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GREENWASHING AND SUSTAINABILITY:
People's Perception, Awareness, and Behavior

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Dissertation

presented as a partial requirement for obtaining the Master's Degree Program in Data-Driven Marketing

NOVA Information Management School
Instituto Superior de Estatística e Gestão de Informação

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**Greenwashing and Sustainability:
People's Perception, Awareness, and Behavior**

By

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Master Thesis presented as a partial requirement for obtaining the Master's degree in Data-Driven Marketing, with a specialization in Digital Marketing and Analytics

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STATEMENT OF INTEGRITY

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism or any form of undue use of information or falsification of results along the process leading to its elaboration. I further declare that I have fully acknowledged the Rules of Conduct and Code of Honor from the NOVA Information Management School.

Chiara Beppato

15/06/2023

DEDICATION

To those who are present, those who have always been there, and those who are no longer with us.

To my mother, who is my only true home. Understanding my need for freedom and exploration, she supported me in all the crazy choices I've made, always trusting me and granting me the freedom to return every time.

To my stars in the sky, who I wish could have been physically present, but deep down have always been there, accompanying me with their love and teachings.

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ABSTRACT

This research falls within the scope of studies conducted on consumer behavior insights, specifically focusing on sustainability and even more so on greenwashing. We live in a time when environmental issues are front and center and of great interest in virtually every field. Therefore, it was deemed necessary to delve deeper and advance the existing studies, concentrating on three specific variables: sustainability consciousness, greenwashing perception, and green purchase intent. To do this, a survey was conducted on a sample of 199 individuals with diverse sociodemographic characteristics. They were first exposed to an experiment and subsequently asked questions related to both the experiment and the topic in general. Interesting data was obtained, some in contrast to previous studies and others in line with them. Firstly, it confirms the confusion and the limited ability to discern when facing a case of greenwashing. Communication channels were found to be important for education on this matter, with the surprising result that, contrary to previous research, the internet emerged as the primary source of information, instead of WOM. Sociodemographic characteristics did not prove particularly significant, except for the level of education. Finally, sustainability consciousness significantly affects the willingness to buy green products, indicating that as greenwashing perception increases, the inclination to purchase such products diminishes. However, greenwashing perception is not a mediator in this equation. This study can contribute to a better understanding of the underlying dynamics of this phenomenon and offer practical implications for managers and policymakers aiming to fight this practice.

KEYWORDS

Greenwashing; Greenwashing Perception; Sustainability Consciousness; Green Purchase Intent

Sustainable Development Goals (SGD):



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LIST OF ABBREVIATIONS AND ACRONYMS

SC	Sustainability Consciousness
GW	Greenwashing
GWP	Greenwashing Perception
GPI	Green Purchase Intent
Ad	Advertisement
EXP	Experiment
AdPerc	Perception of the Ad

INTRODUCTION

Environmental issues are commonplace nowadays. Climate change, global warming, environmental pollution, depletion of water resources, and drought are only a few of the worlds that we're increasingly hearing about (Lanzini P. et al., 2021).

As a result, increasing numbers of customers are shifting away from ecologically destructive and unethical products or services toward eco-friendly and ethical ones (Freestone & McGoldrick, 2008; Roberts, 1996; Shaw & Shiu, 2003).

Customers, and people in general, are becoming more conscious of the environmental crisis that we're facing, thus many enterprises, big and small, have been paying more attention to their behavior regarding sustainability issues and Corporate Social Responsibility (CSR) (e.g.: De Jong et al., 2018; Parguel et al., 2015; Zhang et al., 2018).

To cite some examples that customers are turning more aware of social, ethical, and environmental concerns (e.g.: Hedde, 2010; Moisander, 2007):

- Organic food and beverage sales climbed to 5.8 billion € in Germany and £1.84 billion in the United Kingdom, in 2009 (Kilchner et al., 2011);
- Fair trade items are getting increasingly popular in European nations (de Ferran & Grunert, 2007);
- 53% of the sustainability messages of the brands analyzed are vague and misleading and 40% are not supported by scientific evidence (European Commission, 2020).
- A report, redacted in 2015, tells us that 66% of consumers are more inclined to pay more money when a product is environmentally friendly (Nielsen Report 2015, 2015).

Thus, companies and institutions are also called to answer to this change, but their choices in marketing, communication, and values opened a brand-new scenario to analyze (Lanzini P. et al., 2021).

This is a direct consequence of the fact that, with public awareness, the stakeholders (customers, investors, and governments) have been pushing the companies, for the last decade, to reveal their practices and commitment in this sense (de Freitas Netto et al., 2020).

For the same reason, CSR, “A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (Öberseder et al., 2011, p.145), became central among businesses, as it aims to integrate social and sustainable responsibility, beyond the economic one.

In this context, and not by chance in the last decade, a phenomenon called “Greenwashing” appeared and increased exponentially (de Freitas Netto et al., 2020). The first time this term was coined was in 1986, by the environmentalist Jay Westervelt, in his famous essay regarding the promotion of towel reuse in hotels (de Freitas Netto et al., 2020). But we have plenty of these examples nowadays. Taking a look at the H&M campaign centered around clothes recycling (H&M Group, 2013) or at Eni Plenitude's green campaign (Eni, 2017), do you perceive these as genuine environmentally-conscious initiatives or merely strategic marketing maneuvers?

So, what is greenwashing?

Being a type of selective disclosure, it's a practice used by firms (but also institutions, and governments) to mislead consumers by withholding negative information about a company's environmental performance while exposing positive information about the same company's environmental performance (de Freitas Netto et al., 2020; Pendse et al., 2022).

The problem with greenwashing is not just that it deceives customers, but also that if dishonest marketers keep making claims about being environmentally good, then organizations true to their environmental objective will become less competitive. Additionally, the market may become so saturated with “green” promises, due to their abuse and misuse, that the buyer may lose interest in a product's environmental friendliness (Zimmer et al., 1994) and may discourage consumers from engaging in environmentally friendly habits (M. Polonsky et al., 2010). Ultimately, greenwashing might undermine the market's entire environmental movement (Hamann & Kapelus, 2004).

It's also interesting to see that, while the three most polluting countries, based on CO₂ emissions, are China, the USA, and India (de Freitas Netto et al., 2020), the main literature contributions about this topic come from the USA (which outperforms the other countries), the UK and China (Pendse et al., 2022); India is far behind, but surprisingly Italy is in fourth place, in the Top 10 countries based on productivity and citations (Pendse et al., 2022).

Because of this, and since the researcher has a consistent sample of data from Italy, the major focus of this study is the Italian market, followed by the Portuguese one, which has no substantial contribution and is also part of the UE (Pendse et al., 2022).

The main reasons to focus on this topic are:

1. as this is a relatively recent phenomenon, the corresponding literature is also recent and continuously evolving (e.g.: Lanzini P. et al., 2021; Parguel et al., 2015; Zhang et al., 2018);
2. most studies are based in the countries cited before: China, the UK, USA (e.g.: Y.-S. Chen, 2008; Y.-S. Chen et al., 2014; Y.-S. Chen & Chang, 2013; De Jong et al., 2018; Guo et al., 2014; Zhang et al., 2018);
3. even if the topic of environmental concern has gained popularity in academia and has become an intriguing subject of study (Bhatia & Jain, 2013), a lot of papers still only focus on the fashion industry, being the most polluting after automotive and agriculture (Adamkiewicz et al., 2022; Alexandra Mendes Costa & João Castro, 2021);
4. a lot of papers focus on the stakeholder's point of view or the perceived risk from the customers (Chen & Chang, 2013), while this study aims to analyze the consumer's perception and final actions;

At the heart of greenwashing lies the pointing finger of third-party accusations (Gatti et al., 2019), another aspect of the topic that this study considers, as well as the detrimental effect of consumer word-of-mouth (Chen et al., 2014).

Previous studies have mostly focused on the concept, practice, and antecedents of greenwashing; however, little is known about its effects on customers' green purchasing intentions or the extent to

which consumers are eager to purchase environmentally friendly products or services (Lyon & Maxwell, 2011; Newton et al., 2015). And that is the main aim for this paper.

Furthermore, another pillar focus of this research is to understand if people with a sustainability consciousness are really the ones able to spot the practice of greenwashing and that act alike at the end of the funnel.

Most of the studies analyzed skipped this part, considering directly the *greenwashing perception* (hereafter GWP) (Zhang et al., 2018).

The theoretical contribution is to extend the work done previously but take into consideration another variable, Sustainability Consciousness, and to understand over time how/if things changed, even through different generations and countries.

The practice contribution of this paper would be to be an inspiration for consumers, but also managers and politicians, to discard greenwashing on many levels.

The results indeed demonstrate that, regardless of one's confidence in sustainability matters, there remains considerable confusion and misunderstanding regarding the manifestations of greenwashing. It is crucial to monitor communication channels that can effectively disseminate accurate information and educational resources to the public.

The role as a mediator of the Greenwashing Perception between Sustainability Consciousness and Green Purchase Intent has not been confirmed.

The next pages will be divided into a Literature Review, with some background on the theme, the Theoretical Framework of this work, the Methodology applied, the Results from the Data Collection, and the Conclusions.

LITERATURE REVIEW

2.1 GREEN MARKETING

Consumers increasingly recognize the importance of the environment, prompting them to seek more eco-friendly options instead of their usual purchases (Bulut et al., 2021).

Over the past 40 years, there has been a significant shift in consumer behavior toward green products as a result of growing environmental awareness (Hirsh, 2010).

With escalating concerns about global warming, consumers are growing environmentally conscious, and actively seeking eco-friendly products. Their purchasing behaviors now communicate strong environmental preferences, prompting businesses to adjust marketing strategies in response to this trend (Chen & Chang, 2013).

In this environmental era, while more companies around the world are turning their attention toward environmental sustainability (Chang & C.H, 2011) and businesses are constantly looking for fresh methods to set their products apart from the competition, green marketing has emerged as a successful strategy for achieving this differentiation by eager to capitalize on the green movement, to offer goods and services that are more socially and environmentally responsible (Y.-S. Chen & Chang, 2013).

According to surveys, there is an increase in the demand for eco-friendly products worldwide, and professionals intend to spend more money on green marketing (Sheehan & Atkinson, 2012).

As a result, green marketing started to appear frequently in advertising messages referring to things like “eco,” “environmentally friendly,” “green,” “earth-friendly,” and “sustainability” (Parguel et al., 2011). Numerous other terminologies for green marketing have been defined by academics, including “ecological marketing,” “environmental marketing,” and “responsible marketing” (M. J. Polonsky, 2011).

These types of claims about going green should be accurate, true, and transparent, instead, many environmental claims that highlight green attributes are murky and misleading (Parguel et al., 2011).

To appear more ecologically friendly and gain the trust of their customers, enterprises started using greenwashing (Laufer, 2003) which has grown to be a very common strategy used by businesses to outperform their rivals (Parguel et al., 2011).

The concept of greenwashing was first expressed by Carlson to refer to the employment of unimportant, false, or misleading environmental claims in advertising (Carlson et al., 1993). According to this description, research has thus far concentrated on “claim greenwashing,” which is the employment of textual justifications in an advertisement to make a false environmental claim (e.g.: Laufer, 2003; Lyon & Maxwell, 2011; Newell et al., 1998).

One of the most popular methods used to spread a green message to consumers is advertising. In fact, already since the 1960s, green messaging has become increasingly prevalent in advertising (Easterling et al., 1996).

The term “green advertising” refers to “any ad that meets one or more of the following criteria: (1) explicitly or implicitly addresses the relationship between a product/service and the biophysical environment, (2) promotes a green lifestyle with or without highlighting a product/service, and (3) presents a corporate image of environmental responsibility” (Banerjee et al., 2013, pag.22). Companies use green advertising for any of the following reasons, according to Zinkhan & Carlson (Zinkhan & Carlson, 1995, pag.1):“(a) the emergence of a green consumer segment, (e.g.,: Porter ME & Kramer MR, 2006), (b) the greening of other stakeholder groups, particularly owners (and/or stockholders), and (c) the rise in responsible business development” (Nyilasy et al., 2014).

2.2 SUSTAINABILITY

Sustainability was described in 1987 as “development that meets the needs of the present without compromising future generations’ ability to meet their own needs” (Brassington & Pettit, 2005, p.12). Thus, a sustainable consumer is someone who meets his own wants while also considering the needs of others in the long run. This regard for others, on the other hand, is also present in socially conscious or socially concerned consumerism. Webster defines a socially aware consumer as someone

who examines the public ramifications of his or her private consumption or who strives to utilize his or her purchasing power to achieve social change (Webster, 1975). This term is conceptually similar to the idea of a sustainable consumer who considers the social effects of his purchasing. Of course, the concepts are not synonymous. Sustainability has a longer time horizon, but socially aware consumerism can be directed at both present and future change. Nonetheless, both are concerned with the welfare of society. Furthermore, the notion of green consumerism is inextricably linked to the concept of sustainability. As a result, green consumption is becoming more connected with sustainable actions such as resource conservation. On the other hand, in many circumstances, sustainability is only defined in terms of environmental sustainability (Connolly & Prothero, 2008). However, the word “sustainability” encompasses not just environmental but also social and economic factors (Hedde, 2010).

Consumers have been focusing on sustainability as a major issue for some now (Davis, 1993), and sustainable production and consumption have emerged as organizational imperatives (Kotler, 2011). While not all businesses receive rewards for being “green” or ecologically aware, businesses that claim to be sustainable frequently come under increased scrutiny from the government, rival businesses, and customers (Easterling et al., 1996). Thus, research is necessary to better understand the elements that motivate and/or inhibit (in this latter case, we are talking about “greenhushing”) businesses from emphasizing the environment and sustainability in their marketing and advertising efforts (Kotler, 2011).

In this study, one of the goals is to collect tools to resonate whether it’s convenient for brands to emphasize their effort to communicate their greenness.

A real example is a shampoo brand, named Davines, that, despite being truly sustainable (they are B Corp certified), their marketing strategy is to have a low-profile approach, without manifesting it (Davines, n.d.).

Green consumption is difficult to define because it encompasses a wide range of single actions (Gilg et al., 2005), such as the purchase of organic, fair trade, recycled, or locally produced products, products

with a lower environmental impact, as well as practices such as using your reusable shopping bag. According to Moisander, green consumption is a subset of environmentally concerned and socially conscious consumption (Moisander, 2007). Green consumption, on the other hand, is frequently regarded as a subset of ethical consumption (Connolly & Prothero, 2008; Freestone & McGoldrick, 2008; Newholm & Shaw, 2007). According to this viewpoint, green consumption is primarily concerned with environmental issues, whereas ethical consumption is the total of ecologically concerned and socially conscious consumption (Freestone & McGoldrick, 2008).

Environmental consumerism, which involves buying and using environmentally safe products (Mainieri et al., 2010), is a form of environmentally conscious behavior.

In this context, the study will refer to *sustainability consciousness* (hereafter SC) and *green purchase intent* (hereafter GPI), to address more broadly an awareness and a consumption ethical and respectful of the environment.

2.3 GREENWASHING: DEFINITION AND CONTEXT

Similarly, when discussing greenwashing, some academics simply take into account environmental concerns, distinguishing it from “bluewashing”, which refers to social concerns, some other scholars instead assume social and environmental dimensions together (Lyon & Maxwell, 2011). Others solely study the environmental dimension, viewing the social dimension as a distinct occurrence (de Freitas Netto et al., 2020).

When referring to *greenwashing* (hereafter GW) the same logic used for SC and GPI will be applied. Greenwashing has been linked by some authors to a decoupling behavior, in the sense of decoupling symbolic environmental protection behaviors from actual environmental protection behaviors or from failing to adhere to environmental protection commitments, to reduce external public pressures and uncertainties and avoid conflict with external constituencies (Guo et al., 2014).

Siano associates greenwashing with symbolic acts that tend to divert attention away from insignificant problems or result in the creation of “green talk” through statements intended to meet stakeholder

demands in terms of sustainability but without any actual action (Siano et al., 2017). Greenwashing is the distinction between “symbolic” and “substantive” corporate social actions, in other words, companies that simultaneously use favorable communication about their CSR performance while also having poor CSR performance (Walker & Wan, 2011).

This phenomenon has been defined as “the intersection of two firm behaviors: poor environmental performance and positive communication about environmental performance” (Delmas & Burbano, 2011, p.65).

As said before, the development of green marketing tactics is hampered by greenwashing (TerraChoice, 2009, 2010), which can undermine environmental efforts by increasing skepticism about sustainability projects (Y.-S. Chen & Chang, 2013), and the consequence is that green statements are frequently met with distrust and doubt as a result of greenwashing (Self et al., 2010).

Some argue that greenwashing not only misleads consumers but also contributes to the global slowdown toward sustainable consumption by (a) discouraging sincere companies’ efforts to go green when others only provide window-dressing communication (Cherry & Sneirson, 2010) and (b) guiding truly conscious consumers towards non-optimal choice (Chen & Chang, 2013; Gillespie, 2008; M. Polonsky et al., 2010)

TerraChoice found that at least 95% of items marketed as green in Canada and the USA engaged in greenwashing, including sins like hidden trade-offs and label worship (TerraChoice, 2010).

Greenwashing has increased cynicism toward environmental causes, which would hinder green marketing. Since it is difficult for clients to distinguish the dependability of green marketing initiatives, real green claims would be subject to higher mistrust and that’s why a lot of studies reviewed had focused on trust and perceived risk (Chen & Chang, 2013).

2.3.1 Classification of Greenwashing

When we take a deeper look at how the term “greenwashing” has been applied thus far, it becomes obvious how broad it is. According to multiple articles describing various parts of it, two characteristics can be used to identify greenwashing: (a) an intrinsic characteristic (distance from

truthfulness) and (b) a communication characteristic (methods employed to deceive or mislead others) (Elving & van Vuuren, 2011; Parguel et al., 2015; TerraChoice, 2010).

In terms of inherent traits, the term “the seven sins of greenwashing” was coined by the environmental marketing company named TerraChoice (TerraChoice, 2009) in response to the fact that consumers started utilizing social media to fight back against greenwashing tactics a few years ago (Mustiko Aji & Sutikno, 2015).

TerraChoice alluded to several “sins” ranging from half-truths to lies (TerraChoice, 2010), e.g., the “sin of hidden trade-off” refers to situations where only some or all of the behaviors are actually green, the “sin of irrelevance” refers to situations where the green behaviors don’t improve anything, and the “sin of lesser of two evils” refers to situations where the green behaviors merely reflect comparisons with truly bad earlier behaviors (De Jong et al., 2018).

Scanlan carried out research on hydraulic fracking in the oil and gas industry (OGI) communication and presented new sins connected to the conceptualization of greenwashing (Scanlan, 2017). The OGI uses greenwashing to cover up damage that has already been done and other risks. He added on new sins based on TerraChoice: (8) false hopes; (9) fearmongering; (10) broken promises; (11) injustice; (12) hazardous consequences; and (13) profits above people and the environment.

The seven sins of greenwashing, are the primary ways by which a business might deceive customers with environmental claims, and they serve as a foundation for advertising analysis (Baum, 2012).

Five firm-level examples of greenwashing were presented by Pacheco and Claasen (Contreras-Pacheco & Claasen, 2017):

(1) dirty business; (2) ad bluster; (3) political spin; (4) it is the law, stupid!; (5) fuzzy reporting.

Parguel would instead classify all of the aforementioned as instances of “claim greenwashing,” calling attention to a different tactic known as “executional greenwashing,” in which greenness is not overtly claimed but is instead hinted at by ancillary cues like imagery (Parguel et al., 2015). Elving & van Vuuren included “eco-friendly” and “recyclable” keywords as instances of executional greenwashing and

Harris called attention to still another potential component of greenwashing: the use of good contributions to divert attention from bad features (Elving & van Vuuren, 2011; Harris, 2015).

In a study published in 1991, Carlson identified three types of greenwashed advertising:

those making false claims; those leaving out crucial details that could help determine the authenticity of the claim; and those using unclear or vague terms (Carlson et al., 1993).

Last but not least, Diger Hahn & Lü highlighted methods including marginalization and rationalization as potential sources of greenwashing in how businesses address adverse situations (Diger Hahn & Lü, 2014).

2.3.2 Claim and Executional Greenwashing

Claim greenwashing and Executional greenwashing are the two main categories of greenwashing identified as useful for this study (de Freitas Netto et al., 2020).

The majority of studies to date have focused on product/service-level claim greenwashing, which employs textual arguments that expressly or implicitly allude to a product or service's ecological advantages to produce a misleading environmental claim (de Freitas Netto et al., 2020).

“Executional greenwashing” is a form of greenwashing that avoids making any of the claims previously mentioned in favor of implying natural components like visuals with natural colors (such as green or blue) or noises. Executional nature-evoking features include backgrounds that depict natural settings (such as mountains, woods, or oceans), endangered animal species (such as rabbits), or renewable energy sources (Gorn et al., 1997; Miniard et al., 1992; Priluck Grossman & Till, 1998).

The study by Parguel filled up this vacuum in the literature by describing the executional greenwashing effect based on expertise in executional advertising. Whether done on purpose or not, these naturalistic aspects could give the wrong impression that the company is environmentally friendly (de Freitas Netto et al., 2020). For this reason, this study will focus also on executional greenwashing besides the most common one, the “claim greenwashing”, trying also to analyze the potential difference between non-expert consumers, and expert consumers, that in this context will be defined as “sustainability conscious”, getting the idea from Parguel (Parguel et al., 2015).

Recognizing the diverse aspects of this phenomenon can be tough for consumers due to its complexity. Even experts, familiar with the market, can struggle to spot greenwashing. For regular consumers with a limited understanding of the situation is even more challenging (de Freitas Netto et al., 2020).

Customers are vulnerable to unsupported green signals, as demonstrated by Spack, who discovered that the sheer existence of green cues affects customers' buying intentions regardless of the format, modality, or caliber of the argumentation (Spack et al., 2012).

Regulation against greenwashing that directly targets executional aspects is rare because there is no information about their deceptive effects at this time (Parguel et al., 2015).

Despite these initiatives and the expanding discussions, particularly in Europe, little is understood about what is sometimes referred to as "executional greenwashing", its deceiving effects, and the function of public measures to prevent it. To answer this unresolved question, Parguel's research first examined the possibility that executional features, that invoke nature in commercials, artificially heighten customers' perceptions of green products. By determining if the disclosure of environmental performance data can lessen or even eliminate the "executional greenwashing" effect, the research seeks to provide strategies for controlling this potentially misleading effect.

In this context, the persuasive effectiveness of advertising executional features portraying nature may thus change depending on customers' topic knowledge of environmental concerns in the product category. Consumers with such topic knowledge, referred to as 'expert' consumers in Parguel research, are less likely to rely on and be influenced by the use of advertising executional elements representing nature, whereas 'non-expert' consumers, consumers without such topic knowledge, may be influenced through the peripheral route to persuasion (according to the ELM theory), resulting in a greater perception of the brand's ecological image (Parguel et al., 2015).

According to Study 1 in Parguel's paper, non-expert but also, to a lesser extent, expert customers, are influenced by nature-evoking executional signals. When compared to a non-greenwashed webpage, an executional greenwashed homepage creates higher perceptions of the featured business's ecological image and, as a result, more favorable brand sentiments (Parguel et al., 2015).

It also demonstrates that including environmental performance information, can offset the greenwashing effect, but only among knowledgeable customers. Another section of the study provides a more positive set of data, demonstrating that combining a traffic-light representation with raw information regarding emission rates can counterbalance the “executional greenwashing” effect among both experts and non-experts (Parguel et al., 2015).

Given that many advertisements contain both verbal claims and executional signals, this study wants to examine the interaction of the three types of features (claims, executional, and labeling) and their aggregate influence on perception, processing, and persuasion, among both experts and non-experts, as suggested by Parguel.

This is because the labeling system is also a focal point in the study of greenwashing, as we can see further on.

Parguel’s study documents the mediating process, through perceptions of the brand’s ecological image, and two important moderators of the greenwashing effect with both an individual difference, the consumer’s level of knowledge in the domain area, and via an additional set of executional elements, in the form of more cognitive environmental information. However, as this study shows, knowledge and environmental information combine to influence the “executional greenwashing” impact (Parguel et al., 2015).

Even amid facts demonstrating poor environmental performance, the “executional greenwashing” effect continues among non-expert customers. Only when two redundant cognitive cues were used did the “executional greenwashing” effect disappear among both expert and non-expert consumers. The findings are consistent with Delmas & Burbano's (Delmas & Burbano, 2011) recommendation to promote environmental openness through required or voluntary disclosure, as well as their observation that not all methods of disclosure are efficient (Parguel et al., 2015).

These findings highlight the need to take into account not just motivational elements such as level of interest and participation, but also one’s capacity and opportunity to absorb the information included in a communication (MacInnis & Jaworski, 1989). The study demonstrates that systematic processing

is restricted when the opportunity is limited, such as when there is little information accessible, or when skill is poor, as with non-experts (Parguel et al., 2015).

All these findings contribute to the development of the concept for this ongoing study. Here, instead of relying on traffic lights or other environmental performance indicators, have been incorporated labeling and claims, as demonstrated later on.

2.3.3 Consumer Confusion and Skepticism

Numerous studies have explored various aspects of green marketing, including green perceived risk, consumer confusion, trust, and skepticism (Chen & Chang, 2013; Mustiko Aji & Sutikno, 2015). Despite increased consumer attention, the rise of greenwashing persists due to the growing demand for environmentally focused products, fostering consumer skepticism toward businesses exploiting environmental issues (Chen & Chang, 2013).

To address this, businesses should offer detailed product information rather than relying on vague "greenness" claims. However, convincing consumers of product authenticity and environmental value poses challenges for green marketers, amplifying consumer skepticism (Y.-S. Chen & Chang, 2013).

Lack of trust from consumers and businesses impedes informed green purchasing. Greenwashing can harm ethical enterprises and jeopardize the green market (Chen & Chang, 2013). Mitigation involves halting greenwashing practices and empowering consumers with comparative environmental data, reducing confusion and perceived risk (Hoedeman, 2002).

Greenwash erodes market demand by confusing and deterring environmentally conscious purchases (Pomeroy & Johnson, 2009). Investigating the correlation between consumer perception and purchasing intent across the decision-making process is essential.

Consumer perceptions often perceive green claims as marketing tactics, breeding disbelief (Lyon & Maxwell, 2011). The confusion stems from inaccurately perceiving aspects during information processing, leading to misunderstanding due to cognitive constraints (Turnbull et al., 2000) and information overload and excessive eco-labels exacerbate this (Langer et al., 2008).

