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**MSc BUSINESS ADMINISTRATION**

**COMPARING SUSTAINABILITY  
INCENTIVES AS PREDICTORS  
OF MANAGERS' INTENTIONS**

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# Abstract

With today's environmental challenges, the world demands a shift towards sustainability. Researching behavioral intentions is essential for understanding the reasons behind sustainable practices, as businesses are increasingly evaluated based on their intentions to make sustainable decisions. Therefore, this study explored which sustainability incentive has the strongest influence on managers' intention to make a decision toward sustainability. Thus, a structured literature was executed to explore these sustainability incentives, followed by an experiment to test these possible incentives. The exploration of what incentives can influence managers' intention to make a decision toward sustainability identified useful insights within the field of sustainability, pro-environmental behavior, and decision-making. The structured literature review presented that financial incentives (e.g. subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs are frequently mentioned incentives for sustainable behavior. To further investigate these incentives, an experiment was conducted, focusing on the sustainability practice of changing the company vehicles to all hybrid/electric vehicles. The results of this experiment present that financial incentives (subsidies) have the strongest influence on managers' intention to make sustainable decisions compared to other treatments. Moreover, the other incentives – perceived brand image, perceived competitive advantage, and personal values and beliefs do not significantly influence managers' intention to make a sustainable decision. These insights on which incentive has the strongest influence on the intention to make a decision toward sustainability contribute to adopting sustainable practices and the decision-making process interconnected with this implementation. The results can therefore be used by governments or organizations to increase the adoption of sustainable practices within organizations.

## Keywords

Sustainability incentives, managers' intention to make a sustainable decision, sustainable practices, subsidies, perceived brand image, perceived competitive advantage, personal values and beliefs

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# 1. Introduction

With today's environmental challenges, the world demands a shift towards sustainability. Businesses may be best positioned to address these environmental problems (Gabler et al., 2017). "Sustainability has become a strategic priority for many companies worldwide as consumers, shareholders, employees, and other stakeholders shape a normative context of increasing sustainability consciousness" (Hengst et al., 2020, p. 246). According to research by Forbes (2021), 87% of B2B buyers are more likely to purchase a product from a company that supports an issue the buyers care about. Contrarily, if a company supports an issue that does not match the B2B buyer's values and beliefs, 76% of them refuse to buy a product from that company (Forbes, 2021).

As businesses are evaluated based on their sustainability practices more and more, their sustainability positioning also becomes more critical. Casidy and Yan (2022) acknowledge that sustainability positioning is essential, especially in highly competitive environments. Consequently, businesses are trying to re-position themselves as 'sustainable businesses' to attract more (environmentally conscious) customers and strengthen their position with existing ones (Casidy & Lie, 2023). Kapitan et al. (2019) argue that business sustainability includes incorporating the dimensions of Environment, Society, and Economy. Furthermore, Young and Reeves (2023) highlight that to create both social and business value, firms must balance generating financial returns and addressing society's biggest challenges. On the other hand, Khan et al. (2023) state that "in practice, firms can be segregated into two types: 1) firms that hardly engage in sustainable practices and makes profitable returns for their investors and 2) firms that invest in sustainability efforts and may compromise on financial returns" (p. 199-200).

Sustainability investments are mainly driven by behavioral intentions to make a sustainable decision. Individual characteristics that influence behavioral intention, along with the antecedents driving it (such as values, norms, and attitudes), are most often used to study motivation to engage in pro-environmental behavior (Saifulina et al., 2023). Dong et al. (2020) measured purchase intentions for electric vehicles by examining personal norms, feelings and emotions, subjective norms, perceived behavioral control, and cost factors. To also understand the organizational reasons behind the implementation of a sustainable practice, behavioral intention should be researched. These intentions can be motivated by various (sustainable) incentives. Sustainability incentives are the instruments that company owners/managers use to guide company decision-making, especially regarding sustainability investments (Veldman & Gaalman, 2020).

For those incentives, Lubchenco et al. (2016) suggest that they play a significant role in driving individuals, businesses, communities, and nations' behavior. Sustainability incentives will improve businesses' CSR which leads to even more sustainable behavior (Goetz, 2010). However, Hartikainen et al. (2021) hypothesized that sustainable strategic goals may not be realized if sustainability targets are not linked to compensation. Lubchenco et al. (2016) also mention that negative incentives tend to be less effective and permanent than positive incentives. Therefore, it is important to understand which sustainability incentive will lead to the intention to make a sustainable decision. The sustainability incentives used in this thesis include financial incentives (subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs. These sustainability incentives were selected based on a structured literature review and are intended to address several gaps within the current literature. Therefore, the hypotheses are developed based on the main sustainability incentives identified in the existing literature.

In this thesis, managers' intention to make a sustainable decision will be tested since existing research proved that managers play a vital role in implementing sustainability and green employee behavior. Farrukh et al. (2022) note that stimulating employees' pro-environmental behavior, which in turn will have an impact on outcomes such as environmental management, is influenced and formed by different factors. One of those factors is leadership. Recently, the sustainability manager has been popularized in businesses to tackle sustainability issues and implement sustainable practices (Borglund et al., 2023). Sustainability managers are therefore also seen as 'organizational professionals' (Borglund et al., 2023) and are occasionally referred to as change agents for sustainability. Hesselbarth and Schaltegger (2014) define a change agent for sustainability as "an actor who deliberately tackles social and ecological problems with entrepreneurial means to put sustainability management into organizational practice and

to contribute to a sustainable development of the economy and society” (p. 26). According to Caldwell's classification of change agency models (2003), change agents integrate the roles of a manager, consultant, team player, promotor, entrepreneur, catalyst, leader, and expert (Hesselbarth & Schaltegger, 2014). In this thesis, the overall term ‘manager’ will be used to refer to all these roles.

According to previous literature, organizational change toward sustainability can be initiated by confronting managers with environmental threats that they highlight as important (Kump, 2021). Kump (2021) states that these risks do not have to be the environmental problem itself, but could also be represented as, for example, governmental regulation toward sustainability, risk of a negative brand image, or financial losses. Change toward sustainability starts with the intention to make a sustainable decision within the organization. The reasons behind those sustainable decisions are still unclear and this research aims to provide useful insights to address this gap in the literature by using the implementation of a sustainability practice within the experiment. Sustainability practices can occur as environmental, economic, and/or social sustainability. Examples of sustainability practices are fair wages (Alhaddi, 2015), renewable energy (e.g. solar panels) (Sovacool et al., 2022), sustainable mobility (Isetti et al., 2020), waste reduction (Gimenez et al., 2012), and/or green product design (Ahmadi-Gh & Bello-Pintado, 2022).

Addressing managers' intention to make decisions toward sustainability will respond to several gaps in the existing literature. Firstly, a deeper understanding of non-financial incentives is needed (Buldeo Rai et al., 2021). Both Buldeo Rai et al. (2021) and Ahmad et al. (2019) mention the importance of adopting more consistent indicators for the social and economic dimensions. This thesis will therefore provide a solid foundation for multiple disciplines and industries by investigating incentives that could lead to the intention to make a decision toward sustainability. Furthermore, Stoughton and Ludema (2012) mention that “more research needs to be performed to study how and why companies become sustainable” (p. 514). Moreover, there is still a gap in the research “on the formation mechanism of environmental behavior” (Li et al., 2019, p. 31). This thesis will therefore provide new insights into the reasons why businesses become more sustainable and aims to provide valuable insights into environmental behavior by exploring the intention to make a sustainable decision.

Additionally, literature that explores managers' personal values regarding the implementation of sustainable practices already existed for several years. E.g. the study by Hemingway and Maclagan (2004) presented that managers' personal values explain the implementation of Corporate Social Responsibility policies in businesses. Research into organizational reasons that influence managers' intentions is still lacking. This study aims to fill this gap by exploring these possible organizational drivers; financial incentives (subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs. This study proposes a model to explain the reasons behind managers' intention to make decisions toward sustainability within their company. This contribution addresses the gap mentioned by Kump (2021) describing the need for a “better understanding of the levers that gear firms toward more environmentally friendly practices” (p. 2722).

This leads to the following research question:

**To what extent do the sustainability incentives - subsidies, perceived brand image, perceived competitive advantage, and personal values and beliefs - influence managers' intention to make a decision toward sustainability?**

To answer the research question, an experiment was conducted. Within this experiment, the intention to make a decision toward sustainability was measured as initiating a sustainable practice – changing the company vehicles to all hybrid/electric vehicles – within the company. Hereby, the sustainability incentives subsidies, perceived brand image, perceived competitive advantage, and personal values and beliefs were tested.

The thesis is organized as follows. The theoretical background will first explain sustainability and its definition in general. After, the theoretical framework is developed and elaborated on. The structured literature explored the most mentioned sustainability incentives within the existing literature. Next, the methodology is discussed, where the research design, sample, data collection, and data analysis are elaborated more. After the methodology chapter, the results, discussion, and conclusion are presented.

## 2. Theoretical background

### 2.1. *Changes toward sustainable practices*

“Businesses and managers are increasingly considering ways to incorporate a balance among economic, ecological, social, and cultural value creation into their business models” (Porter & Derry, 2012, p. 33). This balance shows how ‘sustainable’ a firm is, but scholars are using multiple definitions, and therefore, sustainability is not just one concept. “The ambiguity and lack of clarity about the concept of sustainability is a recurring obstacle to sustainability research” (Salas-Zapata & Ortiz-Muñoz, 2019, p. 153). Additionally, the terms ‘Sustainability’ and ‘Sustainable Development’ are often used interchangeably which blurs the lines of defining sustainability even more. Appendix 1 provides a short overview of the definitions and key aspects of sustainability found in the existing literature, which is used as guidelines for defining sustainability and identifying its key aspects for this thesis. Sustainable practices in organizations, decision-making in organizations, and change toward sustainability are background theories used to present a general basis for the main variables – intention to make a sustainable decision and sustainability incentives – used within this thesis.

#### 2.1.1. Sustainable practices in organizations

In today’s society, firms have many responsibilities to various external and internal stakeholders (Svensson et al., 2010). Simply providing value is no longer enough; value must now be provided sustainably and socially responsible (Svensson et al., 2010). To manage the climate change threats and create value for stakeholders, there is a need for the development of business strategies that prioritize sustainability (Khan et al., 2023). As Veldman and Gaalman (2020) point out, sustainability practices and incentives are emerging. “As climate change poses substantial risks to society, businesses may expect that if they are responsive to climate change risks and adopt sustainable practices, stakeholders will embrace them” (Khan et al., 2023, p. 198). Therefore, sustainable practices are highlighted shortly to explain the basis for implementing sustainable practices within an organization and why sustainability incentives are important.

Recent business environment developments suggest that only focusing on economic goals, while therefore failing on sustainability elements, is unwise when businesses are aiming for a long-term sustainable and profitable business (Das, 2018). Gimenez et al. (2012) state that the implementation of sustainability practices within businesses will enhance their environmental, economic, and social performance. Porter and Derry (2012) highlight that adaptivity and resilience are used to characterize sustainable systems and practices.

McMurray et al. (2014) note that when implementing sustainable practices, an organization’s image, improved working conditions, transparency, and organizational efficiency allow optimal opportunities. However, research has also identified various barriers for organizations to adopt sustainable practices. These barriers include perceived costs or financial constraints, lack of awareness, lack of knowledge about sustainability, time pressures, lack of top management commitment, conflicting priorities, and conflicting economic/social factors (Islam et al., 2017; McMurray et al., 2014). Islam et al. (2017) found that most barriers to implementing sustainable practices are likely to be internal rather than external barriers for the organization.

Research has indicated several motivations for implementing sustainable practices, including government legislation (Svensson et al., 2010), top management initiative (Bansal & Roth, 2000), financial expectations (Yavuz et al., 2023), competitive advantage (Bansal & Roth, 2000), ethical concerns/ethical aspects (Bansal & Roth, 2000; Svensson et al., 2010), and demands of stakeholders (Yavuz et al., 2023). Khan et al. (2023) also highlight that the United Nations’ strong focus on Sustainable Development Goals could encourage firms’ intentions toward more sustainable practices. Moreover, Svensson et al. (2010) state that customer and supplier pressure could also be a reason for businesses to adopt sustainability practices.

#### 2.1.2. Decision-making in organizations

“The decision-making process is one of the most important elements of management in today’s organizations, mainly because it affects the success or failure of the entity” (Kozioł-Nadolna & Beyer,

2021, p. 2375). Laroche (1995) describes decisions and decision-making as social representations that form the employees' style of understanding and their behavior within organizations. These decisions and decision-making form the organization by influencing processes, facilitating actions, and assigning meaning to what happens in organizations (Laroche, 1995). Sutcliffe and McNamara (2001) mention that decision-making is not only an individual choice but the process and decision are shaped by various factors.

Kozioł-Nadolna and Beyer (2021) define decision-making as the process of selecting a suitable course of action. In contrast, Laroche (1995) argues that decisions rarely initiate actions within organizations. A reason could be that managers are dealing with differences and conflicting demands coming from external and internal stakeholders (Laroche, 1995). This implies that when a decision needs to be transferred into an intention to make a sustainable decision and therefore a change within the company, something else is needed and the decision alone will not be enough. It is therefore important to know which incentives will transfer that decision into a real intention to make a sustainable decision.

However, the decision-making process also faces various barriers. Kozioł-Nadolna & Beyer (2021) identified information barriers due to a lack of information, time pressure, and financial barriers as the most important barriers. To embrace sustainability practices, managers must believe that adopting those sustainable practices will pay off (Ambec & Lanoie, 2008; Trujillo-Barrera et al., 2016). For that reason, sustainability incentives are already often used to influence a manager's decision (Veldman & Gaalman, 2020).

### 2.1.3. Change toward sustainability

"Only recently have researchers begun to investigate the underlying beliefs that may lead managers to initiate organizational change toward sustainability" (Kump, 2021, p. 2713). According to Stoughton and Ludema (2012), there is a lack of research focused on why and how organizations become (more) sustainable. When the drivers or facilitators of change toward sustainability are not properly addressed, there is a chance that they hinder this change (Tipu, 2022). Therefore, it is very important that knowledge about these drivers, e.g. sustainability incentives, is available to boost the intention to make a sustainable decision. Implementing organizational change toward sustainable development requires new methods, tools, and leadership models. Therefore, Kump (2021) proposed the environmental belief model, which "specifies managers' beliefs that give rise to organizational change toward sustainability in the face of environmental threats" (p. 2714).

By now, it is clear that initiating a change toward sustainability is more complex than it may seem. Struggles between fulfilling their tasks and reducing environmental damage can arise when managers are confronted with environmental threats (Kump, 2021). To respond to environmental threats, managers' decisions to implement change in the organization are based on economic, financial, social, regulatory, and structural factors (Ali et al., 2022). Barriers to sustainability can arise at individual, group, and organizational levels (Tipu, 2022). Individual-level barriers, e.g. barriers for managers, involve unwillingness to change, fear, and a lack of awareness (Tipu, 2022). Research by Carballo-Penela and Castromán-Diz (2015) highlights a significant relationship between the attitude of managers toward sustainability and the adoption of proactive environmental practices. In line with the perspective of Stern et al. (1999), "threats can be conceptualized as beliefs that a "valued object" is in danger" (Kump, 2021, p. 2715). To trigger organizational changes toward sustainability, managers' values being threatened can be critical, but there is limited research available when it comes to which threats will trigger managers (Kump, 2021). For that reason, this thesis is focused on providing insights into the reasons influencing the intention of managers to make decisions toward sustainability within their organization. This is done by exploring several sustainability incentives.

## 2.2. *Theoretical framework development*

"If you want a business owner to do something that benefits society, then you need to consider that maybe society should offer something in return" (Goetz, 2010, p. 1051). An incentive can be determined when the person acquiring the benefit senses that they received more than what they had to do to earn that benefit (Goetz, 2010). Lozano and von Haartman (2018) state that while multiple studies tried to identify sustainability drivers, limited research has focused on actually determining which sustainability



drivers are most important. Moreover, further research is needed to analyze how the main sustainability drivers influence a change toward sustainability (Lozano & von Haartman, 2018).

