



Analysing Green Purchasing Behaviour Inconsistency

An example from voluntary carbon offset program

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Abstract

This research investigates current and explores new factors contributing to *green purchasing behaviour inconsistency* using qualitative method and iterative grounded theory approach. Green purchasing behaviour inconsistency derived from the behaviour-attitude gap theory that occurs within different context of consumer behaviour cases, thus this research tries to answer: “What are the factors that cause *green purchasing behaviour inconsistency*?” using Voluntary Carbon Offset (VCO) program as an example. This research uses semi-structured interview methods on 9 interviewees in Sweden and Germany, each with different demographic background (employment, age, and location) and level of VCO program participation across different industries. The findings shows that *Trust, Situational Context, Implemented Intention, Perceived Behavioural Control, Willingness to Pay, Personal Values, and Information and Knowledge* have potential to narrow down or even closes the gap in *green purchasing behaviour inconsistency*. This research offers the possibility of new factors that can be included in the current discourse on behaviour-attitude gap and add more credibility to *Implemented Intention, Situational Context, and Trust* as the existing factors used in behaviour-attitude discourse. Beside academic contribution, this research also briefly highlights possible implementation within business management context on how to empower consumers to make a well-informed decision towards products and services that contributes to fighting climate crisis or opt to offer different options for the consumers.

Keywords: Behaviour, Attitude, VCO, Inconsistency, Green, Purchasing, Carbon

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Abbreviations

ABC	Actual Behavioural Control
ATT	Attitude
BI	Behavioural Intention
GHG	Green House Gasses
II	Implemented Intention
PV	Theory of Reasoned Action
SC	Theory of Planned Behaviour
SN	Subjective Norms
TPB	Theory of Planned Behaviour
TR	Trust
TRA	Theory of Reasoned Action
VCO	Voluntary Carbon Offset
WTP	Willingness to Pay

1. Introduction

In this chapter the research background and problematization are presented, followed by the study aim and research question. Lastly delimitation and structure of this thesis is presented at the end of this chapter

1.1 Background and Problem

As the result of ever-growing demand for goods and services that cause severe environmental degradation, people awareness towards climate crisis and its implication has been increasing in the early decade (IPCC, 2014). However, personal responsibility and their ability to actualize their action to make positive changes within the climate crisis issues is still relatively low (Kalamas *et al.*, 2012).

Studies related to green purchase behaviour has been a reoccurring topic among researchers for the past decades (Joshi and Rahman, 2015). Many researchers are finding the gaps between pre-purchasing factors that affect purchasing behaviour towards consumer intention (*ibid.*) Understanding this process would help to explain unplanned purchasing behaviour that cause environmentally damaging overconsumption (Grunert, 1995). Consumers' positive attitudes towards positive disruption in addressing climate crisis and environmental protection are empirically supported (Joshi & Rahman, 2015). However, although green purchase attention has been positively developing for the past decades, the market for green products is growing slowly despite a significant increase in environmental concerns among consumers (Young *et al.*, 2010). Hughner's (2007) study among the UK consumers, found that although intention to purchase green products are increasing, only a small portion of those people who made it to the actual purchase of the products. Joshi and Rahman (2015, pp. 129) refer to this phenomenon as *green purchasing behaviour inconsistency*. Where gaps between green purchasing behavioural intention and the actual behavioural practices are not always positively aligned (*ibid.*). It is also shown in consumers with a high level of environmental consciousness. Rokka and Uusitalo (2008) found that even those who have high environmental consciousness do not always translate their green purchasing intention into actual purchase. Similar phenomena are also happening in the context of environmental awareness gap, where pro-environmental behaviour does not always align with the actual impact a person intended to (Csutora, 2012).

Current green purchasing behaviour discourse often focused on several factors such as explaining the intention of purchase through environmental sensitivity (Yarimoglu & Binboga 2019), environmental awareness (Bisschoff & Liebenberg, 2016), and green product substitutes availability (Vermeir & Verbeke, 2008). A more recent study tries to incorporate different theory to explain the attitude behaviour gap using motivation and past-behaviour influence (He et al., 2021). All those studies mentioned before were often done using consumer goods such as food and beverage, cars, and household fast moving consumer goods as the cases. However, very few studies have been done using Voluntary Carbon Offset (VCO) services/program. Most of the existing studies on the VCO program are centred around tourism and aviation services using willingness to pay as the main factor to influence green purchasing behaviour (Segerstedt & Grote, 2016; Zhang et al., 2019; MacKerron et al., 2009). Aside from that Blasch and Farsi (2014) try to explain the general population voluntary mitigation behaviour in general household and transportation product and services usage. Although research on the VCO program has gained its momentum in the past decade, especially within the aviation businesses (McLennan et al., 2014), not much research has been done to understand the intention-behaviour gap or *green purchasing behaviour inconsistency*.

The understanding of factors that facilitate consumers green purchasing behaviour towards the actual behaviour persist even though many consumer-level theories in green purchasing behaviour has been done in the past decade (Groening at al., 2018). Joshi and Rahman (2015) suggest that much research in green purchase behaviour relies on using Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA), and Ajzen's (1985) Theory of Planned Behaviour (TPB). These theories alone are good in explaining intention of green purchasing behaviour. However, they lack accurate predictability, situational factors, habitual behaviour, ethical behaviours, and post-purchase behaviour of consumers towards green purchasing behaviour (ibid.). Thus, this research will investigate and explain *green purchasing behaviour inconsistency* through an extended model of the existing theories with an empirical example of VCO.

1.2 Study Aim

This thesis is aimed to better understand the *green purchasing behaviour inconsistency*. Using the VCO program as an example to analyse *green purchasing behaviour inconsistency*. However, this thesis is not intended to generalise the findings, but rather being an in-depth addition to the existing research of green purchasing behaviour inconsistency and VCO program. Based on the research problem and study aim of this thesis, the following research question is made:

- What are the factors that cause *green purchasing behaviour inconsistency* in the VCO program?

1.3 Delimitations

This thesis focuses on consumers' behaviour-attitude gaps in the VCO program purchasing intentions. Thus, it only studies consumers who are already aware of a/the VCO program but never participated or bought the VCO program options in their purchase and those who participate or purchase it inconsistently. Other consumers who are not aware of the VCO program will not be considered even though they possess green purchase intention and behaviour. This decision is taken under the consideration that if a person is not aware of VCO program they will not be able to provide answer based on something that they do not have the prior knowledge and awareness about it, thus their answer would be considered not valid.

This thesis is not intended to provide a generalized explanation of the *green purchasing behaviour inconsistency* phenomena in a population as it focuses on a few individuals to gather insights through in-depth interviews about factors that cause the phenomena contributing to their behaviour-attitude gaps. All definitions in this thesis are specified in chapter 2 of the thesis regarding what is “green” and “sustainable”, to provide a concise context for the readers.

1.4 Report Structure

This thesis will be sectioned into six chapters. Chapter 1 introduce the reader to the topic and the intentions or aim of the thesis. Chapter 2 will bring readers deeper into the existing concepts, theories and frameworks used in this thesis. Chapter 3 will elaborate the methodology adopted in this thesis research along with justification for the data collection process and data analysis. Chapter 4 will present the gathered data along with the initial analysis. Chapter 5 Will connect empirical findings gathered from the collected data with the theory and concepts. Chapter 6 will discuss findings and conclude the thesis with comparison between the findings and current studies in green purchasing behaviour based on analysis drawn from the data and how this can be derived from the findings along with suggestion for future research.

2. Literature Review and Framework

In this chapter, the reasoning behind the research framework of this thesis is explained through explanation of current relevant literature of theories and concepts that contributes to this thesis research framework that is presented at the end of this chapter.

2.1 Theories

2.1.1 Theory of Reasoned Action

The Theory of Reasoned Action (TRA) was introduced by Fishbein and Ajzen (1975) and is widely used as a model to predict behavioural intentions and behaviour (Madden *et al.*, 1992). The theory proposed that behavioural intentions which derives from a person behaviour is a set of information or beliefs that causes the likelihood that a performing a specific behaviour would lead to a specific outcome (Fishbein & Ajzen, 1980; Fishbein & Ajzen, 1975). In TRA (see figure 1), behavioural intentions consist of two antecedents which are behavioural attitudes (ATT) that stems from a person behavioural beliefs and behavioural subjective norms (SN) which stems from a person normative belief (Fishbein & Ajzen, 1975). Thus, information and important beliefs are affecting a person's intention and subsequent behaviour through attitudes and/or subjective norms (*ibid.*) As normative beliefs construct a person's SN, it refers to the person's beliefs in relation to how others approve think or perceived expectations about a specific behaviour (*ibid.*) ATT reflects important behavioural beliefs regarding the possible consequences (personal) of a performed action which is an overall evaluation prior to performing a specific behaviour (*ibid.*)

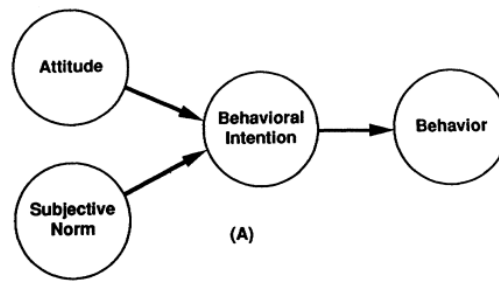


Figure 1 Theory of Reasoned Action illustrated by Madden et al., 1992, p 4.