Many products commit "seven sins of greenwashing" (TerraChoice, 2009), fostering mistrust due to information asymmetry, and impacting purchase decisions (Mishra et al., 1998).

Significant studies link greenwashing to negative organizational performance indicators (De Jong et al., 2018). Y.-S. Chen & Chang's research underscores the harm of perceived greenwashing on consumer misunderstanding, risk perception, and trust. Perceived risk, spanning various factors, substantially shapes customer choices (Y.-S. Chen & Chang, 2013).

Greenwashing heightens consumers' risk perception through environmental trends (Mitchell, 1999). Overcomplicated green marketing breeds consumer suspicion (Walsh & Mitchell, 2010), with perceived risk impacting trust.

2.3.4 Labeling and Info Asymmetry

The surge in green advertising during the 1990s brought attention to the issue of greenwashing, prompting discussions about potential regulatory measures (Carlson et al., 1993; Greenberg, 1991; Newell et al., 1998; Scammon & Mayer, 1995). In response, Newell and colleagues proposed heightened monitoring of environmental advertising by both government agencies and consumer groups. However, this discourse primarily revolved around the aspect of "claim greenwashing" (Newell et al., 1998, p.57).

Subsequently, in the late 2000s, the prevalence of green advertising saw an upward trajectory, almost tripling between 2006 and 2009 (TerraChoice, 2009). This escalation, coupled with an increase in reports condemning the practice (Delmas & Burbano, 2011; Horiuchi et al., 2009; Laufer, 2003; Lyon & Maxwell, 2011), led to renewed research into the phenomenon of greenwashing. Additionally, official deliberations on regulation, exemplified by the establishment of a task force by the US Federal Trade Commission in 2010, further underscored the significance of the issue.

While numerous academic articles have been dedicated to the examination of greenwashing (e.g., Y.-S. Chen & Chang, 2013; Delmas & Burbano, 2011; Pomeroy & Johnson, 2009), scant attention has been given to "executive greenwashing".

The initial stages of this deceptive practice are more likely to diverge from outright fraud compared to its later stages. According to Patten & Crampton and Lyon & Maxwell, rather than being characterized by outright false statements, greenwashing predominantly involves selectively presenting positive information while neglecting to disclose negative aspects, thereby creating an overly positive corporate image (Lyon & Maxwell, 2011; Patten & Crampton, 2003).

In situations where an active disclosure aligns with the concept of greenwashing (as an intentional misrepresentation), it becomes apparent that the conditions for fraudulent behavior are met. By definition, greenwashing entails a misleading representation, which would not be the case if an accurate disclosure were made. Nevertheless, instances exist where greenwashing exhibits deliberate or careless falsity. Proving intent or recklessness is a challenging endeavor (Kurpierz & Smith, 2020).

Kurpierz & Smith suggest a resemblance between greenwashing and financial fraud, attributing one of the underlying causes to social pressure (Kurpierz & Smith, 2020). This parallel underscores the role of external influences in motivating such behavior.

Adding complexity to the scenario, developing countries often lack robust green regulations, creating an environment conducive to greenwashing practices (de Freitas Netto et al., 2020). Moreover, the proliferation of eco-labels, intended to guide consumers, can ironically contribute to their confusion, undermining their ability to make informed decisions (Langer et al., 2008). This confusion arises from the limitations of cognitive processing capacity, whereby an excessive influx of information culminates in bewilderment (Langer et al., 2008).

Factors influencing the extent of consumer confusion encompass their level of involvement. High-involved consumers allocate their cognitive resources to a single task, reducing the chances of information overload and consequent confusion. In contrast, low-involved consumers disperse their cognitive efforts across multiple tasks, rendering them more susceptible to confusion (Langer et al., 2008).

The implications of consumer confusion are substantial. It deters logical purchasing decisions and is linked to adverse economic outcomes, including distrust, negative word-of-mouth, dissatisfaction,

cognitive dissonance, decision procrastination, and disloyalty. Misleading and bewildering advertising erodes consumer trust and raises suspicions (Y.-S. Chen & Chang, 2013).

Notably, labels indicating ecological attributes are affixed by either private or public entities. Information sourced from governmental institutions is typically viewed as more credible and reliable due to their independence and perceived impartiality. This interpretation is rooted in attribution theory, where consumers attribute information from for-profit businesses to commercial motives, while non-profit sources are seen as driven by genuine intentions. This bias can distort information presentation, leading to a lack of credibility and reliability (Langer et al., 2008).

Moreover, according to Campbell's law, increased normative pressure may lead to more instances of greenwashing if circumventing norms is easier than compliance. This concept parallels the distortion of metrics due to external pressures to achieve specific goals (Campbell, 1979; Kurpierz & Smith, 2020). Statistically, over 75% of S&P 500 companies disclose their environmental policies and performance on their websites., and alarmingly, approximately 98% of products featuring environmental claims engage in misleading practices, committing one or more of the "seven sins of greenwashing" (Zhang et al., 2018).

While greenwashing legislation remains relatively modest, variations exist between countries. Stringent regulations are evident in European nations like Norway, where the use of terms like "green" or "environmentally friendly" has been prohibited since 2007 (Delmas & Burbano, 2011).

This study examines executional and claims greenwashing together, incorporating labeling, to explore the potential for mitigating or increasing the effects of “executional greenwashing”.

Table 2.1 summarizes the main theoretical references that have been referred to.

2.3.5 Other Important Findings

Zhang et al. revealed a significant negative association between perceptions of greenwashing and customer purchase intentions, aligning with Nyilasy and Rejikumar's findings (Nyilasy et al., 2014; Rejikumar, 2016; Zhang et al., 2018). With China's escalating environmental challenges and heightened consumer awareness of environmental preservation, the emphasis on adopting eco-friendly products

or services has grown, while before they consistently prioritized the cost and quality of products, a dichotomy that will be shown as significant also in this paper (Leonidou & Skarmeas, 2017; Zhang et al., 2018). Moreover, corporate greenwashing practices, typified by exaggerated or misleading portrayals of products' environmental friendliness, negatively impact consumer perceptions of product quality, leading to reduced purchasing intentions (Lyon & Montgomery, 2015). Furthermore, customers deceived by greenwashing may harbor skepticism toward a company's sustainability endeavors, potentially eroding long-term affiliations. This underscores the influence of greenwashing on consumer purchase intentions.

Zhang's study also underscores the mediating role of green word-of-mouth (WOM) between perceptions of greenwashing and purchase intentions. Given its greater credibility over firm-initiated communications, green WOM significantly influences consumer purchase intentions (Allsop et al., 2007). Consumers who perceive greenwashing are more likely to express concerns to their networks, aiming to caution against misinformation (Ferguson & Johnston, 2010; Leonidou & Skarmeas, 2017). Additionally, the study supports the moderating function of green concern (Kwong Goh & Balaji, 2016). Bulut et al. noted post-millennial concern for the environment influencing green purchasing behavior. Greenwashing, however, moderates this effect, weakening environmental concern's impact on green behavior (Bulut et al., 2021). These studies reveal nuanced interactions, necessitating further exploration.

For all of these reasons, in this research the aim is to clarify and assess the relationship between sustainability consciousness, greenwashing perception, and green purchase intent, extending the work conducted by Zhang, to use communication channels (including WOM) as a mediator between SC and GWP, and to explore a sample compelling different ages and nationalities.

Table 2.1 – Main findings from previous studies

Main topic	Author	Findings
Green WOM	(Y.-S. Chen et al., 2014)	If customers discover that a company is greenwashing, they are less likely to purchase its products. Perceived greenwashing is negatively related to green word of mouth, both directly and via green perceived quality and green satisfaction. Greenwashing might have negative effects on consumers

Theory of advertising and switching behavior	(Mustiko Aji & Sutikno, 2015)	According to the theory of advertising and switching behavior, consumers have a tendency to be dubious of advertisements, especially green ones, and they may have the desire to switch if they feel ethically harmed
Greenwashing perception among post-millennials	(Bulut et al., 2021)	The findings indicate a positive association between environmental concern and conscious green consumption among post-millennials. Individuals with higher levels of environmental concern tend to engage in more conscious green consumption behaviors. However, the analysis also reveals that greenwashing perceptions play a moderating role in this relationship. When post-millennials perceive higher levels of greenwashing by companies, the influence of environmental concern on conscious green consumption weakens
Green Trust, Green Consumer Confusion, Green Perceived Risk	(Y.-S. Chen & Chang, 2013)	Perceived greenwashing is negatively related to green trust, both directly and via green consumer confusion and green perceived risk. Greenwashing might have negative effects on consumers
Executorial greenwashing	(Parguel et al., 2015)	Executorial greenwashing has negative consequences for both consumers and society. It highlights how misleading nature-based advertising can undermine consumer trust, contribute to consumer skepticism, and hinder genuine sustainability efforts by diverting attention and resources away from legitimate eco-friendly initiatives
Greenwashing Perception, Green Purchasing Intentions, Green WOM, Green Concern	(Zhang et al., 2018)	Consumers' perception of greenwashing has a negative impact on their green purchasing intentions. When consumers perceive a company as engaging in greenwashing practices, they are less likely to engage in environmentally friendly purchasing behaviors. Furthermore, green word-of-mouth plays a significant mediating role in the relationship between greenwashing perception and green purchasing intentions. Positive word-of-mouth about environmentally responsible products and companies helps mitigate the negative impact of greenwashing perception on consumers' intentions to engage in green purchasing. Additionally, green concern is identified as a moderating factor, indicating that individuals with higher levels of green concern are more influenced by greenwashing perception in forming their green purchasing intentions.
Green Adv, Green Trust, Purchase Intent	(Nyilasy et al., 2014)	Green advertising has a positive impact on consumer trust and purchase intentions when perceived as credible. However, when consumers perceive green advertising as deceptive, it leads to increased skepticism and reduced purchase intentions. When companies have a strong environmental performance, the positive impact of green advertising on trust and purchase intentions is enhanced, while the negative impact of perceived greenwashing on skepticism and purchase intentions is diminished
Greenwashing Perception, Purchase Intention	(De Jong et al., 2018)	Greenwashing has a significant impact on consumer behavior and purchase intentions. Consumers who are exposed to greenwashing are less likely to support or purchase products from deceptive companies. They show a preference for brands with authentic environmental commitments and transparent practices
Greenwashing	(de Freitas Netto et al., 2020)	The paper presents a conceptual framework that categorizes greenwashing into different forms based on the strategies employed by organizations. These forms include: vagueness and ambiguity in environmental claims, selective disclosure of information, false labeling, misleading imagery, and use of irrelevant certifications

Theory of Planned Behavior	(Schielke & Fantapié Altobelli, 2012)	Positive attitudes towards greenwashing, influence from subjective norms, and a high perceived behavioral control increase the likelihood of engaging in deceptive practices. The results highlight the complexity of consumer decision-making processes and the need for multifaceted interventions to address unethical behavior effectively
Greenwashing	(Furlow, 2010; Gatti et al., 2019)	It examines the negative implications of greenwashing on sustainability initiatives. It discusses how greenwashing undermines genuine sustainability efforts by diluting the importance of true environmental responsibility. The paper also explores the potential consequences for consumer trust, regulatory frameworks, and the overall progress towards achieving global sustainability goals. The paper outlines the challenges faced in detecting and addressing greenwashing practices. It discusses the complexities of assessing environmental claims, the lack of standardized regulations, and the limited resources available for monitoring and enforcement. The section also explores the role of consumer awareness and education in combating greenwashing.
Greenwashing as a fraud	(Kurpierz & Smith, 2020)	The techniques used in detecting fraud can be applied to improve the accuracy and transparency of CSR reporting, thereby mitigating greenwashing
Eco-Labels	(Langer et al., 2008)	While some participants perceive eco-labels positively and consider them a valuable source of information, others express confusion and skepticism. The study identifies several factors that contribute to consumer confusion, including the lack of standardization among eco-labels, inconsistency in labeling criteria, and greenwashing practices by companies. eco-labels can influence consumer perceptions of product quality, environmental friendliness, and trustworthiness. However, the study also identifies instances where eco-labels are seen as mere marketing tools, leading to skepticism and decreased trust in labeling schemes. While some participants demonstrate a willingness to pay a premium for eco-labeled products, others express hesitation due to concerns about label reliability and the potential for deceptive marketing tactics. The study suggests that the presence of multiple eco-labels on a single product can lead to decision paralysis and consumer confusion
Green consumer decision-making	(Martínez et al., 2020)	When consumers learn that a product has been greenwashed, they often stop using it
Greenwashing	(Pendse et al., 2022)	It emphasizes the need for continued research on greenwashing to inform sustainable business practices, consumer decision-making, and policy development. The study underscores the importance of raising awareness about greenwashing and fostering transparency and accountability among organizations
Ethical Communication	(Parguel et al., 2011)	Sustainability ratings play a crucial role in deterring 'greenwashing.' Companies with higher sustainability ratings are perceived as more trustworthy and credible in their sustainability claims

FRAMEWORK

3.1 TYPES OF ENVIRONMENTAL CLAIMS

The first construct on which this study is based is the classification made by Delmas & Burbano, 2011. They proposed a typology of organizations based on two dimensions: (a) environmental performance (differentiating between “green” and “brown” organizations) and (b) communication about environmental performance (differentiating between “vocal” and “silent” organizations).

Four cells make up a typology formed by these two dimensions, as in Figure 3.1.

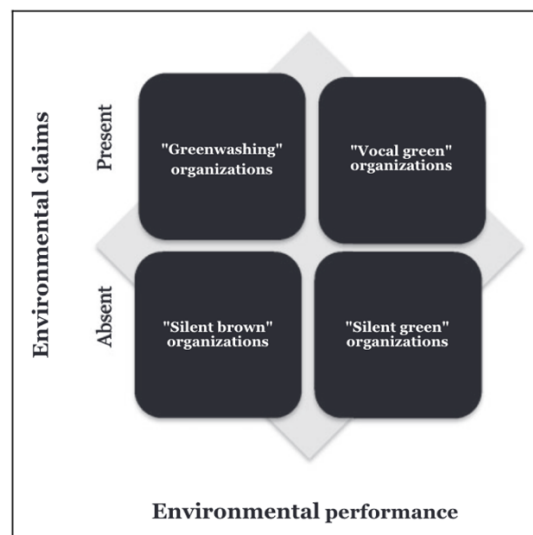


Figure 3.1 – Types of environmental claims (Delmas & Burbano, 2011)

The term "vocal green organizations" refers to businesses that combine sound environmental practices with enthusiastic communication about those practices.

The term “silent green organizations” refers to businesses that do not publicly acknowledge their good environmental performance.

Known as “greenwashing organizations”, these businesses combine poor environmental performance with a positive public image of their environmental performance.

Organizations that perform poorly in the environment and don’t communicate this performance fall into the last group, “silent brown” organizations (De Jong et al., 2018).

In this study all four cases are taken into consideration, to have a complete view of the engagement with all of them.

3.2 ABC AND ELM THEORY

Previous studies have mostly focused on the concept, practice, and antecedents of greenwashing. However, little is known about its effects on customers' green purchasing intentions or the extent to which consumers are eager to purchase environmentally friendly products or services (Lyon & Montgomery, 2015; Newton et al., 2015). When customers believe that corporations meet their social responsibilities, they may be more ready to buy their products, even if they are more expensive (Grimmer & Bingham, 2013). However, when customers understand that a company is greenwashing, they are less likely to purchase its products (Y.-S. Chen et al., 2014).

Current research shows that consumers' views of greenwashing have a detrimental impact on their green purchase intentions (Chen & Chang, 2013), although the influencing mechanism is unknown. The goal of this study is to determine whether and how customers' views of greenwashing impact their green purchasing intentions, also considering whether they show sustainability awareness or not.

To do so, two theories have been taken into account.

3.2.1 ABC Theory

ABC Theory has been used mainly to explain the relation between GWP and GPI.

The attitude-behavior-context (ABC) theory has been taken in mind in this paper to gain a better understanding of the influence of consumers' greenwashing beliefs on their green purchasing intentions (Guagnano et al., 1995).

The ABC hypothesis is based on a means-end approach, in which individuals act based on the benefits they expect from specific behaviors (Feldmann & Hamm, 2014). As a result, the theory offers a good framework for exploring how attitudes lead to certain behaviors (Kwong Goh & Balaji, 2016).

Attitude refers to an object's evaluative assessment, which includes beliefs, perceptions, and result evaluation. However, attitude does not necessarily convert into expected behavior since behavior is also influenced by a variety of contextual elements such as costs, personal connections, availability, and societal trends (Feldmann & Hamm, 2014)

Context facilitates and constrains specific behaviors. It can act as a bridge between people's attitudes and behaviors, but it can also strengthen the association between attitudes and behavior (Sirieix et al., 2012). As a result, the interplay between consumer attitudes and environmental circumstances is a key component of the ABC theory (Salonen & Åhlberg, 2012).

3.2.2 ELM Theory

ELM Theory has been used to explain the choice of the experimental design.

Petty & J.T. Cacioppo's classic Elaboration Likelihood Framework (ELM) is particularly suited to understanding how elements of advertising may influence consumers, particularly in the context of green advertising (Bickart & Ruth, 2012; Xie & Kronrod., 2012). This classic approach proposes two paths to persuasion based on consumers' motivation and capacity to digest information in a message. A motivated and competent consumer takes the central path and forms attitudes based on "active thinking about either the issue or object-relevant information provided by the message" (Petty & J.T. Cacioppo, 1981, p.256). A less competent and driven customer takes a deviant path, and his or her attitude is the consequence of basic assumptions, heuristics, and classification based on AD executional factors such as colors, photos, or music (Batra & Stayman, 1990; MacInnis & Jaworski, 1989).

The ELM has been used extensively in research on green advertising to examine the influence of green signals on consumers' brand sentiments. Hartmann & Apaolaza-Ibáñez, for example, present evidence of the peripheral route, a primarily affect-based process, by demonstrating that peripheral visual cues such as nature images led to more favorable brand views (Hartmann & Apaolaza-Ibáñez, 2015). However, customers or types of relevant information in the commercial may mitigate the influence on brand sentiments.

One significant individual distinction in the tradition of the ELM, the moderator is consumer topic knowledge, which influences the ability to process the message and the outcome of persuasive attempts (Friestad & Wright, 1994; Kachersky & Kim, 2011; Parguel et al., 2015).

Consumers' awareness of the topic of environmental concerns in the product category is thus likely to alter how they process and respond to communications about brands in the category when judging the ecological advantages of a given product. Previous research has highlighted the importance of such technical or scientific knowledge by revealing consumers' difficulties understanding the information underlying environmental claims (e.g.: Do Paço & Reis, 2012; Newell et al., 1998; Xie & Kronrod., 2012). Less informed consumers, in particular, are more vulnerable to signaling bias based on information accuracy (Xie & Kronrod, 2012). In contrast, informed consumers 'superior elaborative capacity' should enable them to accurately evaluate and comprehend product-related statements without depending on peripheral cues (Alba & Hutchinson, 2000).

The Elaboration Likelihood Model (Petty & J.T. Cacioppo, 1981) has been useful in developing a conceptual framework that extends previous research on nature-evoking advertisements (Hartmann & Apaolaza-Ibáñez, 2015).

According to the Elaboration Likelihood Model consumer involvement levels and other internal and external factors can positively influence the relationship between marketing communication and advertising and its effects on consumer attitudes and purchase intentions (Petty & J.T. Cacioppo, 1981).

It may not be unreasonable to expect the same for green advertising given that the marketing scholars mentioned above have found plenty of evidence for the presence of an attitude-behavior link for general advertising. In fact, numerous academics have discovered empirical proof that green advertising, albeit to various degrees, is effective (Nyilasy et al., 2014).

3.3 MAIN RESEARCH QUESTIONS AND HYPOTHESIS

3.3.1 Research Questions

1. Are we sure that when there is a lot of interest in green products, people are more aware of how to tell whether a product is truly green or just pretending to be one?
2. How does this influence the purchase intentions?

3.3.2 Hypotheses

H1, 2, 3. Perception of Ad has a positive/negative relation to SC, GWP, and GPI;

The first three hypotheses concern the perception of the Ad by our sample. Each participant viewed only one image out of four, which were presented in rotation. The product is the same, but the Ad has different characteristics, following Delmas & Burbano's differentiation (Delmas & Burbano, 2011).

The first hypothesis revolves around Sustainability Consciousness (SC) and branches into four sub-hypotheses, one for each displayed Ad. In this case, we aim to test that the first image, Silent Brown, has a negative relationship with SC, while the other three have a positive one.

The second hypothesis examines the Greenwashing Perception of the Ad. In this scenario, it is assumed that in the first case, as well as in the other three, there is a negative relationship with GWP. In the first, second, and fourth cases (Silent Brown, Vocal Green, and Silent Green), this is because they are not genuine cases of greenwashing, while in the third case, it is indeed a greenwashing scenario, but the hypothesis is that the exposed individuals are unaware of it, following the path lead by DeJong, Nyilasy, and Parguel (De Jong et al., 2018; Nyilasy et al., 2014; Parguel et al., 2015).

The third hypothesis, in line with the first and second hypotheses, tests Green Purchase Intent. In this case, it is assumed that in the case of Silent Brown, there is a negative relationship between Ad perception and the intention to purchase, while in the other three cases, it is positive.

To test these hypotheses, we used an experiment, which will be better explained in the Methodology chapter.

In the specific these are the hypothesis:

H1.0 Perception of the Ad in the Silent Brown scenario has a negative relation to Sustainability Consciousness

H1.1 Perception of the Ad in the Vocal Green scenario has a positive relation to Sustainability Consciousness

H1.2 Perception of the Ad in the Greenwashing scenario has a positive relation to Sustainability Consciousness

H1.3 Perception of the Ad in the Silent Green scenario has a positive relation to Sustainability Consciousness

H.2.0 Perception of the Ad in the Silent Brown scenario has a negative relation to Greenwashing Perception

H.2.1 Perception of the Ad in the Vocal Green scenario has a negative relation to Greenwashing Perception

H.2.2 Perception of the Ad in the Greenwashing scenario has a negative relation to Greenwashing Perception

H.2.3 Perception of the Ad in the Silent Green scenario has a negative relation to Greenwashing Perception

H3.0 Perception of the Ad in the Silent Brown scenario has a negative relation to Green Purchase Intent

H3.1 Perception of the Ad in the Vocal Green scenario has a positive relation to Green Purchase Intent

H3.2 Perception of the Ad in the Greenwashing scenario has a positive relation to Green Purchase Intent

H3.3 Perception of the Ad in the Silent Green scenario has a positive relation to Green Purchase Intent

H4. Sustainability Consciousness has a negative relation to Greenwashing Perception

Persons who have a sustainability consciousness are not more likely to understand if they're in front of a case of greenwashing compared to those who don't.

As said before, three key factors contribute to consumer confusion: an excessive number of options, product similarity, and unclear information (Mitchell & Papavassiliou, 1999). And it's the third one the main one related to greenwashing.

Customers could be overloaded with information by greenwashing, which would make it more difficult for them to evaluate items. Therefore, greenwashing would lead to consumer uncertainty over green promises (Y.-S. Chen & Chang, 2013).

Investigating the influence of customer perceptions of green marketing tactics toward green behaviors has been named as one area that has received less attention and is a search priority (Cronin et al., 2011).

H5. Demographics have a moderating role between SC and GWP

The respondents' gender, age, education, income, and nationality were used as context variables since these factors may influence their opinion of greenwashing (Matthes & Wonneberger, 2014).

What the researcher wants to understand with this study is in fact how these attitudes and behaviors have eventually changed in time, also trying to compare different generations, (from Boomers to post-Millennials), in contrast to Bulut's study, which exclusively focused on Millennials (Bulut et al., 2021). The majority of research adopted a (socio-)demographic segmentation foundation. Even though (socio-)demographics were shown to be accurate in identifying segments with common views, they failed to predict behavior (Straughan & Roberts, 1999). In fact, they discovered that demographics were less strongly connected with green consumer behavior than psychographics.

This can be considered as a limitation of this study, in which the aim is to explore if sociodemographics have a moderation role between SC and GWP.

In particular, the hypotheses are:

H5A – The female gender has a positive moderating role between Sustainability Consciousness and Greenwashing Perception compared to the male gender

H5B – Age has a negative moderating role between Sustainability Consciousness and Greenwashing Perception

H5C – Education has a positive moderating role between Sustainability Consciousness and Greenwashing Perception

H5D – Income has a positive moderating role between Sustainability Consciousness and Greenwashing Perception

H5E – Nationality has a moderating role between Sustainability Consciousness and Greenwashing Perception

H6. Communication channels have a moderating role between SC and GWP

Consumers learn about company misbehavior through TV news, the Internet, and social media, negatively impacting behavior and deterring purchases (Lim et al., 2013). Cultural backgrounds contribute to the countless deceptive cues that consumers encounter, making universal recommendations challenging. Thus, alternative channels are crucial for conveying environmental information and cautioning against greenwashing (Delmas & Burbano, 2011). As already mentioned, greenwashing practices can escalate negative word-of-mouth effects and undermine customer confidence (Ramus & Montiel, 2005).

Transparent communication on how business practices impact the environment is essential for stakeholders and society. The emergence of Web 2.0 and social media offers new tools for interaction and information sharing (de Freitas Netto et al., 2020).

This study aims to identify the most influential communication channel in shaping greenwashing knowledge and perceptions and this hypothesis wants to test if communication channels are a mediator between SC and GWP.

H7. GWP has a mediator role between SC and Green Purchase Intent

In order to finally analyze the relationship between GWP and GPI, the choice has been to introduce the SC in the equation, by exploring if GWP has a mediator role between SC and GPI, to gain a complete overview of all these variables together.