“Gaining benefits can mean that, by implementing certain measures, future adversity may be avoided or reduced” (Kump, 2021, p. 2718). To gain benefits via sustainability change, Kump (2021) argues that the threat that organizations (and thus also managers) try to avoid does not have to be the environmental problem itself. These risks could also, for example, include potential future sustainability regulations by the government, the risk of a negative brand image, or financial losses. Kump (2021) notes that for organizational change toward sustainability to take place, managers must perceive that their values are being threatened. This aligns with Verplanken and Roy (2016), who mention that when habits are troubled, people can be more responsive to new information and are more likely to take up a more useful mindset for behavior change.

In order to provide insights into the reasons influencing managers’ intention to make a sustainable decision within their organization, this thesis presents a theoretical model. The framework developed illustrates the relationship between sustainability incentives and managers’ intention to make a sustainable decision.

### 2.2.1. Intention to make a decision toward sustainability

It is important to realize that a sustainable future depends on individual changes that decrease environmentally destructive behavior (Schutte & Bhullar, 2017). Information and attitude change strategies are becoming more important due to the rising efforts to steer people’s behavior toward sustainability (Verplanken & Orbell, 2022). According to Verplanken and Orbell (2022), a change in attitude can be an important base that can lead to behavior change. In this context, attitude can be defined as “an individual’s evaluation of behaviour and its outcomes” (Verplanken & Orbell, 2022, p. 329). Vuorio et al. (2018) note that altruism positively impacts attitudes toward sustainability, with extrinsic and intrinsic rewards driving perceived desirability. This aligns with Zeweld et al. (2017), who highlight that some behavior depends on external factors, and therefore, not all human behavior is entirely under voluntary control. Moreover, altruism and extrinsic rewards are connected to environmental, social, and economic value creation (Vuorio et al., 2018).

Extrinsic rewards and externally motivated behavior involve obtaining rewards such as approval or money (Verplanken & Orbell, 2022). Verplanken and Orbell (2022) also state that providing financial incentives may be a helpful tool to promote behavior change and form new habits. Nevertheless, conflicts in underlying motivations and values can arise when combining environmental, social, and economic value creation (Vuorio et al., 2018). Furthermore, Kump (2021) presents that managers’ values must be threatened to establish a change toward sustainability.

The intention to make a decision toward sustainability is one of the first steps for implementing a change toward sustainability. According to the existing literature, intention can arise via multiple factors. One frequently cited theory, often used to explain intention, is the Theory of Planned Behavior (TPB) by Ajzen (1991). Ajzen (1991) states that attitude toward the behavior, subjective norm, and perceived behavior control are factors influencing intention, and thus behavior. The TPB is often decomposed or extended to fit specific research (Judge et al., 2019; Nguyen & Drakou, 2021; Ricci et al., 2018; Zeweld et al., 2017). For example, Nguyen and Drakou (2021) used the decomposed TPB and extended the framework with climate change perception and past behavior to study farmers’ intention to adopt sustainable practices.

### 2.2.2. Sustainability incentives

A comprehensive exploration of the existing literature was necessary to identify the main reasons for businesses to implement sustainability practices. To achieve this, a structured literature review was conducted to locate the most mentioned sustainability incentives. The following section will highlight the main sustainability incentives identified in the existing literature. These sustainability incentives were mentioned most and will serve as the main incentives tested as different treatments in the experiment. The sustainability incentives are outlined in the next subsections and the proposed hypotheses are highlighted. Then, the theoretical model is discussed and presented.

Table 1 presents the results of the structured literature review, including a short description of the main sustainability incentives and an overview of the literature mentioning these main sustainability incentives.

**Table 1**

The most mentioned sustainability incentives found in the literature review

<b>Sustainability incentive</b>	<b>Description incentive</b>	<b>Author (year)</b>
Financial (subsidies)	Subsidy is used in this thesis as the measurable financial incentive. With a subsidy, the financial status of the company does not change significantly when initiating a change toward sustainability.	Hartikainen et al. (2021), Isetti et al. (2020), Ma et al. (2019), Trujillo-Barrera et al. (2016), Huber et al. (2017), Perrault and Clark (2018), Narayanan (2022), Fuchs et al. (2020), Molina-Azorín et al. (2009), Lubchenco et al. (2016), Bandiera et al. (2009), Lessard and Lucea (2009), Hemingway and Maclagan (2004), Hu et al. (2022), Xu et al. (2024), Whelan and Douglas (2021), Dong et al. (2020), Bjerkan et al. (2016)
Perceived brand image	When not initiating a change toward sustainability, the risk of a weakened brand image will be higher. A weakened brand image can result in less sales/revenue due to losing customers and/or reputation.	Wei et al. (2023), Lubchenco et al. (2016), Isetti et al. (2020), Dodds et al. (2013), Hartikainen et al. (2021), Buldeo Rai et al. (2021), Trudel (2019), Trujillo-Barrera et al. (2016), Le et al. (2022), Kump (2021), Pineiro-Chousa et al. (2017), Muyllé et al. (2012), Osman and Nelson (2019), Hemingway and Maclagan (2004)
Perceived competitive advantage	When not initiating a change toward sustainability, the risk of a weakened competitive advantage will be higher. A good competitive position can result in differentiation or accessing new markets which can in turn result in a better market position/to gain market share.	Le et al. (2022), Aziz et al. (2018), Lubchenco et al. (2016), Morone et al. (2021), Narayanan (2022), Trujillo-Barrera et al. (2016), Dodds et al. (2013), Fuchs et al. (2020), Lichtenthaler (2022), Lessard and Lucea (2009), Carballo-Penela and Castromán-Diz (2015)
Personal values and beliefs	The personal values and beliefs of managers can lead to the intention to make a decision toward sustainability. With this incentive, people can act in line with their values and beliefs. Hereby, the level of environmental concern is highlighted.	Huber et al. (2017), Huber and Hirsch (2017), Isetti et al. (2020), Trujillo-Barrera et al. (2016), Perrault and Clark (2018), Fuchs et al. (2020), Dodds et al. (2013), Carballo-Penela and Castromán-Diz (2015), Hemingway and Maclagan (2004), Ajibade and Boateng (2021), Abrahamse (2019), Stern et al. (1999), Dong et al. (2020), Saari et al. (2021); Vainio and Paloniemi (2014), Foroughi et al. (2022)

Reference: own table made in Word with data retrieved from a structured literature review

### 2.2.2.1. Financial incentives (subsidies)

Executives should be rewarded appropriately based on their sustainability performance to be able to aim for sustainable (environmental and social) goals in the same way as for economic goals (Hartikainen et al., 2021). Research indicates that financial incentives can be used in various forms and levels. For example, Isetti et al. (2020) and Ma et al. (2019) identified subsidies as a financial incentive, while other studies state perceived tax benefits (Trujillo-Barrera et al., 2016), remuneration (Hartikainen et al., 2021), and general monetary rewards (Huber et al., 2017) as financial incentives. These incentives are often used to improve firm performance. Examples include monetary savings (Perrault & Clark, 2018), higher willingness to pay (from a customer's viewpoint) (Narayanan, 2022), and cost savings (Fuchs et

al., 2020). Green management can also be used to provide an increase in revenues and to reduce costs (Molina-Azorín et al., 2009).

However, financial incentives can in some cases weaken sustainable behavior. Lubchenco et al. (2016) highlight that using financial incentives can impair altruistic personal motivation and Isetti et al. (2020) briefly describe that for some already sustainable motivated individuals, financial incentives might have an adverse effect. This aligns with Bandiera et al. (2009), who presented that only low-powered financial incentives increase the pro-social behavior of managers. Therefore, it is critical that a clear match between the financial incentive and the desired outcome needs to be established.

For managing risks within an organization, financial instruments remain dominant (Lessard & Lucea, 2009). Hemingway and Maclagan (2004) determine financial goals and financial performance as a strategic reason for organizations to adopt CSR (corporate social responsibility). Furthermore, Hu et al. (2022) present that higher government subsidies increase the level of willingness of farmers to adopt a water-saving irrigation system, but only when the farmers are aware of the threats. Xu et al. (2024) also presented that higher government subsidies increase purchasers' willingness to buy remanufactured products.

Whelan and Douglas (2021) note that financial performance can improve when sustainable practices positively influence one of the nine 'mediating factors'. Risk management is one of these 'mediating factors' and ignoring sustainability-related risks may have a serious negative financial impact (Whelan & Douglas, 2021).

With the sustainability practice examined in this experiment; changing the company cars to all hybrid/electric cars, Dong et al. (2020) highlight that subsidies are already used to promote the adoption of electric vehicles. Research by Bjerkan et al. (2016) presents that the two most important incentives for the promotion of electric vehicle adoption are exemptions from purchase tax (83%) and VAT (81%). As Bjerkan et al. (2016) suggest as well, these results indicate that the strongest incentive to promote electric vehicle adoption is an up-front price reduction. This leads to the prediction of the first hypothesis;

**Hypothesis 1:** Financial incentives, e.g. subsidies, will positively influence managers' intention to make a decision toward sustainability.

#### 2.2.2.2. *Perceived brand image*

"Whether on the premise of individualistic culture or collectivist culture, the importance of social influence has been widely proven" (Wei et al., 2023, p. 3). Social norms, a broad and versatile topic, are often cited as sustainability incentives in diverse contexts. For example, Lubchenco et al. (2016) mention reputation and self-image as aspects of social norms. Additionally, collective behavior (or even awareness alone) can be a social norm incentive (Lubchenco et al., 2016). Other examples of social norms include image concerns (Isetti et al., 2020), brand reputation (Dodds et al., 2013), pressure from the general public (Hartikainen et al., 2021), social influence (Wei et al., 2023), and in general, social norm itself (Buldeo Rai et al., 2021). Research shows that sustainable behaviors are affected by social influence and social norms (Trudel, 2019).

Trujillo-Barrera et al. (2016) describe social motives as the way a firm is seen by society. The societal viewpoint can be shaped or altered by certain marketing and brand image presentations. This highlights the importance for organizations to have a strong brand image. "Brand image helps customers identify products and services of a supplier compared to other suppliers in the market to serve their purchasing decision process" (Le et al., 2022, p. 2646-2647). Thus, brand image may be a reason to drive businesses to implement sustainable practices. The risk of losing customers or reputation may be reduced by changes toward sustainability (Kump, 2021).

Managing reputational risk is becoming more important for firms, according to Pineiro-Chousa et al. (2017). Companies that are environmentally concerned can reduce potential losses in reputational value from threats and can therefore also increase the probable profit from the newly existing reputational opportunities (Pineiro-Chousa et al., 2017). While Muylle et al. (2012) state that a brand label alone cannot reduce perceived risks (e.g. of customers), it does guarantee dependability, which is the opposite of risk. The public is showing substantial doubt about sustainability issues (Osman & Nelson, 2019), thus organizations must consider their brand image. A brand that engages in pro-social behavior and

therefore sustainable improvement to society will make its customers proud of these sustainable contributions (Le et al., 2022). “Doing good deeds produces a positive public relations story” (Hemingway & Maclagan, 2004, p. 35). This leads to the prediction of the second hypothesis;

**Hypothesis 2:** Perceived brand image will positively influence managers’ intention to make a decision toward sustainability.

#### *2.2.2.3. Perceived competitive advantage*

Due to various factors, the business environment is changing very quickly which leads to expanded competition globally (Le et al., 2022). To remain competitive, many companies adopt sustainable practices as their innovations (Aziz et al., 2018). Several scholars identify competitive advantage as a main incentive for implementing sustainability and increasing sustainable behavior. For organizations to survive and develop sustainably, they must improve their competitive advantage (Le et al., 2022). For instance, organizations often adopt certification programs (E.g. sustainable seafood) to gain a competitive advantage (Lubchenco et al., 2016). Morone et al. (2021) state that certification works as a visible output to customers to present the sustainability of a product or service.

Making sustainable practices visible can reward businesses with a higher consumer purchase intention and an increase in brand equity (Narayanan, 2022). Other scholars highlight that implementing sustainability may help in shaping a better market position (Trujillo-Barrera et al., 2016), serve as a strategic driver for differentiation (Dodds et al., 2013), and gain competitive advantage through visibility (Fuchs et al., 2020). Moreover, Dodds et al. (2013) note that managers need to pay attention to internal and external stakeholders and their wishes to maintain competitiveness.

Lichtenthaler (2022) presents that for organizations to keep their position in the market and gain a competitive advantage, they need to have some opening level of economic, social, and environmental sustainability. According to Lessard and Lucea (2009), competitive advantage for organizations can have risk management as an important source. By adopting organizational threats, firms can create new opportunities that offer a competitive advantage (Lessard & Lucea, 2009). Furthermore, environmental proactive management, such as employing sustainability practices, is affiliated with a stronger competitive position (Carballo-Penela & Castromán-Diz, 2015).

In this thesis, differentiation (Dodds et al., 2013) and the ability to access new markets will be explored to explain competitive advantage as an incentive. Differentiation and accessing new markets can sequentially lead to an improved market position (Trujillo-Barrera et al., 2016) and potentially gain more market share. This leads to the prediction of the third hypothesis;

**Hypothesis 3:** Perceived competitive advantage will moderately influence managers’ intention to make a decision toward sustainability.

#### *2.2.2.4. Personal values and beliefs*

Personal incentives are likewise frequently cited in the existing literature as incentives for sustainable behavior. Huber et al. (2017) identified intrinsic motivation, explained as “the desire to do good, like pure altruism or the value of giving per se” (p. 92), as a potential driver of pro-social behavior. Other mentioned personal incentives include a person’s self-image or self-concept (Huber & Hirsch, 2017), environmental values and beliefs (Isetti et al., 2020), personal (moral) values (Trujillo-Barrera et al., 2016), environmental motivation (Perrault & Clark, 2018) and existing values and goals (Fuchs et al., 2020). Moreover, Perrault and Clark (2018), Dodds et al. (2013), and Fuchs et al. (2020) all highlight environmental concerns and personal responsibility as important drivers of sustainable behavior. Personal incentives are thus considered one of the main incentives for implementing sustainability practices and/or sustainable behavior. Notably, this incentive stands out as the only incentive that represents an individual perspective rather than an organizational perspective. Therefore, the incentive is used in the experiment so that people can act in line with their values and beliefs. Moreover, by including personal values and beliefs as an incentive in the experiment, it can be determined whether this personal ‘incentive’ alone is sufficient for managers to have the intention to make a sustainable decision.

Managers' motivation and a positive environmental attitude will positively affect sustainability practices (Carballo-Penela & Castromán-Diz, 2015). Hemingway and Maclagan (2004) propose that, in addition

to organizational objectives, managers' organizational choices are also guided by their personal values and interests. Personal moral concerns can be a reason managers intend to make specific changes within their organization (Hemingway & Maclagan, 2004). Ajibade and Boateng (2021) state that individuals are more likely to participate in pro-sustainable behavior when they care more about sustainability problems. However, Abrahamse (2019) notes that even though there is concern for the environment, it does not always convert into movement.

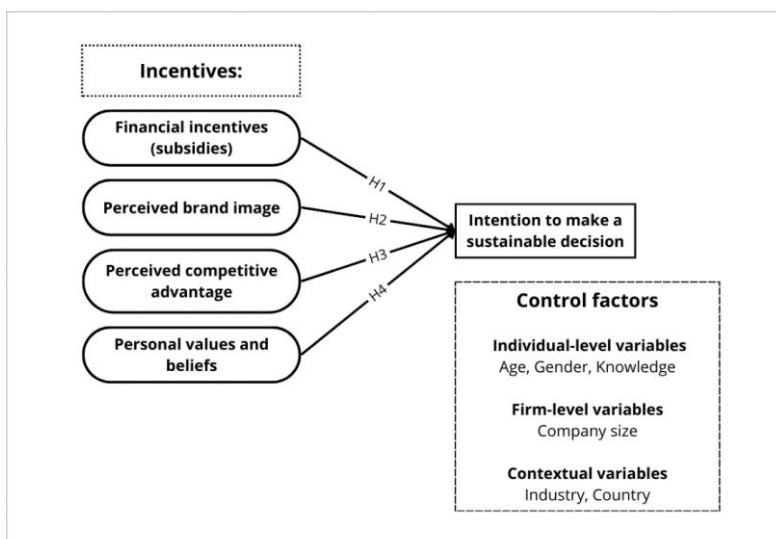
Stern et al. (1999) proposed the value belief norm theory, which presents pro-environmental norms as an influence leading to pro-environmental behavior. Research by Dong et al. (2020) suggests that subjective norms, perceived behavioral control, personal norms, and feelings and emotions may positively influence intentions to purchase an electric vehicle. Additionally, individuals with more positive emotions toward this electric vehicle, a stronger sense of moral obligation, and personal norms are more likely to accept them (Dong et al., 2020). Foroughi et al. (2022) presented that environmental concern influences the environmental emotional value and environmental social value. Environmental social value has also been presented as the main factor in stimulating pro-environmental behavior (Foroughi et al., 2022). This leads to the prediction of the fourth hypothesis.