The correlation of attitudes and subjective norms towards behavioural intention has been tested in various studies (Sheppard *et al.*, 1988). The strength of the relationship between intention and behaviour is bounded by three factors which are levels of specificity, stability between time of measurement, and individual volitional control (Ajzen & Fishbein, 1975). Volitional controls are highlighted in TRA as the core assumptions of TRA is that a specific behaviour can be executed whenever a person is willing to do so in which the behaviour is under volitional control (Staats, 2004). However, even though most studies adopting TRA show a strong correlation between behavioural intention and actual behaviour, it cannot guarantee that behavioural intentions will always lead to a behaviour (Joshi & Rahman, 2015). Nevertheless, TRA has been implemented in many studies related to green purchasing behaviour (e.g Al-Swidi & Saleh, 2021; Afridi *et al.*, 2021; Sharma *et al.*, 2020; Jaiswal & Kant, 2018; Vazifehdoust *et al.*, 2013; Liu *et al.*, 2012). This shows that TRA has shown to be a reliable theory and model in the studies of consumer behaviour in particularly explaining green consumer purchasing behaviour which is aligned with the topic and study aim of this thesis.

2.1.2 Theory of Planned Behaviour

Rooted from TRA, Theory of Planned Behaviour (TPB) is one of the early theory extensions of TRA (Ajzen, 1985). The extension exists due to a discovery that behaviour is not completely voluntary, but rather influenced by an additional factor which is Perceived Behavioural Control (PBC) (*ibid.*). Aligned with TRA, the model still puts the consideration of attitude (ATT) and normative beliefs (subjective norms) with the additions of third factor which is control beliefs (perceived behavioural control) (*ibid.*) Control beliefs refers to a person's belief that there is presence of factors that may hinder or allow the performance of a specific behaviour (*ibid.*) Thus PBC towards behavioural intention reflects upon the motivational influence of control on behaviour directly or mediated by behavioural intention (Madden *et al.*, 1992). This factor opens to other possibility that even though a person has favourable ATT and/or SN their intentions to perform a certain behaviour may still be low if they believe that they have restricted or little

control over performing the behaviour (ibid.) Glanz *et al.* (2008) also explains that PBC should reflect the persons confidence, self-efficacy and controllability of performing the expected behaviour which plays an important role in this theory.

TPB (See figure 2) was first implemented in a test by Ajzen and Madden (1986). The result shows that perceived behavioural control significantly predict behavioural intention

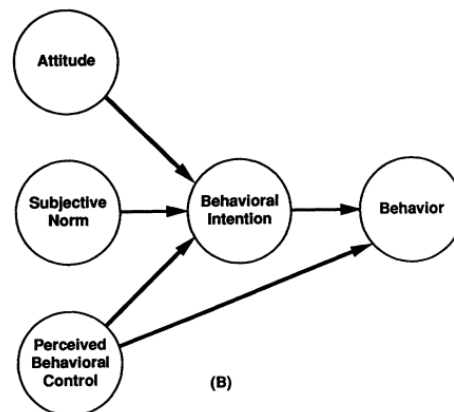


Figure 2 Theory of Planned Behaviour illustrated by Madden *et al.*, 1992, p 4.

(Ajzen & Madden, 1986.) In short, TPB have been tested to predict two possible perceived behavioural control effects towards behaviour, which are: (1) it reflects a person's motivational factor that have indirect effect on behaviour through intentions, and (2) it reflects the actual control directly linked to a/the behaviour without mediation of behavioural intention (Madden *et al.*, 1992). However, although a significant effect is found between PBC and intention, the theory does not explain the degree on which people have control over the behaviour (ibid.)

2.2 Concepts

2.2.1 Voluntary Carbon Offset Program

Carbon offset, or some refer to it as Green House Gas (GHG) offset, is an intangible economic commodity which involves low-carbon energy productions, soil carbon enhancement activities, and alternatives that enable a lower emission in goods and services consumption with the objectives of avoiding or sequestering GHG emissions (Gillenwater *et al.*, 2007). However, many climate policies have not been the most effective in mitigating global climate crisis (Hermwille & Krings, 2012). Thus, voluntary actions to take part in reducing GHG emission are deemed to be crucial (Blasch & Farsi, 2014). These voluntary actions are often offered in a form of optional purchase to finance projects that reduce GHG emissions by an amount equivalent to the emitted GHG emission caused by the activities taken, hence it

aims to negate the emission of this consumption or production (ibid.). Per 2018, the total carbon dioxide equivalent offset transacted was 0.18% of total global GHG emissions which is 55.6 billion tonnes CO₂e whereas the total CO₂e offset in the voluntary market was 98.4 million tonnes CO₂e (Heintzman, 2021).

Nowadays a lot of activities offers VCO programs, most of them are within the travelling sectors, but other such as household products and activities, and even social events (Balsch & Farsi, 2014). This have shown an increase of demand for consumers to have these options (ibid.). Although VCO are closely knitted in the economic discourse, it still has significant influence from a behavioral perspective. According to Baron (2010), actions such as VCO are influenced by morally motivated behaviour from the consumer which are then actualized in form of self-regulations, or even altruistic behaviour in a form of donations.

As the name suggests, participation in the VCO program is entirely voluntary (Schmidt, 2009). Consumers can participate through a carbon offset provider who independently provide ways for consumers to offset their carbon or a third party that purchase the offsets on their behalf (ibid.). As explained by McLennan et al. (2014) in the introduction, VCO are popularised by the aviation industry due to its large volume of GHG emission emitted by the industry. This realization leads to the need to decrease its emissions including but not exclusively through VCOs (Heintzman, 2021). VCOs can be done through different ways on how carbon is being offset such as methane renewable energy project and fuel switching (Corbera et al., 2009). However, forestry based (e.g tree plantation) remains the most popular among existing options within the VCO market (ibid.)

In a way VCO programs are different from the conventional green products. Lovell *et al.* (2009) explain that carbon offsets like service, are not tangible products in which the consumer received indirect return when purchasing GHG reduction options. Unlike another example of green products such as health benefits brought by organic foods (Sefyang, 2007), purchasing a VCO program does not offer direct material benefits (ibid.) Regulation wise it is also different from other green product such as organic produces or fair-trade goods as they have more established regulatory and labelling schemes (Guthman, 2007). While up to recent years regulation on VCO is still undergoing changes concerning/when it comes to/regarding regulation and is still focused on carbon foot-prints labelling (Acampora, *et al.* 2021) while carbon offset program still faced regulatory barriers and uncertainty (Haya *et al.*, 2019; Campbell *et al.*, 2018).

2.2.2 The Green Consumer

Understanding consumer demographics is a good start to understand who green consumers are. The attempt to identify and study green consumers has begun since the late 1960s by two studies by Berkowitz and Lutterman (1968) and Anderson and Cunningham (1972) in which socio-demographic variables such as age, gender, economic status, and level of education are used to identify green consumers (Laroche *et al.*, 2001). During the early green consumer demographic research, it is believed that pre-middle aged consumers are seen to be more socially conscious and sensitive to environmental issues, however in the new millennium Straughan and Roberts (1999) found empirical evidence that younger individuals are likely to be more sensitive and more conscious towards environmental issues. Sex also shows a different profiling within the green consumer segment, men show more knowledge in environmental issues whereas women show more concerned towards environmental quality (*ibid.*). It is also shown that education and social class has significant indicator in profiling green consumers (*ibid.*) Diamantopoulos *et al.* (2003) argue that socio-demographic profiling on green consumers is very contextual and should be used carefully. The authors find that the association between socio-demographics characteristics and environmental consciousness are complex but still significant thus it can be used up to a certain degree contextually (*ibid.*) Looking at more recent studies, the socio-demographics relevance towards green consumer profiling are still significant as determinant of green consumers (see, Pinto *et al.*, 2011; Nittala, 2014; Wang, 2014; Panzone *et al.*, 2016; Witek and Kuźniar, 2020).