3.4 THEORETICAL FRAMEWORK

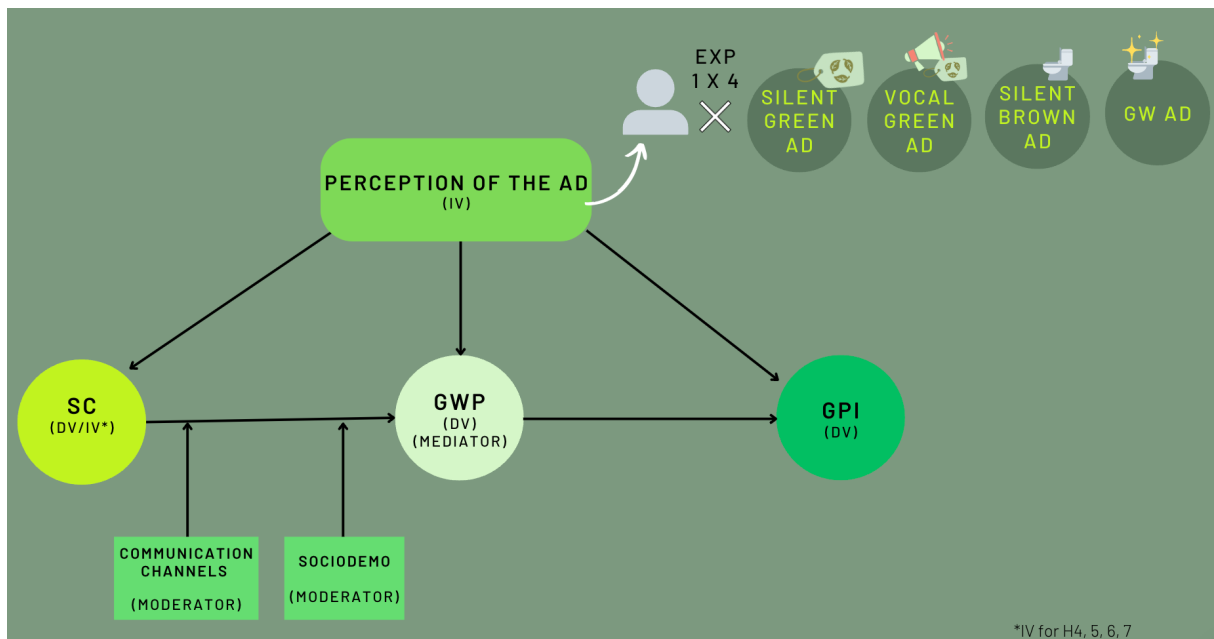


Figure 3.2 – Theoretical Framework

In the framework in Figure 3.2, there is an independent variable called "Perception of the Ad", which, through an experiment, examines the Sustainability Consciousness (SC), Greenwashing Perception (GWP), and Green Purchase Intent (GPI) as its dependent variables, forming the basis for the three main hypotheses. However, additional analyses have been conducted, and in this case, SC has been considered as an independent variable to analyze its relation to GWP, demographics, and communication channels as potential moderators between SC and GWP, and the role of GWP as a mediator between SC and GPI.

Table 3.1 summarizes all the main theories and variables that built the framework of this study.

Table 3.1 - Framework Items

Construct	Author	Content
ABC Theory	(Guagnano et al., 1995; Zhang et al., 2018)	The ABC theory is a theoretical framework commonly used in psychology and behavioral sciences to understand the antecedents, behaviors, and consequences of human actions
ELM Theory	(Parguel et al., 2015; Petty & J.T. Cacioppo, 1981)	The Elaboration Likelihood Model in the field of social psychology explains the process by which individuals process and respond to persuasive messages
4 types of green claims	(Delmas & Burbano, 2011)	Organizational typology based on two dimensions: (a) environmental performance (differentiating between "green" and "brown" organizations); and (b) environmental performance communication (differentiating between "vocal" and "silent" companies).
Sustainability Consciousness	(Gericke et al., 2018)	Sustainability consciousness is a word used to define a person's awareness of the environment as well as the experience or knowledge of sustainable facts and events, including thoughts, feelings, and behaviors
Greenwashing Perception	(Nyilasy et al., 2014; Zhang et al., 2018)	Greenwashing perceptions refers to consumers' recognition of firms' increased communication regarding the environment accompanied by a lack of action, which may discourage them from buying the firm's products
Green Purchase Intent	(Netemeyer et al., 2005; Newton et al., 2015; Zhang et al., 2018)	Green purchasing intentions refers to the likelihood that a consumer will buy a particular product resulting from his or her environmental views, and represents the extent to which consumers are prepared to purchase products and services from firms with a reputation for being environmentally friendly

METHODOLOGY

4.1 DATA COLLECTION AND SAMPLE

The objective of this thesis is to conduct a quantitative research study employing an experimental design, which necessitated the use of a questionnaire for data collection.

The electronic survey was developed using the online tool Qualtrics.

Initially, a concise introduction was provided to explain the study's topic and objectives. Following this, participants who agreed to partake in the study were presented with a definition of greenwashing. Subsequently, participants were exposed to the experiment, wherein each participant was randomly assigned to view one of the four advertising types: Vocal Green (Block 1), Silent Green (Block 3), Silent Brown (block 0), or Greenwashing (block 2), resulting in a 1 x 4 between-subjects factorial design.

The researcher justified the choice of an experimental approach as empirical studies on the impact of greenwashing are limited (Nyilasy et al., 2014; Parguel et al., 2015), even being shown as crucial for understanding the impact of this phenomenon, albeit with limitations (De Jong et al., 2018).

Although a fictitious brand was utilized, the simulations were designed to mimic real-world scenarios by presenting complete advertisements. The decision to employ a fictional brand was influenced by the necessity to avoid potential real cases of greenwashing.

Vocal green and greenwashing advertisements featured claims, nature-evoking elements, and a series of eco-labels to differentiate genuine green claims (in the vocal green) from false ones (in the greenwashing).

Silent green and silent brown didn't have particular claims or executional features, with the difference that the silent green one has some (genuine) labels exposed.

The images adopted and the full survey are consultable in Appendix A.

After viewing the advertisements, participants answered five questions pertaining to their perception of the experiment.

The questionnaire encompassed questions related to the main variables, the sustainability consciousness (SC), the greenwashing perception (GWP), the green purchase intention (GPI), and the communication channels. Additionally, five socio-demographic questions were included.

Data collection was conducted using a convenience sampling method, distributed via WhatsApp, email (Qualtrics link), and face-to-face (Qualtrics QR Code) to achieve a diverse sample in terms of age, gender, economic status, and education level.

The survey was predominantly circulated in Italy and Portugal.

Upon the conclusion of the data collection period spanning April to May 2023, the researcher amassed 256 responses. After data cleaning, and eliminating incomplete responses, 199* responses remained, deemed suitable for subsequent data analysis based on the "Rule of thumb."

The questionnaire was designed in English initially and later translated into Italian and Portuguese.

4.1.1 Measurement of the Variables

The majority of questions employed a seven-point Likert scale, ranging from 1 (low or strongly disagree) to 7 (high or strongly agree).

While most questions allowed a single response, one question was multiple-choice, and a few also permitted free-text entry. Age was measured in years to establish a continuous variable, while gender was transformed into a binary variable.

For the variable AdPerc_Color, the string values (from text entry) were recoded into values that were first homogeneous with each other (e.g., typo and shades of the same color have been corrected) and then recoded into numerical values, so that they could be used in other analyses.

For the variables GWPCHANN and PICHANN, the free answers (Others) were also recoded with numerical values so that they could be compared and analyzed with the others.

* Only two people who didn't fill the last question about the income have been kept since that question was the only one non-mandatory.

For the variable NATION, a similar thing was done. The textual answers that fell under “Others” were assigned numerical values so that they could be compared and analyzed in the same way as Italy and Portugal.

For all variables that were recalculated, all original labels were reassigned.

Table 4.1 expresses all the constructs by which all the variables have been measured, and the names that have been used, to which reference will be made later.

Table 4.1 – Measurement of the Variables

Item (and variable name)	Variable	Source
Where are you from? (NATION)	Context Variable	(Zhang et al., 2018)
What is the gender that best describes you? (GENDER)		
What is your annual household range of income? (INCOME)		
What is the highest level of education you have completed? (EDU)		
What is your age? (AGE)		
I consider myself a sustainability-conscious customer (SC)	Sustainability Consciousness (SC_Rnd)	(Gericke et al., 2018; Lanzini P. et al., 2021; Ovais, 2023; Parguel et al., 2015)
How often do you buy sustainable products by choice? (SCPURCH)		
I base my choices on the labels that I find on the packaging of the products (SCLABELS)		
Do you know what "Greenwashing" is? (GWPK)	Greenwashing Perception	(Lanzini P. et al., 2021; Zhang et al., 2018)
I am able to spot a case of Greenwashing (GWPRECO)		
What would you feel if you realized you were facing a case of Greenwashing? (GWPFEEEL)		
Many companies are making a serious effort to be more sustainable (GWPCOMPANYANY)		
What are the characteristics on which you base your purchases? (GPI_C_NoSC_Rnd, GPI_C_SC_Rnd)	Green Purchase Intent	(Lanzini P. et al., 2021; Zhang et al., 2018)
If you recognized to be in front of a case of Greenwashing, would you still buy that product? (GPIAGWP)		
How sustainable do you think this product is? (AdPerc_SC)	Perception of the Ad	(Delmas & Burbano, 2011; Lanzini P. et al., 2021)
How likely do you think is it a case of Greenwashing? (AdPerc_GWP)		
How comfortable would you feel in buying this product? (AdPerc_GPI)		
What are the characteristics that you associate with the product that you just saw? (AdPerc_C)		
Which is the color that immediately comes to your mind, after seeing the image? (AdPerc_Color)		
How did you learn about Greenwashing? (GWPCHANN)	Communication Channel	(Zhang et al., 2018)
Which is the channel that usually influences your purchases? (PICHANN)		

RESULTS AND DISCUSSION

All tables and graphs, including those not explicitly referenced, are available for reference in Appendix B.

5.1 DESCRIPTIVE AND FREQUENCY ANALYSIS

Descriptive statistics were used to provide a comprehensive summary of sociodemographic variables examined in the study (see Table A).

They offer an all-encompassing view of participant characteristics and responses across various study dimensions. These statistics were effective in checking sample outliers and offering insights into diverse participant backgrounds.

The representation of participants' origins demonstrates broad diversity. The majority of participants are from Italy (62.3%), followed by Portugal (21.1%) and "Other" origins (16.6%). This diverse distribution enhances the external validity and generalizability of study findings (see Table B.1 and Figure B.1).

Gender distribution is equally diverse. The largest segment identifies as female (55.3%), followed by males (43.2%) and those who chose not to specify (1.5%) (see Table B.2 and Figure B.2).

Age distribution spans 18 to 73 years, with a prominent group aged 22 to 35 (72.5%). Even distribution across ages underscores participant inclusivity. Participants' average age was 33.64, with a relatively low skewness value, indicative of a roughly symmetrical distribution (see Table B.3 and Figure B.3).

Educational attainment is also diverse. The largest group holds a Master's degree (46.2%), followed by Bachelor's degree holders (34.7%). High school graduates (15.6%) and PhD holders (2.5%) complete the spectrum. The remaining very small amount of people have less than a High School Diploma (see Table B.4 and Figure B.4).

Income distribution reveals diversity across ranges. The most prevalent range is 26,000 to 50,000 € (43.4%), followed by 0 to 25,000 € and 51,000 to 75,000 € (28.6% and 14.3% respectively). Higher brackets (76,000 to over 100,000 €) constitute 7% (see Table B.5 and Figure B.5).

In the analysis of sustainability consciousness, data reveals noteworthy trends. Respondents moderately agree ($M = 4.82$) with self-identifying as sustainability-conscious consumers, with 14.6% strongly agreeing. A majority (82.4%) buy sustainable products monthly or more often. Notably, 27.1% strongly agree ($M = 4.46$) that their choices are influenced by product labels (see Table C, Tables D, and Figures D).

Another variable was measured descriptively in order to comprehend better how people feel about GW, and that was the GWPFEEL: people were asked which predominant feeling they feel if they realized they were facing a case of Greenwashing, and the very predominant one appeared to be "Disappointment" (see Table S).

In conclusion, our sample enhances study comprehensiveness through its diversity in sociodemographic characteristics and predominantly comprises individuals who identify as sustainability-conscious consumers.

5.2 FACTOR ANALYSIS AND RELIABILITY

Sustainability Consciousness (SC_Rnd)

To assess the structure and reliability of the sustainability consciousness construct, factor analysis was conducted. The Kaiser-Meyer-Olkin measure of sampling adequacy determined data suitability ($KMO = 0.601$). Bartlett's Test of Sphericity was significant (Approx. $X^2 = 77.849$, $df = 3$, $p < 0.001$), supporting data suitability (see Table E.1).

Correlation analysis revealed significant associations among SC variables (SC, SCPURCH, SCLABELS) all $p < 0.001$. Notably, respondents' self-perceived sustainability consciousness correlated strongly with purchasing sustainable products (SCPURCH) and relying on product labels (SCLABELS) (see Table E.2). Principal component analysis identified a single component, with factor loadings for SC items: "I consider myself a sustainability-conscious customer" (0.817), "How often do you buy sustainable products by choice?" (0.810), and "I base my choices on product labels" (0.625) (see Tables E.3).

The reliability of the sustainability consciousness scale was assessed with Cronbach's alpha, which yielded 0.574 for the three items. Although slightly below the recommended 0.7, this value indicates acceptable internal consistency (see Table F.1).

In summary, factor analysis and reliability assessment confirm meaningful interrelationships among SC items, supporting its unidimensional nature.

However, since SC and SCLABEL are based on a Likert scale (ranging from 1 to 7), while SCPURCH relies on a different scale with only 5 items, even though the three variables load on the same factor, it has been decided to create a variable "SC_1Factor" comprising only SC and SCLABEL, and to employ the previous factor analysis only with a manipulation check scope.

This variable was then transformed into SC_Rnd by rounding values to eliminate decimals (for homogeneity with the original variables).

Characteristics associated with the perception of the Ad (AdPerc_C)

To investigate the structure and reliability of perceived characteristics linked to the displayed advertisement (AdPerc_C), factor analysis was conducted. Kaiser-Meyer-Olkin indicated suitable data ($KMO = 0.786$), while Bartlett's Test of Sphericity was significant (Approx. $X^2 = 492.957$, $df = 10$, $p < 0.001$), supporting data appropriateness (see Table G.1).

Principal component analysis revealed a single component:

these factor loadings confirm strong associations among Sustainability (0.839), Reliability (0.858), Ethics (0.827), Expense (0.675), and Quality (0.808), contributing substantially to the underlying factor (see Tables G.2).

Cronbach's alpha was used to assess internal consistency, yielding a coefficient of 0.860 for the five items. This high alpha value indicates robust internal consistency, ensuring measurement reliability (see Tables H.1).

In summary, factor analysis identified a unidimensional structure for perceived advertisement characteristics.

These analyses had a manipulation check scope, confirming the construct taken by Lanzini (Lanzini P. et al., 2021).

Perception of the Ad in terms of SC, GWP, and GPI (AdPerc_SC, AdPerc_GWP, AdPerc_GPI)

This section presents the outcomes of the factor analysis and reliability assessment related to perceptions, in terms of SC, GWP, and GPI linked to the displayed advertisement, conducted primarily as a manipulation check to ensure the experiment's integrity. The Kaiser-Meyer-Olkin measure assessed dataset suitability for factor analysis, yielding a value of 0.487, indicating moderate appropriateness. Bartlett's Test of Sphericity was significant (Approx. $X^2 = 92.574$, $df = 3$, $p < 0.001$), supporting dataset appropriateness (see Table I.1). Principal component analysis extracted a single factor. The factor loadings for each displayed advertisement characteristic were as follows: AdPerc_SC: 0.871, AdPerc_GWP: -0.238, and AdPerc_GPI: 0.897 (see Table I.2). These loadings emphasize the perceived impact of the advertisement regarding SC and GPI. Cronbach's alpha assessed reliability, yielding a coefficient of 0.291 for the three items. The standardized item alpha was 0.335. Both values are below the conventional 0.7 threshold, indicating limited internal consistency within the construct (see Tables J.1).

Further analysis regarding the correlation reveals that the variables AdPerc_SC and AdPerc_GPI are highly correlated, while the variable AdPerc_GPI is moderately negatively correlated with AdPerc_GWP (see Table K.1).

Characteristics on which you base your purchases (GPI_C)

The ensuing analysis explores results from the factor analysis and reliability assessment conducted to clarify the latent structure and internal consistency of the Green Purchase Intent construct, relative to the characteristics that lead to a purchase. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy determined dataset suitability for factor analysis ($KMO = 0.544$), suggesting moderate adequacy. Bartlett's Test of Sphericity was significant (Approx. $X^2 = 36.340$, $df = 6$, $p < 0.001$), supporting dataset

appropriateness (see Table L.1), confirming the construct taken by Lanzini (Lanzini P. et al., 2021). Correlation matrix examination reveals significant associations ($p < 0.05$) among purchase-influencing characteristics: Sustainability and Price ($r = 0.029$) Sustainability and Design ($r = 0.453$) Price and Design ($r = 0.000$) Price and Quality ($r = 0.025$) Design and Quality ($r = 0.007$) (see Table L.2). These links shed light on interrelationships among distinct factors influencing green purchase intentions. Principal component analysis with Varimax rotation and Kaiser normalization produced a rotated component matrix, displaying factor loadings of each characteristic on two extracted components. Two components emerged, with factor loadings for each characteristic as follows: component 1 (GPI_C_NoSC_2Factor): Design (0.836), Price (0.702), and component 2 (GPI_C_SC_2Factor): Sustainability (0.854), Quality (0.705) (see Table L.3). Lower Cronbach's alpha values warrant a nuanced understanding of internal consistency (see Table M.1). Lastly, variables were rounded for consistency with the others as done previously (GPI_C_NoSC_Rnd, GPI_C_SC_Rnd). These results are also confirmed by a Regression analysis conducted between SC_Rnd and GPI_C which is shown in Appendix B, Tables N.

Sustainability Consciousness, Reliability on the labels, Greenwashing Perception (SC, SCLABELS, GWP)

In the following factor analysis, data uncovered meaningful associations among these variables: SC, SCLABELS, and GWP. The Kaiser-Meyer-Olkin measure, at 0.553, indicated moderate sampling adequacy, complemented by the statistical significance of Bartlett's Test of Sphericity (see Table O.1). Exploring factor loadings, "I consider myself a sustainability-conscious customer" (SC) exhibited a notable association with Factor 1 (0.800), while "I am able to spot a case of Greenwashing" (GWPRECO) aligned with Factor 1 (0.674) as well. "I base my choices on the labels that I find on the packaging of the products" (SCLABELS) also contributed to Factor 1 (0.626). These results suggest a shared underlying factor (see Table O.2).

Although Cronbach's alpha coefficient was slightly below the ideal threshold ($\alpha = 0.477$), it hints at potential consistency among the variables (see Table P.1).

In summary, the factor analysis reveals a shared underlying factor among the variables, indicating that individuals who consider themselves sustainability-conscious customers consider themselves also more proficient at recognizing greenwashing practices and relying on product labels. This analysis was conducted with manipulation check purposes.

5.3 CORRELATIONS AND CROSSTABS

Crosstab GWPCHANN & PICHANN

A frequency analysis was first conducted to explore participants' responses regarding their sources of learning about Greenwashing and the channels that usually influence their purchases. The analysis includes valid and missing cases, measures of central tendency, measures of dispersion, and frequency distributions for both variables.

The most common way participants learned about Greenwashing was through the internet (39.2%), followed by Word of Mouth (12.1%).

Television (2.5%), Instagram (11.6%), and University sources (4.0%) also contributed to participants' awareness of Greenwashing.

A notable proportion (25.1%) reported not learning about Greenwashing at all (see Table Q.2 and Figure Q.1).

The Internet was also the most influential channel for participants' purchases (39.7%), followed also in this case by Word of Mouth (22.1%).

Instagram (14.1%) and other channels (4.0%) also contributed to participants' purchasing choices.

A substantial proportion (14.1%) reported that none of the channels influenced their purchases (see Table Q.3 and Figure Q.2).

These findings offer insights into the diverse sources from which participants acquire information about Greenwashing and the channels significantly affecting their purchasing behavior. The positive

skewness in both distributions suggests that the majority of participants have been exposed to information through the Internet and Word of Mouth for learning about Greenwashing, while the Internet prominently influences their purchases. The kurtosis values indicate that the distributions are slightly different from a normal distribution (see Table Q.1).

The crosstabulation analysis examined communication channels for learning about greenwashing and their impact on purchasing decisions.

Internet is significant for both learning and influencing purchases (40 respondents).

Word of Mouth informs and influences only 8 respondents.

Television and IG (Instagram) have low influence despite mentions (see Table R.1).

Chi-square tests indicate a significant relationship (Pearson $\chi^2 = 200.509$, $p < 0.001$) (see Table R.2).

In conclusion, the Internet plays a major role in learning and influencing purchasing decisions. Word of mouth also matters but has less impact, in contrast with the works of Chen, and Zhang, but this can be explained by the fact that the times and modes of communication have changed (Chen et al., 2014; Zhang et al., 2018).

Correlation SC_Rnd & GWPRECO

In examining the manipulation check, which assesses the relationship between variables SC_Rnd, and their ability to spot greenwashing practices, significant correlations were observed. These correlations provide insights into the effectiveness of the manipulation in influencing respondents' perceptions and abilities.

Descriptive Statistics presents the means and standard deviations for the variables:

SC_Rnd: $M = 4.85$, $SD = 1.19$.

"I am able to spot a case of Greenwashing" (GWPRECO): $M = 3.72$, $SD = 1.534$ (see Table T.1).

Notably, SC_Rnd and GWPRECO are positively correlated ($r = 0.254$, $p < 0.001$), indicating that sustainability consciousness is associated with increased confidence in identifying greenwashing practices (see Table T.2).

Crosstab AGE & GWPCHANN

The crosstabulation analysis, focusing on the relationship between respondents' age groups and how they learned about greenwashing, provides valuable insights into the impact of age on information sources

Respondents aged 22 to 33 show higher counts for learning about greenwashing through various channels, with age 33 having the highest count. This suggests that individuals in their late twenties and early thirties ("millennials") are actively seeking information about greenwashing, with the Internet as a main source (see Table U.1).

The Chi-Square tests indicate that the relationship between age groups and learning channels is statistically significant (Pearson $X^2 = 604.718$, $p < 0.001$). This implies that age plays a role in how individuals acquire knowledge about greenwashing (see Table U.2).

Symmetric measures (Pearson's R and Spearman Correlation) indicate weak correlations between age groups and learning channels, suggesting that while statistically significant, the relationships are not particularly strong (see Table U.3).

In summary, the crosstabulation analysis reveals that age appears to influence how individuals learn about greenwashing, with certain age groups showing a propensity to acquire information through various channels. The statistically significant relationship highlights the importance of considering age-based communication strategies when addressing greenwashing awareness and education among consumers. However, it's essential to note that these relationships are relatively weak, indicating that other factors may also contribute to individuals' information-seeking behavior regarding greenwashing.

5.4 TESTING HYPOTHESES

H1, 2, 3. AdPerc has a positive/negative relation to SC, GWP, and GPI;

In this analysis, we aimed to assess the impact of different images on participants' perceptions of product sustainability, greenwashing perception, and green purchase intent, using an experimental

design, in which four different ADs of the same product have been shown (Block 0 Silent Brown, Block 1 Vocal Green, Block 2 Greenwashing, Block 3 Silent Green), accordingly to the differentiation made by Delmas & Burbano, to explore the effect of claim and executional messages (Delmas & Burbano, 2011).

To test these three hypotheses the ANOVA has been used, through the Univariate General Linear Model.

H1

H1.0 AdPerc_SilentBrown has a negative relation to SC

H1.1 AdPerc_VocalGreen has a positive relation to SC

H1.2 AdPerc_Greenwashing has a positive relation to SC

H1.3 AdPerc_SilentGreen has a positive relation to SC

In this analysis, we aimed to assess the impact of the four different images on participants' perceptions which were subsequently asked to evaluate the sustainability of the product associated with the image they viewed.

The results of the analysis indicated a statistically significant effect of the experimental design block on participants' perceptions of product sustainability, as evidenced by a significant Corrected Model ($F(3, 195) = 13.566, p < 0.001$). The effect size, indicated by partial eta squared ($\eta^2 = 0.173$), highlights a moderate impact of the experimental design block on participants' sustainability perceptions (see Table V.2). This suggests that the specific image participants viewed had a notable influence on their judgments of product sustainability.

Further examination through pairwise comparisons revealed significant differences between all experimental design blocks. Participants who viewed the Silent Brown image perceived the product as significantly less sustainable compared to those who saw the other three images (Silent Green, Vocal Green, and Greenwashing) between which there were no significant differences in sustainability perceptions as shown in Table 5.1.

Table 5.1 – Pairwise comparisons H1

EXP Design Block	EXP Design Block	Mean	Sig.
0	1	-1,471	<,001
	2	-1,571	<,001
	3	-1,384	<,001
1	0	1,471	<,001
	2	-,100	,725
	3	,087	,771
2	0	1,571	<,001
	1	,100	,725
	3	,187	,510
3	0	1,384	<,001
	1	-,087	,771
	2	-,187	,510

The mean difference is significant at the ,05 level.

The univariate tests, emphasizing the impact of the experimental design block, were consistent with these findings. The analysis confirmed that the choice of image had a significant effect on participants' sustainability judgments (see Table V.3).

The multiple comparisons, based on observed means, provided additional insights. These comparisons reinforced the significant differences between the Silent Brown block and the other blocks. The error term was calculated as $MSE = 2.044$ (see Table V.4).

In summary, the analysis demonstrated that the images participants were exposed to significantly influenced their perceptions of product sustainability. While the participants who viewed the first image had lower sustainability perceptions ($M = 2,92$), the images in Blocks 1 (Vocal Green), 2 (Greenwashing), and 3 (Silent Green) did not significantly differ from each other in terms of sustainability judgments ($M = 4,39; 4,49; 4,30$) (see Table V.1). This suggests the importance of visual cues and design elements in shaping consumers' perceptions of product sustainability, which could have implications for marketing and sustainability communication strategies. But also, the fact they haven't been able to make a critical judgment between the other three images is relevant, because it means that they have not been able to distinguish between the false claims from the true ones.

Hence, the H1 is fully supported.

H2

H2.0 AdPerc_SilentBrown has a negative relation to GWP

H2.1 AdPerc_VocalGreen has a negative relation to GWP

H2.2 AdPerc_Greenwashing has a negative relation to GWP

H2.3 AdPerc_SilentGreen has a negative relation to GWP

In this analysis, we aimed to investigate the impact of the four different images on participants' perceptions of greenwashing likelihood associated with the product depicted in those images and were subsequently asked to evaluate the likelihood of greenwashing related to the product they viewed.

The results of the analysis revealed a statistically significant effect of the experimental design block on participants' perceptions of greenwashing likelihood, as indicated by a significant Corrected Model ($F(3, 195) = 3.760, p = 0.012$). The effect size, represented by partial eta squared ($\eta^2 = 0.055$), suggests a small but significant impact of the experimental design block on participants' perceptions of greenwashing likelihood. This implies that the specific image participants viewed had a discernible influence on their judgments of potential greenwashing (see Table V.6).