**Hypothesis 4:** Personal values and beliefs will moderately influence managers' intention to make a decision toward sustainability, but will solely not be enough to genuinely make that decision toward sustainability.

### 2.2.3. Theoretical model

Figure 1 illustrates the theoretical model used in this thesis. The study used the highlighted underlying theories and the findings from a structured literature review, to shape the basis for the hypotheses and the theoretical framework. The structured literature review identified financial incentives (subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs as the main sustainability incentives.

The thesis proposes that these sustainability incentives are influenced by the control factors; age, gender, knowledge, company size, industry, and country. These control factors may affect managers' beliefs about environmental threats and thus affect their motivation to adopt a sustainable practice. Therefore, the incentives, financial incentives (subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs, as perceived benefits of change, may lead to the intention to make a decision toward sustainability.



**Fig. 1:** Theoretical model; sustainability incentives explored with a structured literature review  
Reference: own model made in Canva (Canva, 2024)

# 3. Methodology

The goal of the experiment is to explore the relationships between the incentives; namely, financial incentives (subsidies), perceived brand image, perceived competitive advantage, personal values and beliefs, and the intention to make a decision toward sustainability.

## 3.1. Research design

For this thesis, an experiment with a between-subject design was chosen because, when discussing sustainability, answers are most likely to be 'politically correct'. "When asked, people will generally say that they care about environmental protection. This concern for the environment, however, does not always translate into action" (Abrahamse, 2019, p. 11). Although all companies claim to implement sustainability because they care about the environment, there may be other underlying reasons. This experiment aims to gain more insights into several incentives that could drive the intention to make a decision toward sustainability.

Within the online experiment, managers' intention to make a sustainable decision is presented as the dependent variable. The independent variable represents the various sustainability incentives. These include subsidies, perceived brand image, perceived competitive advantage, and personal values and beliefs. The control factors include age, gender, knowledge, company size, industry, and country.

Using an experimental approach allows the researcher to explore more relationships between different sustainability incentives, the intention to make a decision toward sustainability, and the control factors. In the experiment, a 'real life' scenario involving a change (or not) of the company vehicles to all hybrid/electric vehicles was chosen. According to Shepherd and Zacharakis (2018), participants must be able to relate the experimental decision to a real-life decision.

When setting up the experiment parameters, three key principles were kept in mind: randomization, local control (also known as blocking), and replications (Yuanyai & Nembhard, 2009). "Randomization is a process that collects all sources of variation affecting the treatment effects except those due to treatment itself" (Yuanyai & Nembhard, 2009, p. 209). Yuanyai and Nembhard (2009) define local control (or blocking) as a method to "segregate an uncontrolled but known variation in an experiment not associated with the treatment effect" (p. 210). Finally, "to estimate experimental errors and main and interaction effects more precisely, it includes repeating an experiment, all, or part of it, in random order" (Dangat et al., 2021, p. 11). To ensure that the principles of randomization, local control, and replications were implemented accordingly while keeping the experiment as easy as possible for the participants, the online software tool Qualtrics (Qualtrics, Provo, UT) was used to set up and carry out the experiment. In Qualtrics (Qualtrics, Provo, UT), randomization was managed manually, while local control and replications were addressed automatically.

## 3.2. Variables

In the experiment, the dependent variable was managers' intention to make a sustainable decision. The independent variables, or sustainability incentives, that were tested for their influence on this intention included financial (subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs. Moreover, the control factors; age, gender, knowledge, company size, industry, and country were included to determine potential variations in participants' responses.

The different sustainability incentives were measured and presented as follows; The financial incentive was presented as a subsidy. Therefore, the company will receive a purchase subsidy of around 10% of the net purchase costs of the electric car with a maximum of €5.000 per company car when making the change toward all hybrid/electric vehicles (RVO, 2024). The perceived brand image and competitive advantage were tested based on the given that when the company's vehicles are not changed to hybrid/electric vehicles, the risk of a weakened brand image/competitive advantage will be higher. These measurements are based on the environmental belief model presented by Kump (2021). Personal values and beliefs were tested with the use of four Likert-scaled statements. First of all, an element of the scale proposed by Stern et al. (1999) was used. Hereby, the focus was on personal normative beliefs. Participants were asked whether they agreed with the statement, "I feel a personal obligation to do whatever I can to prevent climate change". Furthermore, the items "We worry too much about the

future of the environment and not enough about prices and jobs", "People worry too much about human progress harming the environment", and "Many of the claims about environmental threats are exaggerated" (Saari et al., 2021; Vainio & Paloniemi, 2014) were asked to examine the participants' level of environmental concern.

### 3.3. Sample

The study's subjects are individuals within companies who make decisions, such as a (sustainability) manager, change agent, CEO, owner, etc. The main focus was on the (sustainability) managers, but especially in smaller companies, the CEO or owner is more likely to make sustainability decisions within the company.

The sample size (N = 93) consists of 50 female participants (53.8%) and 43 male participants (46.2%). The age groups are divided as follows; 18–25 (N = 21; 22.6%), 26–35 (N = 34; 36.6%), 36–45 (N = 9; 9.7%), and 46–55 (N = 11; 11.8%). Furthermore, the participants were asked about their function title, the size of their company, the industry they are operating in, and the location of the company. An overview of the sample characteristics, presented as frequency tables and descriptive statistics, can be found in Appendix 4.

### 3.4. Experiment procedure and data analysis

The experiment consisted of five groups, all receiving the same scenario. In short, each group answered the same general questions to generate descriptive data. Then, the control group, the financial incentive group, the perceived brand image group, and the perceived competitive advantage group received the same scenario.

After this initial scenario, the control group was asked what they would advise their company to do. The financial incentive group, the perceived brand image group, and the perceived competitive advantage group first received additional information that fit their incentive before answering the same question as the control group. The personal values and beliefs group first answered four statements about the environment, followed by the same scenario and question as the control group. A more detailed outline of the experiment can be found in Appendix 3.

The experiment was distributed as a link to make it as easy as possible for the subjects to participate in the experiment. The experiment took around 3 minutes and included a control group and four other groups, each focused on a different incentive identified in the conducted literature review. By managing only one incentive per group, and therefore one test per group, testing effects will be avoided (Buldeo Rai et al., 2021). To find participants for the experiment, social media channels (e.g. LinkedIn) were used as the main method to contact the subjects. The message was distributed on Social Media in English, and the experiment itself was also conducted in English. The data was collected automatically within the Qualtrics software (Qualtrics, Provo, UT). During the data collection timeframe, the already gathered results were monitored and additional follow-up emails or social media updates were sent out when required. Figure 2 shows a short overview of the timeline and steps considering the experiment.

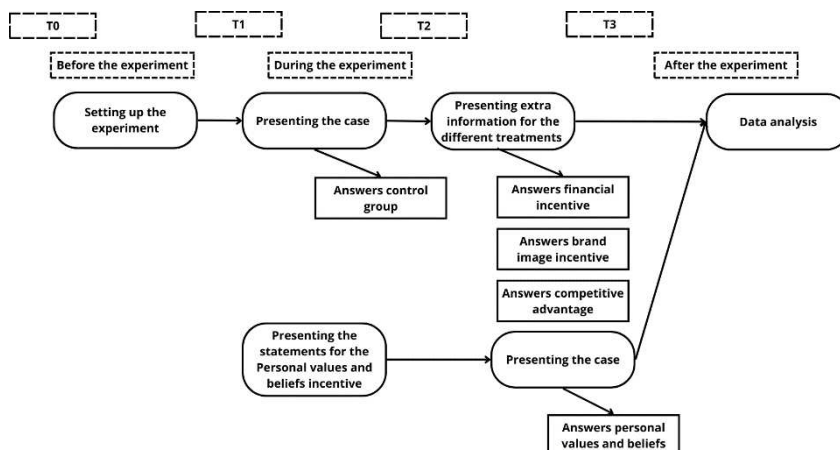


Fig. 2: Timeline and steps own experiment

Reference: own figure made in Canva (Canva, 2024)

A pretest was conducted with 22 respondents to ensure clarity and comprehension of the experiment. This pretest verified that the incentives and the presented sustainable practice – changing the company vehicle to all hybrid/electric vehicles – were clear. The incentives were recognizable as financial, brand image, competitive advantage, and personal values and beliefs.

Data was collected from 107 participants. To ensure data completeness, participants were excluded based on the following principles: incomplete responses and/or no decision-maker (within the function title category; 'other'). Following these principles, the final dataset consists of 93 participants. The treatments were represented as follows; control group (N = 19), financial (N = 19), brand image (N = 19), competitive advantage (N = 18), personal values and beliefs (N = 18).

To analyze the collected data, IBM SPSS Statistics (Version 29) was used. Descriptive statistics were gathered and analyzed to understand the statistics on how the sample is constructed based on, for example, age or gender. These descriptive statistics are important for analyzing the control factors in the model and comparing that data to the different outcomes. Specifically, the descriptive statistics cover the participants' age, gender, level of knowledge, industry, company size, and country in which they are operating.

Moreover, the different treatments used - financial incentives (subsidies), perceived brand image, perceived competitive advantage, and personal values and beliefs - were compared to the intention to make a sustainable decision (dependent variable) to analyze the impact of each incentive. For this analysis, Poisson regression was used. The Poisson regression is seen as the simplest count regression model (Elhai et al., 2008). Within this thesis, linear regression does not fit the data since it has no normal distribution. According to Elhai et al. (2008), Poisson regression has one important restriction, namely, the count's variable's variance cannot be greater than its mean. When not meeting this assumption, overdispersion occurs. In this thesis, the variable's variance is not greater than its mean (see Table 3) thus, overdispersion is not an issue.

Moreover, frequency tables, Pearson's Chi-square tests, correlation, cross tables, and bar charts were used to analyze the gathered data and provide insights into the intention to make a decision toward sustainability and the control factors. Because the different treatments have a sample of 19 or 18 participants, which is quite a small sample, an alpha level of 0.10 is used for all statistical tests.

## 4. Results

### 4.1. Descriptive statistics

#### 4.1.1. Treatments

An overview of the descriptives of the treatments is shown in Table 2. These initial outcomes present the means of the treatments, where a higher mean indicates a lower intention to make a decision toward sustainability. For example, the control group has the highest mean of 1.63 (0.496) which implies that the option to change the company's vehicles is chosen less frequently compared to the other treatments (the incentives). When comparing the modes of the different treatments, the data shows that the control group is the only group in which option 2: no change in company vehicles is chosen more often than option 1: change in company vehicles.

**Table 2**

Descriptive statistics of the different treatments

		Control	Financial	Brand image	Competitive advantage	Personal
N	Valid	19	19	19	18	18
	Missing	0	0	0	1	1
Mean		1.63	1.11	1.32	1.44	1.44
Median		2.00	1.00	1.00	1.00	1.00
Mode		2	1	1	1	1



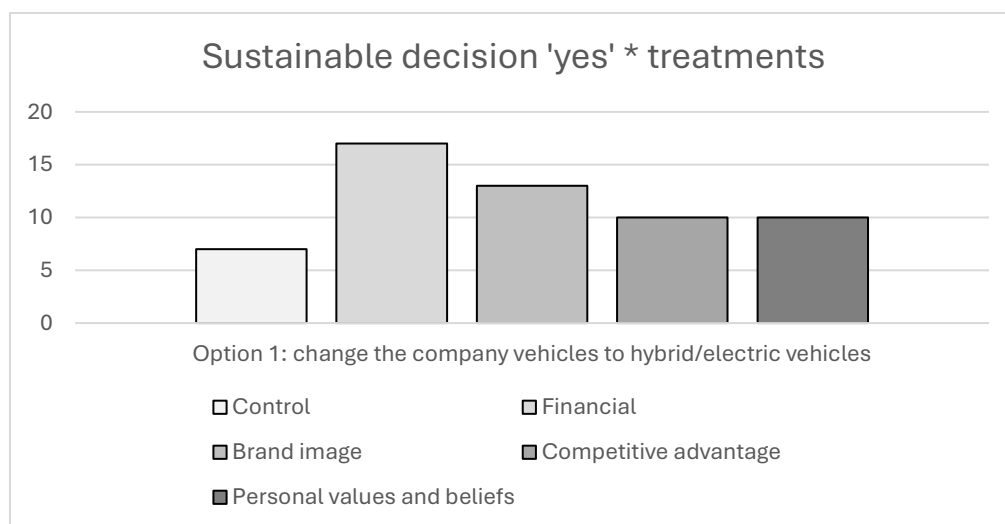
Std. Deviation	0.496	0.315	0.478	0.511	0.511
Variance	0.246	0.099	0.228	0.261	0.261
Minimum	1	1	1	1	1
Maximum	2	2	2	2	2
Sum	31	21	25	26	26

Reference: own table made in Word with data retrieved from SPSS

#### 4.1.2. Control factors

A short overview of the descriptive statistics and additional frequency tables for the control factors are presented in Appendix 4, highlighting the sample characteristics. Furthermore, cross tables were used to provide insights into the relationship between the control factors, the different treatments, and the intention to make a decision toward sustainability.

Initially, frequency tables and Cross tables were used to gain a first insight into the experiment's results by comparing the different treatments. As already presented by the means of the treatments, and illustrated in Figure 3, the control group is the only treatment where participants chose option 2: no change in company vehicles more frequently than option 1: change the company vehicles to hybrid/electric vehicles. Additionally, the bar chart illustrates that the financial treatment has the most significant highest sustainable decision 'yes' responses. The competitive advantage and personal values and beliefs treatments show equal scores for the sustainable decision 'yes' count.



**Fig. 3:** Overview outcome sustainable decision 'yes' count per treatment  
Reference: own bar chart made in Word with data retrieved from SPSS

#### 4.2. Poisson regression

Poisson regression was used to test the hypotheses. As previously discussed, linear regression is not suitable since the treatment variables are count data (Elhai et al., 2008). The number of 'yes' answers indicating a sustainable decision was counted to properly use Poisson regression. Next, to use the control group as a basis, the 'yes' counts from the different treatments were subtracted from those of the control group. This approach makes a distinction between the control group and the different treatments. The Poisson regression analysis used the intention to make a sustainable decision as the dependent variable, with the treatments as the predictors. The outcomes of this analysis are presented below.

**Table 3**

Outcome Poisson regression analysis

	<b>Intention to make a sustainable decision</b>
Financial incentive	3.333* (0.6583)
Brand image	2.000 (0.7071)
Competitive advantage	1.000 (0.8165)
Personal values and beliefs	1.000 (0.8165)
N	93

Note: standard errors in paratheses; response options: 'yes' and 'no'

\*p<0.10

Reference: own table made in Word with data retrieved from SPSS

Table 3 presents that the financial incentive has the strongest influence on managers' intention to make a sustainable decision compared to the other treatments ( $p = 0.067$ ). Brand image is the second strongest influence in comparison to the other treatments, while competitive advantage and personal values and beliefs have the lowest influence of all treatments. These results suggest that the strongest incentive for managers' intention to make a sustainable decision is the financial incentive.

Poisson regression was used to answer the hypotheses. The results show that hypothesis 1, which focuses on financial incentives (subsidies), is supported. The data shows that the financial incentive (subsidies) significantly ( $p = 0.067$ ) has the strongest influence on managers' intention to make a sustainable decision compared to the other treatments. Moreover, hypothesis 2, focussing on the brand image incentive, is not supported. The data does indicate that brand image has the second strongest influence on managers' intention to make a sustainable decision compared to the other treatment, but this result is not significant. Thus, it can be stated that hypothesis 2 is not supported.

Hypothesis 3, focussing on the competitive advantage incentive, is not supported. The Poisson regression analysis reveals no significant influence on managers' intention to make a sustainable decision. Along with personal values and beliefs, competitive advantage presents the weakest influence on the managers' intention to make a sustainable decision compared to the other treatments. Therefore, hypothesis 4 is supported. While personal values and beliefs do not have a significant influence on the managers' intention to make a sustainable decision, this is in line with the proposed hypothesis that this incentive alone would solely not be enough to really make a decision toward sustainability.