However, relying solely on socio-demographics alone is not enough to define the green consumer profile, more over on explaining their environmentally friendly behaviours. Thus, other research has shown that psychographic factors such as values and behaviour towards environmental consciousness (Schlegelmilch *et al.*, 1996), Perceived consumer effectiveness and altruism (Akehurst *et al.*, 2012), social responsibility (Schwepker & Cornwell, 1991) should be incorporated to give more depth in understanding green consumers. In short, a green consumer is defined by their sustainable behaviour and their consciousness towards the environment, not merely their socio-demographic factors alone (Golob & Kronegger, 2019). Further, sustainable behaviour is explained by Kollmuss & Ageyeman (2002, pp. 240) as "behaviour that constantly seeks to minimise the negative impact of one's actions on the natural and built world". It is projected through pro-environmental behaviour such as purchasing products that does not harm the environment, recycling, mindful consumption, and using green transport alternatives (Yilmazsoy *et al.*, 2015).

Prior studies have shown that green consumers possess distinctive behavioural characteristics that contributes towards their intention for green purchasing in-comparison to those who are not, such as their price-quality sensitivity, prior purchasing habits, (Niedermeier *et al.*, 2021). Klein *et al.* (2019) also show that relevance in consumer purchase history, interest in information regarding green consumption and higher sense of altruism added to the distinctive character of green

consumers. Information seeking process is also mentioned by Oates et al. (2008) that environmental concerns are a significant component of green consumer decision making processes which is shown through consumer level of voluntary information seeking and evaluation processes in their decision-making process prior to a purchase which align with the green consumer segmentation mentioned by Klein *et al.* (2019). Ricci *et al.* (2018) shows empirical evidence that consumer trust towards the products marketed as green plays a significant role in defining green consumers' segment.

2.2.3 Green Purchasing

The term green purchasing refers to the act of purchasing products that are not harmful to the environment and avoid products that are (Chan, 2001). Green purchasing is often measured as green purchase intention which refers to the willingness to purchase green products (Joshi & Rahman, 2015). This understanding is then elaborated for the development of practical business strategies to market products to specific segments of consumers (D'Souza *et al.*, 2007). Ramayah *et al.* (2010) explain further that green purchase intentions represent the motivational factors behind consumers green purchase behaviour. This behaviour represents a multitude of ethical decision-making aspects which can be translated into a socially responsible behaviour where green consumers consider the consequences of their consumption and attempt to convert their purchasing power into social change (Moisander, 2007)

Studies have provided empirical evidence on how consumers' purchasing intention and behaviour are affected by several factors such as price and product quality (Mandese, 1991), environmental concern (Hartmann & Apaolaza-Ibañez, 2012), credentials (Gilg *et al.*, 2005), ethical considerations (Moisander, 2007), trust (Ricci *et al.* 2018), personal values (Pinto *et al.*, 2011). That been said, green consumption is not a one-dimensional phenomenon as it consists of interconnected attitudinal and behavioural intentions (Golob & Kronegger, 2019). Other empirical evidence found that although environmental concern is thought to affect green purchasing intention, the relational strength between environmental concern and purchasing intention have shown inconsistent result (Newton *et al.*, 2015). The authors found that intentional and incidental learning process helps to mediate the relationship between consumers environmental concerns and green purchase intention which are moderated by their level of consumptions (ibid.) This evidence align with the notion that green consumption is not one-dimensional (Golob & Kronegger, 2019) and strengthen the significance of information seeking behaviour of green consumer mentioned by Klein *et al.* (2019) and Oates *et al.* (2005).

2.2.4 Green Purchasing Behaviour Inconsistency

Aligned with Chan's (2001) definition of green purchasing, it is measured as intention and behaviour. Ajzen and Fishbein's (1980) TRA, which explains individual behaviours through the main factor's individual attitudes, and social norms. Ajzen's (1995) TPB which follow the same principle as TRA with an additional factor which is perceived behavioural control has been applied in several

research to explain green purchasing behaviour such as organic food (Smith & Paladino, 2010; Arvola *et al.*, 2008). Although more research adopted both TRA and TPB in attempting to explain green purchasing behaviours, it still lacks strong evidence of the relationship between green purchasing attitude and consumers' actual purchase behaviour, referring to the intention-behaviour gap (Joshi & Rahman, 2010). Padel and Foster (2005) explain that TPB does not consider consumers' ethical behaviours and habitual buying behaviours. Empirical research shows that ethics is important to bridge the intention-behaviour gap in green purchasing behaviour as it reflects legitimacy on buying ethical products (Carrington *et al.*, 2010). Thus, despite consumers with high ethical intentions, ethically minded consumers are less likely to buy ethical products (Auger and Devinney, 2007). In the managerial context, failing to address this could lead to miss opportunity of green consumer segment, not only loss of market but also loss of opportunity for companies and organization to achieve their sustainability goals through providing ethical products (*ibid.*).

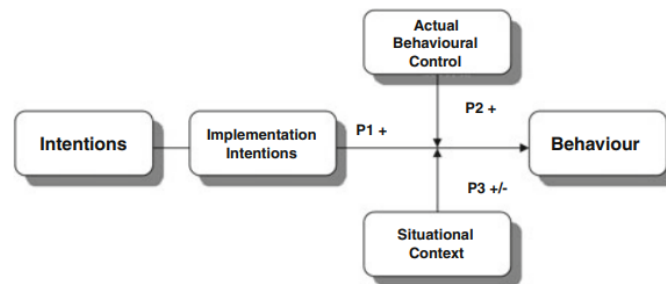


Figure 3 Intention-behaviour mediation and moderation model of the ethically minded consumer (Carrington *et al.*, 2010, p 144.)

In the attempt to fill the behavioural intention-behaviour gap, Carrington *et al.* (2010) propose a framework to the existing TPB- and TRA models to bridge the gap between behavioural intention and behaviour (See figure 3.). Carrington *et al.* (2010) further discuss the possibility of new factors as the extension TRA as reflection of ethical intention. Three new factors are introduced in the model, which are Implementation Intention (II), Actual Behavioural Control (ABC) and, Situational Context (SC) (*ibid.*) Implementation Intention (II) was adopted from Bagozzi and Dholakia (1999) and Gollwitzer (1993) which refers to a plan in which a person specifically outline when, where, and how their intention will be actualized into the desired behaviour (Carrington *et al.*, 2010). Actual Behavioural Control (ABC) refers to a person's ability to control over the enactment of specific intention within a particular situation (Hunt and Vitell, 2006). However, the role of ABC on actual purchasing behaviour is still highly conceptual and abstract with little empirical work to ground its influence towards consumer behaviour (Carrington *et al.*, 2010). Lasty, Situational Context (SC) refers to the momentary chances of factors within the purchasing environment that may facilitates or hinders a person intention into actual purchasing behaviour (Carrington *et al.*, 2010). This framework then has been further implemented to explore ethical consumer

intention-behavioural gap (Carrington *et al.* 2014), which contribute to the growing literature on closing the intention-behaviour gap.

Aligned with Ricci *et al.* (2018) understanding the degree of trust possessed by consumers/a consumer could be the missing factors to understand the intention-behaviour gap in green purchasing behaviour. Although a specific case on green purchasing behaviour has not yet been explored yet, Rehman *et al.* (2019) studies on online shopping behaviour has found that Trust (TR) shows a promising moderating effect between purchasing behaviour intention and actual purchasing behaviour. TR refers to “the willingness of a person to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor another party” (Mayer *et al.*, 1995, pp 712.). TR has been studied to be an important role in explaining consumer actual behaviour (Akroush & Al-Debei, 2015). More specifically in the context of purchasing behaviour (Hsu *et al.*, 2013; Mukherjee & Nath, 2007).

2.3 Conceptual Framework

Referring to both theories and concepts explained in this chapter, this thesis adopt a modified extension of Fishbein and Ajzen’s (1975) model with the addition of Carrington *et al.*’s (2010) intention-behaviour gap model by incorporating II, SC and additional TR factor from Rehman *et al.* (2019) into the extended model (see Figure 4). The reason for opting out ABC from the model is align with Carrington *et al.* (2010) argument that ABC is still a highly conceptual with yet little understanding how to measure it, thus more empirical evidence is needed to be adopted in this research. Instead, this thesis will adopt TPB factors of PBC as the usage of this model and PBC has been used in various academic research as explained in the theoretical framework part of this thesis.

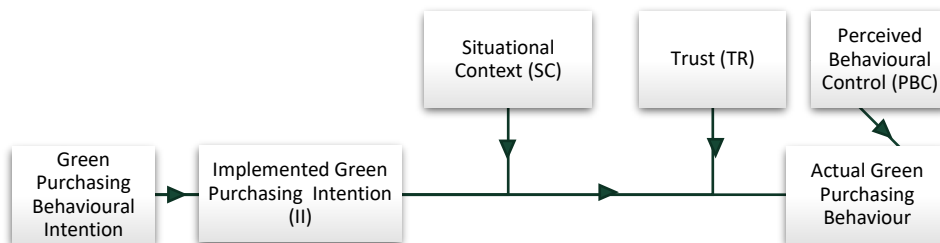


Figure 4 Proposed Research Framework

This research framework allows the author to investigate and analyze *green purchasing behaviour inconsistency* by looking at consumers II as mediator between consumer BI and their actual behaviour, while SC and TR acts as the moderator between consumers II and their actual behaviour. List of questions to measure the factors within the research framework is disclosed in appendix A of this thesis.