Further exploration through pairwise comparisons showed, as in Table 5.2, significant differences between the Silent Brown Block and the other blocks. Participants who viewed the first image (Block 0) perceived the product as significantly less likely to be associated with greenwashing compared to those who saw the other images. There were no significant differences in greenwashing likelihood perceptions between Blocks 1, 2, and 3 (Vocal Green, Greenwashing, Silent Green).

Table 5.2 – Pairwise comparisons H2

EXP Design Block	EXP Design Block	Mean	Sig.
0	1	-,749	,041
	2	-1,096	,002
	3	-,923	,012
1	0	,749	,041
	2	-,347	,327
	3	-,174	,640
2	0	1,096	,002
	1	,347	,327
	3	,174	,624
3	0	,923	,012
	1	,174	,640
	2	-,174	,624

The mean difference is significant at the ,05 level.

The univariate tests, emphasizing the effect of the experimental design block, aligned with these findings. The analysis underscored that the choice of image had a significant impact on participants' perceptions of greenwashing likelihood (see Table V.7).

The multiple comparisons, based on observed means, reinforced the significant differences between Silent Brown Block (0) and the other blocks, while no significant differences were observed between Blocks 1, 2, and 3. The error term was determined as $MSE = 3.177$ (see Table V.8).

In summary, the analysis demonstrated that the images participants were exposed to significantly influenced their perceptions of the likelihood of greenwashing associated with the depicted product. Specifically, the first image (Silent Brown) led to lesser perceptions of greenwashing likelihood ($M = 3,36$) compared to the other images ($M = 4,11; 4,46; 4,28$) (see Table V.5), which is expected, but almost no difference in the other three scenarios suggests that people are still not able to distinguish what is greenwashing and what is not, considering all three as subjected to Greenwashing (contrary to the hypotheses).

Hence, H2 is formally not supported, a part of H2.0, but it confirms the confusion between Blocks 1, 2, and 3, between which no significant difference has been found, which is very relevant for this scope.

H3

H3.0 AdPerc_SilentBrown has a negative relation to GPI

H3.1 AdPerc_VocalGreen has a positive relation to GPI

H3.2 AdPerc_Greenwashing has a positive relation to GPI

H3.3 AdPerc_SilentGreen has a positive relation to GPI

In this analysis, we sought to investigate the influence of different images on participants' intentions to purchase a product by assessing their comfort level in buying a product based on the same previous image they viewed.

The results of the analysis indicate a marginally significant effect of the experimental design block on participants' purchase intent comfort, as indicated by a Corrected Model ($F(3, 195) = 2.275, p = 0.081$).

The effect size, represented by partial eta squared ($\eta^2 = 0.034$), suggests a small impact of the

experimental design block on participants' comfort levels in purchasing the product. While the overall effect was marginally significant, it suggests that the image participants viewed had some influence on their comfort levels in making a purchase decision (see Table V.10).

Further exploration through pairwise comparisons, shown in Table 5.3, reveals that there were significant differences between the Silent Brown Block and Vocal Green Block, as well as between the Silent Brown Block and Greenwashing Block. Participants who viewed the Silent Brown image reported significantly lower comfort levels in buying the product compared to those who saw the images in Vocal Green and Greenwashing Blocks. No significant differences were observed between the Silent Green and Silent Brown Blocks.

Table 5.3 – Pairwise comparisons H3

EXP Design Block	EXP Design Block	Mean	Sig.
0	1	-,744	,019
	2	-,633	,036
	3	-,549	,084
1	0	,744	,019
	2	,111	,716
	3	,196	,544
2	0	,633	,036
	1	-,111	,716
	3	,084	,783
3	0	,549	,084
	1	-,196	,544
	2	-,084	,783

The mean difference is significant at the ,05 level.

The univariate tests confirmed that the choice of the image had some influence on participants' comfort levels in making a purchase decision (see Table V.11).

The multiple comparisons, based on observed means, reinforced the significant differences between Block 0 and Block 1 and between Block 0 and Block 2 (see Table V.12). However, no other significant differences were observed between the remaining blocks.

In summary, the analysis revealed that the images participants viewed had a modest influence on their comfort levels in making a purchase decision. Specifically, participants who viewed the Silent Images (Brown and Green) reported lower comfort levels ($M = 3,56; 4,11$) compared to those who saw the images in Blocks 1 and 2 ($M = 4,30; 4,19$) (see Table V.9). This suggests that visual cues and design

elements play a role in shaping consumers' comfort levels in making purchasing decisions, with potential implications for marketing strategies and product presentation. In this specific case, it is consistent with the results in H1, but not with the results in H2.

Hence, the H3 is supported, a part of H3.0 which is actually neutral.

These results are also consistent if compared to the ones of De Jong, Nyilasy, and Parguel (De Jong et al., 2018; Nyilasy et al., 2014; Parguel et al., 2015).

Additional findings:

AdPerc_C

This study aimed to explore the characteristics associated with the displayed product in different scenarios, including "Silent Brown," "Vocal Green," "Greenwashing," and "Silent Green." Five key product characteristics, namely sustainability, reliability, ethics, expense, and good quality, were analyzed across these scenarios.

Descriptive statistics provide insights into the mean, standard deviation, standard error, and confidence intervals for each product characteristic in the different scenarios. For instance, when considering sustainability, participants in the "Silent Brown" scenario reported a mean value of 2.72, while those in the "Vocal Green," "Greenwashing," and "Silent Green" scenarios reported mean values of 4.24, 4.28, and 4.11, respectively (see Table V.13).

Oneway ANOVA tests were conducted to determine whether significant differences exist between the scenarios in terms of participants' perceptions of each product characteristic. Results indicated that for sustainability, there were significant differences between the scenarios ($F(3,195) = 12.993$, $p < .001$). Similar analyses were performed for reliability, ethics, expense, and good quality. For each of these characteristics, significant differences were found between the scenarios (reliability: $p = .167$, ethics: $p < .001$, expense: $p < .001$, good quality: $p = .170$) (see Table V.14).

Effect sizes, including Eta-squared and Omega-squared, were calculated to estimate the proportion of variance accounted for by the scenarios. For sustainability, Eta-squared was found to be 0.167,

indicating a moderate effect size. Similar effect sizes were calculated for reliability, ethics, expense, and good quality (see Table V.15).

Post hoc analyses using the LSD test were conducted to identify specific differences between scenarios. For sustainability, participants in the "Silent Brown" scenario reported significantly lower ratings compared to the "Vocal Green," "Greenwashing," and "Silent Green" scenarios ($p < .001$). Similar post hoc analyses were conducted for the other product characteristics, revealing significant differences between scenarios for each characteristic (see Table V.16).

In summary, this analysis revealed that the scenarios significantly influenced participants' perceptions of product characteristics. Specifically, the "Greenwashing" and "Vocal Green" scenarios were associated with higher ratings across most characteristics compared to the "Silent Brown" scenario. These findings provide valuable insights into how different scenarios affect consumer perceptions of product characteristics.

Please note that the significance level was set at $\alpha = 0.05$ for all analyses.

We can conclude that Sustainability is mostly associated with the Greenwashing and the Vocal Green scenarios, followed by the Silent Green (see Figure V.1).

Reliability is mostly associated with Vocal Green and Ethics is most associated with Vocal and Silent Green (see Figures V.2 & V.3).

Expense and Good Quality instead are mostly associated with Greenwashing (see Figures V.4 & V.5).

AdPerc_Color

In this analysis, we aimed to understand how different visual images influenced participants' recollection of colors associated with those images.

The results of the analysis revealed that there was no statistically significant effect of the experimental design block on participants' recollection of colors ($F(3, 195) = 1.164, p = 0.325$). The effect size, represented by partial eta squared ($\eta^2 = 0.018$), indicates a very small impact of the experimental design block on color recall. In essence, the images participants viewed did not significantly affect their ability to recollect colors (see Table V.17).

Pairwise comparisons further confirmed, as shown in Table 5.4 the absence of significant differences between the experimental design blocks.

Table 5.4 – Pairwise comparisons AdPerc_Color

EXP Design Block	EXP Design Block	Mean	Sig.
0	1	,201	,599
	2	-,367	,300
	3	,223	,560
1	0	-,201	,599
	2	-,577	,121
	3	,022	,956
2	0	,376	,300
	1	,577	,121
	3	,598	,107
3	0	-,223	,560
	1	-,022	,956
	2	-,598	,107

The mean difference is significant at the ,05 level.

The univariate tests, which compared the different blocks, supported the overall finding of no significant influence of image type on participants' color recall (see Table V.18).

The multiple comparisons, based on observed means, reinforced the absence of significant differences between the blocks. This implies that the visual images used in this study did not significantly impact participants' color recollection (see Table V.19).

In summary, the ANOVA analysis suggests that the experimental design blocks, represented by different images, had little to no influence on participants' ability to recollect colors. Participants were equally likely to recall colors, regardless of the image they viewed. This finding implies that color memory may not be significantly affected by visual stimuli in this context.

H4. SC has a negative relation to GWP;

In this series of regression analyses, we explored the relationships between sustainability consciousness (SC_Rnd) and various dependent variables related to individuals' perceptions and knowledge in the context of greenwashing. Each regression aimed to investigate whether sustainability consciousness significantly influenced these dependent variables. Here is a summary of the findings from the three regression analyses:

Regression Analysis 1: Knowledge of Greenwashing (see Tables W.1, 2, 3, 4)

The first analysis investigated whether sustainability consciousness influenced individuals' knowledge of greenwashing.

The R^2 value was 0.024, indicating that approximately 2.4% of the variability in respondents' knowledge of greenwashing could be attributed to their sustainability consciousness.

The overall regression model was statistically significant ($p = 0.028$), indicating that sustainability consciousness significantly explained respondents' knowledge of greenwashing.

The coefficient for sustainability consciousness was statistically significant ($p = 0.028$), suggesting that individuals with higher sustainability consciousness were more likely to possess better knowledge of greenwashing.

Regression Analysis 2: Self-Assessed Ability to Spot Greenwashing (see Tables W.5, 6, 7, 8)

The second analysis examined the relationship between sustainability consciousness and individuals' self-assessed ability to spot cases of greenwashing.

The R^2 value was 0.065, indicating that approximately 6.5% of the variability in individuals' self-assessment of their ability to spot greenwashing could be attributed to their sustainability consciousness.

The overall regression model was statistically significant ($p < 0.001$), indicating that sustainability consciousness significantly explained individuals' (self-assessed) abilities.

The coefficient for sustainability consciousness was statistically significant ($p < 0.001$), revealing a positive relationship between sustainability consciousness and self-assessed abilities. Individuals with higher sustainability consciousness were more likely to believe they could spot cases of greenwashing.

Regression Analysis 3: Perception of Companies' Sustainability Efforts (see Tables W.9, 10, 11, 12)

The third analysis examined the impact of sustainability consciousness on individuals' perceptions of companies' sustainability efforts.

The R^2 value (0.004), indicates that only a small fraction of the variability in respondents' perceptions of corporate sustainability efforts could be attributed to their sustainability consciousness.

The overall regression model was not statistically significant ($p = 0.349$), suggesting that sustainability consciousness alone did not significantly explain respondents' perceptions.

The coefficient for sustainability consciousness was not statistically significant ($p = 0.349$), indicating no strong relationship between sustainability consciousness and perceptions of corporate sustainability efforts.

In summary, the regression analyses yielded different results for each dependent variable. While sustainability consciousness did not significantly affect perceptions of corporate sustainability efforts, it positively impacted individuals' knowledge of greenwashing (GWPK) and their self-assessed ability to spot such cases (GWPRECO). These findings highlight the multifaceted nature of the relationship between sustainability consciousness and various aspects of sustainability awareness and perception. Further research may be needed to explore additional factors influencing these perceptions comprehensively.

Hypothesis 4 is then supported except for the GWPCOMPANY factor.

H5. Demographics have a moderating role between SC and GWP

Following analyses are conducted with the Process procedure Written by Andrew F. Hayes, model 1.

H5A – The female gender has a positive moderating role between SC and GWP compared to the male gender (see Tables X.1, 2, 3)

This analysis explores whether gender moderates the relationship between SC_Rnd and GWPK. Here are the key findings:

The model explains a moderate amount of variance in GWPK ($R^2 = 3.88\%$, $F = 2.61$, $p = 0.0528$).

SC_Rnd is not a significant predictor of GWPK ($p = 0.7961$), indicating that SC_Rnd is not associated with GWPK.

GENDER is not a significant predictor of GWPK ($p = 0.8548$).

The interaction term is not statistically significant ($p = 0.5554$), suggesting that gender does not moderate the relationship between SC_Rnd and GWPK.

This analysis explores whether gender moderates the relationship between SC_Rnd and GWPRECO.

Here are the key findings:

The model explains a small amount of variance in GWPRECO ($R^2 = 6.67\%$, $F = 4.64$, $p = 0.0037$).

SC_Rnd is not a significant predictor of GWPRECO ($p = 0.2697$), suggesting that SC_Rnd is not associated with GWPRECO.

GENDER is not a significant predictor of GWPRECO ($p = 0.9984$).

The interaction term is not statistically significant ($p = 0.8736$), indicating that gender does not moderate the relationship between SC_Rnd and GWPRECO.

This analysis investigates whether gender moderates the relationship between SC_Rnd and GWPCOMPANY. Here are the key findings:

The model explains a small amount of variance in GWPCOMPANY ($R^2 = 1.84\%$, $F = 1.22$, $p = 0.3036$).

SC_Rnd is not a significant predictor of GWPCOMPANY ($p = 0.5676$), indicating that SC_Rnd is not associated with GWPCOMPANY.

GENDER is not a significant predictor of GWPCOMPANY ($p = 0.2335$).

The interaction term is not statistically significant ($p = 0.3828$), suggesting that gender does not moderate the relationship between SC_Rnd and GWPCOMPANY.

In addition, a t-test was performed: (see Tables X.4, 5)

The current study investigates gender-based disparities in perceptions of sustainability, specifically focusing on comprehension of Greenwashing, the ability to identify such instances, and perceptions of corporate sustainability efforts. Independent samples t-tests were utilized to explore potential variations between male and female respondents.

Variables of interest encompassed "Do you know what 'Greenwashing' is?", "I am able to spot a case of Greenwashing," and "Many companies are making a serious effort to be more sustainable."

Independent samples t-tests were employed, assessing mean equality between Female and Male groups.

Descriptive statistics reveal that, on average, female participants scored higher on "Do you know what 'Greenwashing' is?" ($M = 1.62, SD = 0.801$) compared to males ($M = 1.49, SD = 0.699$). Similarly, females reported a slightly lower ability to identify Greenwashing cases ($M = 3.68, SD = 1.585$) than males ($M = 3.81, SD = 1.467$). Regarding perceptions of companies' sustainability efforts, female respondents exhibited a slightly higher mean ($M = 4.30, SD = 1.372$) than males ($M = 4.09, SD = 1.360$).

Levene's tests confirmed equal variances assumption for "Do you know what 'Greenwashing' is?" but not for the other two measures. Independent samples t-tests were conducted under both equal variances assumed and not assumed conditions. For "Do you know what 'Greenwashing' is?", no significant gender difference was found ($t = 1.190, df = 194, p = 0.235$). Similar non-significant trends were observed for the other measures.

Results indicate that gender disparities were not statistically significant in perceptions of "Greenwashing," identification ability, or evaluation of corporate sustainability efforts. This suggests consistent gender-based perceptions and understanding of these concepts. Non-significant findings might stem from sample composition or question-wording, confirming the results from the ANOVAs.

H5B – Age has a negative moderating role between SC and GWP (see Tables X.6, 7, 8)

This analysis investigates whether age moderates the relationship between SC_Rnd and GWPK.

Here are the key findings:

The model explains a modest amount of variance in GWPK ($R^2 = 7.26\%, F = 5.06, p = 0.0021$).

SC_Rnd is a significant predictor of GWPK ($p = 0.0260$), indicating that SC_Rnd is associated with GWPK.

AGE is not a significant predictor of GWPK ($p = 0.4914$).

The interaction term is not statistically significant ($p = 0.1309$), suggesting that age does not moderate the relationship between SC_Rnd and GWPK.

This analysis investigates whether age moderates the relationship between SC_Rnd and GWPRECO.

Here are the key findings:

The model explains a moderate portion of the variance in GWPRECO ($R^2 = 6.54\%$, $F = 4.5517$, $p = 0.0042$).

SC_Rnd does not significantly influence GWPRECO ($p = 0.1074$).

AGE also does not significantly affect GWPRECO ($p = 0.7265$).

The interaction term is not significant ($p = 0.6993$).

These results suggest that age does not moderate the relationship between SC_Rnd and GWPRECO.

Age level does not significantly alter the association between SC_Rnd and GWPRECO.

Additional investigations may be required to identify potential moderators or other factors impacting this relationship.

This analysis explores whether age moderates the relationship between SC_Rnd and GWPCOMPANY.

Here are the key findings:

The model only explains a minimal portion of the variance in GWPCOMPANY ($R^2 = 0.86\%$, $F = 0.5646$, $p = 0.6390$).

SC_Rnd does not significantly affect GWPCOMPANY ($p = 0.3200$).

AGE also does not significantly influence GWPCOMPANY ($p = 0.3970$).

The interaction term is not significant ($p = 0.4661$).

These results indicate that age does not moderate the relationship between SC_Rnd and GWPCOMPANY.

The level of age does not significantly modify the association between SC_Rnd and GWPCOMPANY.

Further investigation may be required to identify potential moderators or other factors impacting this relationship.

H5C – Education has a positive moderating role between SC and GWP (see Tables X.9, 10, 11)

In this study, we conducted a moderation analysis to investigate whether education (EDU) acts as a moderator in the relationship between an independent variable, SC_Rnd, and the outcome variable, GWPK. The results of the analysis are presented below, and their implications are discussed.

The model explains a modest 5.74% of the variance in GWPK. The F-statistic is statistically significant ($F = 3.94, p < 0.05$), indicating that at least one predictor significantly predicts GWPK.

SC_Rnd: For each unit increase in SC_Rnd, there is a corresponding decrease of approximately 0.52 in GWPK ($coeff = -0.52, SE = 0.18, t = -2.82, p = 0.0053$).

EDU: Similarly, an increase of one unit in EDU is associated with a decrease of approximately 0.68 in GWPK ($coeff = -0.68, SE = 0.26, t = -2.56, p = 0.0111$).

The interaction term between SC_Rnd and EDU is statistically significant ($coeff = 0.13, SE = 0.05, t = 2.38, p = 0.0183$). This finding suggests that the effect of SC_Rnd on GWPK is influenced by the level of education (EDU). In other words, the moderation analysis demonstrates that the relationship between SC_Rnd and GWPK is contingent on individuals' educational backgrounds.

The interaction term contributes an additional 2.75% of the variance in GWPK ($R^2 = 0.0275$). The F-statistic for this interaction term is statistically significant ($F = 5.66, p = 0.0183$), providing further evidence for the moderation effect of education.

The analysis reveals that the effect of SC_Rnd on GWPK is conditional on participants' educational levels. For instance, at an educational level of 2, a one-unit increase in SC_Rnd is associated with a substantial decrease of approximately 0.27 in GWPK ($coeff = -0.27, SE = 0.08, t = -3.14, p = 0.0019$). However, at higher educational levels (EDU = 3 and EDU = 4), the negative effect of SC_Rnd on GWPK becomes less pronounced and is no longer statistically significant.

The results of this moderation analysis provide insights into the nuanced relationship between consumers' sustainability consciousness (SC_Rnd) and their greenwashing knowledge (GWPK), which is contingent on their educational backgrounds (EDU). This suggests that educational levels significantly moderate the effect of SC_Rnd on GWPK. At lower levels of education, sustainability consciousness has a more pronounced negative impact on greenwashing knowledge. However, as education levels increase, this effect weakens and becomes statistically non-significant.

Another moderator analysis investigates the potential moderating role of education (EDU) on the relationship between an independent variable, SC_Rnd, and the outcome variable, GWPRECO. The results are summarized and discussed in detail below.

The model explains approximately 7.69% of the variance in GWPRECO, with an F-statistic of 5.42, which is statistically significant ($p = 0.0013$). This indicates that at least one predictor significantly influences GWPRECO.

SC_Rnd: For each unit increase in SC_Rnd, there is a corresponding increase of approximately 0.88 in GWPRECO ($coeff = 0.88$, $SE = 0.37$, $t = 2.39$, $p = 0.0180$).

EDU: However, the effect of EDU on GWPRECO is not statistically significant ($coeff = 0.72$, $SE = 0.53$, $t = 1.37$, $p = 0.1730$).

The interaction term between SC_Rnd and EDU is not statistically significant ($coeff = -0.17$, $SE = 0.11$, $t = -1.53$, $p = 0.1267$). This suggests that there is no significant moderation effect of education (EDU) on the relationship between SC_Rnd and GWPRECO in this context.

The interaction term contributes only 1.11% to the variance in GWPRECO ($R^2 = 0.0111$). The F-statistic for this interaction term is not statistically significant ($F = 2.35$, $p = 0.1267$), indicating that the interaction does not significantly improve the model's predictive power.

The analysis explored whether education moderates the relationship between consumers' environmental perceptions (SC_Rnd) and their willingness to engage in pro-environmental behaviors (GWPRECO). The results indicate that the effect of SC_Rnd on GWPRECO is not significantly influenced by individuals' educational backgrounds.

In this context, the role of education as a moderator in the SC_Rnd-GWPRECO relationship is not supported. This implies that regardless of their educational backgrounds, consumers' environmental perceptions have a consistent effect on their willingness to engage in pro-environmental behaviors. This lack of moderation suggests that educational levels do not significantly alter the relationship between SC_Rnd and GWPRECO in the given sample.

This analysis examines if education moderates the relationship between SC_Rnd and GWPCOMPANY.

The results are as follows:

The model explains 2.01% of the variance in GWPCOMPANY ($F = 1.33, p = 0.2658$).

SC_Rnd has a weak positive effect on GWPCOMPANY ($coeff = 0.59, p = 0.0840$).

EDU doesn't significantly influence GWPCOMPANY ($p = 0.2051$).

The interaction term is not significant ($p = 0.1265$).

Education doesn't moderate the relationship between SC_Rnd and GWPCOMPANY.

Education levels do not significantly affect the SC_Rnd -GWPCOMPANY association.

Future research can explore other potential moderators or underlying factors in this relationship.

H5D – Income has a positive moderating role between SC and GWP (see Tables X.12, 13, 14)

This analysis explores whether income moderates the relationship between SC_Rnd and GWPK. The key findings are as follows:

The model accounts for a modest amount of the variance in GWPK ($R^2 = 3.52\%, F = 2.33, p = 0.0762$).

SC_Rnd is not a statistically significant predictor of GWPK ($p = 0.1034$), suggesting that SC_Rnd does not directly impact GWPK.

Income is not a statistically significant predictor of GWPK ($p = 0.2862$), indicating that income is not directly associated with GWPK.

The interaction term is not statistically significant ($p = 0.4148$), indicating that income does not moderate the relationship between SC_Rnd and GWPK.

In summary, income does not act as a moderator in the relationship between SC_Rnd and GWPK. This implies that the effect of SC_Rnd on GWPK is consistent across various income levels.

This analysis examines whether income acts as a moderator in the relationship between SC_Rnd and GWPRECO. Here are the main findings:

The model explains a substantial amount of the variance in GWPRECO ($R^2 = 7.92\%, F = 5.51, p = 0.0012$).

SC_Rnd is a significant predictor of GWPRECO ($p = 0.0061$), suggesting that SC_Rnd has a direct influence on GWPRECO.

Income, however, is not a statistically significant predictor of GWPRECO ($p = 0.1183$), indicating that income does not have a direct relationship with GWPRECO.

The interaction term is not statistically significant ($p = 0.1810$), indicating that income does not moderate the relationship between SC_Rnd and GWPRECO.

In summary, income does not act as a moderator in the relationship between SC_Rnd and GWPRECO.

This implies that the effect of SC_Rnd on GWPRECO remains consistent across different income levels.

This analysis investigates whether income moderates the relationship between SC_Rnd and GWPCOMPANY. The key findings are as follows:

The model explains a small portion of the variance in GWPCOMPANY ($R^2 = 3.98\%$, $F = 2.65$, $p = 0.0501$).

SC_Rnd is not a significant predictor of GWPCOMPANY ($p = 0.1682$), suggesting that SC_Rnd does not have a direct impact on GWPCOMPANY.

Income is not a significant predictor of GWPCOMPANY ($p = 0.7093$), indicating that income is not directly associated with GWPCOMPANY.

The interaction term is not statistically significant ($p = 0.3585$), implying that income does not moderate the relationship between SC_Rnd and GWPCOMPANY.

These results suggest that income does not play a moderating role in the relationship between SC_Rnd and GWPCOMPANY. In other words, the impact of SC_Rnd on GWPCOMPANY remains consistent across different income levels.

H5E – Nationality has a moderating role between SC and GWP (see Tables X.15, 16, 17)

This analysis investigates whether the variable "Nation" operates as a moderator in the relationship between SC_Rnd and GWPK. Here are the primary results:

The model elucidates a portion of the variance in GWPK ($R^2 = 3.29\%$, $F = 2.1858$, $p = 0.0910$).

SC_Rnd stands as a predictor of GWPK; however, the relationship is not statistically significant ($p = 0.0954$). This suggests that SC_Rnd does not exhibit a direct influence on GWPK in this context.

The predictor NATION is also not a statistically significant direct predictor of GWPK ($p = 0.6131$).

The interaction term does not achieve statistical significance ($p = 0.6573$), indicating that Nation does not moderate the relationship between SC_Rnd and GWPK.

In summary, the analysis reveals that Nation does not function as a moderator in the relationship between SC_Rnd and GWPK. This implies that the influence of SC_Rnd on GWPK remains consistent across different nations.

This analysis explores whether the variable "Nation" acts as a moderator in the relationship between SC_Rnd and GWPRECO. The following findings summarize the analysis:

The model accounts for a significant portion of the variance in GWPRECO ($R^2 = 7.56\%$, $F = 5.2894$, $p = 0.0016$).

SC_Rnd is a statistically significant predictor of GWPRECO ($p = 0.0028$), signifying that SC_Rnd has a direct influence on GWPRECO.

On the other hand, NATION is not a statistically significant predictor of GWPRECO ($p = 0.9185$), suggesting that NATION does not directly affect GWPRECO.

The interaction term is not statistically significant ($p = 0.8930$), indicating that NATION does not moderate the relationship between SC_Rnd and GWPRECO.

In summary, the analysis demonstrates that NATION does not function as a moderator in the relationship between SC_Rnd and GWPRECO. This implies that the effect of SC_Rnd on GWPRECO remains consistent across different nations.