### 4.3. Additional insights

#### 4.3.1. Statistics treatments and the intention to make a decision toward sustainability

As mentioned briefly in the results section, the treatments were analyzed to determine if any initial conclusions could be made. Both the modes of the different treatments and the bar chart indicate that the control group is the only treatment group in which option 1: change in company vehicles was selected less often than option 2: no change in company vehicles. Converting the sustainable decision 'yes' counts into percentages (Table 4), the results are as follows; control (36.8%), financial (89.5%), brand image (68.4%), competitive advantage (55.6%), and personal values and beliefs (55.6%). These outcomes are in line with the results from the Poisson regression analysis.

**Table 4**

Cross-table treatments and the intention to make a decision toward sustainability; % within treatment

			<b>Control</b>	<b>Financial</b>	<b>Brand image</b>	<b>Competitive advantage</b>	<b>Personal</b>	<b>Total</b>
Sustainable decision 'yes'	Option 1: Change the company vehicles to	1: the to	36.8%	89.5%	68.4%	55.6%	55.6%	61.3%

Reference: own table made in Word with data retrieved from SPSS

#### 4.3.2. Personal values and beliefs statements

The personal values and beliefs statements; 'I feel a personal obligation to do whatever I can to prevent climate change', 'We worry too much about the future of the environment and not enough about prices and jobs', 'People worry too much about human progress harming the environment', 'Many of the claims about environmental threats are exaggerated' were analyzed using correlations. Initially, the statement 'I feel a personal obligation to do whatever I can to prevent climate change' was reverse-coded to align the data for analysis. An overview of the statement scores is available in Appendix 4. Moreover, there is a significant correlation between these statement scores and the personal values and beliefs treatment ( $p = 0.062$ ).

When analyzing the personal values and beliefs treatment and its statements, Table 5 shows a significant correlation,  $r = -0.448$ ,  $p = 0.062$  (2-tailed) between the treatment and its statements. Hereby, a 90% confidence is used based on the sample size for the variables ( $N = 18$ ). The relationship between the two variables is negative, indicating that when one variable increases, the other variable decreases. In this case, the higher the sum of all statements, the lower the score in the option variable whereby option 1: change in company vehicles, and option 2: no change in company vehicles.

Hereby, the sum of all statements reflects the level of environmental concern, meaning that the higher the sum of these statements, the higher the level of environmental concern. The strength of this relationship is 0.448, which is considered a medium-strength relationship.

**Table 5**

Correlation between personal values and beliefs and the statements

		Sum of all statements outcomes	Personal values and beliefs
Sum of all statements outcomes	Pearson Correlation	1	-0.448
	Sig. (2-tailed)		0.062
	N	18	18
Personal values and beliefs	Pearson Correlation	-0.448	1
	Sig. (2-tailed)	0.062	
	N	18	18

Reference: own table made in Word with data retrieved from SPSS

When analyzing the statements individually, the statements 'We worry too much about the future of the environment and not enough about prices and jobs' and 'Many of the claims about environmental threats are exaggerated' show a significant correlation with personal values and beliefs. The correlations are presented in Appendix 4. The relationship between the statement 'We worry too much about the future of the environment and not enough about prices and jobs' ( $r = -0.484$ ,  $p = 0.042$ ) and personal values and beliefs, as well as the relationship between 'Many of the claims about environmental threats are exaggerated' ( $r = -0.486$ ,  $p = 0.041$ ) and personal values and beliefs, are both negative. This implies that the higher the score on these statements (reflecting higher environmental concern), the lower the score on personal values and beliefs. This again suggests that the higher the level of environmental concern, the stronger the intention to make a decision toward sustainability.

#### 4.3.3. Sustainable decision 'yes', treatment, and control factors

To gain insights into the intention to make a decision toward sustainability, the different treatments, and the control factors, cross tables were used. These cross tables can be found in Appendix 4. A table was created to identify which treatment has the highest percentage of participants choosing the sustainable decision 'yes' for each control factor.

For example, it can be seen that for the age group 18–25, the sustainable decision ‘yes’ was chosen most often with the financial treatment. This implies that within this age group, the financial incentive has the strongest influence on the intention to make a decision toward sustainability. However, for the age group 46-55, the sustainable decision ‘yes’ was chosen most often with the brand image incentive. Implying that, for this age group, the brand image incentive has the strongest influence on the intention to make a sustainable decision. This table includes all control factors; age, gender, function title (knowledge), company size, industry, and company location (country).

Note: When the results showed only one response in a category (as count), no conclusion was made, and that treatment was not included in the overviews of the control factors concerning the treatments. Therefore, all presented treatments were selected by at least two responses.

**Table 6**

Treatments with the strongest intention to make a decision toward sustainability for each control factor

Control factor	Financial	Brand image	Competitive advantage	Personal values and beliefs	Control group
<b>Age group</b>	18-25	█			
	26-35				
	36-45				
	46-55		█		
	55+	█		█	
<b>Gender</b>	Male		█		
	Female		█		
<b>Function title</b>	Sustainability manager	█			█
	CEO/Owner	█		█	
	Other type of manager				█
	Other		█		
<b>Company size</b>	Micro-enterprises (1-9 employees)	█			
	Small-enterprises (10-49 employees)		█		
	Medium-sized enterprises (50-249 employees)	█	█		
	Large enterprises (250+ employees)				█
<b>Industry</b>	Healthcare	█			
	Government				
	Media, Communications, or ICT		█		
	Education, Culture, or Science			█	
	Engineering, Production, or Construction	█			
	Tourism, Recreation, Catering/Hospitality, or Services		█		
	Transport or Logistics	█	█		
	Consultancy	█			
<b>Company location</b>	Other			█	
	The Netherlands	█			
	Germany	█			
	Spain				█

Reference: own table made in Word with data retrieved from SPSS

In general, it can be concluded that, when linked to the control factors, financial treatment is the incentive most frequently associated with the strongest influence on the intention to make a decision toward sustainability. The second most effective treatment is brand image. The control group is represented by

only 1 count, implying that this treatment has the weakest influence on the intention to make a decision toward sustainability when it comes to the different control factors. Therefore, it can be concluded that sustainability incentives do in fact influence managers' intention to make a sustainable decision. The overview of counts is presented in Table 7.

**Table 7**

Overview of counts for each treatment

<b>Treatment</b>	<b>Count</b>
Financial	18
Brand image	7
Personal values and beliefs	4
Competitive advantage	3
Control	1

Reference: own table made in Word with data retrieved from SPSS

## 5. Discussion

### 5.1. Hypothesis results

First, it can be concluded that, based on the Poisson regression analysis, hypotheses 1 and 4 are supported while hypotheses 2 and 3 are not supported. Table 8 presents an overview of the hypotheses and whether they are supported or not.

**Table 8**

Overview of the hypotheses; conclusion

<b>Hypothesis</b>	<b>Supported?</b>
H1: financial incentive (subsidies)	Supported
H2: perceived brand image	Not supported
H3: perceived competitive advantage	Not supported
H4: personal values and beliefs	Supported

Reference: own table made in Word with the outcomes of this thesis

The results present that hypothesis 1, focussing on the financial incentive (subsidies), is supported. The data shows that the financial incentive (subsidies) significantly has the strongest influence on managers' intention to make a sustainable decision compared to the other treatments ( $p = 0.067$ ). Subsidies have been identified in the existing literature as a form of financial incentives (Isetti et al., 2020; Ma et al., 2019). Based on the results stated in the previous section, evidence suggests that subsidies have the strongest influence on managers' intention to make a decision toward sustainability. This finding aligns with the research of Hu et al. (2022), who presented that higher government subsidies increase the willingness of farmers to adopt sustainable practices. Moreover, research by Bjerkan et al. (2016) presents that the strongest incentive to promote electric vehicle adoption is an up-front price reduction, which is consistent with the conclusion made in this thesis. However, the statements of Lubchenco et al. (2016) and Isetti et al. (2020), mentioning that financial incentives can also harm the intention to make a decision toward sustainability, are challenged by the conclusion of this thesis.

Furthermore, hypothesis 2, focussing on the brand image incentive, is not supported. The data indicates that brand image has the second strongest influence on managers' intention to make a sustainable decision compared to the other treatment. On the other hand, this result is not significant. Thus, it can be stated that hypothesis 2 is not supported. Le et al. (2022) note that brand image can help customers during their purchasing decision process. Moreover, Kump (2021) highlighted that changes toward

sustainability can reduce the risk of losing customers or reputation. Thus, brand image was included as one of the sustainability incentives explored in this thesis. The experiment results suggest that perceived brand image has the second strongest influence on managers' intention to make a sustainable decision, indicating the importance of managers keeping a positive brand image for their company. Brand image being one of the main incentives for managers' intention to make a decision toward sustainability lays a foundation for the statement of Kump (2021) mentioning that changes toward sustainability may reduce the risk of losing customers or reputation.

Hypothesis 3, focussing on the competitive advantage incentive, is not supported. The Poisson regression analysis reveals no significant influence on managers' intention to make a sustainable decision. Aziz et al. (2018) point out that to remain competitive, many companies adopt sustainable practices as their innovations. Furthermore, proactive environmental management, such as employing sustainability practices, is affiliated with a stronger competitive position (Carballo-Penela & Castromán-Diz, 2015). However, based on the results of the experiment discussed above, perceived competitive advantage does not significantly influence the intention to make a decision toward sustainability. Therefore, it can be concluded that even though sustainable practices are adopted to remain competitive (Aziz et al., 2018), and that they can lead to differentiation and accessing new markets (Trujillo-Barrera et al., 2016), perceived competitive advantage is not one of the main sustainability incentive to influence managers' intention to make a decision toward sustainability.

Along with perceived competitive advantage, personal values and beliefs present the weakest influence on the managers' intention to make a sustainable decision compared to the other treatments. Therefore, hypothesis 4 is supported. While personal values and beliefs do not have a significant influence on the managers' intention to make a sustainable decision, it is in line with the proposed hypothesis that this incentive alone would solely not be enough to really make a decision toward sustainability. Intrinsic motivation is identified as a potential driver of pro-social behavior (Huber et al., 2017). Additionally, the motivation of managers and a positive environmental attitude will positively affect sustainable practices (Carballo-Penela & Castromán-Diz, 2015). Personal moral concerns can also be a reason managers intend to make specific changes within their organization (Hemingway & Maclagan, 2004). The results of this study do not support these statements. The outcomes of this study present that personal values and beliefs do not significantly influence managers' intention to make a decision toward sustainability.

In conclusion, sustainability incentives are often used to influence a manager's decision (Veldman & Gaalman, 2020). Existing literature already presented that such incentives are connected to the adoption of sustainable practices within an organization. Both altruism and extrinsic rewards are connected to environmental, social, and economic value creation (Vuorio et al., 2018). This view aligns with Zeweld et al. (2017), who highlight that some behaviors depend on external factors, and therefore, not all human behavior is entirely under voluntary control. Verplanken and Orbell (2022) also state that providing financial incentives may be a helpful tool to promote behavior change and form new habits. The results of this study show that the sustainability incentive – financial (subsidies) - positively influences managers' intention to make a sustainable decision. Therefore, the statements of Veldman & Gaalman (2020), Vuorio et al. (2018), Zeweld et al. (2017), and Verplanken and Orbell (2022) are supported: the right sustainability incentives will lead to a stronger intention to make a decision toward sustainability.

## **5.2. Environmental concern**

Additionally, it can be concluded that environmental concern is related to the intention to make a decision toward sustainability. The correlation presented a negative relationship, which in this case indicates that the higher the level of environmental concern, the stronger the intention to make a decision toward sustainability. Ajibade and Boateng (2021) state that individuals are more likely to participate in pro-sustainable behavior when they care more about sustainability problems. Similarly, Perrault and Clark (2018), Dodds et al. (2013), and Fuchs et al. (2020) all highlight environmental concerns and personal responsibility as important drivers of sustainable behavior. The results of this study align with these statements, showing that a higher level of environmental concern correlates with a stronger intention to make a decision toward sustainability. However, Abrahamse (2019) notes that even though there is concern for the environment, it does not always convert into movement. As discussed earlier for the personal values and beliefs incentive, it is safe to say that also Abrahamse's statement is supported by this thesis.

### 5.3. *Practical contributions*

This thesis contributes to several gaps in the existing literature on sustainability incentives as predictors of managers' intentions. Firstly, by exploring perceived brand image, perceived competitive advantage, and personal values and beliefs as sustainability incentives, this thesis contributes to the need for a deeper understanding of non-financial incentives driving sustainability (Buldeo Rai et al., 2021). Findings indicate that all non-financial incentives tested - perceived brand image, perceived competitive advantage, and personal values and beliefs – do not significantly influence managers' intention to make a decision toward sustainability.

Moreover, by examining these incentives influencing managers' intention to make a decision toward sustainability, this research also responds to the question of Stoughton and Ludema (2012) concerning the need to perform more research on how and why companies become more sustainable. Furthermore, this thesis addresses the gap presented by Li et al. (2019) regarding the formation of environmental behavior. The study enhances previous literature by presenting a separate focus on the relationship between environmental concern, personal values and beliefs, and the intention to make a sustainable decision. Research into organizational reasons that influence the intention of managers to make a decision toward sustainability is still lacking. Hereby, the results expand previous research on the influence of managers' personal values and beliefs on sustainability, which has been examined for years already, and change the focus more toward organizational sustainability incentives influencing managers' intentions.

Additionally, this thesis proposes a conceptual model to explain the reasons behind managers' intention to make decisions toward sustainability within their organizations. The results contribute to a broader understanding of the influence of several sustainability incentives gaining new insights into why companies adopt sustainable practices (Kump, 2021).

Lastly, by exploring multiple industries across different countries, this research offers a useful foundation for further studies on sustainability incentives and the intention to make a decision toward sustainability within various frameworks. The insights presented in this thesis on which incentive has the strongest influence on the intention to make a decision toward sustainability will be very useful for the adoption of sustainable practices and the decision-making process that is interconnected with this implementation. The results can therefore be used by governments or organizations to increase the adoption of sustainable practices within organizations.

## 6. Conclusion

### 6.1. *Outcome*

A structured literature was executed, followed by an experiment to explore these possible incentives. The structured literature presented that financial incentives, perceived brand image, perceived competitive advantage, and personal values and beliefs are frequently mentioned incentives for sustainable behavior. To further investigate these incentives, an experiment was conducted, focusing on the sustainability practice of changing the company vehicles to all hybrid/electric vehicles.

With the results of this experiment, the research question; **To what extent do the sustainability incentives - subsidies, perceived brand image, perceived competitive advantage, and personal values and beliefs - influence managers' intention to make a decision toward sustainability?** can be answered. The results show that the financial incentive, subsidies, has the strongest influence on managers' intention to make a sustainable decision when compared to the other treatments. Moreover, the other incentives – perceived brand image, perceived competitive advantage, and personal values and beliefs do not significantly influence managers' intention to make a sustainable decision.

Therefore, it can be concluded that hypothesis 1: "Financial incentives, e.g. subsidies, will positively influence managers' intention to make a decision toward sustainability" and hypothesis 4: "Personal values and beliefs will moderately influence managers' intention to make a decision toward sustainability, but will solely not be enough to genuinely make that decision toward sustainability" are supported.

## **6.2. Limitations**

The thesis has several limitations. First, the sample size is relatively small. With a total sample of  $N = 93$  across five different treatments, each treatment group consists of only 18 or 19 participants. Such small samples make it difficult to generalize the findings and to draw broad conclusions about the influence of each treatment on the intention to make a sustainable decision. This highlights the need for further research with larger sample sizes for each treatment.

Another limitation concerns the globalization of the results. The large representation of respondents from The Netherlands and therefore limited representation from other countries makes it difficult to generalize the findings globally. Additionally, since the experiment was conducted online and not in person, overall validation of responses was not fully possible. There is no assurance that all answers given were real or completed correctly and that every respondent fully understood the scenario, questions, and/or the treatment presented.

Additionally, although the option 'other' was included for the function title, and non-decision-makers were filtered out before analysis, there is still a possibility that not all respondents were actual managers, which could affect the results' validity. Furthermore, the experiment focused on a single sustainable practice: changing the company vehicles to all hybrid/electric vehicles. It is possible that responses were based more on the participants' personal thoughts on this specific sustainable practice rather than on the information provided. This could limit the relevance of the findings to other sustainable initiatives.

