prolific involvement in the University's specialist team of Carbon Literacy Trainers (and Carbon Literacy Consultants), who work in partnership with The Carbon Literacy Project to deliver training to students and staff, together with external organisations and partner Universities. To guard even further against researcher bias, I also chose to complement my primary non-probability purposive – convenience sampling strategy with self-selection and snowball sampling, by asking initial study volunteers to help recruit other CL participants, who sooner or later happen to be entirely unknown to me – as Chapter 5 discussed in more detail.

[38] This selection was independent to any research conducted by The Carbon Literacy Project and/or Manchester Metropolitan University and its in-house team of Carbon Literate students, trainers, and consultants.

The idea of keeping a researcher journal is also seen as an integral part of this study's subjective approach to the research process as a whole. This plan was particularly useful during the period that I was undertaking interviews. After each meeting with CL interviewees, I spent some time recording (by hand) my overall impressions and thoughts about the research encounter, along with jotting down any potential questions or puzzles emerging from those conversations. Through the process of reviewing those reflexive jottings, rudiments of subjective presence were both recorded and monitored to avoid introducing bias during the subsequent stages of data analysis and reporting. In the same way as subjective statements, researcher journals enable investigators to deliberate their own identities in connection with all the different research circumstances that they might find themselves in (Roulston, 2010).

In doing so, I logged some thoughts pertaining to how I happened to identify with some of the narratives and justifications provided by the CL group, in the context of VFR travel. Being a foreign student myself, for example, exemplified the emotional 'need' or 'desire' to travel to visit extended family, relatives, and friends living in Greece – despite feeling extremely concerned about the negative consequences of air travel. Concurrently, as a CL trainer, I felt that sheer magnitude of peer pressure to conform with the broader 'green' ideals of the CL programme played an important role in my decision-making process to 'self-curb', despite experiencing strong feelings of guilt, because I no longer visit my family, friends, and relatives at frequent intervals. In this sense, peer pressure plays a threefold role. This role can essentially result in either a positive or negative effect, or both – as 'peer groups' may use direct (spoken or behaviour-centric) as well as indirect (unspoken or subtler) methods to influence behavioural changes on either side of the flying spectrum. Against this backdrop, I personally could not avoid experiencing feelings that adhere to the principle that one should and must lead by example. Details on the strengths and limitations of this study's design and instrumentation are presented next.

8.5.2 – Strengths And Limitations Of This Study

While biases may occur naturally in the design of all research, recognising and dealing with bias can effectively minimise its impact. Observing fundamental principles of ethics

as well as taking into consideration other significant variables (e.g., limitations on the sample group, sample size, researcher bias) to avoid problems with the methodological design of a study lays the foundations for an impartial qualitative research project. In the context of this study, several steps were taken to address potential limitations without compromising its strengths – as Chapter 5 highlighted when the appropriateness of this study's research design was discussed by referring to the measures taken to guard against ethical challenges in qualitative research. As part of that overall process, it was made clear that interview questions were designed in a manner that avoided leading or prompting participants in the direction of probable outcomes to eliminate biased answers. Additionally, its semi-structured interview design was particularly useful in focusing the conversation on key aspects of the research topic, rather than allowing participants (or the interviewer) to become engrossed in one particular viewpoint during the interviews, which could pose a serious threat to the validity of the research by endangering its impartiality.

In terms of data analysis and data reporting, conducting an extensive and critically engaging review of literature in Chapter 3 and 4 laid strong foundations by identifying the scope of previous works. In that respect, the decision to maintain a pro-active attitude towards taking preventive measures to address potential limitations before they become a problem, indicates that this thesis not only recognised the fact that certain biases do innately exist in research, but also that every effort was made to minimise the scope of such limitations and biases throughout the research process. Despite taking all foreseeable precautions, and in acknowledgement of this study's many strengths and few limitations, one shortcoming of the current research work which could not have been prevented, without triggering an adverse impact on the richness and originality of the research findings, was the scope of discussions.

While qualitative research never seeks to be representative and generalisable, or to measure how many people think or behave in certain ways – by implication, not being able to generalise the findings of a research investigation limits the scope of its discussions, to that of essentially explaining why participants/key actors think and behave in certain ways. However, this is considered as an intrinsic limitation of all qualitative research, and paradoxically perhaps also one of its biggest strengths.

Because by narrowing down the scope and depth of discussions, the overall level of focus increases in ways that go beyond accomplishing the aim and objectives of qualitative research inquiries, and into that of providing in-depth explanations and meanings through which logical generalisations could be cautiously drawn – these, however, unlike quantitative studies, represent analytic, or theoretical, forms of generalisation, which intend to enhance and/or broaden academic and human knowledge – as opposed to statistical generalisations which aim to generalise the findings of quantitative research inquiries outside the sample.