3. Methodology

This chapter of the thesis will explain the reasoning behind the chosen research philosophy and design, followed by the chosen methods used to fulfil the aim of the study.

Qualitative research will be adopted to conduct in-depth research on the research object and form findings from the gathered data. The consideration for choosing this method is to build explanatory theories through interaction between researcher and research objects, to gather understanding of their behaviour and meaning construction (Maxwell, 2010). Aligned with the study aim of this research, an inductive approach will be used to form a concrete theory derived from the data gathered in the research. Thus, a Grounded theory approach will be used in this research. Grounded theory is a research method that follows a systematic and at the same time flexible guidelines with the purpose of constructing a theory through collecting and analyzing qualitative data (Charmaz, 2001). This approach allows the process of performing data analysis and data collection simultaneously. This iterative process is applied to examine all possible theoretical explanations by moving back and forth between the empirical findings and emerging analysis (Leavy, 2014).

3.1 Philosophical Approach

The approach in this thesis is based upon an interpretive post-positivism philosophy. Data gathered from this research will be iterated and analyzed to form a theory. According to Leavy (2014), the post-positivism approach aims to explain social phenomenon through identifying factors in relation to the predicted outcomes and its relationships. Based on that, the author believes that this philosophical approach is suitable to help the author in identifying factors that affected the desired green purchasing behavior and how it relates. Aligned with interpretivism, this research believes that phenomena within that explains people interactions are subjected to perception, action and meaning (Bryman & Bell, 2015). According to the choice of philosophical approach of this research, a high level of subjectivity among all individuals involved in this study are expected. Thus, it is important for the author to adopt continuous thinking in during the process of data collection and analysis.

3.2 Sampling

The purposive sampling method will be used to select interviewees. The author uses the goal and aim of the study and existing literature as reference when deciding the potential sample used in the thesis research, therefore a certain criterion must be met by the interviewees to make sure that questions in the interview to be understood and answered (Bryman & Bell, 2015). The planned sample will consist of consumers within the age of 18-35, this age group is chosen based on the likeliness for these demographics to have concern towards environmental issues, based on the UNDP People Climate's Vote (2021). Within this age group, only those who are aware of VCO program ranging from transportation tickets (flight, bus etc.), food and beverage services, and fast-moving consumer goods that offers VCO program are chosen. The reasoning behind this is because this thesis only studies the gap between BI and the actual behaviour, thus choosing samples who already have the intention to participate in VCO program through the offered product and services would make more sense instead of including people who don't have the intention nor awareness of the VCO program.

The VCO programs mentioned before are only examples of some products and services that offer the options. The reason of this purposive sampling is to make sure interviewees already understand and aware of the VCO program since the purpose of this study focused on consumer who already have the green purchasing intention to participate in VCO program but never actualized it Thus consumers who never knew, understand, or aware of the VCO program would not be a valid sample.

3.3 Data Collection

Both primary and secondary data will be collected in this thesis, following the planned systematic approach, as according to Weller & Romney (1988). An initial literature review will take place to collect secondary data from sources such as peer reviewed academic journals as the focus of the literature, followed by reports and other form of credible data sources such as the UN organisation and statistics data banks. This initial process acts as the first stage of theory development according to a grounded theory approach to help guide the author in answering the research questions and develop the right questions to ask during the interviews intended for the primary data collection. Thus, this stage of data collection is crucial in this thesis as it holds the foundations for the primary data collection.

3.3.1 Semi Structured Interviews

Data are collected through a series of semi-structured qualitative interviews with green purchasing behavior aware customers in Sweden. This interview method will consist of an interview guide which help the author to stay focused within the aim of the study by listing topics that needs to be covered while still allowing some degree of flexibility when forming and/or answering questions (Bryman & Bell, 2015).

As mentioned earlier, the interview process consists of an interview guide along with probing questions to help navigate the discussions and allow a deeper and more natural conversation to happens. The author prepares some questions which reflects directly to the thesis research question and room for interviewees to add their opinion about the related topic or more detailed topics (Bryman & Bell, 2015). A follow-up question will then be conducted to get additional understanding (ibid.). By following this process, it allows the author to see the phenomena form the interviewees perspective (ibid.)

All interviews will be audio recorded for the purpose of text transcription to create a verbatim record of what has been said during the interview. Along with personal notes taken during the interview by the author as a point of reference of which point are interesting to be considered in the later coding process. This is also planned to reduce author bias, as memories could often distorted and not as reliable as a concrete audio recording. Therefore, it offers a more thorough analysis of what the respondents has said (Bryman & Bell, 2015).

3.4 Data Analysis

Aligned with the grounded theory approach, data collection and analysis are done iteratively. The process will adopt the open coding and the axial coding approaches, as according to Allen (2017). Even though this research is not aiming to reach theoretical saturation (due to time constrains) a round of data collection and analysis are conducted to develop a robust finding for research analysis development. This approach is having been suggested for authors who aims on forming new knowledge whilst connecting the collected data from the interviews to the previously formed research framework and theories (Bryman & Bell, 2015).

Transcribed data collected form the interviews will undergo constant comparative processes, where the transcript texts are broken into individual excerpts. Following Corbin and Strauss (1990), three type of coding will be adopted. Firstly, *open coding* is performed by continuously comparing excerpts with other excerpts to be grouped based on similarities or. Secondly, *axial coding* is done to find connections between the initial codes, to look for axes that connects different codes together where it will be listed in a hierarchy of open code within a common themed arising from the codes. Another constant comparative process will be done in axial coding also, to analyze similarities, themes and new codes that might arise from the

analysis. Thirdly, the author will proceed to the defining core category using *selective coding* process where new categorized data is formed to be later reviewed and connected with the previously presented theories and categories.

3.5 Research Reliability and Validity

Reliability and validity of this research cannot be measured using the same method as what is done in a/the quantitative research method, as the goal of qualitative research is not replicability (Bryman & Bell 2015). Thus, Bryman and Bell (2015) stress the importance of ensuring research reliability and validity in qualitative research by looking through the context specific aspects of credibility, transferability, dependability, and confirmability of a qualitative research.

Credibility refers to ensuring how the findings of the research are aligned with the reality. This can be done through aligning the research finding with data from different sources such as websites, newspaper, and journal articles (Bryman & Bell, 2015). In this thesis, the data derived from the transcribed interview data will be compared to different sources mentioned above. The interview transcript will later be sent to the interviewees as a validation process, ensuring that author received the right answers according to the interviewees.

Transferability refers to the ability of a research finding can be transferred to another context. Within the context of qualitative research, it can be done if the author can provide enough description on the context studied (Bryman & Bell, 2015). In this thesis, description of the studied context is given by disclosing the research empirical background, justification of sampling which is done in chapter 4 of this thesis, and interview guide that will be provided in Appendix section of this thesis. By doing this, it allows other researchers interested in this topic to decide whether the result of this thesis can be transferred to their study.

Dependability refers to the degree of the research trustworthiness if the research were to be done the second time with the same context, sample, and method (Bryman & Bell, 2015). To ensure dependability, an auditing approach is done by ensuring a complete record of all phases of the research process such as fieldwork notes, interview transcript, and sampling method (ibid.) In this thesis the author will keep an accessible complete record of interview transcriptions, field notes, and sampling method for the purpose of peer review.

Confirmability refers to the degree of possibilities of the researcher opinion, values and ambitions that can influence the objectivity of the study (Bryman & Bell, 2015). In this thesis, one of the ways to manage objectivity and bias is done through consulting with the direct supervisor of the thesis project. The author is fully aware with that the author academic background in sustainability and environmental management might drive personal values and opinions into a desired outcome, thus having a check-up and feed backs with the assigned supervisor along the thesis project process will help the author stay objective.

As stated in the study aim of this thesis, the author is not intending to generalize the finding. Generalization of a context specific studies is seen to be a reoccurring challenge in context specific studies (Bryman & Bell, 2015). Thus, this thesis will instead generate depth, situated to the context of the study as a new contribution of the existing literature around *green purchasing behavior inconsistency* in VCO.

3.6 Ethical Considerations

Data gathered in this research are words from the interviewees, Words gathered during the interview process represent the interviewees experiences (Aluwihare-Samaranayke, 2012). Thus, a critical consciousness needs to be involved when questionings and reflecting on how participants are involved in the thesis research, to ensure that participants voices, and experiences are represented within an agreement of consent (ibid.)