Finally, the control variables in this thesis were only analyzed on a descriptive level, and not tested for statistical significance in relationship to the sustainability incentives and managers' intention to make a sustainable decision. This limitation in the analysis scope means that the potential influence of these control factors remains unexplored.

## **6.3. Future research suggestions**

Future research could replicate this study across other countries, using various sustainable practices, and larger sample sizes. Moreover, it would be interesting to do this type of research (experiment) in person to see which incentives influence the intention to make a decision toward sustainability the most. This approach would allow researchers to test the same respondents across different treatments, providing valuable insights into sustainable decision-making processes. One helpful method for this research could be the stated preference method. Within environmental research, this method is becoming more frequently presented to explain participants' choice behaviors (Joshi et al., 2013). The choice experiment method uses a technique involving presenting various options to the participants and asking them to choose their preferred option (Horne et al., 2005; Joshi et al., 2013).

Further studies could also focus on specific sectors or target sustainability managers specifically to explore this topic further. While this thesis focused on the intention to make a decision toward sustainability, further research could focus more on the reasons why companies have implemented sustainability practices in the past. Hereby, an interesting area of study would be to examine the gap between the intention to make a decision toward sustainability and the requirements needed to implement this sustainable practice. A useful starting point for this direction could be the environmental beliefs model presented by Kump (2021) for understanding reasons for organizational change toward sustainability or the paper presented by Silvius & de Graaf (2019), which examines various factors influencing the project managers' intention toward sustainability.

Moreover, as mentioned in the limitations, the control factors used – age, gender, function title (knowledge), company size, industry, and company location (country) - were not tested for statistical significance in relationship to the sustainability incentives and managers' intention to make a sustainable decision. For example, Ali et al. (2022) researched whether the control factors gender, age, and knowledge moderated the relationship between environmental beliefs and circular economy adoption among bank managers. Further research could focus on the control factors used in this thesis as moderators on the relationship between sustainability incentives and managers' intention to make a sustainable decision.



## 7. References

- Abrahamse, W. (2019). Understanding the Drivers of Human Behaviour. *Encouraging Pro-Environmental Behaviour*, 11–25. <https://doi.org/10.1016/b978-0-12-811359-2.00002-0>
- Ahmad, S., Wong, K. Y., & Rajoo, S. (2019). Sustainability indicators for manufacturing sectors: A literature survey and maturity analysis from the triple-bottom line perspective. *Journal of Manufacturing Technology Management*, 30(2), 312–334. <https://doi.org/10.1108/JMTM-03-2018-0091>
- Ahmadi-Gh, Z., & Bello-Pintado, A. (2022). Why is manufacturing not more sustainable? The effects of different sustainability practices on sustainability outcomes and competitive advantage. *Journal of Cleaner Production*, 337, 130392. <https://doi.org/10.1016/j.jclepro.2022.130392>
- Ajibade, I., & Boateng, G. O. (2021). Predicting why people engage in pro-sustainable behaviors in Portland Oregon: The role of environmental self-identity, personal norm, and socio-demographics. *Journal of Environmental Management*, 289(July 2020), 112538. <https://doi.org/10.1016/j.jenvman.2021.112538>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/https://doi.org/10.1016/0749-5978(91)90020-T)
- Alhaddi, H. (2015). Triple Bottom Line and Sustainability: A Literature Review. *Business and Management Studies*, 1(2), 6. <https://doi.org/10.11114/bms.v1i2.752>
- Ali, Q., Parveen, S., Yaacob, H., Rani, A. N., & Zaini, Z. (2022). Environmental beliefs and the adoption of circular economy among bank managers: Do gender, age and knowledge act as the moderators? *Journal of Cleaner Production*, 361(September 2021), 132276. <https://doi.org/10.1016/j.jclepro.2022.132276>
- Ambec, S., & Lanoie, P. (2008). Does it pay to be green? A systematic overview. *Academy of Management Perspectives*, 22(4), 45–62. <https://doi.org/10.5465/amp.2008.35590353>
- Arevalo, J. A., Castelló, I., De Colle, S., Lenssen, G., Neumann, K., & Zollo, M. (2011). Introduction to the special issue: Integrating sustainability in business models. *Journal of Management Development*, 30(10), 941–954. <https://doi.org/10.1108/02621711111182466>
- Aziz, N. A. A., Foong, S. Y., Ong, T. S., Senik, R., Attan, H., & Arshad, Y. (2018). Intensity of market competition, strategic orientation and adoption of green initiatives in Malaysian public listed companies. *International Journal of Productivity and Performance Management*, 67(8), 1334–1351. <https://doi.org/10.1108/IJPPM-03-2017-0078>
- Bandiera, O., Barankay, I., & Rasul, I. (2009). Social Connections and Incentives in the Workplace: Evidence From Personnel Data. *Econometrica*, 77(4), 1047–1094. <https://doi.org/10.3982/ecta6496>
- Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717–736. <https://doi.org/10.2307/1556363>
- Bjerkan, K. Y., Nørbech, T. E., & Nordtømme, M. E. (2016). Incentives for promoting Battery Electric Vehicle (BEV) adoption in Norway. *Transportation Research Part D: Transport and Environment*, 43, 169–180. <https://doi.org/10.1016/j.trd.2015.12.002>
- Borglund, T., Frostenson, M., Helin, S., & Arbin, K. (2023). The Professional Logic of Sustainability Managers: Finding Underlying Dynamics. *Journal of Business Ethics*, 182(1), 59–76. <https://doi.org/10.1007/s10551-021-05000-1>
- Buldeo Rai, H., Broekaert, C., Verlinde, S., & Macharis, C. (2021). Sharing is caring: How non-financial incentives drive sustainable e-commerce delivery. *Transportation Research Part D: Transport and Environment*, 93(March). <https://doi.org/10.1016/j.trd.2021.102794>
- Carballo-Penela, A., & Castromán-Diz, J. L. (2015). Environmental Policies for Sustainable Development: An Analysis of the Drivers of Proactive Environmental Strategies in the Service Sector. *Business Strategy and the Environment*, 24, 802–818. <https://doi.org/10.1002/bse>

- Casidy, R., & Lie, D. S. (2023). The effects of B2B sustainable brand positioning on relationship outcomes. *Industrial Marketing Management*, 109(January), 245–256. <https://doi.org/10.1016/j.indmarman.2023.02.006>
- Casidy, R., & Yan, L. (2022). The effects of supplier B2B sustainability positioning on buyer performance: The role of trust. *Industrial Marketing Management*, 102(February), 311–323. <https://doi.org/10.1016/j.indmarman.2022.02.005>
- Dangat, S., Patel, D., & Kuchekar, A. (2021). Design Space by Design of Experiments. *Journal of Pharmaceutical Research International*, 33(44A), 7–18. <https://doi.org/10.9734/JPRI/2021/v33i44A32584>
- Das, D. (2018). The impact of Sustainable Supply Chain Management practices on firm performance: Lessons from Indian organizations. *Journal of Cleaner Production*, 203, 179–196. <https://doi.org/10.1016/j.jclepro.2018.08.250>
- Doane, D., & MacGillivray, A. (2001). The business of staying in business. In *New Economics Foundation*.
- Dodds, R., Graci, S., ko, S., & Walker, L. (2013). What drives environmental sustainability in the New Zealand wine industry?: An examination of driving factors and practices. *International Journal of Wine Business Research*, 25(3), 164–184. <https://doi.org/10.1108/IJWBR-2012-0015>
- Dong, X., Zhang, B., Wang, B., & Wang, Z. (2020). Urban households' purchase intentions for pure electric vehicles under subsidy contexts in China: Do cost factors matter? *Transportation Research Part A: Policy and Practice*, 135(March), 183–197. <https://doi.org/10.1016/j.tra.2020.03.012>
- Elhai, J. D., Calhoun, P. S., & Ford, J. D. (2008). Statistical procedures for analyzing mental health services data. *Psychiatry Research*, 160(2), 129–136. <https://doi.org/10.1016/j.psychres.2007.07.003>
- Farrukh, M., Ansari, N., Raza, A., Wu, Y., & Wang, H. (2022). Fostering employee's pro-environmental behavior through green transformational leadership, green human resource management and environmental knowledge. *Technological Forecasting and Social Change*, 179(March), 121643. <https://doi.org/10.1016/j.techfore.2022.121643>
- Forbes. (2021). Three ways the pandemic made sales and marketing more effective and more human. Retrieved from <https://www.forbes.com/sites/forbestechcouncil/2021/06/16/three-ways-the-pandemic-made-sales-and-marketing-more-effective-and-more-human/?sh=536df8f2016c> (27 February 2024).
- Foroughi, B., Arjuna, N., Iranmanesh, M., Kumar, K. M., Tseng, M. L., & Leung, N. (2022). Determinants of hotel guests' pro-environmental behaviour: Past behaviour as moderator. *International Journal of Hospitality Management*, 102(February 2021), 103167. <https://doi.org/10.1016/j.ijhm.2022.103167>
- Fuchs, H., Aghajanzadeh, A., & Therkelsen, P. (2020). Identification of drivers, benefits, and challenges of ISO 50001 through case study content analysis. *Energy Policy*, 142, 111443. <https://doi.org/10.1016/j.enpol.2020.111443>
- Gabler, C. B., Panagopoulos, N., Vlachos, P. A., & Rapp, A. (2017). Developing an Environmentally Sustainable Business Plan: An International B2B Case Study. *Corporate Social Responsibility and Environmental Management*, 24(4), 261–272. <https://doi.org/10.1002/csr.1409>
- Gimenez, C., Sierra, V., & Rodon, J. (2012). Sustainable operations: Their impact on the triple bottom line. *International Journal of Production Economics*, 140(1), 149–159. <https://doi.org/10.1016/j.ijpe.2012.01.035>
- Goetz, K. S. (2010). Encouraging sustainable business practices using incentives: A practitioner's view. *Management Research Review*, 33(11), 1042–1053. <https://doi.org/10.1108/01409171011085886>
- Gogia, D., Gupta, S. K., & Rathi, P. (2023). Impact of various structural attributes on B2B sustainability positioning. *Journal of Business and Industrial Marketing*, February.

<https://doi.org/10.1108/JBIM-02-2023-0066>

- Hartikainen, H., Järvenpää, M., & Rautiainen, A. (2021). Sustainability in executive remuneration - A missing link towards more sustainable firms? *Journal of Cleaner Production*, 324(September). <https://doi.org/10.1016/j.jclepro.2021.129224>
- Hemingway, C. A., & MacLagan, P. W. (2004). Managers' Personal Values as Drivers of Corporate Social Responsibility. *Journal of Business Ethics*, 50(1), 33–44. <https://doi.org/10.1023/B:BUSI.0000020964.80208.c9>
- Hengst, I.-A., Jarzabkowski, P., Hoegl, M., & Muethel, M. (2020). Toward a Process Theory of Making Sustainability Strategies Legitimate in Action. *Academy of Management Journal*, 63(1), 246–271. <https://doi.org/10.5465/amj.2016.0960>
- Hesselbarth, C., & Schaltegger, S. (2014). Educating change agents for sustainability - Learnings from the first sustainability management master of business administration. *Journal of Cleaner Production*, 62, 24–36. <https://doi.org/10.1016/j.jclepro.2013.03.042>
- Horne, P., Boxall, P. C., & Adamowicz, W. L. (2005). Multiple-use management of forest recreation sites: a spatially explicit choice experiment. *Forest Ecology and Management*, 207(1–2), 189–199. <https://doi.org/10.1016/J.FORECO.2004.10.026>
- Hu, L., Channa, A., Liu, X., Lakhan, G. R., Meraj, M., Lu, Q., & Wang, Q. (2022). Risk characteristics, government subsidies and farmers' willingness to adopt water-saving irrigation techniques\*. *Irrigation and Drainage*, 71(1), 255–267. <https://doi.org/10.1002/ird.2646>
- Huber, L. R., Sloof, R., & Van Praag, M. (2017). The effect of incentives on sustainable behavior: evidence from a field experiment. *Labour Economics*, 45(December 2016), 92–106. <https://doi.org/10.1016/j.labeco.2016.11.012>
- Huber, R., & Hirsch, B. (2017). Behavioral Effects of Sustainability-Oriented Incentive Systems. *Business Strategy and the Environment*, 26(2), 163–181. <https://doi.org/10.1002/bse.1905>
- IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp
- Isetti, G., Ferraretto, V., Stawinoga, A. E., Gruber, M., & DellaValle, N. (2020). Is caring about the environment enough for sustainable mobility? An exploratory case study from South Tyrol (Italy). *Transportation Research Interdisciplinary Perspectives*, 6, 100148. <https://doi.org/10.1016/j.trip.2020.100148>
- Islam, M. M., Murad, M. W., McMurray, A. J., & Abalala, T. S. (2017). Aspects of sustainable procurement practices by public and private organisations in Saudi Arabia: an empirical study. *International Journal of Sustainable Development and World Ecology*, 24(4), 289–303. <https://doi.org/10.1080/13504509.2016.1209794>
- Joshi, O., Grebner, D. L., Munn, I. A., Hussain, A., & Gruchy, S. R. (2013). Understanding landowner preferences for woody biomass harvesting: A choice experiment-based approach. *Forest Science*, 59(5), 549–558. <https://doi.org/10.5849/forsci.11-075>
- Judge, M., Warren-Myers, G., & Paladino, A. (2019). Using the theory of planned behaviour to predict intentions to purchase sustainable housing. *Journal of Cleaner Production*, 215, 259–267. <https://doi.org/10.1016/j.jclepro.2019.01.029>
- Kapitan, S., Kennedy, A. M., & Berth, N. (2019). Sustainably superior versus greenwasher: A scale measure of B2B sustainability positioning. *Industrial Marketing Management*, 76(December 2017), 84–97. <https://doi.org/10.1016/j.indmarman.2018.08.003>
- Khan, H., Gupta, S., Kumar, V., & Kumar, B. (2023). Managing climate change risks and creating stakeholders' value via sustainability-focused B2B brand strategies. *Industrial Marketing Management*, 115(October), 198–213. <https://doi.org/10.1016/j.indmarman.2023.09.017>
- Kozioł-Nadolna, K., & Beyer, K. (2021). Determinants of the decision-making process in organizations. *Procedia Computer Science*, 192, 2375–2384. <https://doi.org/10.1016/j.procs.2021.09.006>
- Kump, B. (2021). When do threats mobilize managers for organizational change toward sustainability?