This analysis delves into the possible moderating role of the variable "Nation" in the relationship between SC_Rnd and GWPCOMPANY. Here are the key findings:

Model Summary: The model elucidates a significant portion of the variance in GWPCOMPANY ($R^2 = 1.80\%$, $F = 1.1854$, $p = 0.3165$).

SC_Rnd serves as a significant predictor of GWPCOMPANY ($p = 0.1617$), signifying that SC_Rnd exerts a direct influence on GWPCOMPANY.

On the other hand, the predictor NATION does not exhibit a statistically significant direct relationship with GWPCOMPANY ($p = 0.4021$).

The interaction term does not reach statistical significance ($p = 0.2437$). This outcome suggests that, in the context of this analysis, Nation does not moderate the relationship between SC_Rnd and GWPCOMPANY.

In summary, the analysis indicates that Nation does not act as a moderator in the relationship between SC_Rnd and GWPCOMPANY. This implies that the influence of SC_Rnd on GWPCOMPANY remains consistent across different nations.

The H5 is then non-supported, a part of the factors of Education and GWP, where Education is indeed a moderator between Sustainability Consciousness and Greenwashing Knowledge.

H6. Communication channels have a moderating role between SC and GWP

This in-depth analysis examines the intricate relationship between the variables SC_Rnd, GWPCHANN, and GWPK to understand how GWPCHANN functions as a moderator in this context.

The following analyses are conducted with the Process procedure Written by Andrew F. Hayes, model 1. The model demonstrates its capacity to significantly explain the variance in GWPK, with an R^2 value of 9.29%. The F-statistic of 6.5193 suggests that the overall model is statistically significant ($p = 0.0003$), indicating that the independent variables, SC_Rnd, GWPCHANN, and their interaction term, jointly contribute to explaining the variance in GWPK.

SC_Rnd is a robust and significant predictor of GWPK ($p = 0.0030$). This suggests that changes in SC_Rnd are associated with significant changes in GWPK, indicating a direct relationship between SC_Rnd and GWPK.

In contrast, GWPCHANN does not appear to exert a direct influence on GWPK as it is not a statistically significant predictor ($p = 0.1918$).

The interaction term, which embodies the interplay between SC_Rnd and GWPCHANN, is found to be statistically significant ($p = 0.0299$). This indicates that GWPCHANN moderates the relationship between SC_Rnd and GWPK.

To further dissect this interaction, the analysis provides conditional effects at specific levels of GWPCHANN.

GWPCHANN = 2: At this level, the effect of SC_Rnd on GWPK is statistically significant ($p = 0.0025$), with a negative coefficient of -0.1687. This implies that as SC_Rnd increases, GWPK decreases significantly when GWPCHANN is at 2.

GWPCHANN = 6: In contrast, at GWPCHANN = 6, the effect of SC_Rnd on GWPK is no longer statistically significant ($p = 0.8561$), with a much smaller coefficient of -0.0106. This suggests that as GWPCHANN increases to 6, the influence of SC_Rnd on GWPK weakens and is no longer statistically significant.

The significant interaction between SC_Rnd and GWPCHANN highlights the moderating role of GWPCHANN in the relationship between SC_Rnd and GWPK. This means that the impact of SC_Rnd on GWPK is contingent on the level of GWPCHANN. The interaction term suggests that GWPCHANN can either amplify or weaken the relationship between SC_Rnd and GWPK.

At GWPCHANN = 2, the negative effect of SC_Rnd on GWPK signifies that when GWPCHANN is low, changes in SC_Rnd have a substantial and detrimental effect on GWPK. However, at GWPCHANN = 6, the non-significant effect of SC_Rnd indicates that GWPCHANN mitigates the influence of SC_Rnd on GWPK.

In practical terms, this means that the dynamics of the relationship between SC_Rnd and GWPK vary depending on the value of GWPCHANN. Organizations or policymakers may need to consider the role of GWPCHANN as a potential moderating factor when aiming to understand or leverage the effects of SC_Rnd on GWPK. This nuanced understanding can lead to more effective strategies and decisions in various contexts (see Table Y.1).

This analysis investigates GWPCHANN's moderating influence in the SC_Rnd and GWPRECO relationship. The key findings are summarized below:

The model accounts for a significant portion of GWPRECO variance ($R^2 = 14.71\%$, $F = 11.0383$, $p = 0.0000$). This demonstrates that SC_Rnd, GWPCHANN, and their interaction collectively impact GWPRECO.

SC_Rnd: A robust predictor of GWPRECO ($p = 0.0006$), signifying its direct influence.

GWPCHANN: Lacks statistical significance ($p = 0.4604$) as a direct predictor of GWPRECO.

The interaction term, is statistically insignificant ($p = 0.0726$), suggesting that GWPCHANN doesn't moderate SC_Rnd's impact on GWPRECO.

At GWPCHANN = 2: SC_Rnd significantly affects GWPRECO ($p = 0.0001$) with a positive coefficient of 0.4371, indicating a strong influence.

At GWPCHANN = 6: SC_Rnd's effect on GWPRECO is no longer significant ($p = 0.1159$), with a smaller coefficient of 0.1806.

While SC_Rnd notably influences GWPRECO, GWPCHANN doesn't moderate this relationship. The non-significant interaction term suggests that SC_Rnd's effect remains consistent across different GWPCHANN levels.

GWPCHANN doesn't serve as a moderator for the SC_Rnd and GWPRECO relationship. This implies that SC_Rnd's impact on GWPRECO remains consistent regardless of GWPCHANN levels, potentially aiding organizations and researchers in their decision-making processes (see Table Y.2).

This analysis investigates whether the variable GWPCHANN acts as a moderator in the relationship between SC_Rnd and GWPCOMPANY. The following results summarize the analysis:

The model explains a minor portion of the variance in GWPCOMPANY ($R^2 = 0.75\%$, $F = 0.4858$, $p = 0.6925$).

SC_Rnd is not a statistically significant predictor of GWPCOMPANY ($p = 0.2670$), suggesting that SC_Rnd does not have a direct relationship with GWPCOMPANY.

Likewise, GWPCHANN is not a statistically significant predictor of GWPCOMPANY ($p = 0.5124$), indicating that GWPCHANN does not directly influence GWPCOMPANY.

The interaction term is not statistically significant ($p = 0.4604$), signifying that GWPCHANN does not moderate the relationship between SC_Rnd and GWPCOMPANY.

In summary, the analysis reveals that GWPCHANN does not serve as a moderator in the relationship between SC_Rnd and GWPCOMPANY. Consequently, the effect of SC_Rnd on GWPCOMPANY remains consistent across different levels of GWPCHANN (see Table Y.3).

The H6 is then supported, as a part of the GWPCOMPANY factor, but this result is in fact consistent with the third regression in H4.

H7. GWP has a mediator role between SC and GPI;

The provided analysis in SPSS aims to explore whether Greenwashing Perception (GWPRECO) acts as a mediator between Sustainability Consciousness (SC_Rnd) and Green Purchase Intent (GPIAGWP).

First, a frequency analysis was conducted, to provide valuable insights into individuals' responses regarding their purchase intentions when faced with potential cases of Greenwashing. A significant portion of respondents (27.6%) indicated that they would not purchase the product at all if they recognized it as a Greenwashing case. The majority (34.7%) expressed their willingness to buy the product only if there were no other options due to factors like high prices of genuinely sustainable products or their unavailability. This reflects the complex interplay between consumer skepticism and external factors influencing their choices. Moreover, 20.1% of respondents stated that they would consider buying the product if they genuinely liked it, highlighting the importance of personal preferences. Additionally, 8.5% of participants mentioned that they might purchase the product but would remain skeptical about buying any sustainable brand in the future, indicating a level of distrust in the market (see Table Z.1 and Figure Z.1).

The results of the analysis, based on the Process procedure Written by Andrew F. Hayes, model 4 (see Table Z.2), are as follows:

These statistics indicate that the model for GWPRECO, the mediator variable, explains a significant portion of the variance in Greenwashing Perception. The substantial R^2 value (0.0647) suggests that

the mediator, GWPRECO, accounts for a noteworthy proportion of the variability in individuals' capacity to recognize greenwashing cases. The highly significant F-statistic ($p < 0.001$) confirms the statistical significance of the relationship between SC_Rnd and GWPRECO, supporting the role of GWPRECO as a mediator.

Within the model for GPIAGWP, the R^2 value is relatively low (0.0220), indicating that the predictors (SC_Rnd and GWPRECO) collectively explain only a small fraction of the variability in Green Purchase Intent. The F-statistic, which tests the overall significance of the model, is not statistically significant at a conventional significance level ($p = 0.1130$). This suggests that the model does not possess substantial explanatory power for GPIAGWP.

The direct effect of SC_Rnd on GPIAGWP is statistically significant, with a coefficient of -0.2053 ($p = 0.0397$). This result implies that there is a direct and negative relationship between Sustainability Consciousness (SC_Rnd) and Green Purchase Intent when exposed to a GW case (GPIAGWP), indicating that as individuals' sustainability consciousness increases, their intent to make green purchases tends to decrease when they are exposed to a GW scenario.

The analysis proceeds to examine the indirect effect of SC_Rnd on GPIAGWP through the mediator GWPRECO. The calculated indirect effect is 0.0047, with a bootstrapped standard error (BootSE) of 0.0287. The confidence interval for the indirect effect ranges from -0.0512 to 0.0647, encompassing zero.

The findings suggest that Sustainability Consciousness (SC_Rnd) has a statistically significant direct effect on Green Purchase Intent (GPIAGWP), implying that individuals with higher sustainability consciousness exhibit lower intent to make green purchases when exposed to GW, which supports the findings shown in Zhang's research (Zhang et al., 2018).

Regarding the role of GWPRECO as a mediator, the indirect effect of SC_Rnd on GPIAGWP through GWPRECO is not statistically significant. The confidence interval for the indirect effect includes zero, indicating that GWPRECO does not significantly mediate the relationship between Sustainability Consciousness and Green Purchase Intent.

In summary, while there is a direct and negative relationship between Sustainability Consciousness and Green Purchase Intent when exposed to a case of GW, Greenwashing Perception (GWPRECO) does not appear to mediate this relationship. These results suggest that an individual's capacity to recognize greenwashing cases may not be an intermediate factor influencing the relationship between sustainability consciousness and green purchase intent.

A previous regression analysis explored the relationship between SC and GPIAGWP, which seems to support this result (see Tables Z.3, 4, 5, 6).

Hence, the H7 is not supported.

CONCLUSIONS AND FUTURE RESEARCH

6.1 CONCLUSIONS AND PRACTICAL IMPLICATIONS

The study's participant demographics showcased remarkable diversity, reflecting a wide range of origins, genders, ages, educational backgrounds, and income levels. This diversity greatly bolsters the external validity and generalizability of our research findings, making them applicable to a broader population.

When examining participants' self-identified sustainability consciousness, the data revealed a significant proportion of respondents expressing strong agreement with their commitment to sustainability as consumers, and a majority indicated their regular purchase of sustainable products. Additionally, a substantial percentage noted that their choices were influenced by product labels.

In summary, this study primarily engaged individuals who self-identify as sustainability-conscious consumers, reflecting a growing awareness of environmental issues and ethical consumerism, in line with previous studies (e.g., Freestone & Mcgoldrick, 2008). These diverse sociodemographic profiles enhance the comprehensiveness of this research, providing valuable insights into perceptions of greenwashing and environmentally conscious purchasing intentions across different societal dimensions.

First of all this research has revealed valuable insights into how individuals learn about greenwashing and the communication channels that influence their purchasing behavior. The data demonstrates that the Internet is a predominant source for both learning and influencing purchasing decisions. Word of mouth, while significant, holds less sway over participants' choices, in contrast with some other older research (Chen et al., 2014). Television and Instagram, despite being mentioned, exhibit lower influence levels.

These findings emphasize the importance of digital channels, particularly the Internet, in shaping consumers' awareness of Greenwashing and driving their purchase decisions. Acknowledging these dynamics is pivotal for marketing strategies and addressing concerns related to greenwashing in contemporary consumer environments.

Furthermore, examining the relationship between respondents' age groups and their sources of learning about greenwashing provides insightful findings. It appears that age does play a role in how individuals acquire knowledge about greenwashing, with particular age groups, especially those in their late twenties and early thirties, showing a greater tendency to seek information through various channels, primarily the Internet.

The statistical significance of this relationship underscores the importance of tailoring communication strategies based on age to promote greenwashing awareness and education among consumers. However, it's crucial to recognize that these age-related correlations, although statistically significant, are relatively weak. This suggests that while age influences information-seeking behavior regarding greenwashing, other factors may also be at play in shaping individuals' choices of information sources. Another takeaway is the analysis of respondents' awareness of Greenwashing and their capacity to identify such practices has provided valuable insights. Those well-versed in greenwashing demonstrate a clear ability to spot these deceptive practices, indicating a positive correlation between knowledge and confidence in detection. Conversely, individuals unfamiliar with greenwashing exhibit lower confidence levels in identifying it. This underscores the essential role of consumer education in empowering individuals to discern and confront misleading sustainability claims effectively.

Furthermore, the examination of the predominant emotional responses when encountering greenwashing highlighted "Disappointment" as the predominant sentiment among respondents. These collective findings underscore the importance of addressing greenwashing in consumer contexts and cultivating well-informed, discerning attitudes to counter deceptive sustainability practices successfully.

It is noteworthy that in the analysis of green purchase intent, a division has emerged between two components: sustainability and quality on one side, as opposed to price and design. This finding can be useful to be applied to further research that takes into account a clusterization of the sample.

Consumer responses to potential greenwashing cases are multifaceted. A notable portion unequivocally rejects such products, indicating significant skepticism. A substantial segment exhibits

conditional purchase intent, mainly in the absence of viable sustainable alternatives. Personal preferences significantly drive behavior, while a minority remains skeptical about the sustainability market. These findings underscore the nuanced nature of consumers' responses to Greenwashing, considering factors such as skepticism, personal preferences, and external constraints (Chen & Chang, 2013). This information is crucial for marketers and policymakers aiming to understand and address consumer behavior in the context of sustainability and green products.

The analyses linked to the experiment focused on the impact of different images on participants' perceptions and associations in the context of product sustainability, greenwashing likelihood, and purchase intent.

For participants' perceptions of product sustainability, the choice of image significantly influenced their judgments, with the Silent Brown image leading to lower sustainability perceptions. While the other three images (Vocal Green, Greenwashing, and Silent Green) did not significantly differ from each other, this outcome underscores the significance of visual cues (in terms of colors, claims, and labels) in shaping consumers' sustainability perceptions, but not enough to be able to distinguish between true and false components.

Regarding participants' judgments of greenwashing likelihood, the image also had a discernible effect. Those who viewed the Silent Brown image perceived a lesser likelihood of greenwashing, as expected, but the others haven't been able to distinguish between real Green and Greenwashing, meaning that even with the "help" of labels it is not clear the difference.

Concerning participants' comfort levels in making a purchase decision, the image played a modest role. Participants who viewed the Silent Brown and the Silent Green images reported lower comfort levels compared to those who saw images in the Vocal Green and Greenwashing blocks. This finding highlights the potential influence of visual cues on consumers' purchase intentions, but still in a misleading way.

Finally, when exploring participants' associations with product characteristics, the choice of image significantly influenced their perceptions. The visual images used in this study played a substantial role

in shaping participants' associations with the characteristics of the product, highlighting the impact, also misleading, of imagery on consumer perceptions.

Collectively, these findings underscore the importance of visual elements and design cues in shaping consumers' perceptions and associations, which can have implications for marketing strategies and communication efforts in various contexts.

Have been then explored the impact of sustainability consciousness on various aspects of individuals' perceptions and knowledge in the context of greenwashing. This analysis revealed that sustainability consciousness had a significant positive influence on individuals' knowledge of greenwashing. The results emphasize that individuals with higher sustainability consciousness were more likely to possess better knowledge of greenwashing. The second analysis demonstrated a positive relationship between sustainability consciousness and individuals' self-assessed ability to spot cases of greenwashing. The findings indicate that individuals with higher sustainability consciousness were more likely to believe they could identify instances of greenwashing.

However, these self-assessments were intriguingly contradicted by the experiment, which demonstrated how, on many levels, the knowledge and recognition, and the consequent purchase intent are misled by confusion.

Further analyses provide insights into the moderating effects of gender, age, education, income, and nationality on the relationship between sustainability consciousness and various dependent variables. The findings suggest that only education significantly influences the impact of sustainability consciousness on greenwashing knowledge. Further research with larger sample sizes within specific national groups may unveil cross-cultural disparities in sustainability perceptions.

Another finding is that the relationship between sustainability consciousness and greenwashing knowledge is moderated by channels of communication, suggesting that organizations and policymakers should consider them as a potential moderating factor.

Additionally, the analysis highlights the significance of information sources and learning channels in shaping familiarity with Greenwashing. Participants informed through the Internet displayed higher

familiarity levels, emphasizing the importance of online information dissemination in enhancing awareness of Greenwashing practices.

In the end, it demonstrated a direct and negative relationship between Sustainability Consciousness and Green Purchase Intent when exposed to greenwashing. Many respondents would completely avoid buying a product upon recognizing it as Greenwashing, while others consider them only when there are limited alternatives due to factors such as high prices of genuinely sustainable options or their scarcity. This highlights the intricate relationship between consumer doubt and external factors that shape their preferences.

This implies that an individual's capacity to recognize greenwashing cases may not be an intermediate factor influencing the relationship between sustainability consciousness and green purchase intent.

6.2 LIMITATIONS AND FUTURE RESEARCH

Future investigations may consider the exploration of additional potential moderating factors and the adoption of longitudinal research designs to provide more robust insights. For instance, psychographics, as proposed by Straughan and Roberts (1999), could be an area of interest for extended inquiry, also to explore the drivers that lead individuals to make green purchases and to identify the specific characteristics of these individuals.

Furthermore, a significant area for future research in the fields of environmental psychology and consumer behavior pertains to gaining a more nuanced comprehension of the interplay between education and environmental perceptions.

Further research can also delve deeper into the underlying motivations and decision-making processes behind these responses to develop more effective strategies for promoting genuinely sustainable products (Petty & J.T. Cacioppo, 1981) .

The absence of pronounced variations in greenwashing perception among different nationalities could potentially be attributed to the limited sample sizes within specific national subgroups, as indicated by post hoc tests where some groups had fewer than two cases. Conducting more extensive research with

larger sample sizes within distinct national populations could potentially reveal cross-cultural disparities in sustainability perceptions.

An alternative avenue for future research could involve doubling the sample size to examine the demographics as potential moderators between perception of the Ad and the tested variables.

In addition, an intriguing research direction could involve clustering the sample based on Sustainability Consciousness (SC) and non-SC categories, subjecting each group to the same experimental conditions for comparative analysis.

Continuing the findings of previous studies, which have already demonstrated the negative repercussions of greenwashing: this practice not only detrimentally impacts a company's reputation and financial performance (Leonidou & Skarmeas, 2017; Walker & Wan, 2011) but also has implications for the welfare of consumers, shareholders, investors, regulatory bodies, environmental protection agencies, and even society as a whole (Guo et al., 2014), with this paper, highlighting new shades, the aim is to continue drawing attention to how this phenomenon remains a significant threat, primarily to consumers, as well as to society and the companies themselves. The final intention is to persuade relevant stakeholders to promote awareness and discourage the use of this marketing technique.

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APPENDIX A: SURVEY MATERIALS

English ▼

Intro

Hi, my name is Chiara. I'm studying for a Master's Degree in Data-Driven Marketing, with a specialization in Digital Marketing and Analytics, at the Nova IMS – Universidade Nova de Lisboa, and I am now writing my final thesis.

This survey aims to explore the correlation between Sustainability Consciousness, Greenwashing Perception, and Green Purchase Intent.

Please answer the following questions to the best of your ability and provide honest and thoughtful responses. The survey has an estimated duration of 6 minutes and all answers will be anonymous and confidential.

Your participation is greatly appreciated!

For additional questions or doubts, please contact me via email at m20210065@novaims.unl.pt

Permission Block

Do you agree to participate to this survey?

☐ Yes

☐ No

Definition Block

Greenwashing is a marketing tactic used by companies to create the impression that their products or services are environmentally friendly or sustainable when they may not be. It involves using misleading or exaggerated claims about the environmental

benefits of a product or service to appeal to environmentally conscious.

Experimental Design Block – Pic Randomization

Now focus on this image for at least 20 seconds.
Imagine you need to buy a shampoo that looks like this...



Only on the back of the bottle you can spot these symbols:



Now focus on this image for at least 20 seconds.
Imagine you need to buy a shampoo that looks like this...



Now focus on this image for at least 20 seconds.
Imagine you need to buy a shampoo that looks like this...



Now focus on this image for at least 20 seconds.
Imagine you need to buy a shampoo that looks like this...



Experimental Design Questions – IV

Based on the image you just saw:

	Low 1	2	3	4	5	6	High 7
How sustainable do you think this product is?	☐	☐	☐	☐	☐	☐	☐
How likely do you think is it a case of Greenwashing?	☐	☐	☐	☐	☐	☐	☐
How comfortable would you feel in buying this product?	☐	☐	☐	☐	☐	☐	☐

What are the characteristics that you associate with the product that you just saw:

	Low 1	2	3	4	5	6	High 7
Sustainable	☐	☐	☐	☐	☐	☐	☐
Reliable	☐	☐	☐	☐	☐	☐	☐
Ethical	☐	☐	☐	☐	☐	☐	☐
Expensive	☐	☐	☐	☐	☐	☐	☐

	Low						High
	1	2	3	4	5	6	7
Good quality	☐	☐	☐	☐	☐	☐	☐

Which is the color that immediately comes to your mind, after seeing the image?

Sustainability Consciousness Block

"I consider myself a sustainability-conscious customer"

To what extent do you agree or disagree with this sentence?

Strongly disagree	2	3	4	5	6	Strongly agree
☐	☐	☐	☐	☐	☐	☐

How often do you buy sustainable products by choice?

- ☐ Less than once per year
- ☐ Twice or three times per year
- ☐ Once per month on average
- ☐ Once per week on average
- ☐ I only buy sustainable products

"I base my choices on the labels that I find on the packaging of the products"

To what extent do you agree or disagree with this sentence?

Strongly disagree	2	3	4	5	6	Strongly agree
☐	☐	☐	☐	☐	☐	☐

Greenwashing Perception Block

Do you know what "Greenwashing" is? (not considering the short description you just read above the image)

- ☐ Yes
☐ No
☐ I'm not sure

"I am able to spot a case of Greenwashing"

To what extent do you agree or disagree with this sentence?

Strongly disagree	2	3	4	5	6	Strongly agree
☐	☐	☐	☐	☐	☐	☐

What would you feel if you realized you were facing a case of Greenwashing? (Select all that apply)

- ☐ Anger
☐ Betrayal
☐ Confusion
☐ Skepticism
☐ Disappointment
☐ Frustration
☐ I would feel offended
☐ I wouldn't care
☐ Other (please specify)

"Many companies are making a serious effort to be more sustainable"

To what extent do you agree or disagree with this sentence?

Strongly disagree	2	3	4	5	6	Strongly agree
☐	☐	☐	☐	☐	☐	☐

Green Purchase Intent Block

What are the characteristics on which you base your purchases?

	Low 1	2	3	4	5	6	High 7
Sustainability	☐	☐	☐	☐	☐	☐	☐
Price	☐	☐	☐	☐	☐	☐	☐
Design	☐	☐	☐	☐	☐	☐	☐
Quality	☐	☐	☐	☐	☐	☐	☐

If you recognized to be in front of a case of Greenwashing, would you still buy that product?

- ☐ Not at all
- ☐ Maybe, but I would feel skeptical about buying any sustainable brand
- ☐ Maybe, if I'm fond of that brand
- ☐ Maybe, if I don't have other choices (e.g. because of the high price of other real green products or because of the lack of them)
- ☐ Maybe, if i really like that product
- ☐ Yes
- ☐ Other (please specify)

Communication Channels Block - Moderator

How did you learn about Greenwashing? (not considering the short description you just read above the image)

- ☐ Word of Mouth
- ☐ Internet
- ☐ Television
- ☐ Social Media (wich one in particular?)
- ☐ Other (please specify)
- ☐ I never did

Which is the channel that usually influences your purchases?

- ☐ Word of Mouth
- ☐ Internet
- ☐ Television
- ☐ Social Media (wich one in particular?)
- ☐ Other (please specify)
- ☐ None

Sociodemo Block - Context Var - Moderator

You're almost done! Last few questions.

Where are you from?

- ☐ Italy
- ☐ Portugal
- ☐ Other (please specify)

What is the gender that best describes you?

- ☐ Female
- ☐ Male
- ☐ I don't want to specify
- ☐ Other

What is your age?

What is the highest level of education you have completed?

- ☐ Less than High School Degree
- ☐ High School Graduate

- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Phd

What is your annual household range of income?

- ☐ 0 - 25.000 €
- ☐ 26.000 - 50.000€
- ☐ 51.000 - 75.000€
- ☐ 76.000 - 100.000€
- ☐ more than 100.000€

APPENDIX B: SPSS ANALYSIS

Table A - Descriptive Sociodemographics

		Where are you from?	What is the gender that best describes you?	What is your age?	What is the highest level of education you have completed?	What is your annual household range of income?
N	Valid	198	199	199	199	196
	Missing	1	0	0	0	3
Mean		2,58	1,46	33,64	3,34	2,20
Std. Deviation		3,428	,529	10,829	,805	1,131
Skewness		2,614	,461	1,622	-,511	1,021
Std. Error of Skewness		,173	,172	,172	,172	,174
Kurtosis		6,253	-1,123	2,571	-,379	,433
Std. Error of Kurtosis		,344	,343	,343	,343	,346

Tables B - Frequencies Sociodemographics

Table B.1 - Where are you from?

	N	%
Italy	124	62,3%
Portugal	42	21,1%
Chile	1	0,5%
Germany	3	1,5%
Canada	1	0,5%
Spain	4	2,0%
Uruguay	2	1,0%
Brazil	4	2,0%
Turkey	1	0,5%
Africa	3	1,5%
Iran	4	2,0%
France	3	1,5%
USA	1	0,5%
Macedonia	1	0,5%
Mexico	1	0,5%
Scotland	1	0,5%
Slovakia	1	0,5%
Pakistan	1	0,5%
Missing System	1	0,5%

Table B.2 - What is the gender that best describes you?

	N	%
Female	110	55,3%
Male	86	43,2%
I don't want to specify	3	1,5%

Table B.3 - What is your age?