During primary data collection involving human subjects as source of data information, concerns regarding data confidentiality and data privacy will arise. Thus, it is important to present the data in this research anonymously. A procedure will be taken prior to collecting data from the intended interviewees. Each of them will be requested to complete a questionnaire addressing basic demographic information along with a non-disclosure agreement and consent that outline the scope, broad aim, and agreement on anonymity. This document is required to be signed upon agreement. The reason behind disclosing this information is to provide legitimacy of the gathered data. Each interviewee will be assigned a pseudonym on to help with the author in presenting the empirical data and findings.

4. Empirical Data

This chapter provides context-specific information about the unit of analysis and, empirical findings from the semi-structured interviews will be presented.

4.1 Unit of Analysis

The unit of analysis of this study consists of green consumers with prior awareness of VCO and experiences in purchasing green products and services. To be able to investigate the chosen unit of analysis in depth, empirical context gathered by selective sampling of participants according to the defined criterion are done prior to gathering primary data from the participants.

Demographic sampling is done through selective age group, geographical location, and occupations. The amount of disposable income of the participants are not included as explained in chapter 2 of this thesis that past research in green purchasing behaviour inconsistency or green purchasing behaviour has already highlighted income and willingness to pay as the main determining factor. Thus, this research focus on finding other factors that cause green purchasing behaviour inconsistency. However, the researcher will not omit any price or income related answers from the participants as those answers are part of participant experiences in the phenomena.

Types of product and services which offers the VCO options is also not pre-determined as different consumers might encounter VCO offerings in different industries. This allows the researcher to interview consumers from different industries that offer VCO options, thus allowing a more diverse insight.

4.2 Empirical Findings

4.2.1 Participants

A total of nine participants are interviewed both in person and online as geographical location of the participants varies. Aligned to this thesis ethical

conducts and anonymity, all the participants will be renamed using a pseudonym. Participants demographic information's and types of product and services in which they are offered VCO program are summarized in the following table.

Table 1 List of participants

Participant	Age	Current Occupation	Location	Product & Services	VCO Participation
MRM	36	Train Assistant	Sweden	E-commerce, Airlines	Never
ARB	30	Job Seeker	Sweden	Car rental, Airlines	Never
DWB	24	Master Student	Sweden	Airlines	Never
FPT	22	Master Student	Austria	Airlines	Inconsistent
BPT	57	Flight Ground Operator	Sweden	Airlines, E-commerce	Never
VTL	25	Master Student	Sweden	Airlines	Never
EBJ	42	Train Operator	Sweden	Postal service, Airlines, E-commerce	Inconsistent
LSH	39	Social Educator	Germany	Airline, Train	Inconsistent
TNH	29	Doctoral Student	Sweden	Airline	Never

As can be seen from Table.1 interviewees have different backgrounds of current occupation, age, location, product, and services they encountered VCO with, and their VCO program participation. This is done to capture different opinions and discussion regarding the questioned subject of research.

4.2.2 Codes

After the interviews were conducted and transcribed with all of interviewees, each transcription is broken down into excerpts to be use for open coding which results to 48 codes that can be used as variables within each axial codes (see table 2). These codes are further grouped into axial codes or themes where causal conditions and context between open codes appear, which resulted into 10 axial codes (see table 2). Each axial codes are then used to represent factors that affect *green purchasing behaviour inconsistency*.

Table 2. Summary of codes.

Open codes	Axial codes
<ul style="list-style-type: none"> • Plan of action • Prior research 	Implemented Intention
<ul style="list-style-type: none"> • Misinformation • Lack of information • Existing information • Unclear information • Information accessibility • Lack of knowledge • Existing knowledge 	Information and Knowledge
<ul style="list-style-type: none"> • Buying my way out • Guilt • Moral Obligation • Politics • Naivety • Abstention 	Personal values
<ul style="list-style-type: none"> • Price • Budget 	Willingness to Pay
<ul style="list-style-type: none"> • Transparency • Skepticism • Reputation 	Trust
<ul style="list-style-type: none"> • Interface and label • Moods and conditions • Social surroundings. 	Situational Context

<ul style="list-style-type: none">• Freedom of participation• Alternative options• Company obligation• Expected influence• External pressure.	Perceived Behavioural Control
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5. Results and Analysis

In this chapter, aligned with the presented conceptual framework in chapter 2, the empirical findings have shown results that can be connected into the initial conceptual framework and answering the thesis research question.

5.1 Behavioural and Implemented Intention

BI and II during the data collections through the conducted interviews are done to make sure that all interviewees possess evidence that they indeed have the intention to participate VCO program which is reflected in the interview questions (see Appendix A.). Based on the empirical data, all interviewees provide information on how they did their *plan of action* prior to making a conscious decision in intending to participate in the VCO program and how do they do their *prior research* they did or prior knowledge about VCO in general including other means of carbon compensation program. All the interviewees provide their information through voluntary online search or through provided information by VCO providers when it is available. Including BI and II in this thesis research also helps the research to get to know more on the interviewee's participation with VCO program whether they had used it but never repurchase, never participate but have the positive intention, or are infrequent participant.

The interviewees also provided their experience on where they saw or encounter such VCO offers and their strength of intention in participating the offer when it is presented to them. List of businesses where they encounter VCO program ranges from e-commerce, flights, car rental, even postal services (see Table 1.).

5.2 What are the factors that cause green purchasing behaviour inconsistency in the VCO program?

5.2.1 Information and knowledge

The effects of *information and knowledge* are prevalent across all interviewees, with the concern on lack of information at the top variable among *information and*

knowledge that mentioned by all interviewees followed by lack of knowledge and information accessibility (see Table 3).

Table 3. Some examples of top three variables within the information and knowledge factor.

Variables	Quoted Example
Lack of information	<ul style="list-style-type: none"> • <i>“To me, it's not a matter of time, but the lack of information. If the information is there, I'm, I am willing to spend one or two minutes to think through.” – TNH</i> • <i>“I always thought if they have a more elaborate answer (information), still very quickly explained in just a few words, to make me interested and to make me think about how they are doing this and how other people do this.” – MRM</i>
Lack of knowledge	<ul style="list-style-type: none"> • <i>“What that saying is that I don't have enough knowledge what that thing (VCO) is, it's actually interesting to find out because, I mean, maybe money collected is actually wired to good stuff and needed stuff.” – VTL</i> • <i>“But to be honest, no, I haven't been researching, I haven't been thinking about it.” – EBJ</i>
Information accessibility	<ul style="list-style-type: none"> • <i>“Yeah, so this is what I meant also why it doesn't come (often) on the radio because I think showering the people with information and there is more like oh yeah, cool. I came across this again on TV.” – LSH</i> • <i>“So, you have to specifically look for the sustainability if you want to find information about sustainability of airline x. So, I think that they could try to be more engaged about this. And they could do this by having an information video, maybe your front page, try to make you more interested in the topic. Try to research it more because I think it's quite easy to oversee this.” – FPT</i>

Based on the empirical findings, it can be found that business did not provide enough information regarding their VCO program which raises the concern on interest and willingness to participate in the program. This also contributes to *trust* and *scepticism* which will later be discussed on chapter 6. However, even though some interviewees are aware of VCO, they also did not possess enough prior knowledge about how or what is the VCO program is aside from what it is said on the surface which makes it a bit difficult for them to make a well-informed decision. This leads to issues on *transparency* which will be discussed further (later) in chapter 6.

Even though *information accessibility* is not prevalent among all interviewees, it still provides evidence that information about carbon offsetting as a general concept or VCO is not widely accessible, and they feel like it is not put into high priorities by businesses or policy maker within the industry.

Other variables within *information and knowledge* such as *misinformation*, *unclear information*, *existing knowledge*, and *existing information* also present. However, these factors are the least prevalent among the interviewees, however it still provides interesting insights. For example, the participant **VTL** experience that information about VCO is often unclear on the website page especially in aspect of information *transparency* on where the money raises for the VCO program went or how it is used.

“Like the companies that offer (VCO) that they should more clearly state what it's about and where the money goes to. “– VTL

5.2.2 Trust

Among other factors, *trust* came up the most among all interviewees with *transparency* and *scepticism* as the main highlight of their concern regarding VCO program. Align with the previous factor, *information, and knowledge*, plays an important role on *VCO transparency and scepticism*. The interviewees share those businesses did not provide enough information *or* no information on how their VCO program are contributing to the climate crisis challenges, how are the VCO fund are used, and how far are the progress has been made towards that cause which raise the issue of *scepticism* and lack of *transparency*.