8.6 – Recommendations for Future Research and Practice

The implications of the current research exploration mainly derive from why it was important to conduct this research study, and how this work can be utilised to further advance research in this field. From the viewpoint of this thesis work, on the one hand, there has been some encouraging evidence that a broader societal engagement with drivers of pro-social behaviour could be empowered through 'carbon literacy' – a prospect that could potentially reshape the direction of both future research and practice. On the other hand, it was also evident that overreliance on providing further learning opportunities without changing the social structures and infrastructure of modern societies is perhaps futile – considering the urgency of the climate emergency. Although how environmentally-aware individuals feel when being challenged by issues around climate change, discretionary air travel, and the role of VCO as a means of climate change mitigation depends on their prior learning experiences, socio-cultural influences (including peer groups with whom they identify and from whom they seek affirmation), and personal situational context – 'nudge' policies will be equally ineffective from a consumer standpoint if they are not accompanied by broader structural changes to existing systems and socio-cultural determinants.

The findings of the present study also raise profound questions for the travel and tourism industry as a whole, and particularly for those working in policymaking. While, a significant degree of 'cognitive dissonance' and 'worriedness' was evident in CL citizens' explanations, and predominantly in their responses to perceived responsibility, an over-reliance on VCO initiatives, in their current form, jeopardises not focusing on

those ‘re-formative’ or ‘trans-formative’ factors, which can make a significant difference, without implicitly ‘pushing’ towards the ‘individualisation of self-responsibility’ – or, exclusively relying upon the ‘moral agency’ of profit-driven airline corporate entities, who maintain a ‘high-CSR profile’ as part of their ongoing efforts for continued legitimacy (‘social licence to operate’) rather than because they are actively looking for ways to demonstrate their vision, mission, and values around a fossil-free future. Based on the twofold findings of this study there are hence strong indications that entrusting airlines with VCO, in the context of climate change mitigation, is ill-fated – given their enduring reliance upon fossil fuels for medium to long-haul trips (even if electric or hydrogen planes replace all short-haul flights in the near future) and their disadvantaged position as an industry whose current presence and future growth, depends on the perpetual continuation of excessively frequent air travel patterns. In light of this, and considering that the ‘social licence’ under which the aviation industry operates is unlikely to be revoked, due to its paramount importance and unique role in the global transport system, overall recommendations thus centre on pushing for increased scrutiny, in terms of CO_2 emission reductions, and specifically in relation to the international component of aviation, since this particular segment was identified as an area where airline VCO policies and practices differed the most, both in the context of perceived responsibility for offsetting, and in terms of practical aspects around the ‘hows’ and ‘whys’.

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APPENDIX A – SAMPLE LETTER TO POTENTIAL INTERVIEWEES

Manchester Metropolitan University

1st January 2020

Dear Interviewee,

I am a Postgraduate Research Student (and a certified Carbon Literacy Trainer) at Manchester Metropolitan University. In this part of my PhD project, I aim to analyse ***"Carbon Literate citizens' perceptions towards discretionary air Travel, and the role of Voluntary Carbon Offsetting schemes, in relation to climate change mitigation"***. Your individual views as Carbon Literate members of our society are extremely important for the successful completion of this research project. If you wish to participate, please email argyro.velonaki@stu.mmu.ac.uk at your earliest convenience to book an interview slot. If you know other suitable candidates, who might be also interested in being interviewed as part of this research study, please pass a copy of this letter to them.

Interviews will take place between **20th January 2020** and **20th March 2020** at Manchester Metropolitan University with the exact room location confirmed approximately 48 hours prior to the interview date

Thank you for your time and response to my call. If you have any queries, please do not hesitate to contact me:

Email: argyro.velonaki@stu.mmu.ac.uk
Telephone: 07XXX XXXXXX

I look forward to speaking with you.

Yours Sincerely,

Argyro Velonaki

A.Velonaki

PhD Candidate
Manchester Metropolitan University

APPENDIX B – SAMPLE OF INFORMED CONSENT FORM

Manchester Metropolitan University

Informed Consent Form

Thank you for agreeing to be interviewed by Argyro Velonaki, Postgraduate Research Student, at Manchester Metropolitan University, Faculty of Business & Law, Department of Marketing, Retail and Tourism, All Saints Campus, Oxford Road, Manchester, M15 6BH, United Kingdom.

Please be aware of the following:

1. Your participation is voluntary, and you are free to withdraw at any time without giving a reason.
2. This interview will be audio recorded for ease of transcription.
3. You can refuse to answer questions and/or end the interview at any time.
4. Your responses will be kept strictly confidential.
5. Any identifiable information will be anonymised.
6. All information you provide will be stored securely.
7. Upon request, I will provide you with a written copy of your interview transcription and/or a summary of the key results of this study.

	(Please tick) **Yes**	**No**
8. Would you like to receive a written transcription of your interview?	☐	☐
9. Would you like to receive a written summary of the key results of this study?	☐	☐

I confirm that I have read and understood the information sheet for the above study and that I have had the opportunity to ask questions about the interview schedule.