An environmental belief model. *Business Strategy and the Environment*, 30(5), 2713–2726.  
<https://doi.org/10.1002/bse.2773>

- Laroche, H. (1995). From Decision to Action in Organizations: Decision-Making as a Social Representation. *Organization Science*, 6(1), 62–75. <https://doi.org/10.1287/orsc.6.1.62>
- Le, T. T., Tiwari, A. K., Behl, A., & Pereira, V. (2022). Role of perceived corporate social responsibility in the nexus of perceived cause-related marketing and repurchase intention in emerging markets. *Management Decision*, 60(10), 2642–2668. <https://doi.org/10.1108/MD-08-2021-1122>
- Lessard, D., & Lucea, R. (2009). Embracing risk as a core competence: The case of CEMEX. *Journal of International Management*, 15(3), 296–305. <https://doi.org/10.1016/j.intman.2009.01.003>
- Li, D., Zhao, L., Ma, S., Shao, S., & Zhang, L. (2019). What influences an individual's pro-environmental behavior? A literature review. *Resources, Conservation and Recycling*, 146(November 2017), 28–34. <https://doi.org/10.1016/j.resconrec.2019.03.024>
- Lichtenthaler, U. (2022). Explicating a sustainability-based view of sustainable competitive advantage. *Journal of Strategy and Management*, 15(1), 76–95. <https://doi.org/10.1108/JSMA-06-2021-0126>
- Lozano, R., & von Haartman, R. (2018). Reinforcing the holistic perspective of sustainability: Analysis of the importance of sustainability drivers in organizations. *Corporate Social Responsibility and Environmental Management*, 25(4), 508–522. <https://doi.org/10.1002/csr.1475>
- Lubchenco, J., Cerny-Chipman, E. B., Reimer, J. N., & Levin, S. A. (2016). The right incentives enable ocean sustainability successes and provide hope for the future. *Proceedings of the National Academy of Sciences of the United States of America*, 113(51), 14507–14514. <https://doi.org/10.1073/pnas.1604982113>
- Ma, S. C., Xu, J. H., & Fan, Y. (2019). Willingness to pay and preferences for alternative incentives to EV purchase subsidies: An empirical study in China. *Energy Economics*, 81(x), 197–215. <https://doi.org/10.1016/j.eneco.2019.03.012>
- Mariadoss, B. J., Tansuhaj, P. S., & Mouri, N. (2011). Marketing capabilities and innovation-based strategies for environmental sustainability: An exploratory investigation of B2B firms. *Industrial Marketing Management*, 40(8), 1305–1318. <https://doi.org/10.1016/j.indmarman.2011.10.006>
- McMurray, A. J., Islam, M. M., Siwar, C., & Fien, J. (2014). Sustainable procurement in Malaysian organizations: Practices, barriers and opportunities. *Journal of Purchasing and Supply Management*, 20(3), 195–207. <https://doi.org/10.1016/j.pursup.2014.02.005>
- Molina-Azorín, J. F., Claver-Cortés, E., López-Gamero, M. D., & Tarí, J. J. (2009). Green management and financial performance: A literature review. *Management Decision*, 47(7), 1080–1100. <https://doi.org/10.1108/00251740910978313>
- Morone, P., Caferra, R., D'Adamo, I., Falcone, P. M., Imbert, E., & Morone, A. (2021). Consumer willingness to pay for bio-based products: Do certifications matter? *International Journal of Production Economics*, 240(April 2020), 108248. <https://doi.org/10.1016/j.ijpe.2021.108248>
- Muylle, S., Dawar, N., & Rangarajan, D. (2012). B2B brand architecture. *California Management Review*, 54(2), 58–71. <https://doi.org/10.1525/cmr.2012.54.2.58>
- Narayanan, S. (2022). Does Generation Z value and reward corporate social responsibility practices? *Journal of Marketing Management*, 38(9–10), 903–937. <https://doi.org/10.1080/0267257X.2022.2070654>
- Nguyen, N., & Drakou, E. G. (2021). Farmers intention to adopt sustainable agriculture hinges on climate awareness: The case of Vietnamese coffee. *Journal of Cleaner Production*, 303, 126828. <https://doi.org/10.1016/j.jclepro.2021.126828>
- Osman, M., & Nelson, W. (2019). How can food futures insight promote change in consumers' choices, are behavioural interventions (e.g. nudges) the answer? *Futures*, 111(February), 116–122. <https://doi.org/10.1016/j.futures.2019.04.008>
- Perrault, E. K., & Clark, S. K. (2018). Sustainability attitudes and behavioral motivations of college students: Testing the extended parallel process model. *International Journal of Sustainability in*

*Higher Education*, 19(1), 32–47. <https://doi.org/10.1108/IJSHE-09-2016-0175>

- Pineiro-Chousa, J., Vizcaíno-González, M., López-Cabarcos, M. ángeles, & Romero-Castro, N. (2017). Managing reputational risk through environmental management and reporting: An options theory approach. *Sustainability (Switzerland)*, 9(3). <https://doi.org/10.3390/su9030376>
- Porter, T., & Derry, R. (2012). Sustainability and Business in a Complex World. *Business and Society Review*, 117(1), 33–53. <https://doi.org/10.1111/j.1467-8594.2012.00398.x>
- Qualtrics. Version 07/08/09-2024. Copyright © [2020] Qualtrics. Qualtrics and all other Qualtrics product or service names are registered trademarks or trademarks of Qualtrics, Provo, UT, USA. <https://www.qualtrics.com>
- Ricci, E. C., Banterle, A., & Stranieri, S. (2018). Trust to Go Green: An Exploration of Consumer Intentions for Eco-friendly Convenience Food. *Ecological Economics*, 148(July 2017), 54–65. <https://doi.org/10.1016/j.ecolecon.2018.02.010>
- RVO (2024). Subsidieregeling Emissieloze Bedrijfsauto's (SEBA). Retrieved from <https://www.rvo.nl/subsidies-financiering/seba> (29 June 2024).
- Saari, U. A., Damberg, S., Frömbing, L., & Ringle, C. M. (2021). Sustainable consumption behavior of Europeans: The influence of environmental knowledge and risk perception on environmental concern and behavioral intention. *Ecological Economics*, 189(April). <https://doi.org/10.1016/j.ecolecon.2021.107155>
- Saifulina, N., Carballo-Penela, A., & Ruzo-Sanmartín, E. (2023). Effects of personal environmental awareness and environmental concern on employees' voluntary pro-environmental behavior: a mediation analysis in emerging countries. *Baltic Journal of Management*, 18(1), 1–18. <https://doi.org/10.1108/BJM-05-2022-0195>
- Salas-Zapata, W. A., & Ortiz-Muñoz, S. M. (2019). Analysis of meanings of the concept of sustainability. *Sustainable Development*, 27(1), 153–161. <https://doi.org/10.1002/sd.1885>
- Schutte, N. S., & Bhullar, N. (2017). Approaching Environmental Sustainability: Perceptions of Self-Efficacy and Changeability. *Journal of Psychology: Interdisciplinary and Applied*, 151(3), 321–333. <https://doi.org/10.1080/00223980.2017.1289144>
- Sharma, A. (2020). Sustainability research in business-to-business markets: An agenda for inquiry. *Industrial Marketing Management*, 88(February), 323–329. <https://doi.org/10.1016/j.indmarman.2020.05.037>
- Shepherd, D. A., & Zacharakis, A. (2018). Conjoint analysis: A window of opportunity for entrepreneurship research. In *Advances in Entrepreneurship, Firm Emergence and Growth* (Vol. 20). <https://doi.org/10.1108/S1074-754020180000020011>
- Silvius, A. J. G., & de Graaf, M. (2019). Exploring the project manager's intention to address sustainability in the project board. In *Journal of Cleaner Production* (Vol. 208, pp. 1226–1240). <https://doi.org/10.1016/j.jclepro.2018.10.115>
- Sovacool, B. K., Barnacle, M. L., Smith, A., & Brisbois, M. C. (2022). Towards improved solar energy justice: Exploring the complex inequities of household adoption of photovoltaic panels. *Energy Policy*, 164(November 2021), 112868. <https://doi.org/10.1016/j.enpol.2022.112868>
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), 81–97.
- Stoughton, A. M., & Ludema, J. (2012). The driving forces of sustainability. *Journal of Organizational Change Management*, 25(4), 501–517. <https://doi.org/10.1108/09534811211239191>
- Sutcliffe, K. M., & McNamara, G. (2001). Controlling Decision-Making Practice in Organizations. *Organization Science*, 12(4), 484–501. <https://doi.org/10.1287/orsc.12.4.484.10634>
- Svensson, G., Wood, G., & Callaghan, M. (2010). A corporate model of sustainable business practices: An ethical perspective. *Journal of World Business*, 45(4), 336–345. <https://doi.org/10.1016/j.jwb.2009.08.005>

- Tipu, S. A. A. (2022). Organizational change for environmental, social, and financial sustainability: A systematic literature review. In *Review of Managerial Science* (Vol. 16, Issue 6). Springer Berlin Heidelberg. <https://doi.org/10.1007/s11846-021-00494-5>
- Trudel, R. (2019). Sustainable consumer behavior. *Consumer Psychology Review*, 2(1), 85–96. <https://doi.org/10.1002/arcp.1045>
- Trujillo-Barrera, A., Pennings, J. M. E., & Hofenk, D. (2016). Understanding producers' motives for adopting sustainable practices: The role of expected rewards, risk perception and risk tolerance. *European Review of Agricultural Economics*, 43(3), 359–382. <https://doi.org/10.1093/erae/jbv038>
- Vainio, A., & Paloniemi, R. (2014). The complex role of attitudes toward science in pro-environmental consumption in the Nordic countries. *Ecological Economics*, 108(2014), 18–27. <https://doi.org/10.1016/j.ecolecon.2014.09.026>
- Veldman, J., & Gaalman, G. (2020). On the design of managerial incentives for sustainability investments in the presence of competitors. *Journal of Cleaner Production*, 258, 120925. <https://doi.org/10.1016/j.jclepro.2020.120925>
- Verplanken, B., & Orbell, S. (2022). Attitudes , Habits , and Behavior Change. *Annual Review of Psychology*, 73, 327–352.
- Verplanken, B., & Roy, D. (2016). Empowering interventions to promote sustainable lifestyles: Testing the habit discontinuity hypothesis in a field experiment. *Journal of Environmental Psychology*, 45, 127–134. <https://doi.org/10.1016/j.jenvp.2015.11.008>
- Vesal, M., Siahtiri, V., & O'Cass, A. (2021). Strengthening B2B brands by signalling environmental sustainability and managing customer relationships. *Industrial Marketing Management*, 92(February 2020), 321–331. <https://doi.org/10.1016/j.indmarman.2020.02.024>
- Vuorio, A. M., Puumalainen, K., & Fellnhofer, K. (2018). Drivers of entrepreneurial intentions in sustainable entrepreneurship. *International Journal of Entrepreneurial Behaviour and Research*, 24(2), 359–381. <https://doi.org/10.1108/IJEBR-03-2016-0097>
- Wei, J., Zhang, L., Yang, R., & Song, M. (2023). A new perspective to promote sustainable low-carbon consumption: The influence of informational incentive and social influence. *Journal of Environmental Management*, 327(July 2022), 116848. <https://doi.org/10.1016/j.jenvman.2022.116848>
- Whelan, T. and Douglas, E. (2021), "How to talk to your CFO about sustainability", *Harvard Business Review*, Vol. 99 No. 1, pp. 86-93.
- Xu, Y., Liu, C., Wei, F., Zhao, S., & Mao, H. (2024). The influence of government subsidies on remanufacturers' production decisions, considering product quality, customer purchase intention, and carbon emissions. *Journal of Cleaner Production*, 443 (February). <https://doi.org/10.1016/j.jclepro.2024.141130>
- Yavuz, O., Uner, M. M., Okumus, F., & Karatepe, O. M. (2023). Industry 4.0 technologies, sustainable operations practices and their impacts on sustainable performance. *Journal of Cleaner Production*, 387(January), 135951. <https://doi.org/10.1016/j.jclepro.2023.135951>
- Young, D., & Reeves, M. (2023). The Quest for Sustainable Business Model Innovation. In *Sustainable Business Model Innovation* (pp. 59–62). De Gruyter. <https://doi.org/10.1515/9783111295268-006>
- Yuangyai, C., & Nembhard, H. B. (2009). Design of Experiments : A Key to Innovation in Nanotechnology. In *Emerging Nanotechnologies for Manufacturing* (First Edit). Elsevier Inc. <https://doi.org/10.1016/B978-0-8155-1583-8.00008-9>
- Zeweld, W., Van Huylbroeck, G., Tesfay, G., & Speelman, S. (2017). Smallholder farmers' behavioural intentions towards sustainable agricultural practices. *Journal of Environmental Management*, 187, 71–81. <https://doi.org/10.1016/j.jenvman.2016.11.014>

# 8. Appendices

## Appendix 1: Definition/key aspects of sustainability from existing literature

Author (year)	Definition of sustainability/key aspects
Doane and MacGillivray (2001)	<p>“Although sustainability is now generally understood to be a combination of environmental, social and economic performance, this report finds that economic sustainability is the most elusive component of the triple bottom line approach”.</p> <p>Key aspects:</p> <ul style="list-style-type: none"> <li>- Focus on economic sustainability</li> </ul>
Arevalo et al. (2011)	<p>“Despite the significant (and increasing) amount of work on the learning and change challenges connected to embedding sustainability in business firms, the internal and the external dynamics that influence the ability of firms to change themselves towards sustainability are still largely unclear”.</p> <p>Key aspects:</p> <p>Distinction between</p> <ul style="list-style-type: none"> <li>- Internal dynamics</li> <li>- External dynamics</li> </ul>
Mariadoss et al. (2011)	<p>“We define sustainability in the B2B marketing context as the environmental initiatives that impact a firm and its supply chains for the purpose of reducing the environmental impact of their business operations, while also using the initiatives as a competitive advantage in their marketing strategies”</p> <p>Key aspects:</p> <p>Context: B2B marketing</p> <ul style="list-style-type: none"> <li>- Focus on environmental sustainability</li> </ul>
Porter and Derry (2012)	<p>“Businesses and managers are increasingly considering ways to incorporate a balance among economic, ecological, social, and cultural value creation into their business models”.</p> <p>Key aspects:</p> <p>Sustainability is seen as</p> <ul style="list-style-type: none"> <li>- Economic</li> <li>- Ecological</li> <li>- Social</li> <li>- Cultural</li> </ul> <p>Introduces sustainability thinking</p>
Kapitan et al. (2019)	<p>“Sustainability in business takes a holistic approach by incorporating three dimensions: Environment, society, and economy”.</p> <p>Key aspects:</p> <p>Three pillars</p> <ul style="list-style-type: none"> <li>- Environment</li> <li>- Society</li> <li>- Economy</li> </ul> <p>Differentiation between</p> <ul style="list-style-type: none"> <li>- Strong sustainability</li> <li>- Weak sustainability</li> </ul>
Salas-Zapata and Ortiz-Muñoz (2019)	<p>This paper presents an analysis of the meanings of the concept of sustainability</p> <p>Key aspects:</p> <p>Sustainability used as</p> <ul style="list-style-type: none"> <li>- Sustainability as a set of social-ecological criteria that guide human action</li> <li>- Sustainability as a vision of humankind that is realized through the convergence of the social and ecological objectives of a particular reference system</li> <li>- Sustainability as an object, thing, or phenomenon that happens in certain social-ecological systems</li> </ul>

	<ul style="list-style-type: none"> <li>- Sustainability as an approach that entails the incorporation of social and ecological variables into the study of an activity, process, or human product</li> </ul>
Sharma (2020)	<p>"Sustainability is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987)".</p> <p>Key aspects: Focus on drivers of sustainability strategy with subareas:</p> <ul style="list-style-type: none"> <li>- Science and the environment; the policy, regulatory, and legal framework</li> <li>- Social aspects;</li> <li>- Economic aspects;</li> <li>- Customer demand</li> </ul>
Veldman and Gaalman (2020)	<p>"Sustainability incentives are defined as the financial instruments a firm owner uses to influence the decisions of the manager, in particular, sustainability investments".</p> <p>Key aspects:</p> <ul style="list-style-type: none"> <li>- Focus on sustainability incentives (Profit maximization) so, economic sustainability</li> </ul>
Vesal et al. (2021)	<p>"Environmental sustainability when viewed from a business perspective concerns pollution prevention, waste minimisation, and reduction of energy and raw material consumption, aimed at diminishing the detrimental consequences of firms' activities on the environment (Antolín-López, Delgado- Ceballos, &amp; Montiel, 2016; Gupta &amp; Kumar, 2013)".</p> <p>Key aspects: Context B2B brand image</p> <ul style="list-style-type: none"> <li>- Focus on environmental sustainability</li> </ul>
Casidy and Yan (2022)	<p>"We define B2B sustainability positioning as the extent to which the buyer believes that the supplier is highly sustainable in its operations and that its products/ services have low negative environmental impact".</p> <p>Key aspects:</p> <ul style="list-style-type: none"> <li>- Focus on B2B sustainability positioning</li> </ul>
Casidy and Lie (2023)	<p>"Sustainability refers to a conscious effort to fulfill present needs while not jeopardizing the needs of future generations (United Nations, 1987)."</p> <p>Key aspects: Focus on sustainability brand positioning</p>
Gogia et al. (2023)	<p>"In highly competitive environments, sustainability positioning is crucial for firms, as they are evaluated based on their sustainable practices"</p> <p>Key aspects:</p> <ul style="list-style-type: none"> <li>- Focus on sustainability positioning</li> </ul>
Khan et al. (2023)	<p>"In practice, firms can be segregated into two types: 1) firms that hardly engage in sustainable practices and makes profitable returns for their investors and 2) firms that invest in sustainability efforts and may compromise on financial returns".</p> <p>Key aspects: Differentiation between</p> <ul style="list-style-type: none"> <li>- Economical 'sustainability'</li> <li>- Social and Environmental sustainability</li> </ul>
Young and Reeves (2023)	<p>"We have argued that corporations should optimize for both social and business value, using their core businesses to deliver the financial returns expected by their owners and, in tandem, to help society meet its most significant challenges"</p> <p>Key aspects:</p> <ul style="list-style-type: none"> <li>- Focus on social and business value</li> </ul>



## Appendix 2: Outline and planning

Week number	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Month	March				April				May				June			
Activity/task	Q3-03	Q3-04	Q3-05	Q3-06	Q3-07	Q3-08	Q3-09	Q3-10	Q3-11	Q4-01	Q4-02	Q4-03	Q4-04	Q4-05	Q4-06	Q4-07
Complete proposal concept (Masterclasses)																
Complete proposal																
Systematic literature review																
Ethical approval																
Register Mobility Online																
Set up experiment																
Find + contact participants																
Conduct (online) experiment																
Rewriting and adapting the thesis																
Transcribe results																
Data analysis																

Week number	25	26	27	28	29	30	31	32	33	34	35	36
Month	July				August				September			
Activity/task	Q4-08	Q4-09	Q4-10	SP	SP	SP	SP	SP	SP	SP	SP	SP
Rewriting and adapting the thesis												
Write remaining chapters												
Finalizing draft version thesis + write abstract												
Greenlight meeting												
Contact BOZ + submit thesis to the educational portal												
Finalizing Master Thesis												
Colloquium												
Extra (when needed)												

## Appendix 3: Proposed outline experiment

### Sustainable company vehicles

#### Introduction text:

Dear participant,

Thank you very much for participating in my research. This experiment will only take around 3 minutes of your time. The research is about implementing a sustainable practice within your company. Your answers will only be used for scientific research and will always stay anonymous. Your data and answers will only be used for this research and will not be shared with any third party. When moving forward to the next page, you confirm that you are 18 years or older and accept that your data will be used for this research.