Table 4 Some examples from Trust

Variables	Quoted Example
Transparency	<ul style="list-style-type: none"> • <i>“Because my money doesn't turn into nature by itself, so how are they going to do this?” – MRM</i> • <i>“I think when seeing (VCO) I don't know (the measurement) kilos of CO2 that are emitted slash compensated, it's a kind of a measure that we are still not used to I feel as a society.” – ARB</i> • <i>“It doesn't really like there will be (a page) for these companies to have like a link that says, This is what will happen, or this is what we'll do and like, so you can like, get into it and read more specifically, what they will do.” – EBJ</i>
Scepticism	<ul style="list-style-type: none"> • <i>“They have something they do for it (VCO). But they don't say what it is, and that is actually the fact for most companies today is not doing those (who) can even analyze it. So, if I do feel it's some kind of a greenwashing. I really don't know what. And I think there are other companies selling out slots for other companies to purchase. So they can state that they are doing carbon compensation, but they don't (do it) themselves, they don't (even) know what they are buying.” – BPT</i> • <i>“It feels like temporary solutions. Okay, like, just a way to slow things down. But in the end, it's not the solution that is needed” – DWB</i> • <i>“So also like I fear I'm not so sure whether this compensation thing is actually compensated the organizers mistrust it, because I fear (that) they just want me to feel good as a client, but are they actually doing something compensation though?” – LSH</i>

When the interviewees are asked with a follow-up question at the end of the session on what is the most important factor that hinders them to participate in the VCO program, they all said *information* and *transparency*. Even though *price* and *budget*

are part of their concern, they still want to make a well-informed decision on how they will spend their money on such cause.

5.2.3 Personal Values

Personal values (PV) are prevalent among all interviewees, with *moral obligation and guilt* becomes the most important influence that affect their intention to participate in VCO program. Other factors such *volunteerism, buying my way out, and politics* are not as widespread or significant as *moral obligation and guilt*. However, these factors still provide useful insights and empirical evidence on the phenomena. Most interviewees reflect on their PV during the interviews when they are asked on questions relating to SC.

Table 5 Some examples from personal values

Variables	Quoted Example
Guilt and Moral Obligation	<ul style="list-style-type: none"> • “I don't know if I am confident in participating but I do feel that I am obliged.” - “Because if you don't, you're a terrible person.” – MRM • “I feel morally pressured maybe by myself and by Fridays for future or like generally the urgency of the climate change” – LSH
Abstention	<ul style="list-style-type: none"> • “And it's if I couldn't afford to add that little extra to pay for climate compensation then I probably shouldn't travel either.” – EBJ • “So, I'm hoping that I will not have to use the VCO program or because I hope I will not fly anymore.” - FPT
Naivety	<ul style="list-style-type: none"> • “And like I said, my naivety I believe that when there is a box that says climate compensate, they know better than me (so) you want to do and that they do it and they actually work with someone who knows what they're doing.” - EBJ

Aligned with Baron (2010), morally motivated behaviour can be found in activities such as VCO which can be actualized in a form of moral obligation or altruistic behaviour. The example statements from table 4 shows that intention to participate in VCO program can be affect by person values towards moral obligation or guilt.

Some interviewees look for alternative scenarios or options in the future where they do not have to fly anymore. This scenario gave them a reasoning on why they have the intention to participate in VCO program but waiting for a better alternative in the future when it is provided or currently adjusting their choices based on *situational context* which later will be discussed in chapter 6.

Naivety is an interesting finding, even though it is only found in two interviewees, it still provides a possibility for a green consumer to put trust in a business based on their reputation and experiences (see table 4) despite *skepticism*.

From this finding, PV mainly affect a person intention towards *green purchasing behaviour* rather than factors that bridge the gap between *implemented intention* and *actual green purchasing behaviour*.

5.2.4 Situational Context

Aligned with Carrington *et al.* (2010) of SC, the empirical data shows momentary evidence within the purchasing environment of VCO that either facilitates or hinders the interviewees actualization of their *green purchasing behaviour*. Based on the empirical data, it shows several variables that contributes to the interviewees SC, which are *interface and label, moods and conditions, and social surroundings*.

Table 6 Some examples from the situational context

Variables	Quoted Example
Interface and Label	<ul style="list-style-type: none"> • “I would probably say that it’s not sufficient (the engagement) because I feel like I would have noticed it more otherwise.” – DWB • “Because I’m an environment-oriented person. So, it really catches my attention that kind of eco-friendly and green (label)” – THN • “Most of the time is just passing through (the VCO offer) because it comes up like commercial” – BPT • “I feel it is always at the end of my process (booking flight) and it’s usually like, for example, I have to take run (read back) again, because you’re taking a lot of things like your car rental and the hotel offers, do you want an extra case (luggage)

	<p><i>and a lot of these things. Then at the very, very end is a tiny, tiny thing, and that I could also take (the VCO offer), and I feel like I don't know how you're going to try and create it, it's not like, hey, wait a minute, like if it could come at the start (of the booking process).” - LSH</i></p>
<p>Moods and Conditions</p>	<ul style="list-style-type: none"> • <i>“I have lost patience (during the purchase). My credit card (might) didn't work (or) maybe I'm like getting annoyed about this already fidgety platform sometimes like some airlines make it super nasty looking flights and then the seats and stuff like this. And then, like sometimes I wonder, but I remember them short. Maybe there have been longer information because I have been ignoring them because patience is already gone. But I feel if I clicked it (the VCO offer) and then let's say they would charge me another random 30 euros.” – LSH</i> • <i>“And it's, I don't know, marketed in a way that makes you look at it, the problem I have is that with the way that you usually purchase tickets online, there are so many different options to add and menus and extra stuff that by the point URI to the climate compensation program, you're maybe already tired of having said no, no, no, too many different things.” – ARB</i>

Social Surrounding	<ul style="list-style-type: none"> • “Ah, yeah, I am married. So, I will be the one who, oh, if you travel with me alone, so that's my own decision, but for together home, so that would be a shared intention” – TNH • “Maybe Yeah, depending on what it is, if I know someone who might have an expertise in that subject, I might ask them, like, how much impact is this actually have?” – DWB • “I would not have discussed it. So yeah, whatever. I do something for the climate somewhere else. Yeah, because I think it's not even worth using the service (VCO) that I've read, going out of the room and ask (someone), about this box or not.” - LSH
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From those variables, *interface and label* is the most prevalent among all interviewees, mostly connected to how the information and the offers on VCO are presented in a very not engaging way or easily forgotten (See Table 6.). This contributes to the interviewees lack of interest to actualize their intention to participate in VCO programs which further. *Moods and conditions* affect some of the interviewees which mostly expressed towards losing patience or frustration towards the purchasing experience. Feelings of impatience and frustration can also be related to the poor interface of the platform where they interact with, as the empirical data from *interface* shows how these businesses often neglect the user experience aspect by providing poor presentation of VCO information or unnecessary steps and choices to complete their purchases. Lastly, the effect of *social surrounding* varies between interviewees. Some shows positive reinforcement from their *social surroundings* such as friends or partner when they are considering in participating with the VCO program or considering including a second opinion in the future when making this decision. Other also shows zero need to involve other person in deciding whether to participate in VCO program or not as they do not see the relevancy of including others in it.

5.2.5 Perceived Behavioural Control

Coming from Ajzen (1985) TPB, PBC reflects on the interviewee’s confidence, self-efficacy, and controllability of performing the expected behaviour. Based on the empirical data, several variables were found within PBC such as *freedom of participation, alternative options, company obligation, expected influence, and external pressure*.

Table 7 Examples from perceived behavioural control

Variables	Quoted Example
Freedom of participation	<ul style="list-style-type: none"> • <i>“I think I would say yes, because they're not forcing me, I have the option to participate (or not) in this program.” – FPT</i> • <i>“So, I would say I don't have much control (Impact of the VCO), except the money part (to participate).” – DWB</i> • <i>“That's the only control (investing your money) you have technically, because first of all, the decisions (where the VCO fund goes) probably are already made.” – VTL</i>
Alternative Options	<ul style="list-style-type: none"> • <i>“But also, you can, but I think it would be very hard to actually offer the user the option to, like, I don't know, choose a specific project, or I don't think it's up to the user to decide I want these trees planted here or there.” – ABR</i> • <i>“And then you could you know, if you want to climate compensate on your own, you could put that money into like a one-time gift or a one-time donation into another company where you know, that they do the things that you want to do to help with carbon emission reduction.” – EBJ</i>
Company obligation	<ul style="list-style-type: none"> • <i>“Or help them with offsetting the carbon in the other hand, it's me, because I also think that you as the company itself is primarily responsible for reducing their carbon emissions.” – FPT</i>

Interviewees mostly agree that the decision to participate in VCO program remains voluntary as they still have the full control whether to participate or not. However, the outcome of the VCO program is still beyond their control and it is part of

company obligation to provide other *alternative options* for their consumers in fighting climate crisis as they saw it lacking. The researcher found that *freedom of participation* is prevalent among most of the interviewees, as stated before that interviewee full control of participation remains in their hand.