	N	%
18	2	1,0%
19	1	0,5%
20	1	0,5%
21	2	1,0%
22	8	4,0%
23	9	4,5%
24	11	5,5%
25	8	4,0%
26	6	3,0%
27	8	4,0%
28	5	2,5%
29	11	5,5%
30	13	6,5%
31	14	7,0%
32	14	7,0%
33	16	8,0%
34	9	4,5%
35	13	6,5%
36	6	3,0%
37	4	2,0%
38	3	1,5%
39	3	1,5%
40	1	0,5%
42	1	0,5%
43	2	1,0%
45	3	1,5%
46	1	0,5%
47	1	0,5%
48	1	0,5%
49	2	1,0%
50	3	1,5%
52	1	0,5%
54	2	1,0%
57	2	1,0%
58	1	0,5%
59	1	0,5%

60	1	0,5%
63	1	0,5%
65	3	1,5%
66	1	0,5%
67	1	0,5%
68	1	0,5%
69	1	0,5%
73	1	0,5%

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

	N	%
Less than High School Degree	2	1,0%
High School Graduate	31	15,6%
Bachelor's Degree	69	34,7%
Master's Degree	92	46,2%
Phd	5	2,5%

Table B.5 - What is your annual household range of income?

	N	%
0 - 25.000 €	56	28,1%
26.000 - 50.000€	85	42,7%
51.000 - 75.000€	28	14,1%
76.000 - 100.000€	14	7,0%
more than 100.000€	13	6,5%
Missing System	3	1,5%

Bar Chart

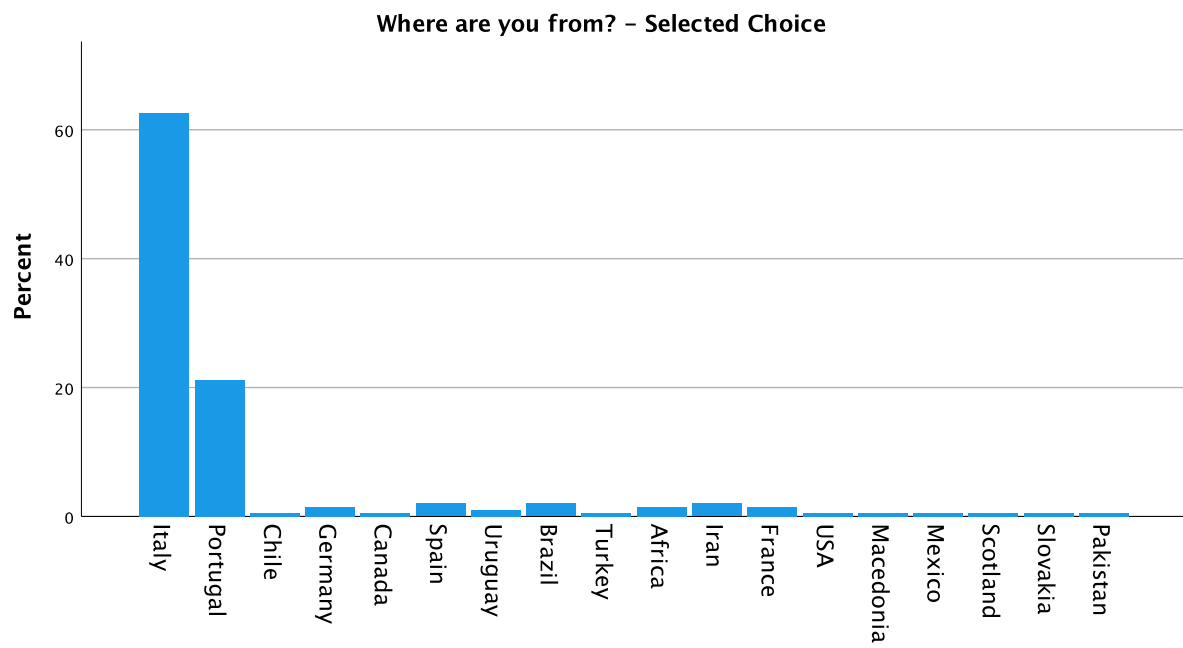


Figure B.1 – Nationality

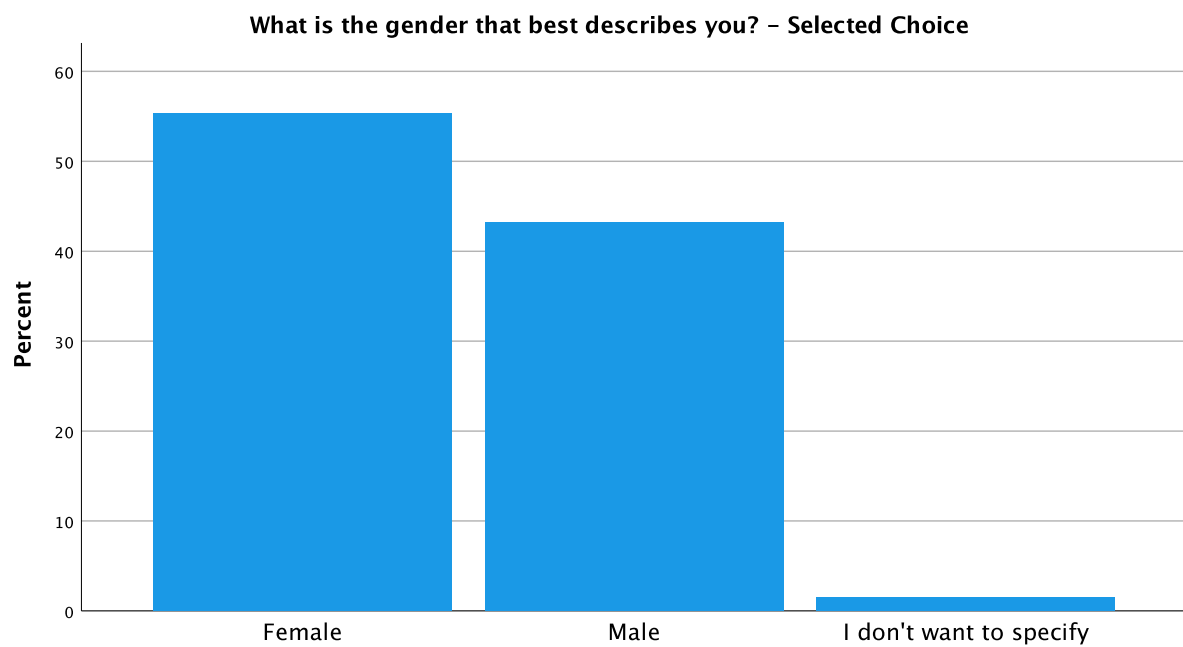


Figure B.2 - Gender

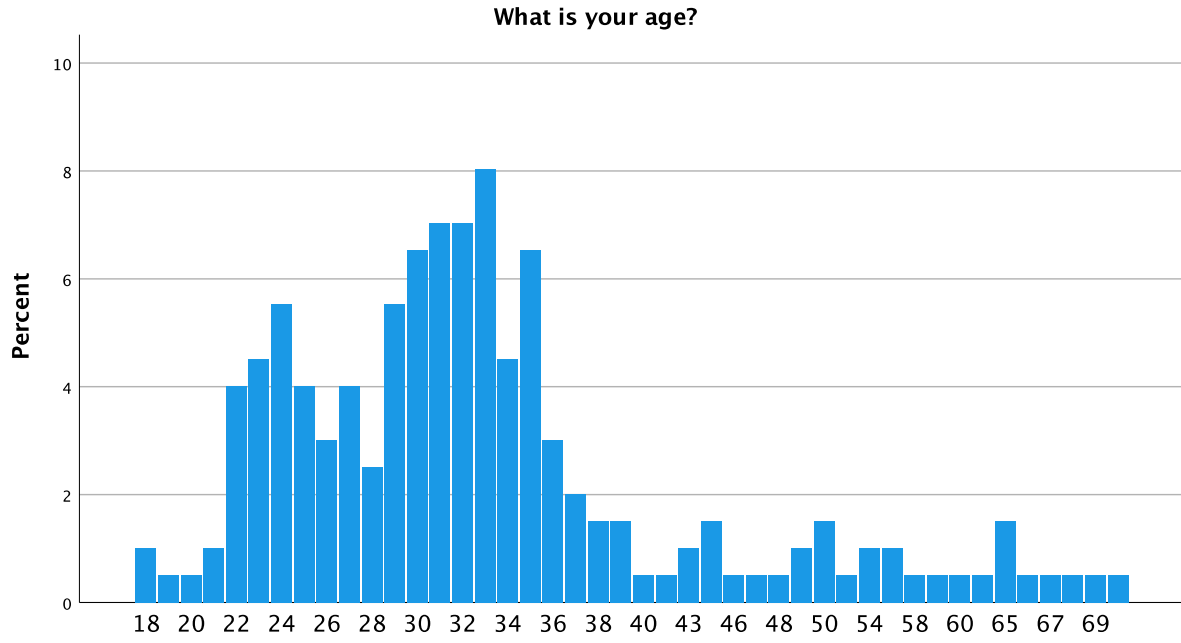


Figure B.3 - Age

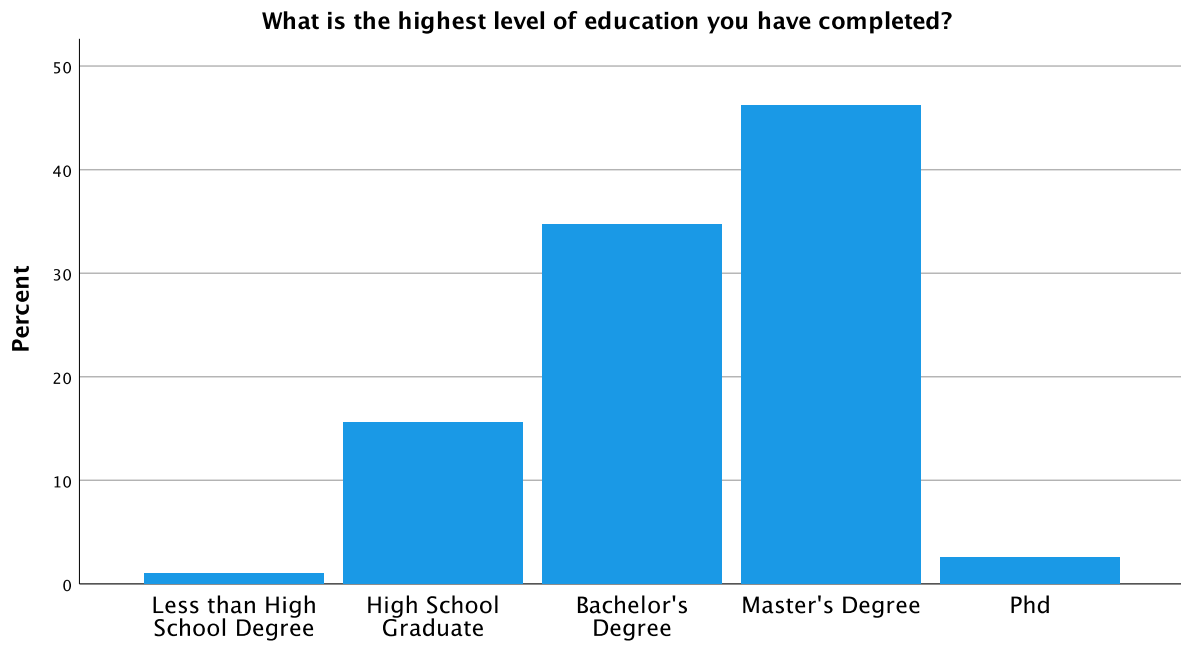


Figure B.4 - Education

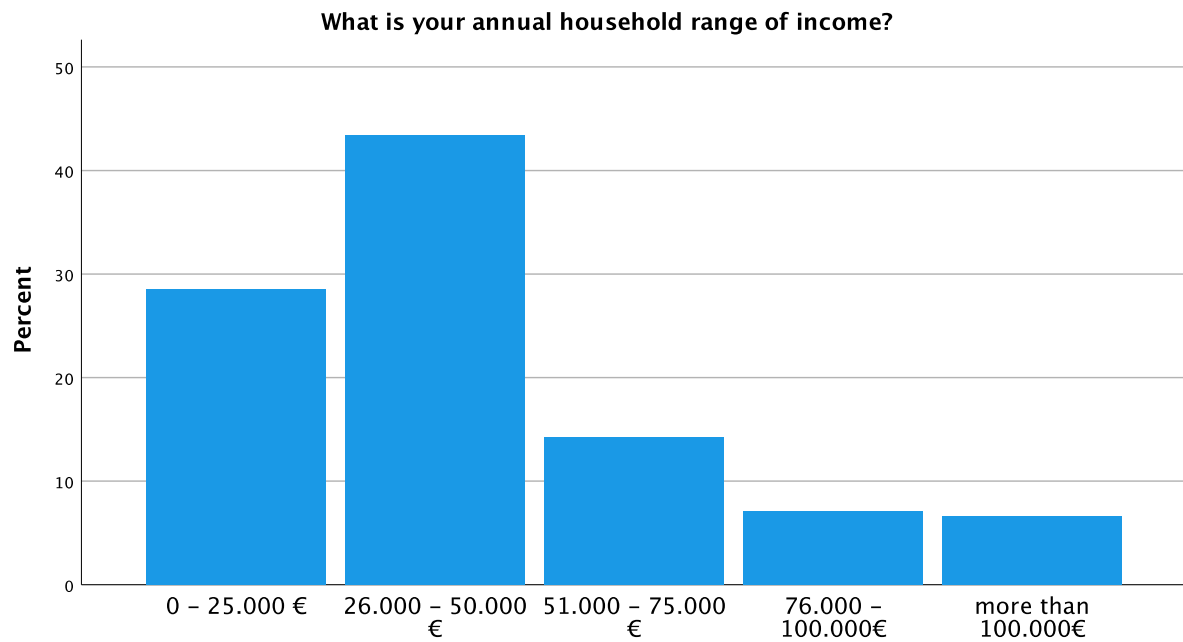


Figure B.5 - Income

Table C - Descriptives SC

		I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?	How often do you buy sustainable products by choice?	"I base my choices on the labels that I find on the packaging of the products" To what extent do you agree or disagree with this sentence?
N	Valid	199	199	199
	Missing	0	0	0
Mean		4,82	3,28	4,46
Std. Deviation		1,383	,898	1,588
Skewness		-,120	-,490	-,523
Std. Error of Skewness		,172	,172	,172
Kurtosis		-,613	-,092	-,481
Std. Error of Kurtosis		,343	,343	,343

Tables D - Frequencies SC

Table D.1 - "I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?

	N	%
Strongly disagree 1	1	0,5%
2	7	3,5%
3	29	14,6%
4	42	21,1%
5	59	29,6%
6	32	16,1%
Strongly agree 7	29	14,6%

Table D.2 - How often do you buy sustainable products by choice?

	N	%
Less than once per year	7	3,5%
Twice or three times per year	30	15,1%
Once per month on average	72	36,2%
Once per week on average	81	40,7%
I only buy sustainable products	9	4,5%

Table D.3 - "I base my choices on the labels that I find on the packaging of the products" To what extent do you agree or disagree with this sentence?

	N	%
Strongly disagree 1	11	5,5%
2	17	8,5%
3	26	13,1%
4	28	14,1%
5	63	31,7%
6	40	20,1%
Strongly agree 7	14	7,0%

Bar Chart

"I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?

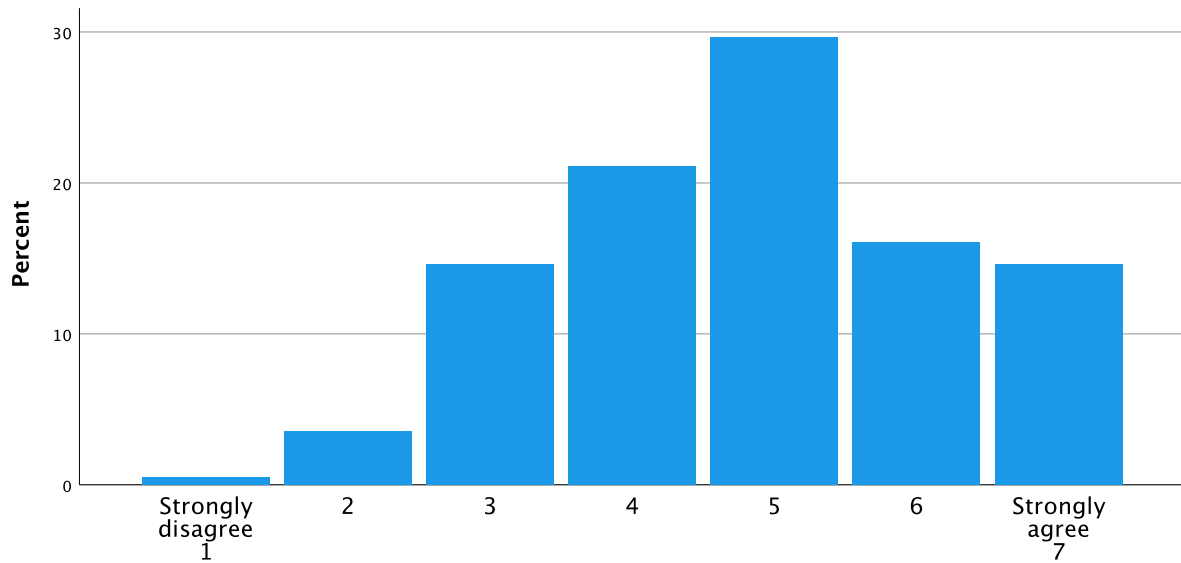


Figure D.1 - SC

How often do you buy sustainable products by choice?

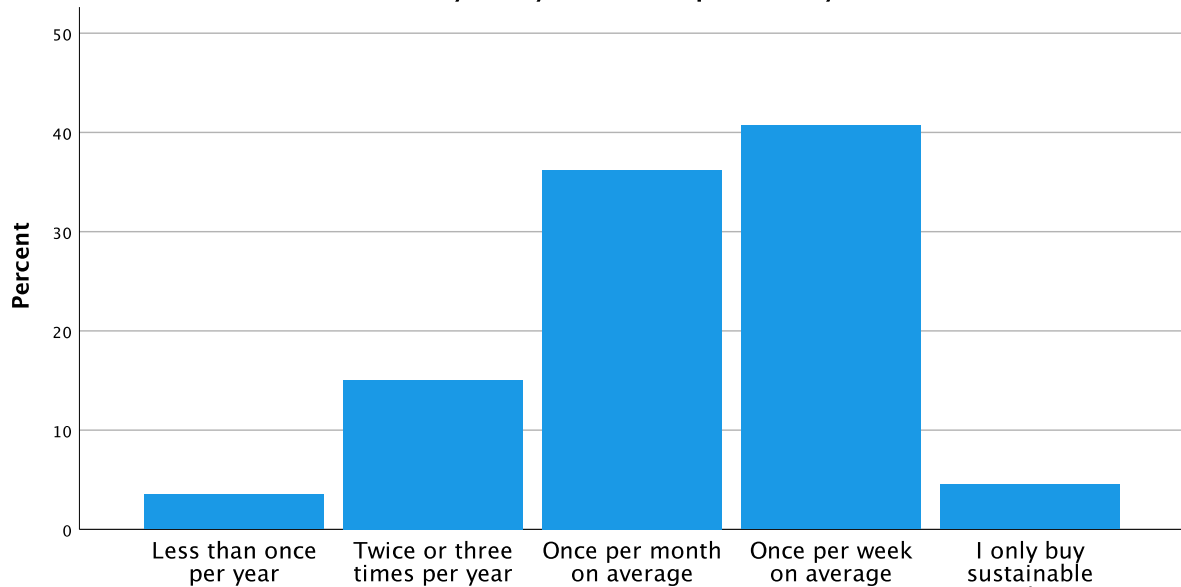


Figure D.2 - SCPURCH

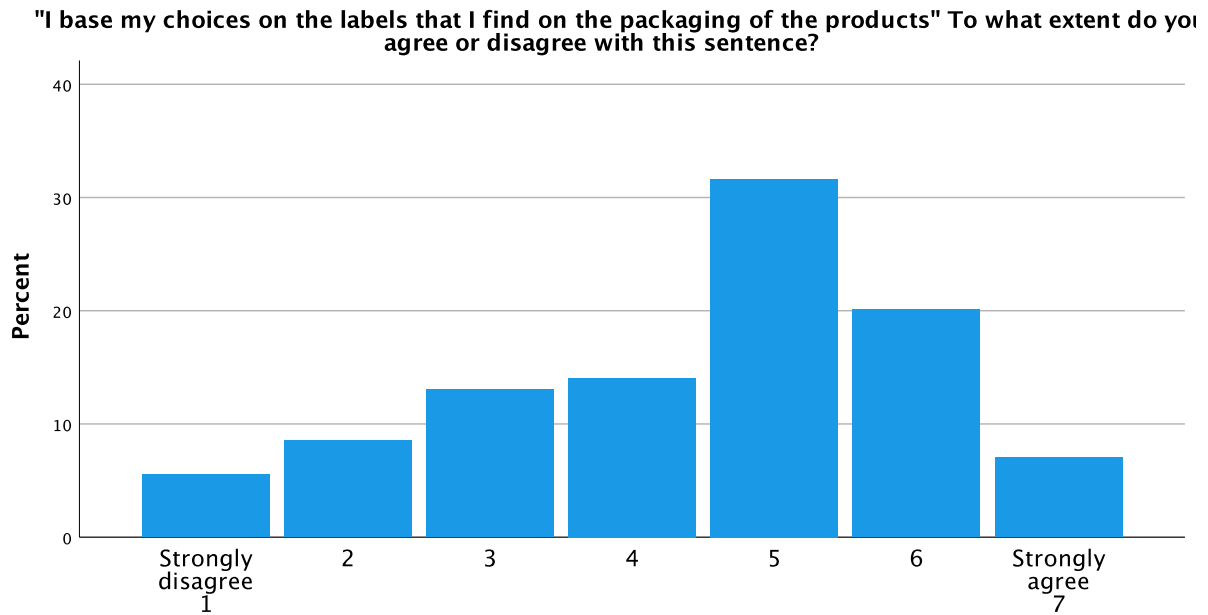


Figure D.3 - SCLABELS

Tables E - Factor Analysis SC

Table E.1 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,601
Bartlett's Test of Sphericity	Approx. Chi-Square	77,849
	df	3
	Sig.	<,001

Table E.2 - Correlation Matrix SC, SCPURCH, SCLABELS

	"I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?	How often do you buy sustainable products by choice?	"I base my choices on the labels that I find on the packaging of the products" To what extent do you agree or disagree with this sentence?
Sig. (1-tailed)			
"I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?		<,001	<,001
How often do you buy sustainable products by choice?	,000		,000

"I base my choices on the labels that I find on the packaging of the products" To what extent do you agree or disagree with this sentence?	,000	,000	
--	------	------	--

Table E.3 - Component Matrix^a

	Component 1
"I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?	,817
How often do you buy sustainable products by choice?	,810
"I base my choices on the labels that I find on the packaging of the products" To what extent do you agree or disagree with this sentence?	,625

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Tables F - Reliability SC

Table F.1 – Reliability Statistics

Cronbach's Alpha	N of Items
,574	3

Tables G- Factor Analysis AdPerc_C

Table G.1 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,786
Bartlett's Test of Sphericity	Approx. Chi-Square	492,957
	df	10
	Sig.	<,001

Table G.2 - Component Matrix^a

	Component 1
What are the characteristics that you associate with the product that you just saw: - Sustainable	,839
What are the characteristics that you associate with the product that you just saw: - Reliable	,858
What are the characteristics that you associate with the product that you just saw: - Ethical	,827
What are the characteristics that you associate with the product that you just saw: - Expensive	,675
What are the characteristics that you associate with the product that you just saw: - Good quality	,808

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Tables H - Reliability AdPerc_C

Table H.1 - Reliability Statistics

Cronbach's Alpha	N of Items
,860	5

Tables I - Factor Analysis AdPerc_SC, AdPerc_GWP, AdPerc_GPI

Table I.1 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,487
Bartlett's Test of Sphericity	Approx. Chi-Square
	df
	Sig.
	92,574
	3
	<,001

Table I.2 - Component Matrix^a

	Component 1
Based on the image you just saw: - How comfortable would you feel in buying this product?	,897
Based on the image you just saw: - How sustainable do you think this product is?	,871
Based on the image you just saw: - How likely do you think is it a case of Greenwashing?	-,238

Extraction Method: Principal Component Analysis.

a. 1 components extracted

Tables J - Reliability AdPerc_SC, AdPerc_GWP, AdPerc_GPI

Table J.1 - Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,291	,335	3

Tables K - Correlations AdPerc_SC, AdPerc_GWP, AdPerc_GPI

Table K.1 – Correlations

		Based on the image you just saw: - How sustainable do you think this product is?	Based on the image you just saw: - How likely do you think is it a case of Greenwashing?	Based on the image you just saw: - How comfortable would you feel in buying this product?
Based on the image you just saw: - How sustainable do you think this product is?	Pearson Correlation	1	-,017	,597**
	Sig. (2-tailed)		,815	<,001
	N	199	199	199
Based on the image you just saw: - How likely do you think is it a case of Greenwashing?	Pearson Correlation	-,017	1	-,149*
	Sig. (2-tailed)	,815		,036
	N	199	199	199

Based on the image you just saw: - How comfortable would you feel in buying this product?	Pearson Correlation	,597**	-,149*	1
	Sig. (2-tailed)	<,001	,036	
	N	199	199	199

** . Correlation is significant at the 0.01 level (2-tailed).

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

Tables L - Factor Analysis GPI_C

Table L.1 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,544
Bartlett's Test of Sphericity	Approx. Chi-Square	36,340
	df	6
	Sig.	<,001

Table L.2 - Correlation Matrix

		What are the characteristics on which you base your purchases? - Sustainability	What are the characteristics on which you base your purchases? - Price	What are the characteristics on which you base your purchases? - Design	What are the characteristics on which you base your purchases? - Quality
Sig. (1-tailed)	What are the characteristics on which you base your purchases? - Sustainability		,029	,453	<,001
	What are the characteristics on which you base your purchases? - Price	,029		,000	,025
	What are the characteristics on which you base your purchases? - Design	,453	,000		,007
	What are the characteristics on which you base your purchases? - Quality	,000	,025	,007	

Table L.3 - Rotated Component Matrix^a

	Component	
	1	2
What are the characteristics on which you base your purchases? - Design	,836	-,036

What are the characteristics on which you base your purchases? - Price	,702	,189
What are the characteristics on which you base your purchases? - Sustainability	-,074	,854
What are the characteristics on which you base your purchases? - Quality	,258	,705

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 3 iterations.