In case of questions, don't hesitate to get in touch with: [j.m.j.vandervalk@student.utwente.nl](mailto:j.m.j.vandervalk@student.utwente.nl)

-----Next page-----

#### General questions for every participant:

##### Age

- 18-25
- 26-35
- 36-45
- 46-55
- 55+
- Prefer not to say

##### Gender

- Male
- Female
- Non-binary
- Prefer not to say

##### Function title

- Sustainability manager
- CEO/owner
- Other type of manager
- Other

##### Company size

- Micro-enterprises (1-9 employees)
- Small-enterprises (10-49 employees)
- Medium-sized enterprises (50-249 employees)
- Large enterprises (250+ employees)

##### Industry

- Healthcare

- Government
- Environment and Agricultural sector
- Media, communications, or ICT
- Education, culture, or science
- Engineering, production, or construction
- Tourism, recreation, catering/hospitality, or services
- Transport and logistics
- Consultancy
- Other

**Company location (country)**

- Open question

-----Next page-----

**In case of answering ‘other’ with the function title question, another question will be asked:**

**Please fill in your function title**

- Open question

-----Next page-----

**Every group gets a sketch of the situation. The personal values and beliefs incentive first gets four general questions (items) and then the scenario.**

**Control group + financial incentive group + Perceived brand image group + perceived competitive advantage group:**

On the next page, a scenario about implementing a sustainable practice within your company will be presented. A question about this scenario will follow.

-----Next page-----

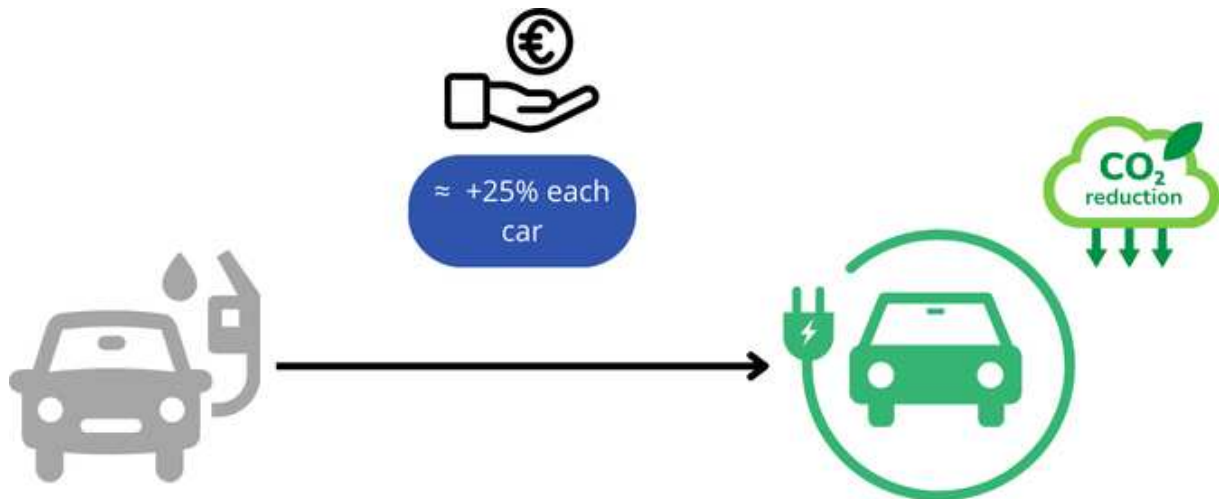
Sketch of the situation: The question arises within your company whether to change the company vehicles to all hybrid/electric vehicles. This change will reduce CO2 emissions. On the other hand, the change toward hybrid/electric vehicles comes with a big upfront investment.

Upfront investment:

For changing one gasoline car to an electric car, the purchasing costs will be around 25% higher (average) when buying an electric car. This investment will be done for environmental reasons.

When the company does not have company vehicles, please answer the question as if they do.

The scenario is presented in the picture below.



**Question control group:**

- What option would you advise your company to make?

Option 1: Change the company vehicles to hybrid/electric vehicles

Option 2: No change in company vehicles

**Extra scenarios and questions incentive experimental groups + question:**

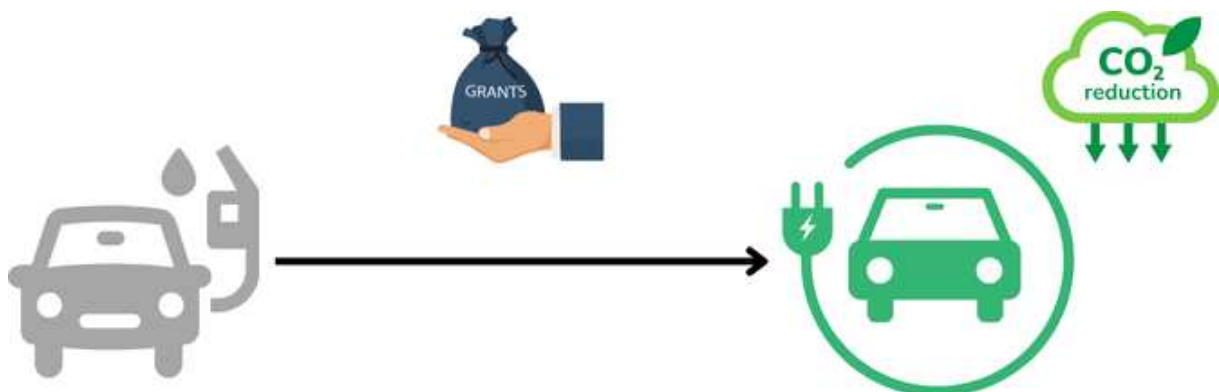
**Financial incentive experimental group:**

- **Subsidies**

Additional information for the presented scenario:

Changing all of the company vehicles to hybrid/electric vehicles will require an upfront investment. When achieving a sustainable vehicle park this year, your company will receive a purchase subsidy to make this change. This subsidy will be around 10% of the net purchase costs of the electric car with a maximum of €5.000 per company car.

Your company will receive a purchase subsidy.



- What option would you advise your company to make?

Option 1: Change the company vehicles to hybrid/electric vehicles

Option 2: No change in company vehicles

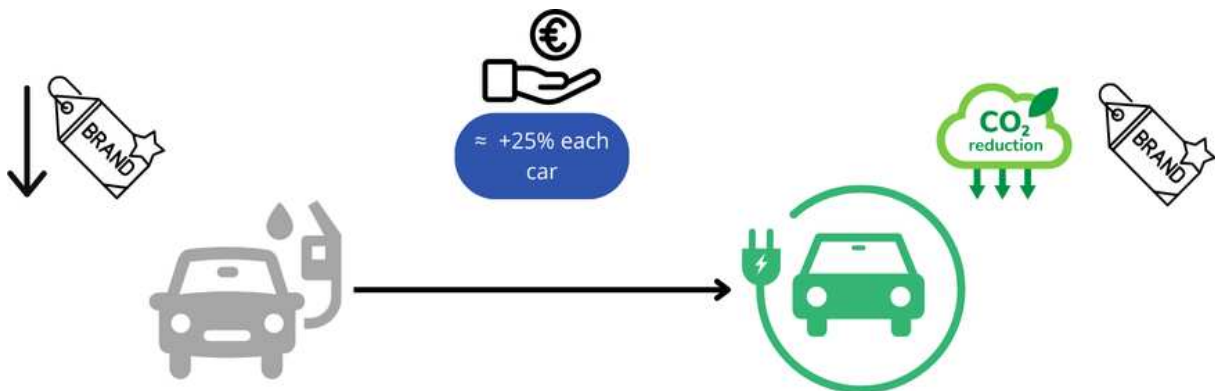
**Perceived brand image incentive experimental group:**

○ **Brand image**

Additional information for the presented scenario:

Changing the company vehicles to all hybrid/electric vehicles will reduce the risk of a weakened brand image. A weakened brand image can result in less sales/revenue due to losing customers and/or reputation. A positive brand image builds credibility and trust among customers. For example, Nike's engagement with sustainability, durability, and innovation improves its trustworthiness, as customers see the brand as socially responsible and innovative.

When not changing the company vehicles to hybrid/electric vehicles, the risk of a weakened brand image will be higher.



- What option would you advise your company to make?

Option 1: Change the company vehicles to hybrid/electric vehicles

Option 2: No change in company vehicles

**Perceived competitive advantage incentive experimental group:**

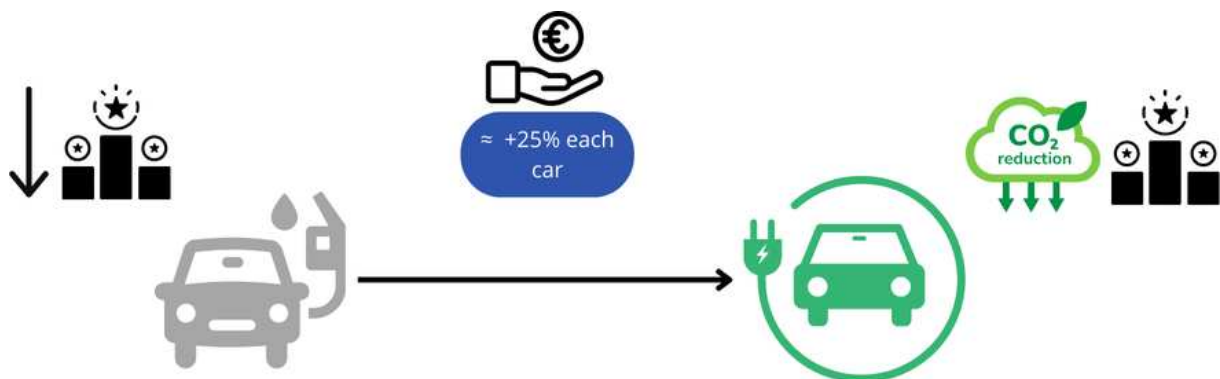
○ **Competitive advantage**

Additional information for the presented scenario:

Changing the company vehicles to all hybrid/electric vehicles will reduce the risk of a weakened competitive advantage. Competitive advantage can be achieved via, for example, differentiation within your market. Differentiation via sustainability can make companies stand out in the market. Moreover, companies that are focused on sustainability can access new markets. For example, Patagonia. This designer of outdoor clothing and sports gear and their commitment to environmental sustainability has demonstrated that sustainability can be a strong differentiator and therefore an effective source of

competitive advantage. Without differentiation via sustainability, your company has the risk of losing its competitive advantage within your market.

When not changing the company vehicles to hybrid/electric vehicles, the risk of a weakened competitive advantage will be higher.



- What option would you advise your company to make?

Option 1: Change the company vehicles to hybrid/electric vehicles

Option 2: No change in company vehicles

#### Personal values and beliefs incentive experimental group:

- **Personal values and beliefs**

**For the personal values and beliefs group, four general questions about the environment will be asked and afterward, the scenario will be presented.**

Four general statements about the environment will be presented on the next page.

-----Next page-----

Question asked:

- I feel a personal obligation to do whatever I can to prevent climate change

Question asked:

- We worry too much about the future of the environment and not enough about prices and jobs

Question asked:

- People worry too much about human progress harming the environment

Question asked:

- Many of the claims about environmental threats are exaggerated

Item range:

(5-point Likert scale)

- Strongly agree

- Agree
- Neutral
- Disagree
- Strongly disagree

On the next page, a scenario about implementing a sustainable practice within your company will be presented. A question about this scenario will follow.

-----Next page-----

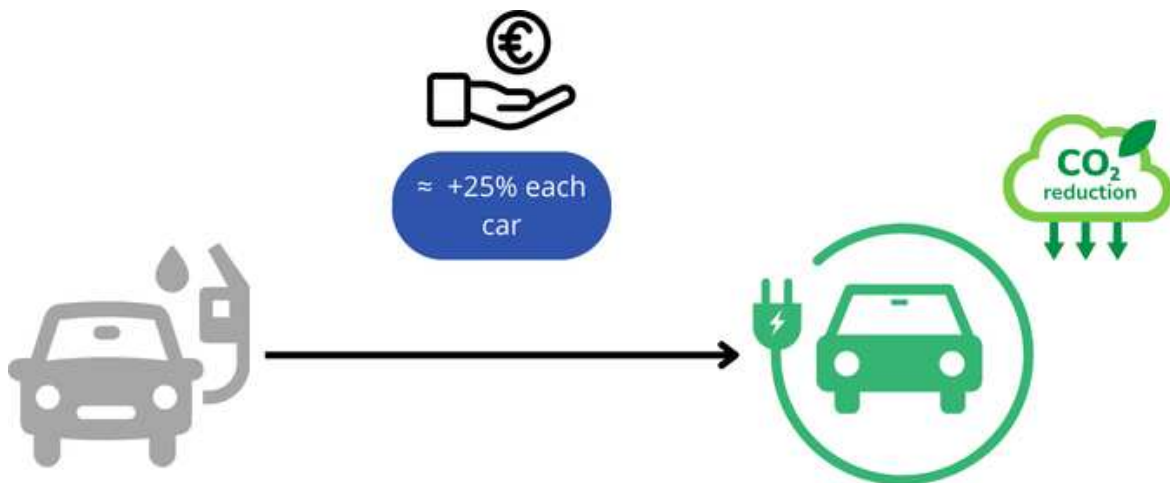
Sketch of the situation: The question arises within your company whether to change the company vehicles to all hybrid/electric vehicles. This change will reduce CO2 emissions. On the other hand, the change toward hybrid/electric vehicles comes with a big upfront investment.

Upfront investment:

For changing one gasoline car to an electric car, the purchasing costs will be around 25% higher (average) when buying an electric car. This investment will be done for environmental reasons.

When the company does not have company vehicles, please answer the question as if they do.

The scenario is presented in the picture below.



- What option would you advise your company to make?

Option 1: Change the company vehicles to hybrid/electric vehicles

Option 2: No change in company vehicles

-----Next page-----

**For all participants:**

**Thank you for participating in this experiment!**

**When interested in the results of this experiment, you can leave your email address below.**

-----Next page-----

**You can now close this Tab**

## Appendix 4: Results SPSS

- Poisson regression analysis

### Model Information

Dependent Variable	Sustainable decision
Probability Distribution	Poisson
Link Function	Log

### Parameter Estimates

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
			Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
(Intercept)	1,099	,5774	-,033	2,230	3,621	1	,057	3,000	,968	9,302
[Treatment=Brand ]	,693	,7071	-,693	2,079	,961	1	,327	2,000	,500	7,997
[Treatment=CompAdv]	-7,889E-31	,8165	-1,600	1,600	,000	1	1,000	1,000	,202	4,955
[Treatment=Financia]	1,204	,6583	-,086	2,494	3,345	1	,067	3,333	,917	12,112
[Treatment=Personal]	0 <sup>a</sup>	.	.	.	.	.	.	1	.	.
(Scale)	1 <sup>b</sup>	.	.	.	.	.	.	.	.	.