The least prevalent factors are *expected influence* and *organizational pressure*. Some interviewees view that participating in VCO program lack of actual influence or result as it does not produce “real” impact in comparison to for example cutting of meat and dairy product or choose a greener transportation option instead of flying, this variable within PBC also resonate with *abstention in personal value* (see table.5). Some interviewees also feel *external pressure* for example norms in the society or ever-increasing climate crisis anxiety affect their confidence in making their decision to be a better green consumer.

5.2.6 Willingness to pay

In this context willingness to pay (WTP) refers to interviewees ability to pay for participating in the VCO program based on their budget and the price to participate the VCO program. Even though topics about money is not included in the conceptual framework and interview questions, answers relating to budget, price, and willingness to pay still shows. Thus, this factor is separated as a new finding outside of the conceptual framework.

Table 8 Examples from Willingness to pay

Variables	Quoted Examples
Budget	<ul style="list-style-type: none"> • “As I said it is the budget mostly and you and yeah, the alone factor or the company factor being in, in company of others, because every suggestion is more likely to be taken.” – ARB • “My strength of intention goes as long as long as my wallet does so okay.” - VTL • “And all the time, actually, because yeah, if I can afford to buy the product, I should as well afford to get the climate compensation.” – EBJ

Price	<ul style="list-style-type: none"> • “<i>Yeah, I think the information and description and details of that time of time of ticket is very important. I also think (however) the most important for me is the price. How is it different from the original price?</i>” – THN • “<i>Because every time somebody asks me to pay for something extra, I don't, I just want to click to the next page.</i>” – MRM
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The researcher found that *price sensitivity* is not prevalent in all the interviewees, however it still provides an interesting insight. Even though price and budget are not asked during the interview session, some of the interviewees still consider *price* and *budget* as the top two factors that either motivate them to participate in the VCO program or hinders them. *Willingness to pay* are positioned interchangeably with *information and knowledge* as some interviewee’s values well informed decision than *price*, meaning that if it is necessary to spend the amount required to fight climate crisis, then they will regardless of how expensive it is. However, these interviewees are mostly hesitant because they do not have enough *trust* with the businesses who provide VCO options.

Willingness to pay has been a reoccurring factor in many previous research in green purchasing behaviour within the concept of consumers willingness to pay, however since this factor is a novelty within the context of this thesis conceptual framework. The researcher will elaborate further in chapter 6 along with the other new factors found in this thesis.

6. Discussion

In this chapter, findings and analysis of the factors that affect green purchasing behaviour inconsistency are discussed by comparing between the thesis and previous studies and literatures.

6.1 New Factors

The following factors; *willingness to pay, personal values, and information and knowledge* are new in the context of this thesis and not in the context of *green purchasing behaviour* discourse. Those factors are discussed here due to this thesis grounded theory analytical approach where analysis is done iteratively as explained on chapter 3. However due to the limitation of this research, those new factors are only suggested and still need further in-depth research before it can be uses as a new theory.

Several studies have explored consumers' *price sensitivity* within the concept of Willingness to Pay (WTP) in the context of *green purchasing behaviour*, mostly in the case of carbon offset payment in airlines (Choi, 2015; Lu and Shon, 2012; MacKerron *et al.*, 2009). WTP refers to the maximum price a customer is willing to pay for a product or services, in the case of VCO it is the maximum price a customer is willing to pay for a carbon offsetting schemes (Lu and Shon, 2012). As explained in the previous chapter, questions used in the primary data collection (See Appendix A) are not formulized to gather information regarding *price sensitivity*, however the researcher found that *price sensitivity* is still an inseparable factor that influence consumers intention and actual behaviour to participate in VCO program.

Table 9 Findings on WTP price sensitivity from previous research

Author	Findings
MacKerron et al. (2009)	Consumers are willing to pay for VCO program if companies can provide enough certainty on how the VCO project is manage and who benefits from it.
Lu and Shon (2012)	Business travelers are willing to pay more for their total travel cost including extra cost for VCO, and passenger are willing to consider participating in VCO program if it is subsidized.

Choi (2015)	VCO options remains preferable in comparison to collective payment scheme where carbon offset price is included in the airplane ticket cost.
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Based on the analysis and empirical data in this thesis, *price* and *budget* correspond to their willingness to participate in the VCO program as a consumers. Referring to the concept of WTP, cost or the *price* imposed to VCO program is not the sole factor that hinders or motivate a consumer to participate (MacKerron et al., 2009), but also the extend on how companies can convince and provide in-depth information for consumers to make a well-informed decision (ibid.). This is also reflected in the analysis of this thesis that *information* and *knowledge* plays a significant role in causing *green purchasing behaviour inconsistency*.

Liu *et al.* (2012) provide evidence on the role of green product information towards *green purchasing behaviour* of consumers. The research shows that consumers are more likely to develop positive intention to purchase green products or participate in a green initiative when enough information is provided for consumers to make a well-informed decision. However based on this thesis, consumers are not well informed and some of them do not possess sufficient knowledge to make a well-informed decision regardless of the *price* imposed in the VCO program. This also shows the lack of commitment given by companies who provide VCO options to drive more participation from their consumers, as based on the research sample that the offered VCO options is not engaging, lack of *transparency*, and information regarding the program is delivered through poorly designed *interface*.

The last factor that is newly introduced in the analysis of this thesis is *personal value*. This factor refers to internalized conducts and state of existence that used by a person to guide their behaviour (Rokeach, 1968 in Pinto *et al.*, 2011). Several research has explored the significance of *personal values* towards *green purchasing behaviour* (Pinto *et al.*, 2011; Caniëls *et al.*, 2021). More specifically *moral obligation* and *guilt* are reflected in the empirical data and analysis of this research. The interviewees express their moral pressure and guilt on climate crisis if they don't have the intention to act green. However moral pressure and *guilt* alone is not enough for them to actualized their intention due to *scepticism* towards the effectivity of the VCO program, thus they prefer to participate in alternative options in fighting or compensating their carbon emissions. This finding is supported by Caniëls *et al.* (2021) in which their research explain and found how altruistic PV positively affect their behaviour towards *green purchasing*.

6.2 Trust, Social context, and Perceived Behavioural Control

Reflecting on the thesis conceptual framework, TR and SC has proven to be a significant factor influencing consumers *green purchasing behaviour inconsistency*. Align with Ricci *et al.* (2018), the consumers emphasize on the importance of TR

by providing *transparency* of VCO program and information access to alleviate their *skepticism*. TR also provides safe space for consumers to be vulnerable and strengthen consumers confidence to use their purchasing power into meaningful social changes (Moisander, 2007) in which in this thesis, consumers put their concern on the impact of their decisions and will opt for another alternatives if it deems to provide more 'tangible' result. This concern aligns with Sefyang's (2007) finding that one of the challenges of VCO program is lack of material or 'tangible' benefits which makes it challenging for consumer to relate with it. Intersection between TR and *Information and knowledge* is present to understand and tackle issues on consumer *skepticism*. As discussed in the previous sub-chapter, *information and knowledge* is a key factor for consumer to make a well-informed decision (Liu *et al.*, 2012). Well-informed decision can be made by providing consumers with information *transparency* and credibility in which TR also plays an active role to provide that. This is true as Oates *et al.* (2008) explain how information seeking behavior are mostly found in *green consumers* as integral part of their decision-making process. Which is why TR during consumers decision making process is important, align with Mayer *et al.* (1995), TR allows consumer to be vulnerable, meaning that they have enough confidence that another party which in this is case is businesses who provides VCO options to live up to the consumers expected result by putting trusted, transparent, and credible information.

SC provides an explanation on how situational moments provide stimulus for consumers within a single momentary moment where decision is taken place. Based on the analysis and empirical data of this thesis, consumers show their concern and mostly critique on how the interface of (mostly online) business who provide VCO programs lack engagement, appeal, and visualization to grab consumers attention. Zaltman (2007) in Carrington *et al.* (2010) argues that tangible attributes, in this case interfaces, have less influence on consumer behaviour. However, based on the empirical data in this thesis, consumers concern regarding the interface where VCO options are offered are often missed and fails to grab their attention or how the placement of the VCO offer is seen to be less important in comparison to other options within the purchasing process which cause them to often put weak interest in participating or engaging with the VCO options. Intangible attributes on the other are argued to be more influential (Zaltman, 2003 in Carrington *et al.*, 2010). Based on the empirical data and analysis, *mood* and *conditions* affect consumers during purchasing process mostly in an expression of frustration and confusion which derived from poor interface of the tangible surroundings (ex. Website, mobile application). This shows that both tangible and intangible attributes interactions interchangeably affect consumers not as an isolated attributes. Carrington *et al.* (2010) measurement of SC also includes *social surroundings* and *temporal perspective* which reflects consumer interaction and sense of time during the purchasing process. Based on the empirical data and analysis, this measurement successfully capture consumers sense in which is contextual to the purpose of their purchase. Consumers does not feel rushed if purchase are bought in advance thus allows them to read the offered information including VCO programs. However, it gave them sense of frustration when purchases are done in an urgent manner which cause them to often skip pages or offers that are not essential for their purchases for example, booking a last minute deal on flights. *Social surroundings* are reflected on consumers decisions whether or not to involve other person during their

purchasing process in regards of VCO options when offered. Based on the empirical data and analysis, most of consumers choose not to involve others during their purchasing process and some considered to ask someone who is more knowledgeable about carbon compensation program. However consumers will ask other opinion if the purchase is for a collective purpose (e.x group trips, bulk purchases).