Tables M - Reliability GPI_C

Table M.1 – Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,416	,431	4

Tables N - Regression SC_Rnd & GPI_C

Sustainability

Table N.1 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	SC_Rnd ^b	.	Enter

a. Dependent Variable: What are the characteristics on which you base your purchases? - Sustainability

b. All requested variables entered.

Table N.2 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,653 ^a	,427	,424	1,034

a. Predictors: (Constant), SC_Rnd

Table N.3 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	156,970	1	156,970	146,730	<,001 ^b
	Residual	210,748	197	1,070		
	Total	367,719	198			

a. Dependent Variable: What are the characteristics on which you base your purchases? - Sustainability

b. Predictors: (Constant), SC_Rnd

Table N.4 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,635	,328		1,934	,055
	SC_Rnd	,921	,076	,653	12,113	<,001

a. Dependent Variable: What are the characteristics on which you base your purchases? - Sustainability

Price

Table N.5 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	SC_Rnd ^b	.	Enter

a. Dependent Variable: What are the characteristics on which you base your purchases? - Price

b. All requested variables entered.

Table N.6 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,113 ^a	,013	,008	1,499

a. Predictors: (Constant), SC_Rnd

Table N.7 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5,710	1	5,710	2,540	,113 ^b
	Residual	442,893	197	2,248		
	Total	448,603	198			

a. Dependent Variable: What are the characteristics on which you base your purchases? - Price

b. Predictors: (Constant), SC_Rnd

Tables N.8 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,391	,476		9,224	<,001
	SC_Rnd	,176	,110	,113	1,594	,113

a. Dependent Variable: What are the characteristics on which you base your purchases? - Price

Design

Table N.9 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	SC_Rnd ^b	.	Enter

a. Dependent Variable: What are the characteristics on which you base your purchases? - Design

b. All requested variables entered.

Table N.10 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,017 ^a	,000	-,005	1,600

a. Predictors: (Constant), SC_Rnd

Table N.11 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,142	1	,142	,056	,814 ^b
	Residual	504,280	197	2,560		
	Total	504,422	198			

a. Dependent Variable: What are the characteristics on which you base your purchases? - Design

b. Predictors: (Constant), SC_Rnd

Table N.12 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,642	,508		7,170	<,001
	SC_Rnd	,028	,118	,017	,236	,814

a. Dependent Variable: What are the characteristics on which you base your purchases? - Design

Quality

Table N.13 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	SC_Rnd ^b	.	Enter

a. Dependent Variable: What are the characteristics on which you base your purchases? - Quality

b. All requested variables entered.

Table N.14 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,248 ^a	,062	,057	1,038

a. Predictors: (Constant), SC_Rnd

Table N.15 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,939	1	13,939	12,926	<,001 ^b
	Residual	212,433	197	1,078		
	Total	226,372	198			

a. Dependent Variable: What are the characteristics on which you base your purchases? - Quality

b. Predictors: (Constant), SC_Rnd

Table N.16 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,754	,330		14,419	<,001
	SC_Rnd	,274	,076	,248	3,595	<,001

a. Dependent Variable: What are the characteristics on which you base your purchases? - Quality

Tables O - Factor Analysis SC, SCLABELS, GWP

Table O.1 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,553
Bartlett's Test of Sphericity	Approx. Chi-Square	37,161
	df	3
	Sig.	<,001

Table O.2 - Component Matrix^a

	Component 1
"I consider myself a sustainability-conscious customer" To what extent do you agree or disagree with this sentence?	,800
"I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?	,674
"I base my choices on the labels that I find on the packaging of the products" To what extent do you agree or disagree with this sentence?	,626

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Tables P - Reliability SC, SCLABELS, GWP

Table P.1 - Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,477	,485	3

Tables Q - Frequencies Communication Channels

Table Q.1 - Statistics

		How did you learn about Greenwashing? (not considering the short description you just read above the image) - Selected Choice	Which is the channel that usually influences your purchases? - Selected Choice
N	Valid	196	192
	Missing	3	7
Mean		3,59	2,86
Std. Deviation		2,232	1,802
Skewness		,952	,834
Std. Error of Skewness		,174	,175
Kurtosis		,744	-,603
Std. Error of Kurtosis		,346	,349

Frequencies

Table Q.2 - How did you learn about Greenwashing?
(not considering the short description you just read
above the image) - Selected Choice

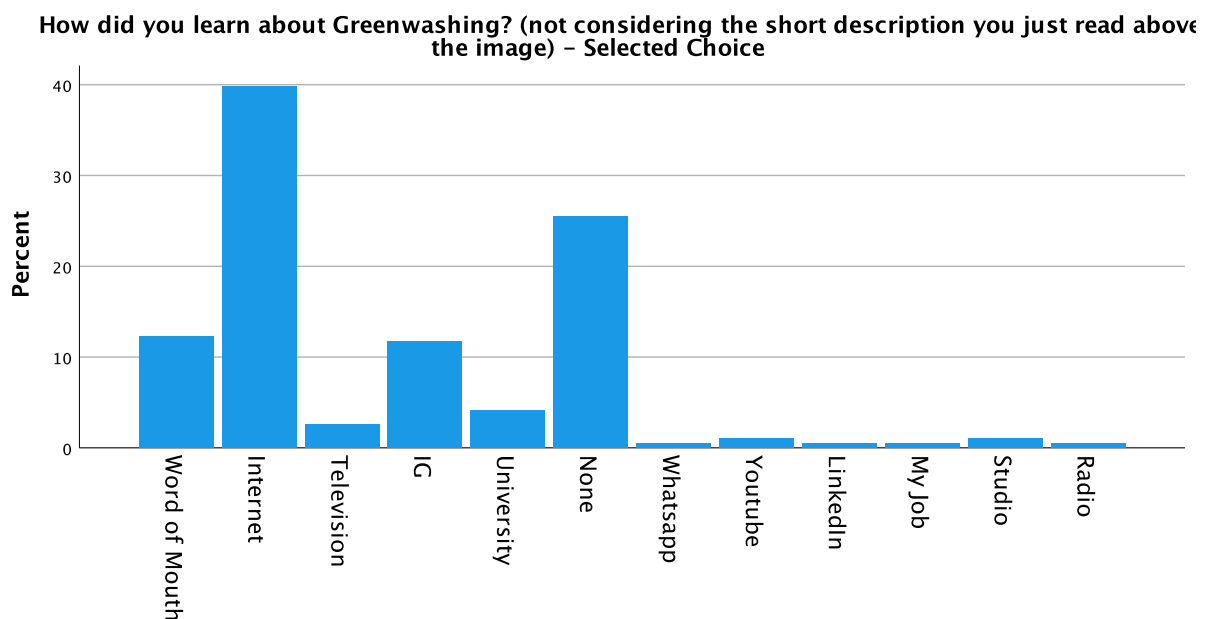
	N	%
Word of Mouth	24	12,1%
Internet	78	39,2%
Television	5	2,5%
IG	23	11,6%
University	8	4,0%
None	50	25,1%

Whatsapp	1	0,5%
Youtube	2	1,0%
LinkedIn	1	0,5%
My Job	1	0,5%
Studio	2	1,0%
Radio	1	0,5%
Missing System	3	1,5%

Table Q.3 - Which is the channel that usually influences your purchases? - Selected Choice

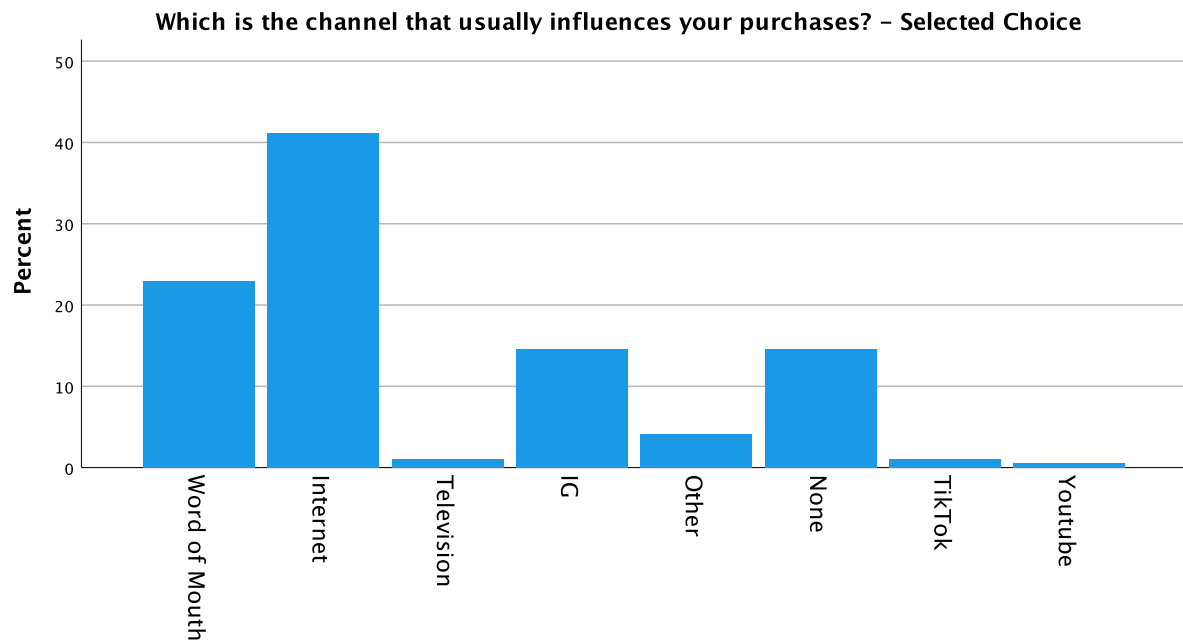
	N	%
Word of Mouth	44	22,1%
Internet	79	39,7%
Television	2	1,0%
IG	28	14,1%
Other	8	4,0%
None	28	14,1%
TikTok	2	1,0%
Youtube	1	0,5%
Missing System	7	3,5%

Bar Chart



How did you learn about Greenwashing? (not considering the short description you just read above the image) - Selected Choice

Figure Q.1 - GWPCHANN



Which is the channel that usually influences your purchases? – Selected Choice

Figure Q.2 - PICHANN

Tables R - Crosstab Communication Channels

Table R.1 - How did you learn about Greenwashing? (not considering the short description you just read above the image) - Selected Choice * Which is the channel that usually influences your purchases? - Selected Choice
Crosstabulation

		Which is the channel that usually influences your purchases? - Selected Choice								Total
		WOM	Internet	TV	IG	Other	None	TikTok	Youtube	
How did you learn about Greenwashing? (not considering the short description you just read above the image) - Selected Choice	WOM	8	11	0	1	0	4	0	0	24
	Internet	11	40	1	8	3	10	2	0	75
	Television	2	1	0	0	1	1	0	0	5
	IG	4	3	0	13	1	1	0	0	22
	University	2	2	0	2	0	2	0	0	8
	None	12	22	1	4	1	8	0	0	48
	Whatsapp	1	0	0	0	0	0	0	0	1
	Youtube	1	0	0	0	0	0	0	1	2
	LinkedIn	1	0	0	0	0	0	0	0	1
	My Job	0	0	0	0	0	1	0	0	1
	Studio	2	0	0	0	0	0	0	0	2
	Radio	0	0	0	0	1	0	0	0	1
Total		44	79	2	28	7	27	2	1	190

Table R.2 - Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	200,509 ^a	77	<,001
Likelihood Ratio	85,077	77	,247
Linear-by-Linear Association	,146	1	,702
N of Valid Cases	190		

a. 84 cells (87,5%) have expected count less than 5. The minimum expected count is ,01.

Table S - Descriptives GWPFEEL (multiple choice)

		What would you feel if you realized you were facing a case of Greenwas hing? Anger	What would you feel if you realized you were facing a case of Greenwas hing? Betrayal	What would you feel if you realized you were facing a case of Greenwas hing? Confusion	What would you feel if you realized you were facing a case of Greenwas hing? Skepticis m	What would you feel if you realized you were facing a case of Greenwas hing? Disappoin tment	What would you feel if you realized you were facing a case of Greenwas hing? Frustratio n	What would you feel if you realized you were facing a case of Greenwas hing? I would feel offended	What would you feel if you realized you were facing a case of Greenwas hing? I wouldn't care	What would you feel if you realized you were facing a case of Greenwas hing? Other
N	Valid	55	48	29	53	116	52	35	8	12
	Missi ng	144	151	170	146	83	147	164	191	187

Tables T - Correlation SC_Rnd & GWPRECO

Table T.1 - Descriptive Statistics

	Mean	Std. Deviation	N
"I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?	3,72	1,534	199
Merged SC	4,85	1,191	199

Table T.2 - Correlations

		"I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?	Merged SC
"I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?	Pearson Correlation	1	,254**
	Sig. (2-tailed)		<,001
	N	199	199
Merged SC	Pearson Correlation	,254**	1
	Sig. (2-tailed)	<,001	
	N	199	199

** . Correlation is significant at the 0.01 level (2-tailed).

Tables U Crosstab AGE & GWPCHANN

Table U.1 - What is your age? * How did you learn about Greenwashing? (not considering the short description you just read above the image)

		How did you learn about Greenwashing? (not considering the short description you just read above the image) - Selected Choice												Total
		WOM	I	TV	IG	Uni	None	Waa	YT	LI	Job	Study	R	
What is your age?	18	0	0	0	1	0	1	0	0	0	0	0	0	2
	19	0	0	0	0	0	1	0	0	0	0	0	0	1
	20	0	0	0	0	0	1	0	0	0	0	0	0	1
	21	0	1	0	0	1	0	0	0	0	0	0	0	2
	22	0	4	1	1	0	2	0	0	0	0	0	0	8
	23	1	3	0	2	0	2	0	0	0	0	0	0	8
	24	3	3	0	2	1	2	0	0	0	0	0	0	11
	25	1	2	0	1	1	3	0	0	0	0	0	0	8
	26	0	0	0	0	2	3	0	1	0	0	0	0	6
	27	0	5	0	1	0	2	0	0	0	0	0	0	8
	28	0	3	0	1	0	1	0	0	0	0	0	0	5
	29	2	3	0	3	0	0	0	1	1	0	1	0	11
	30	1	6	0	2	2	1	0	0	0	0	0	0	12
	31	2	5	0	5	0	2	0	0	0	0	0	0	14
	32	1	4	0	2	1	5	0	0	0	0	0	1	14
	33	0	9	0	1	0	6	0	0	0	0	0	0	16
	34	2	3	0	0	0	4	0	0	0	0	0	0	9
	35	2	6	1	1	0	3	0	0	0	0	0	0	13
	36	1	4	0	0	0	1	0	0	0	0	0	0	6
	37	1	3	0	0	0	0	0	0	0	0	0	0	4
	38	1	2	0	0	0	0	0	0	0	0	0	0	3
	39	0	1	0	0	0	2	0	0	0	0	0	0	3

40	0	1	0	0	0	0	0	0	0	0	0	0	1
42	0	1	0	0	0	0	0	0	0	0	0	0	1
43	0	0	1	0	0	1	0	0	0	0	0	0	2
45	0	1	0	0	0	1	0	0	0	0	0	0	2
46	0	0	0	0	0	1	0	0	0	0	0	0	1
47	0	0	1	0	0	0	0	0	0	0	0	0	1
48	0	1	0	0	0	0	0	0	0	0	0	0	1
49	0	1	0	0	0	1	0	0	0	0	0	0	2
50	0	1	0	0	0	1	0	0	0	0	1	0	3
52	1	0	0	0	0	0	0	0	0	0	0	0	1
54	1	0	0	0	0	1	0	0	0	0	0	0	2
57	1	1	0	0	0	0	0	0	0	0	0	0	2
58	0	1	0	0	0	0	0	0	0	0	0	0	1
59	1	0	0	0	0	0	0	0	0	0	0	0	1
60	1	0	0	0	0	0	0	0	0	0	0	0	1
63	0	0	1	0	0	0	0	0	0	0	0	0	1
65	1	1	0	0	0	0	1	0	0	0	0	0	3
66	0	0	0	0	0	0	0	0	0	1	0	0	1
67	0	1	0	0	0	0	0	0	0	0	0	0	1
68	0	0	0	0	0	1	0	0	0	0	0	0	1
69	0	1	0	0	0	0	0	0	0	0	0	0	1
73	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	24	78	5	23	8	50	1	2	1	1	2	1	196

Table U.2 - Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	604,718 ^a	473	<,001
Likelihood Ratio	224,749	473	1,000
Linear-by-Linear Association	,093	1	,761
N of Valid Cases	196		

a. 524 cells (99,2%) have expected count less than 5. The minimum expected count is ,01.

Table U.3 - Symmetric Measures

		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	-,022	,086	-,304	,762 ^c
Ordinal by Ordinal	Spearman Correlation	-,111	,074	-1,554	,122 ^c
N of Valid Cases		196			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Tables V - H 1,2,3 – General Linear Model – Univariate - ANOVA

EXP_AdPerc_SC (H1.0, 1.1, 1.2, 1.3)

Table V.1 - Descriptive Statistics

Dependent Variable: Based on the image you just saw: - How sustainable do you think this product is?

Experimental Design Block	Mean	Std. Deviation	N
0	2,92	1,291	50
1	4,39	1,542	46
2	4,49	1,351	57
3	4,30	1,547	46
Total	4,03	1,560	199

Table V.2 - Tests of Between-Subjects Effects

Dependent Variable: Based on the image you just saw: - How sustainable do you think this product is?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	83,198 ^a	3	27,733	13,566	<,001	,173
Intercept	3201,985	1	3201,985	1566,367	<,001	,889
Merged_Exp_Image	83,198	3	27,733	13,566	<,001	,173
Error	398,621	195	2,044			
Total	3714,000	199				
Corrected Total	481,819	198				

a. R Squared = ,173 (Adjusted R Squared = ,160)

Table V.3 - Univariate Tests

Dependent Variable: Based on the image you just saw: - How sustainable do you think this product is?

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	83,198	3	27,733	13,566	<,001	,173
Error	398,621	195	2,044			

The F tests the effect of Experimental Design Block. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Post Hoc Tests - Experimental Design Block

Table V.4 - Multiple Comparisons

Dependent Variable: Based on the image you just saw: - How sustainable do you think this product is?

LSD

(I) Experimental Design Block	(J) Experimental Design Block	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	-1,47*	,292	<,001	-2,05	-,90
	2	-1,57*	,277	<,001	-2,12	-1,02
	3	-1,38*	,292	<,001	-1,96	-,81
1	0	1,47*	,292	<,001	,90	2,05
	2	-,10	,283	,725	-,66	,46

	3		,09	,298	,771	-,50	,67
2	0		1,57*	,277	<,001	1,02	2,12
	1		,10	,283	,725	-,46	,66
	3		,19	,283	,510	-,37	,75
3	0		1,38*	,292	<,001	,81	1,96
	1		-,09	,298	,771	-,67	,50
	2		-,19	,283	,510	-,75	,37

Based on observed means.

The error term is Mean Square (Error) = 2,044.

*. The mean difference is significant at the ,05 level.

EXP_AdPerc_GWP (H2.0, 2.1, 2.2, 2.3)

Table V.5 - Descriptive Statistics

Dependent Variable: Based on the image you just saw: - How likely do you think is it a case of Greenwashing?

Experimental Design Block	Mean	Std. Deviation	N
0	3,36	1,956	50
1	4,11	1,877	46
2	4,46	1,489	57
3	4,28	1,822	46
Total	4,06	1,819	199

Table V.6 - Tests of Between-Subjects Effects

Dependent Variable: Based on the image you just saw: - How likely do you think is it a case of Greenwashing?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	35,833 ^a	3	11,944	3,760	,012	,055
Intercept	3242,093	1	3242,093	1020,608	<,001	,840
Merged_Exp_Image	35,833	3	11,944	3,760	,012	,055
Error	619,443	195	3,177			
Total	3936,000	199				
Corrected Total	655,276	198				

a. R Squared = ,055 (Adjusted R Squared = ,040)

Table V.7 - Univariate Tests

Dependent Variable: Based on the image you just saw: - How likely do you think is it a case of Greenwashing?

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	35,833	3	11,944	3,760	,012	,055
Error	619,443	195	3,177			

The F tests the effect of Experimental Design Block. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Post Hoc Tests - Experimental Design Block

Table V.8 - Multiple Comparisons

Dependent Variable: Based on the image you just saw: - How likely do you think is it a case of Greenwashing?
LSD

(I) Experimental Design Block	(J) Experimental Design Block	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	-,75*	,364	,041	-1,47	-,03
	2	-1,10*	,345	,002	-1,78	-,42
	3	-,92*	,364	,012	-1,64	-,20
1	0	,75*	,364	,041	,03	1,47
	2	-,35	,353	,327	-1,04	,35
	3	-,17	,372	,640	-,91	,56
2	0	1,10*	,345	,002	,42	1,78
	1	,35	,353	,327	-,35	1,04
	3	,17	,353	,624	-,52	,87
3	0	,92*	,364	,012	,20	1,64
	1	,17	,372	,640	-,56	,91
	2	-,17	,353	,624	-,87	,52

Based on observed means.

The error term is Mean Square(Error) = 3,177.

*. The mean difference is significant at the ,05 level.

EXP_AdPerc_GPI (H3.0, 3.1, 3.2, 3.3)

Table V.9 - Descriptive Statistics

Dependent Variable: Based on the image you just saw: - How comfortable would you feel in buying this product?

Experimental Design Block	Mean	Std. Deviation	N
0	3,56	1,618	50
1	4,30	1,590	46
2	4,19	1,394	57
3	4,11	1,595	46
Total	4,04	1,560	199

Table V.10 - Tests of Between-Subjects Effects

Dependent Variable: Based on the image you just saw: - How comfortable would you feel in buying this product?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	16,286 ^a	3	5,429	2,275	,081	,034
Intercept	3225,544	1	3225,544	1351,506	<,001	,874
Merged_Exp_Image	16,286	3	5,429	2,275	,081	,034
Error	465,393	195	2,387			
Total	3730,000	199				
Corrected Total	481,678	198				

a. R Squared = ,034 (Adjusted R Squared = ,019)

Table V.11 - Univariate Tests

Dependent Variable: Based on the image you just saw: - How comfortable would you feel in buying this product?

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	16,286	3	5,429	2,275	,081	,034
Error	465,393	195	2,387			

The F tests the effect of Experimental Design Block. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Post Hoc Tests - Experimental Design Block

Table V.12 - Multiple Comparisons

Dependent Variable: Based on the image you just saw: - How comfortable would you feel in buying this product?

LSD

(I) Experimental Design Block	(J) Experimental Design Block	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	-,74*	,316	,019	-1,37	-,12
	2	-,63*	,299	,036	-1,22	-,04
	3	-,55	,316	,084	-1,17	,07
1	0	,74*	,316	,019	,12	1,37
	2	,11	,306	,716	-,49	,72
	3	,20	,322	,544	-,44	,83
2	0	,63*	,299	,036	,04	1,22
	1	-,11	,306	,716	-,72	,49
	3	,08	,306	,783	-,52	,69
3	0	,55	,316	,084	-,07	1,17
	1	-,20	,322	,544	-,83	,44
	2	-,08	,306	,783	-,69	,52

Based on observed means.

The error term is Mean Square (Error) = 2,387.

*. The mean difference is significant at the ,05 level.