Dependent Variable: Sustainable decision

Model: (Intercept), Treatment

a. Set to zero because this parameter is redundant.

b. Fixed at the displayed value.

- Frequency tables control factors

### Age

	N	%
18-25	21	22,6%
26-35	34	36,6%
36-45	9	9,7%
46-55	11	11,8%
55+	17	18,3%
Prefer not to say	1	1,1%

### Gender

	N	%
Male	43	46,2%
Female	50	53,8%

### Function title

	N	%
Sustainability manager	13	14,0%
CEO/owner	16	17,2%
Other type of manager	44	47,3%
Other	20	21,5%



### Industry

	N	%
Healthcare	9	9,7%
Government	4	4,3%
Environment or Agricultural sector	3	3,2%
Media, Communications, or ICT	9	9,7%
Education, Culture, or Science	5	5,4%
Engineering, Production, or Construction	15	16,1%
Tourism, Recreation, Catering/Hospitality, or Services	7	7,5%
Transport or Logistics	9	9,7%
Consultancy	17	18,3%
Other	15	16,1%

### Company size

	N	%
Micro-enterprises (1-9 employees)	10	10,8%
Small-enterprises (10-49 employees)	19	20,4%
Medium-sized enterprises (50-249 employees)	24	25,8%
Large enterprises (250+ employees)	40	43,0%

### Company location (country)

	N	%
The Netherlands	80	86,0%
Germany	4	4,3%
Spain	3	3,2%
Switzerland	1	1,1%
Belgium	1	1,1%
Poland	1	1,1%
Norway	1	1,1%
Aruba	1	1,1%
Sweden	1	1,1%

- Descriptive statistics control factors

### Statistics

		Age	Gender	Function title	Company size	Industry	Company location (country)
N	Valid	93	93	93	93	93	93
	Missing	0	0	0	0	0	0
Mean		2,70	1,54	2,76	3,01	6,46	1,46
Median		2,00	2,00	3,00	3,00	7,00	1,00
Mode		2	2	3	4	9	1
Std. Deviation		1,465	,501	,949	1,037	2,899	1,456
Variance		2,147	,251	,900	1,076	8,403	2,121
Minimum		1	1	1	1	1	1
Maximum		6	2	4	4	10	9
Sum		251	143	257	280	601	136

- Descriptive statistics statements personal values and beliefs

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel a personal obligation to do whatever I can to prevent climate change	18	2	5	3,72	,895
We worry too much about the future of the environment and not enough about prices and jobs	18	2	5	3,67	1,029
People worry too much about human progress harming the environment	18	1	5	3,67	1,085
Many of the claims about environmental threats are exaggerated	18	2	5	3,72	,895
Sum of all statements outcomes	18	8	19	14,78	2,881
Valid N (listwise)	18				

- Correlations of the personal values and beliefs statements

#### Correlations

	Personal values and beliefs: What option would you advise your company to make?	We worry too much about the future of the environment and not enough about prices and jobs
Personal values and beliefs: What option would you advise your company to make?	Pearson Correlation	1
	Sig. (2-tailed)	,484*
	N	18
We worry too much about the future of the environment and not enough about prices and jobs	Pearson Correlation	-.484*
	Sig. (2-tailed)	,042
	N	18

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

#### Correlations

	Personal values and beliefs: What option would you advise your company to make?	Many of the claims about environmental threats are exaggerated
Personal values and beliefs: What option would you advise your company to make?	Pearson Correlation	1
	Sig. (2-tailed)	,486*
	N	18
Many of the claims about environmental threats are exaggerated	Pearson Correlation	-.486*
	Sig. (2-tailed)	,041
	N	18

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

#### Correlations

	Personal values and beliefs: What option would you advise your company to make?	I feel a personal obligation to do whatever I can to prevent climate change
Personal values and beliefs: What option would you advise your company to make?	Pearson Correlation	1
	Sig. (2-tailed)	,229
	N	18
I feel a personal obligation to do whatever I can to prevent climate change	Pearson Correlation	-.229
	Sig. (2-tailed)	,362
	N	18

#### Correlations

	Personal values and beliefs: What option would you advise your company to make?	People worry too much about human progress harming the environment
Personal values and beliefs: What option would you advise your company to make?	Pearson Correlation	1
	Sig. (2-tailed)	,141
	N	18
People worry too much about human progress harming the environment	Pearson Correlation	-.141
	Sig. (2-tailed)	,576
	N	18

- Intention to make a decision toward sustainability and the control factors

Sustainable decision yes or no \* Company size Crosstabulation

Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	Company size									
		Micro-enterprises (1-9 employees)		Small-enterprises (10-49 employees)		Medium-sized enterprises (50-249 employees)		Large enterprises (250+ employees)		Total	
		N	%	N	%	N	%	N	%	N	%
	Option 1: Change the company vehicles to hybrid/electric vehicles	5	50,0%	11	57,9%	13	54,2%	28	70,0%	57	61,3%
	Option 2: No change in company vehicles	5	50,0%	8	42,1%	11	45,8%	12	30,0%	36	38,7%
Total		10	100,0%	19	100,0%	24	100,0%	40	100,0%	93	100,0%

Sustainable decision yes or no \* Industry Crosstabulation

Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	Industry																					
		Healthcare		Government		Environment or Agricultural sector		Media, Communications, or ICT		Education, Culture, or Science		Engineering, Production, or Construction		Tourism, Recreation, Catering/Hospitality, or Services		Transport or Logistics		Consultancy		Other		Total	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Option 1: Change the company vehicles to hybrid/electric vehicles	5	55,6%	2	50,0%	2	66,7%	5	55,6%	4	80,0%	9	60,0%	2	28,6%	6	66,7%	10	58,8%	12	80,0%	57	61,3%
	Option 2: No change in company vehicles	4	44,4%	2	50,0%	1	33,3%	4	44,4%	1	20,0%	6	40,0%	5	71,4%	3	33,3%	7	41,2%	3	20,0%	36	38,7%
Total		9	100,0%	4	100,0%	3	100,0%	9	100,0%	5	100,0%	15	100,0%	7	100,0%	9	100,0%	17	100,0%	15	100,0%	93	100,0%

Sustainable decision yes or no \* Option 1: Change the company vehicles to hybrid/electric vehicles: 20 (61,3%)

Sustainable decision yes or no \* Company location (country) Crosstabulation

Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	Company location (country)														Total							
		The Netherlands		Germany		Spain		Switzerland		Belgium		Poland		Norway		Aruba		Sweden		N	%		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
	Option 1: Change the company vehicles to hybrid/electric vehicles	46	57,5%	3	75,0%	3	100,0%	0	0,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	57	61,3%
	Option 2: No change in company vehicles	34	42,5%	1	25,0%	0	0,0%	1	100,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	36	38,7%
Total		80	100,0%	4	100,0%	3	100,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	1	100,0%	93	100,0%

Sustainable decision yes or no \* Function title Crosstabulation

Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	Function title									
		Sustainability manager		CEO/owner		Other type of manager		Other		Total	
		N	%	N	%	N	%	N	%	N	%
	Option 1: Change the company vehicles to hybrid/electric vehicles	8	61,5%	7	43,8%	27	61,4%	15	75,0%	57	61,3%
	Option 2: No change in company vehicles	5	38,5%	9	56,3%	17	38,6%	5	25,0%	36	38,7%
Total		13	100,0%	16	100,0%	44	100,0%	20	100,0%	93	100,0%

- Sustainable decision yes or no, treatment, and control factors

Sustainable decision yes or no \* Age \* Treatment Crosstabulation

% within Age			Age							Prefer not to say	Total
Treatment	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	18-25	26-35	36-45	46-55	55+				
Control	Option 1: Change the company vehicles to hybrid/electric vehicles		50,0%					66,7%	100,0%	36,8%	
	Option 2: No change in company vehicles		50,0%	100,0%	100,0%	100,0%	33,3%			63,2%	
	Total		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Financial	Option 1: Change the company vehicles to hybrid/electric vehicles		100,0%	80,0%	100,0%		100,0%			89,5%	
	Option 2: No change in company vehicles			20,0%						10,5%	
	Total		100,0%	100,0%	100,0%		100,0%			100,0%	
Brand image	Option 1: Change the company vehicles to hybrid/electric vehicles		80,0%	55,6%	100,0%	100,0%				68,4%	
	Option 2: No change in company vehicles		20,0%	44,4%			100,0%			31,6%	
	Total		100,0%	100,0%	100,0%	100,0%	100,0%			100,0%	
Competitive advantage	Option 1: Change the company vehicles to hybrid/electric vehicles		75,0%	42,9%		50,0%	100,0%			55,6%	
	Option 2: No change in company vehicles		25,0%	57,1%	100,0%	50,0%				44,4%	
	Total		100,0%	100,0%	100,0%	100,0%	100,0%			100,0%	
Personal values and beliefs	Option 1: Change the company vehicles to hybrid/electric vehicles		80,0%	60,0%	50,0%	33,3%	33,3%			55,6%	
	Option 2: No change in company vehicles		20,0%	40,0%	50,0%	66,7%	66,7%			44,4%	
	Total		100,0%	100,0%	100,0%	100,0%	100,0%			100,0%	
Total	Option 1: Change the company vehicles to hybrid/electric vehicles		76,2%	55,9%	44,4%	45,5%	70,6%	100,0%		61,3%	
	Option 2: No change in company vehicles		23,8%	44,1%	55,6%	54,5%	29,4%			38,7%	
	Total		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

**Sustainable decision yes or no \* Gender \* Treatment Crosstabulation**

% within Gender

Treatment			Gender		Total
			Male	Female	
Control	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	40,0%	33,3%	36,8%
		Option 2: No change in company vehicles	60,0%	66,7%	63,2%
	Total		100,0%	100,0%	100,0%
Financial	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	85,7%	91,7%	89,5%
		Option 2: No change in company vehicles	14,3%	8,3%	10,5%
	Total		100,0%	100,0%	100,0%
Brand image	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	100,0%	62,5%	68,4%
		Option 2: No change in company vehicles		37,5%	31,6%
	Total		100,0%	100,0%	100,0%
Competitive advantage	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	60,0%	50,0%	55,6%
		Option 2: No change in company vehicles	40,0%	50,0%	44,4%
	Total		100,0%	100,0%	100,0%
Personal values and beliefs	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	53,8%	60,0%	55,6%
		Option 2: No change in company vehicles	46,2%	40,0%	44,4%
	Total		100,0%	100,0%	100,0%
Total	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	60,5%	62,0%	61,3%
		Option 2: No change in company vehicles	39,5%	38,0%	38,7%
	Total		100,0%	100,0%	100,0%

**Sustainable decision yes or no \* Function title \* Treatment Crosstabulation**

% within Function title

Treatment			Sustainability manager	Function title			Total
				CEO/owner	Other type of manager	Other	
Control	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles		25,0%	40,0%	50,0%	36,8%
		Option 2: No change in company vehicles	100,0%	75,0%	60,0%	50,0%	63,2%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Financial	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	100,0%	100,0%	71,4%	100,0%	89,5%
		Option 2: No change in company vehicles			28,6%		10,5%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Brand image	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	50,0%	50,0%	72,7%	100,0%	68,4%
		Option 2: No change in company vehicles	50,0%	50,0%	27,3%		31,6%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Competitive advantage	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles		100,0%	44,4%	80,0%	55,6%
		Option 2: No change in company vehicles	100,0%		55,6%	20,0%	44,4%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Personal values and beliefs	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	100,0%	16,7%	85,7%	33,3%	55,6%
		Option 2: No change in company vehicles		83,3%	14,3%	66,7%	44,4%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Total	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	61,5%	43,8%	61,4%	75,0%	61,3%
		Option 2: No change in company vehicles	38,5%	56,3%	38,6%	25,0%	38,7%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%



**Sustainable decision yes or no \* Company size \* Treatment Crosstabulation**

% within Company size

Treatment			Company size				Total
			Micro-enterprises (1-9 employees)	Small-enterprises (10-49 employees)	Medium-sized enterprises (50-249 employees)	Large enterprises (250+ employees)	
Control	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	33,3%	50,0%	28,6%	42,9%	36,8%
		Option 2: No change in company vehicles	66,7%	50,0%	71,4%	57,1%	63,2%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Financial	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	100,0%	100,0%	100,0%	81,8%	89,5%
		Option 2: No change in company vehicles				18,2%	10,5%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Brand image	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	50,0%	60,0%	100,0%	62,5%	68,4%
		Option 2: No change in company vehicles	50,0%	40,0%		37,5%	31,6%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Competitive advantage	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles		66,7%	25,0%	62,5%	55,6%
		Option 2: No change in company vehicles		33,3%	75,0%	37,5%	44,4%
	Total			100,0%	100,0%	100,0%	100,0%
Personal values and beliefs	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	33,3%	25,0%	40,0%	100,0%	55,6%
		Option 2: No change in company vehicles	66,7%	75,0%	60,0%		44,4%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%
Total	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	50,0%	57,9%	54,2%	70,0%	61,3%
		Option 2: No change in company vehicles	50,0%	42,1%	45,8%	30,0%	38,7%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%

**Sustainable decision yes or no \* Industry \* Treatment Crosstabulation**

% within Industry

Treatment			Industry										Total	
			Healthcare	Government	Environment or Agricultural sector	Media, Communications, or ICT	Education, Culture, or Science	Engineering, Production, or Construction	Tourism, Recreation, Catering/Hospitality, or Services	Transport or Logistics	Consultancy	Other		
Control	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	33,3%			50,0%			33,3%			33,3%	66,7%	36,8%
		Option 2: No change in company vehicles	66,7%		100,0%	50,0%		66,7%	100,0%	100,0%	66,7%	33,3%	63,2%	
	Total		100,0%		100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Financial	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	75,0%	100,0%	100,0%		100,0%						50,0%	89,5%
		Option 2: No change in company vehicles	25,0%											10,5%
	Total		100,0%	100,0%	100,0%		100,0%						100,0%	100,0%
Brand image	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles			100,0%	100,0%	100,0%		100,0%		50,0%		60,0%	68,4%
		Option 2: No change in company vehicles	100,0%	100,0%						50,0%		40,0%	50,0%	31,6%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Competitive advantage	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	100,0%				100,0%		80,0%	25,0%		100,0%	100,0%	55,6%
		Option 2: No change in company vehicles		100,0%		100,0%		20,0%	75,0%	100,0%				44,4%
	Total		100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Personal values and beliefs	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles							25,0%			100,0%	25,0%	55,6%
		Option 2: No change in company vehicles				100,0%	100,0%	75,0%			75,0%		44,4%	
	Total					100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Total	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	55,6%	50,0%	66,7%	55,6%	80,0%	60,0%	28,6%	66,7%	58,8%	80,0%	80,0%	61,3%
		Option 2: No change in company vehicles	44,4%	50,0%	33,3%	44,4%	20,0%	40,0%	71,4%	33,3%	41,2%	20,0%	38,7%	
	Total		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

**Sustainable decision yes or no \* Company location (country) \* Treatment Crosstabulation**

% within Company location (country)

Treatment			Company location (country)									Total	
			The Netherlands	Germany	Spain	Switzerland	Belgium	Poland	Norway	Aruba	Sweden		
Control	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	25,0%		100,0%			100,0%					36,8%
		Option 2: No change in company vehicles	75,0%										63,2%
	Total		100,0%		100,0%			100,0%					100,0%
Financial	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	93,8%	50,0%								100,0%	89,5%
		Option 2: No change in company vehicles	6,3%	50,0%									10,5%
	Total		100,0%	100,0%								100,0%	100,0%
Brand image	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	70,6%							100,0%			68,4%
		Option 2: No change in company vehicles	29,4%			100,0%							31,6%
	Total		100,0%			100,0%			100,0%			100,0%	100,0%
Competitive advantage	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	46,7%	100,0%					100,0%		100,0%		55,6%
		Option 2: No change in company vehicles	53,3%										44,4%
	Total		100,0%	100,0%					100,0%		100,0%		100,0%
Personal values and beliefs	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	50,0%	100,0%	100,0%								55,6%
		Option 2: No change in company vehicles	50,0%										44,4%
	Total		100,0%	100,0%	100,0%								100,0%
Total	Sustainable decision yes or no	Option 1: Change the company vehicles to hybrid/electric vehicles	57,5%	75,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	61,3%
		Option 2: No change in company vehicles	42,5%	25,0%		100,0%							38,7%
	Total		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%



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