Participant's Name: Date: Signature:

Researcher's Name: Date: Signature:

APPENDIX C – SAMPLE OF DEMOGRAPHIC INFORMATION FORM

Manchester Metropolitan University

Demographic Information

To help to analyse the findings of this study, please complete the following questions. Demographic information will not be used to personally identify you when storing, analysing, and/or publishing the results of this research project. If you have any questions, please do not hesitate to ask your interviewer.

1. What level of carbon literacy have you completed?

Please only tick one answer. In case of multiple levels of carbon literacy certification, select the highest level you have completed prior to your interview.

- ☐ Carbon Literate Standard
- ☐ Carbon Literate Facilitator
- ☐ Carbon Literate Trainer
- ☐ Carbon Literate Consultant

2. What is your age?

Please select the age group you fall into at the time your interview.

- ☐ Under 18
- ☐ 18 – 24
- ☐ 25 – 34
- ☐ 35 – 44
- ☐ 45 – 54
- ☐ 55 – 64
- ☐ 65+

3. Gender Identity

Please select the gender identity you currently identify with.

- ☐ Male
- ☐ Female
- ☐ Other (Specify if you wish)

  _____
- ☐ I prefer not to answer

4. What is the highest level of education you have completed?

If you are currently studying, please select the highest degree you were enrolled onto prior to your interview.

- ☐ Graduated from High-school
- ☐ Graduated from College
- ☐ Higher National Diploma (HND)
- ☐ Foundation Degree
- ☐ Bachelor's Degree (e.g., BA, BSc)
- ☐ Master's Degree (e.g., MA, MSc)
- ☐ Postgraduate Certificate In Education (PGCE)
- ☐ Doctoral Degree (e.g., PhD)
- ☐ Professional Degree (e.g., EdD)
- ☐ Other (Please specify)

  _____

5. Which of the following categories best describes your employment status?

You may select more than one answer if that best describes your employment status.

- ☐ Employed (Full-time)
- ☐ Employed (Part-time)
- ☐ Self-employed (Full-time)
- ☐ Self-employed (Part-time)
- ☐ Unemployed (Currently looking for work)
- ☐ Unemployed (Currently not looking for work)
- ☐ Student (Full-time)
- ☐ Student (Part-time)
- ☐ Retired
- ☐ Other (Please specify)

  _____

6. What is your personal annual income?

Please only tick one answer.

- ☐ Under £15,000
- ☐ Between £15,000 and £29,999
- ☐ Between £30,000 and £49,999
- ☐ Between £50,000 and £74,999
- ☐ Between £75,000 and £99,999
- ☐ Between £100,000 and £150,000
- ☐ Over £150,000
- ☐ Other (Specify if you wish)

  _____

- ☐ I prefer not to answer

APPENDIX D – SAMPLE OF SEMI-STRUCTURED INTERVIEW SCHEDULE

Interview Schedule

Introduction

» First, I would like to thank you for agreeing to share your experiences with me today.
» This interview will be audio recorded to ease transcription; however, all responses will be kept confidential, and they will be anonymised before reporting.
» Throughout this interview, I would like you to talk me through your experiences bearing in mind that there are no right or wrong answers. If at any point you feel that you do not want to answer a question or want to end the interview, just let me know.
» Do you have any question for me before we start?

Warm-Up Questions

1. I am aware that you are a carbon literate – student, staff, facilitator, trainer, consultant – is that correct?
2. Why did you get involved with carbon literacy?
3. How has carbon literacy influenced or changed your thinking?

Main Body Of Questions

4. Can you summarise your feelings about air travel in relation to the environmental impact?
5. What has shaped your opinion?
6. Have you always thought that way?
7. Do you still fly and for what purposes?
8. Talk me through the story of booking your last flight…
    - Where did you fly to?
    - What was the reason for booking that flight?
    - How did you book it?
    - What criteria did you consider before selecting your flight provider?

- To what extent did you consider the environmental impact of your planned travel before deciding to book that flight?

9. Do you feel you have moral responsibilities in relation to the environmental impact of your actions?
10. What about airlines, do you feel they have moral responsibilities in relation to their environmental impact?
11. What do you think about the way airlines market their “green credentials”?
12. What is your experience with airline voluntary carbon offsetting schemes?
    - Are you willing to pay for this?
    - Under what circumstances?
    - Why is that so?
13. To what extent, do you believe offsetting the carbon footprint of your flight(s) can make a difference?
14. Are you aware of any alternative options to voluntary carbon offsetting?
    - In what way is […] a better alternative than voluntary carbon offsetting?
15. If it was entirely up to you…
    - What would you do differently?
    - What could airlines do differently?
    - What could governments do differently?

Closing

» Thank you for sharing your experiences with me, I really appreciate your time and response to my call.
» Is there anything else you would like to talk about, but I did not ask?
» That is all the questions I had for you – Do you have any questions for me?

End of the document page