According to Glanz et al, (2008) as explained in chapter 2, PBC should reflect on a person confidence, self-efficacy, controllability to perform the expected behaviour. Based on the analysis and empirical data those factors are reflected through consumer *freedom of participation* where individual control still persist not only because the nature of VCO which is voluntary but also consumers bargaining power. Because of that, consumers are not forced or constraint to one option but rather a myriad of *alternative options* to achieve their goal in fighting climate crisis and compensating their carbon offset. This two factors together with *skepticism*, lack of tangible results and *lack of information* gave consumers more reason to not choose VCO as their way to compensate their carbon offset. Considering Lu and Shon's (2012) arguments, enforcing a more serious *company obligation* towards climate compensation as the author found that subsidy could help to promote more consumer to participate in VCO program. Based on the analysis and empirical data of this thesis, consumers find it more reasonable if business put their self first when it comes to compensating their carbon emissions rather than leaving it up completely to the consumers through VCO programs.

7. Research Implementation and Conclusion

In this chapter, the thesis contribution and implementation are explained. The chapter is closed with the conclusion of this research along with future research suggestion.

Referring to the research question, the analysis, and findings of this thesis present that the conceptual framework inspired by Ajzen's (1975) TPB and Carrington *et al.*'s (2010) model of attitude-behaviour gap are proven to help finding factors that are contributing to *green purchasing behaviour inconsistency*. The conceptual framework shows that SC provide an important point of view from green consumer perspective how momentary moments could give a significant impact in the overall consumer buying process and how it could amplify or even weakened their actual green purchasing behaviour. TR shows to be a very crucial determinants and bridge between consumer intention and green purchasing behaviour by highlighting the importance of reliable, transparent, and accessible information to empower consumers in making well-informed decision while also providing consumers with sense of guarantee, safety, and alleviating scepticism towards VCO program. Lastly, PBC highlights the extent of consumer confidence, self-efficacy and controllability towards their green purchasing behaviour which reflected through their ability to choose, seeking better alternatives, and the perceived outcome of their choices.

The researcher's decision in using an iterative and grounded theory approach gave the researcher liberty on finding and include new insights outside of the conceptual framework, which further deepen the current or expand green consumer behaviour discourse with new insights. Both Ajzen's (1975) TPB and Carrington *et al.*'s (2010) did not mention price or willingness of green consumers to purchase a green product or service. However, the research findings show that price and consumers' budget still affect their willingness to actualize their green purchasing intention, however, it is still not the main consideration to participate in the VCO program. Consumers are willing to pay the cost of participation if they are given appropriate resources to justify the price of the VCO program so they can make a well-informed decision, which lead to the next factor, *Information, and knowledge*. Findings show

that *information and knowledge* are significant factors in filling the gap in understanding green purchasing behaviour inconsistency. It suggests that consumers want to be well-informed about prior to their decision when participating in climate positive initiative such as VCO program as they feel like companies are not providing enough information and transparent enough about the program. The less informed they are about the program, the more likely they don't want to participate in it and the more likely they will not trust the companies. The last new insight from this research is PV, which highlight the role of *moral obligation*, and *guilt* as affecting factor towards green purchasing behaviour and how it contributes to the *green purchasing behaviour inconsistency*. Those factors often question consumers internalized conducts and principles towards certain goals which in this case is related to their green behaviour as a green consumer. Where often products or services provided by companies might contradict with their internalized conducts and principles, thus hindering them to participate in such products or services.

7.1 Research Contribution, Managerial Implementation and Future Research

Referring to Both Ajzen's (1975) TPB and Carrington *et al.*'s (2010), this research proof two factors from Carrington *et al.*'s (2010), hypothetical model on attitude-behavioural gap can explain *green purchasing behaviour inconsistency* through understanding consumers II and SC. This also explain that TPB is still a relevant foundation for the present consumer behaviour research.

The iterative and grounded theory approach of this research contributes to the possible introduction of new factors (TR, WTP, and PV) towards the existing model of consumer behaviour within the context of green purchasing behaviour. However due to the limitation stated earlier in this research, further research with more diverse samples and in-depth analysis can be a reference for future research on this model.

Within the context of managerial implementation, companies should put more effort on providing transparency, evidence, and credible information regarding their effort to combat climate crisis through VCO. The level of scepticism, situational context, willingness to pay, information and knowledge, and trust among green consumers nowadays shows that the current offered actions or alternatives provided by the companies are not convincing and can be perceived borderline green washing. Thus, companies should evaluate their offerings and commitment towards

combating climate crisis through more research about VCO or even divesting from action that cannot provide benefits for the shareholders which in this case are the consumers and start investing on other tangible solutions where the consumers can trust and be part of the changes.

7.2 Conclusion

Behaviour-attitude gap research has been discussed several times within the green consumer behaviour discourse as *green purchasing behaviour inconsistency* and the way consumers as irrational human can lead to complex decision making that often inconsistent. Thus, making it challenging for policy and decision maker such as high polluter corporation and businesses to make and implement effective solutions towards sustainable actions in combating climate crisis. Reflecting from this research, it can be concluded that there are factors that can explain why green consumers are behaving inconsistently on what they are intended to behave and what they actually do, even though they are grouped into a consumer with a certain behaviour characteristic as a green consumer it does not guarantee an exact expectation of their behaviour.

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Popular science summary

This research explore how can a person intention within the context green purchasing towards a certain intended behaviour did not align with their actual green behaviour. That phenomenon is called an attitude-behavioural gap or in the context of this research, it is called *green purchasing behaviour gap* because of this gap, an inconsistency is often found among people who has green purchasing intention but never or rarely actualize their intention into the desired behaviour. Through interviews with 9 people with different demographic backgrounds and exposure towards Voluntary Carbon Offset program, it is found that green consumers take account of several factors during their purchasing journey which include trust towards the company and their product or services, situational context in which the person is experiencing on that specific time, a person budget and money, their personal values towards certain subjects, availability of options, and information and knowledge all have influence that affect a person intention towards their actualized behaviour.

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Appendix A

Behavioural Intention (BI) - *Dholakia et al., (2007)*

- Can you describe the strength of your intention to purchase VCO options in products and services that offers it?
 - What kind of product and services were you intended to participate in?
-

Implemented Intention (II) - *Dholakia et al., (2007)*

- Do you believe that by purchasing the VCO options you could achieve the goal you are intended through VCO?
 - If yes: Why do you believe that VCO options can help?
 - If no: Why do you believe that VCO options cannot help?
 - Do you have plans of actions to carry out you intention to purchase the offered VCO options?
 - If yes: What steps would you take to complete your plans of actions to carry out your intention to purchase the offered VCO options?
 - If no: What factors, you needed to complete you plans of actions?
-

Situational Context (SC) - *Belk (1975)*

- What do you think about the interface of the offered VCO?
 - Did they offer it digitaly or offline?
 - How do you feel about the information provided about the offered VCO options?
 - Do you feel engaged when you look at the offered VCO options?
 - If yes: What aspect that makes you engaged with the VCO options?
 - If no: What do you wish the VCO options offered to make it more engaged?
 - Were you alone or were you accompanied by someone else when you are making your decision about the offered VCO options?
 - If yes: Who were you with and does the other person partake in the decision process? How?
 - If no: Will you consider to involve other person/s in making the decision?
 - Do you think you have enough time to decide whether you want to participate in the offered VCO options?
 - If yes: What makes it enough for you to decide?
 - If no: What could have been better to give you more time to decide it?
 - When you are buying product or services that offered VCO options, what are the momentary conditions that crosses your mind in that moment?
-

Trust (TR) - *Rehman et al (2019)*

- Do you think the offered VCO options gives you enough transparency?
 - Does the label of the VCO options provider gives you sense of guarantee?
-

Perceived Behavioural Control (PBC) – *Glanz et al. (2008)*

- Do you think you are confident to participate in VCO program?
 - If yes, what makes you confident in doing so?
 - If no, what are the factors that cause it to be difficult to participate in VCO program?
 - Do you think you have full control in participating the VCO program?
 - If yes, to what extent is your control?
 - If no, what decisions that are beyond your control?
-

Actual Behaviour

- Consider all the factors that we have discussed before, would your intention remain the same and purchase the VCO options?

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