EXP_AdPerc_C

Oneway ANOVA

Table V.13 - Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
What are the characteristics that you associate with the product that						Lower Bound	Upper Bound		
	Silent Brown	50	2,72	1,262	,179	2,36	3,08	1	5
	Vocal Green	46	4,24	1,649	,243	3,75	4,73	1	7

you just saw: - Sustainable	Greenwas hing	57	4,28	1,360	,180	3,92	4,64	1	7
	Silent Green	46	4,11	1,622	,239	3,63	4,59	1	7
	Total	199	3,84	1,600	,113	3,62	4,06	1	7
What are the characteristics that you associate with the product that you just saw: - Reliable	Silent Brown	50	3,30	1,581	,224	2,85	3,75	1	7
	Vocal Green	46	3,98	1,390	,205	3,57	4,39	1	7
	Greenwas hing	57	3,75	1,430	,189	3,37	4,13	1	7
	Silent Green	46	3,72	1,642	,242	3,23	4,21	1	7
	Total	199	3,68	1,519	,108	3,47	3,90	1	7
What are the characteristics that you associate with the product that you just saw: - Ethical	Silent Brown	50	3,04	1,195	,169	2,70	3,38	1	5
	Vocal Green	46	4,17	1,704	,251	3,67	4,68	1	7
	Greenwas hing	57	3,72	1,424	,189	3,34	4,10	1	7
	Silent Green	46	4,37	1,611	,237	3,89	4,85	1	7
	Total	199	3,80	1,559	,111	3,59	4,02	1	7
What are the characteristics that you associate with the product that you just saw: - Expensive	Silent Brown	50	3,76	1,685	,238	3,28	4,24	1	7
	Vocal Green	46	4,74	1,482	,219	4,30	5,18	1	7
	Greenwas hing	57	5,21	1,292	,171	4,87	5,55	1	7
	Silent Green	46	4,41	1,529	,225	3,96	4,87	1	7
	Total	199	4,55	1,581	,112	4,33	4,77	1	7
What are the characteristics that you associate with the product that you just saw: - Good quality	Silent Brown	50	3,58	1,444	,204	3,17	3,99	1	7
	Vocal Green	46	3,96	1,228	,181	3,59	4,32	2	7
	Greenwas hing	57	4,21	1,448	,192	3,83	4,59	1	7
	Silent Green	46	4,00	1,687	,249	3,50	4,50	1	7
	Total	199	3,94	1,467	,104	3,74	4,15	1	7

Table V.14 - ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
What are the characteristics that you associate with the product	Between Groups	84,439	3	28,146	12,993	<,001
	Within Groups	422,415	195	2,166		
	Total	506,854	198			

that you just saw: - Sustainable						
What are the characteristics that you associate with the product that you just saw: - Reliable	Between Groups	11,690	3	3,897	1,706	,167
	Within Groups	445,366	195	2,284		
	Total	457,055	198			
What are the characteristics that you associate with the product that you just saw: - Ethical	Between Groups	50,602	3	16,867	7,636	<,001
	Within Groups	430,755	195	2,209		
	Total	481,357	198			
What are the characteristics that you associate with the product that you just saw: - Expensive	Between Groups	58,581	3	19,527	8,721	<,001
	Within Groups	436,615	195	2,239		
	Total	495,196	198			
What are the characteristics that you associate with the product that you just saw: - Good quality	Between Groups	10,825	3	3,608	1,693	,170
	Within Groups	415,567	195	2,131		
	Total	426,392	198			

Table V.15 - ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
What are the characteristics that you associate with the product that you just saw: - Sustainable	Eta-squared	,167	,074	,250
	Epsilon-squared	,154	,059	,239
	Omega-squared Fixed-effect	,153	,059	,238
	Omega-squared Random-effect	,057	,021	,094
What are the characteristics that you associate with the product that you just saw: - Reliable	Eta-squared	,026	,000	,071
	Epsilon-squared	,011	-,015	,056
	Omega-squared Fixed-effect	,011	-,015	,056
	Omega-squared Random-effect	,004	-,005	,019
What are the characteristics that you associate with the product that you just saw: - Ethical	Eta-squared	,105	,030	,181
	Epsilon-squared	,091	,015	,168
	Omega-squared Fixed-effect	,091	,015	,167
	Omega-squared Random-effect	,032	,005	,063
What are the characteristics that you associate with the product that you just saw: - Expensive	Eta-squared	,118	,038	,196
	Epsilon-squared	,105	,024	,184
	Omega-squared Fixed-effect	,104	,023	,183
	Omega-squared Random-effect	,037	,008	,069
	Eta-squared	,025	,000	,070

What are the characteristics that you associate with the product that you just saw: - Good quality	Epsilon-squared	,010	-,015	,056
	Omega-squared Fixed-effect	,010	-,015	,056
	Omega-squared Random-effect	,003	-,005	,019

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Post Hoc Tests

Table V.16 - Multiple Comparisons

LSD

Dependent Variable	(I) Experimental Design Block	(J) Experimental Design Block	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
What are the characteristics that you associate with the product that you just saw: - Sustainable	Silent Brown	Vocal Green	-1,519*	,301	<,001	-2,11	-,93
		Greenwashing	-1,561*	,285	<,001	-2,12	-1,00
		Silent Green	-1,389*	,301	<,001	-1,98	-,80
	Vocal Green	Silent Brown	1,519*	,301	<,001	,93	2,11
		Greenwashing	-,042	,292	,887	-,62	,53
		Silent Green	,130	,307	,671	-,47	,74
	Greenwashing	Silent Brown	1,561*	,285	<,001	1,00	2,12
		Vocal Green	,042	,292	,887	-,53	,62
		Silent Green	,172	,292	,556	-,40	,75
	Silent Green	Silent Brown	1,389*	,301	<,001	,80	1,98
		Vocal Green	-,130	,307	,671	-,74	,47
		Greenwashing	-,172	,292	,556	-,75	,40
What are the characteristics that you associate with the product that you just saw: - Reliable	Silent Brown	Vocal Green	-,678*	,309	,029	-1,29	-,07
		Greenwashing	-,454	,293	,122	-1,03	,12
		Silent Green	-,417	,309	,178	-1,03	,19
	Vocal Green	Silent Brown	,678*	,309	,029	,07	1,29
		Greenwashing	,224	,300	,456	-,37	,81
		Silent Green	,261	,315	,409	-,36	,88
	Greenwashing	Silent Brown	,454	,293	,122	-,12	1,03
		Vocal Green	-,224	,300	,456	-,81	,37
		Silent Green	,037	,300	,902	-,55	,63
	Silent Green	Silent Brown	,417	,309	,178	-,19	1,03
		Vocal Green	-,261	,315	,409	-,88	,36
		Greenwashing	-,037	,300	,902	-,63	,55
What are the characteristics that you associate with the product that you just saw: - Ethical	Silent Brown	Vocal Green	-1,134*	,304	<,001	-1,73	-,54
		Greenwashing	-,679*	,288	,019	-1,25	-,11
		Silent Green	-1,330*	,304	<,001	-1,93	-,73
	Vocal Green	Silent Brown	1,134*	,304	<,001	,54	1,73
		Greenwashing	,455	,295	,124	-,13	1,04
		Silent Green	-,196	,310	,529	-,81	,42
	Greenwashing	Silent Brown	,679*	,288	,019	,11	1,25
		Vocal Green	-,455	,295	,124	-1,04	,13
		Silent Green	-,650*	,295	,028	-1,23	-,07

What are the characteristics that you associate with the product that you just saw: - Expensive	Silent Green	Silent Brown	1,330*	,304	<,001	,73	1,93
		Vocal Green	,196	,310	,529	-,42	,81
		Greenwashing	,650*	,295	,028	,07	1,23
	Silent Brown	Vocal Green	-,979*	,306	,002	-1,58	-,38
		Greenwashing	-1,451*	,290	<,001	-2,02	-,88
		Silent Green	-,653*	,306	,034	-1,26	-,05
	Vocal Green	Silent Brown	,979*	,306	,002	,38	1,58
		Greenwashing	-,471	,297	,114	-1,06	,11
		Silent Green	,326	,312	,297	-,29	,94
	Greenwashing	Silent Brown	1,451*	,290	<,001	,88	2,02
		Vocal Green	,471	,297	,114	-,11	1,06
		Silent Green	,797*	,297	,008	,21	1,38
What are the characteristics that you associate with the product that you just saw: - Good quality	Silent Green	Silent Brown	,653*	,306	,034	,05	1,26
		Vocal Green	-,326	,312	,297	-,94	,29
		Greenwashing	-,797*	,297	,008	-1,38	-,21
	Silent Brown	Vocal Green	-,377	,298	,208	-,96	,21
		Greenwashing	-,631*	,283	,027	-1,19	-,07
		Silent Green	-,420	,298	,161	-1,01	,17
	Vocal Green	Silent Brown	,377	,298	,208	-,21	,96
		Greenwashing	-,254	,289	,381	-,82	,32
		Silent Green	-,043	,304	,887	-,64	,56
	Greenwashing	Silent Brown	,631*	,283	,027	,07	1,19
		Vocal Green	,254	,289	,381	-,32	,82
		Silent Green	,211	,289	,468	-,36	,78
	Silent Green	Silent Brown	,420	,298	,161	-,17	1,01
		Vocal Green	,043	,304	,887	-,56	,64
		Greenwashing	-,211	,289	,468	-,78	,36

*. The mean difference is significant at the 0.05 level.

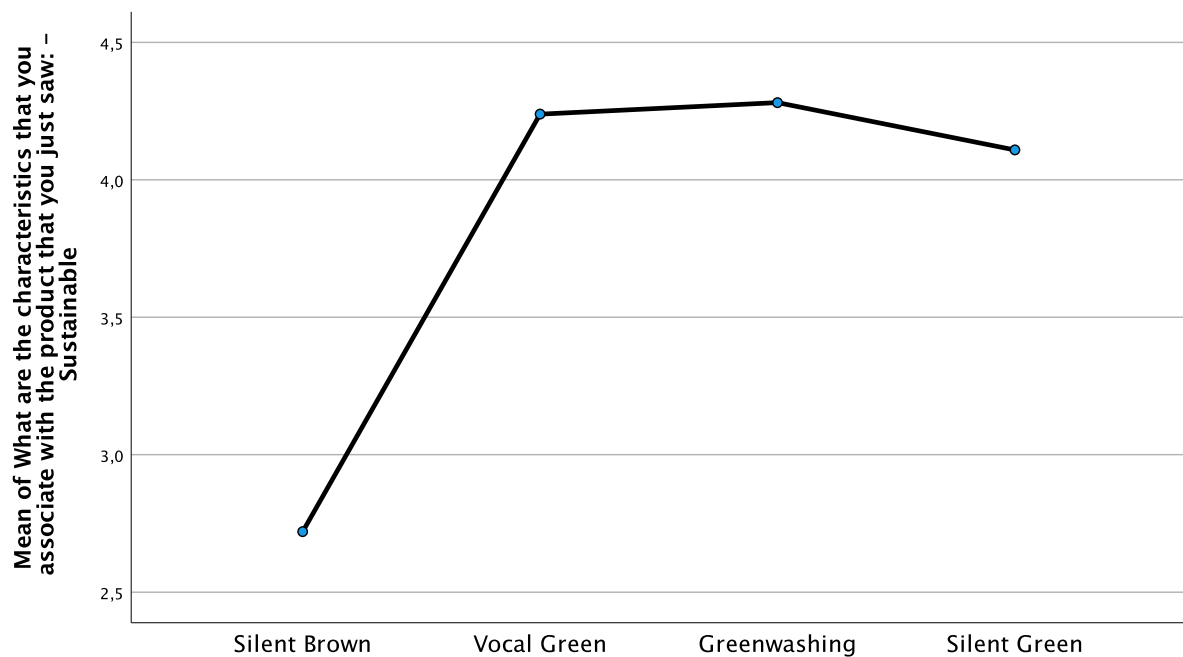


Figure V.1 - Sustainability

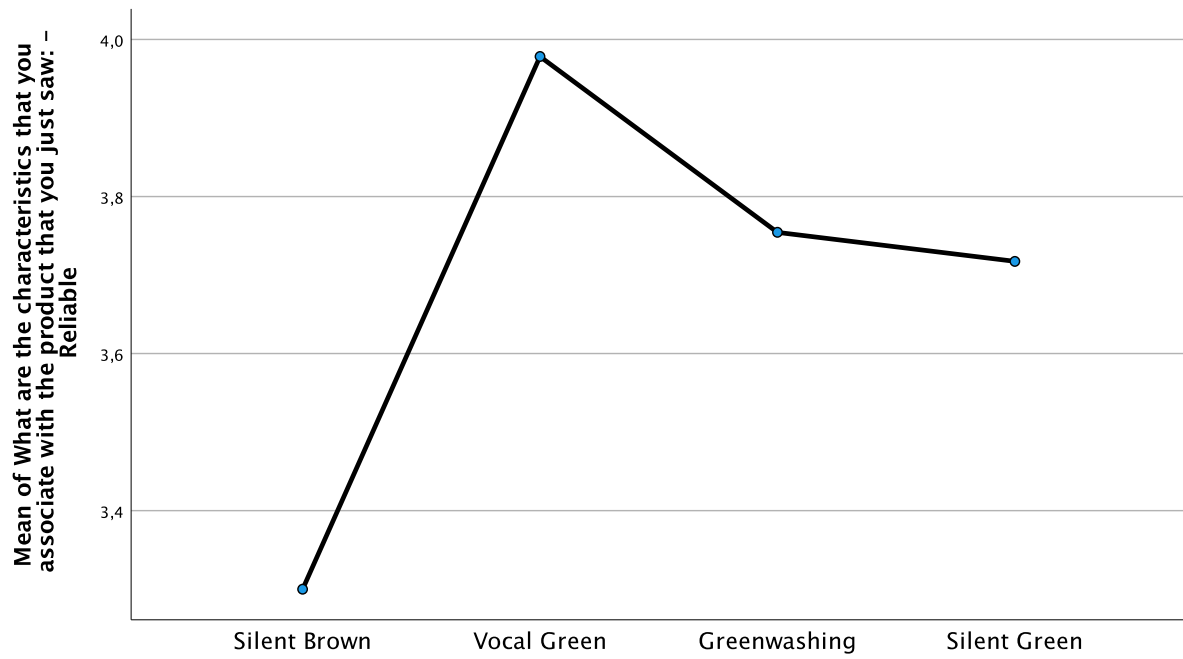


Figure V.2 – Reliability

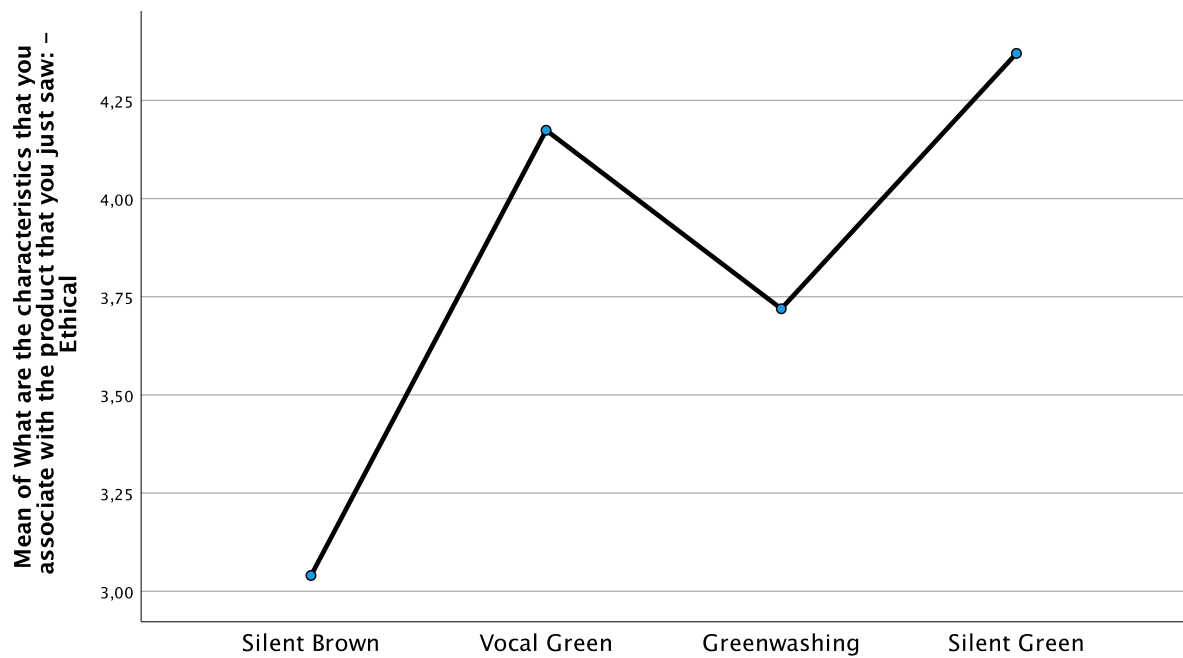


Figure V.3 - Ethics

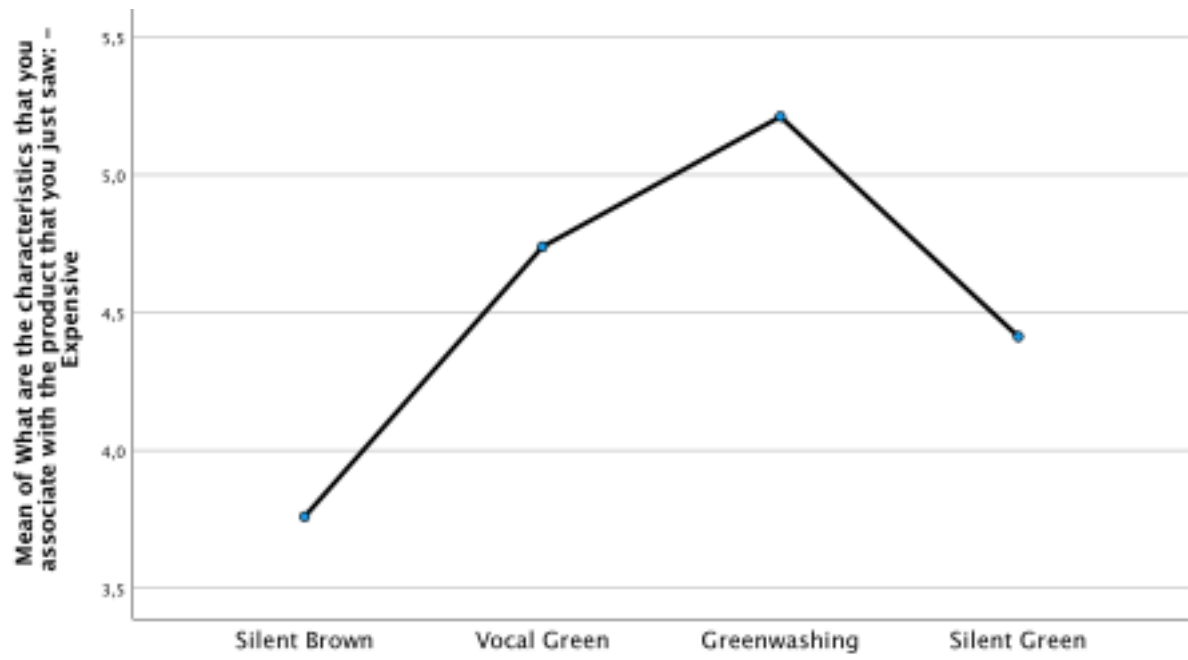


Figure V.4 - Expense

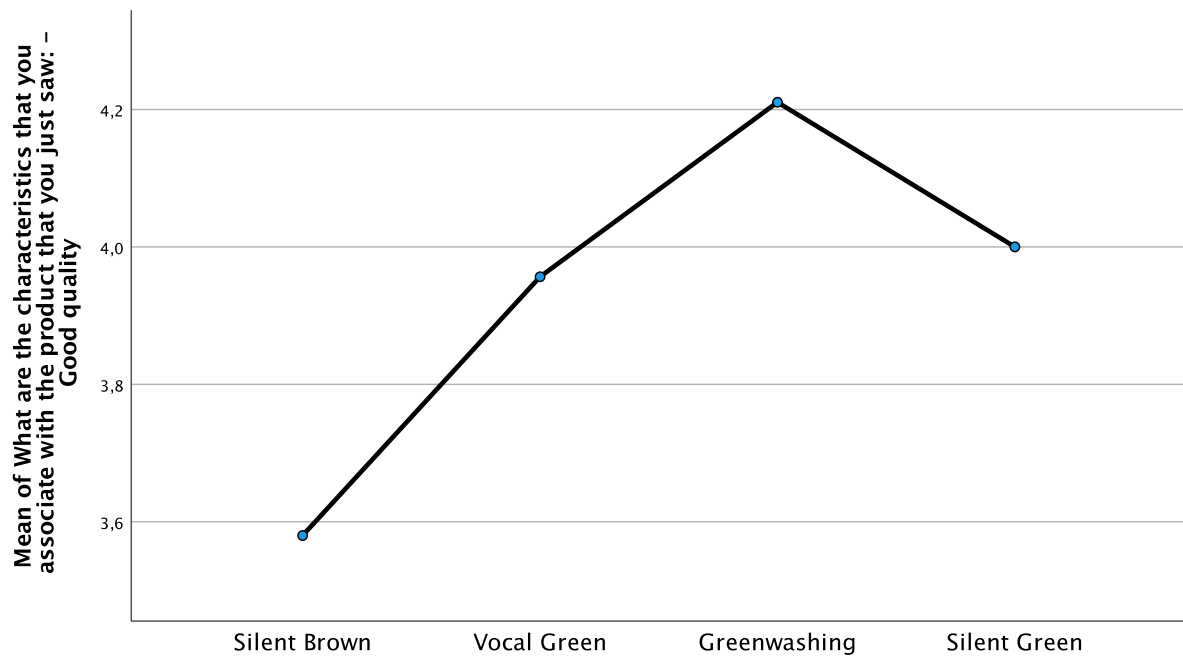


Figure V.5 – Good Quality

EXP_AdPerc_Color

Table V.17 - Tests of Between-Subjects Effects

Dependent Variable: Which is the color that immediately comes to your mind, after seeing the image?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	12,166 ^a	3	4,055	1,164	,325	,018
Intercept	170,092	1	170,092	48,825	<,001	,200
EXP_IMG	12,166	3	4,055	1,164	,325	,018
Error	679,331	195	3,484			
Total	871,000	199				
Corrected Total	691,497	198				

a. R Squared = ,018 (Adjusted R Squared = ,002)

Table V.18 - Univariate Tests

Dependent Variable: Which is the color that immediately comes to your mind, after seeing the image?

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	12,166	3	4,055	1,164	,325	,018
Error	679,331	195	3,484			

The F tests the effect of Experimental Design Block. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Post Hoc Tests - Experimental Design Block

Table V.19 - Multiple Comparisons

Dependent Variable: Which is the color that immediately comes to your mind, after seeing the image?

LSD

(I) Experimental Design Block	(J) Experimental Design Block	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Silent Brown	Vocal Green	,20	,381	,599	-,55	,95
	Greenwashing	-,38	,362	,300	-1,09	,34
	Silent Green	,22	,381	,560	-,53	,97
Vocal Green	Silent Brown	-,20	,381	,599	-,95	,55
	Greenwashing	-,58	,370	,121	-1,31	,15
	Silent Green	,02	,389	,956	-,75	,79
Greenwashing	Silent Brown	,38	,362	,300	-,34	1,09
	Vocal Green	,58	,370	,121	-,15	1,31
	Silent Green	,60	,370	,107	-,13	1,33
Silent Green	Silent Brown	-,22	,381	,560	-,97	,53
	Vocal Green	-,02	,389	,956	-,79	,75
	Greenwashing	-,60	,370	,107	-1,33	,13

Based on observed means.

The error term is Mean Square (Error) = 3,484.

Tables W - H4 - Regression

Regression SC_Rnd & GWPK

Table W.1 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Merged SC ^b		. Enter

a. Dependent Variable: Do you know what "Greenwashing" is? (not considering the short description you just read above the image)

b. All requested variables entered.

Table W.2 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,156 ^a	,024	,019	,748

a. Predictors: (Constant), Merged SC

Table W.3 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,757	1	2,757	4,923	,028 ^b
	Residual	110,328	197	,560		
	Total	113,085	198			

a. Dependent Variable: Do you know what "Greenwashing" is? (not considering the short description you just read above the image)

b. Predictors: (Constant), Merged SC

Table W.4 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,039	,223		9,135	<,001
	Merged SC	-,099	,045	-,156	-2,219	,028

a. Dependent Variable: Do you know what "Greenwashing" is? (not considering the short description you just read above the image)

Regression SC_Rnd & GWPRECO

Table W.5 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Merged SC ^b		. Enter

a. Dependent Variable: "I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?

b. All requested variables entered.

Table W.6 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,254 ^a	,065	,060	1,487

a. Predictors: (Constant), Merged SC

Table W.7 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30,135	1	30,135	13,627	<,001 ^b
	Residual	435,664	197	2,211		
	Total	465,799	198			

a. Dependent Variable: "I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?

b. Predictors: (Constant), Merged SC

Table W.8 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,133	,444		4,810	<,001
	Merged SC	,328	,089	,254	3,691	<,001

a. Dependent Variable: "I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?

Regression SC_Rnd & GWPCOMPANY

Table W.9 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Merged SC ^b	.	Enter

a. Dependent Variable: "Many companies are making a serious effort to be more sustainable" To what extent do you agree or disagree with this sentence?

b. All requested variables entered.

Table W.10 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,067 ^a	,004	-,001	1,369

a. Predictors: (Constant), Merged SC

Table W.11 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,652	1	1,652	,882	,349 ^b
	Residual	369,092	197	1,874		

Total	370,744	198		
-------	---------	-----	--	--

a. Dependent Variable: "Many companies are making a serious effort to be more sustainable" To what extent do you agree or disagree with this sentence?

b. Predictors: (Constant), Merged SC

Table W.12 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,819	,408		9,354	<,001
	Merged SC	,077	,082	,067	,939	,349

a. Dependent Variable: "Many companies are making a serious effort to be more sustainable" To what extent do you agree or disagree with this sentence?

Tables X – H5 – PROCESS v4.2 by Andrew F. Hayes, Model 1

H5A - The female gender has a positive moderating role between SC_Rnd and GWP

Table X.1

Run MATRIX procedure:

```
***** PROCESS Procedure for SPSS Version 4.2 *****

      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*****
Model   : 1
  Y     : GWPk
  X     : SC_RND
  W     : GENDER

Sample
Size: 198

*****
OUTCOME VARIABLE:
GWPk

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,1969      ,0388      ,5593      2,6084      3,0000      194,0000      ,0528

Model
      coeff      se      t      p      LLCI      ULCI
constant      1,9602      ,6724      2,9155      ,0040      ,6342      3,2863
SC_RND         -,0346      ,1335      -,2588      ,7961      -,2979      ,2288
GENDER         ,0759      ,4141      ,1833      ,8548      -,7407      ,8925
Int_1         -,0495      ,0839      -,5908      ,5554      -,2150      ,1159

Product terms key:
Int_1      :      SC_RND      x      GENDER

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      ,0017      ,3490      1,0000      194,0000      ,5554

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----
```

Table X.2

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPRECO
X : SC_RND
W : GENDER

Sample
Size: 199

OUTCOME VARIABLE:
GWPRECO

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,2582	,0667	2,2294	4,6434	3,0000	195,0000	,0037

Model	coeff	se	t	p	LLCI	ULCI
constant	2,1066	1,3421	1,5696	,1181	-,5404	4,7536
SC_RND	,2951	,2666	1,1068	,2697	-,2307	,8209
GENDER	-,0017	,8266	-,0020	,9984	-1,6319	1,6285
Int_1	,0267	,1674	,1593	,8736	-,3036	,3569

Product terms key:
Int_1 : SC_RND x GENDER

Test(s) of highest order unconditional interaction(s):	R2-chng	F	df1	df2	p
X*W	,0001	,0254	1,0000	195,0000	,8736

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

Table X.3

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPCOMP
X : SC_RND
W : GENDER

Sample
Size: 199

OUTCOME VARIABLE:
GWPCOMP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1357	,0184	1,8662	1,2201	3,0000	195,0000	,3036

Model

	coeff	se	t	p	LLCI	ULCI
constant	5,2505	1,2280	4,2758	,0000	2,8287	7,6723
SC_RND	-,1397	,2439	-,5726	,5676	-,6207	,3414
GENDER	-,9038	,7562	-1,1951	,2335	-2,3953	,5877
Int_1	,1340	,1532	,8748	,3828	-,1681	,4362

Product terms key:

Int_1 : SC_RND x GENDER

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0039	,7653	1,0000	195,0000	,3828

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

T-Test

Table X.4 - Group Statistics

What is the gender that best describes you? - Selected Choice		N	Mean	Std. Deviation	Std. Error Mean
Do you know what "Greenwashing" is? (not considering the short description you just read above the image)	Female	110	1,62	,801	,076
	Male	86	1,49	,699	,075
"I am able to spot a case of Greenwashing" To what extent do you agree or disagree with this sentence?	Female	110	3,68	1,585	,151
	Male	86	3,81	1,467	,158
"Many companies are making a serious effort to be more sustainable" To what extent do you agree or disagree with this sentence?	Female	110	4,30	1,372	,131
	Male	86	4,09	1,360	,147

Table X.5 - Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Significance One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Do you know what "Greenwashing" is? (not considering the short description you just read above the image)	Equal variances assumed	4,745	,031	1,190	194	,118	,236	,130	,109	-,085	,345
	Equal variances not assumed			1,210	191,652	,114	,228	,130	,107	-,082	,341
"I am able to spot a case of Greenwashin	Equal variances assumed	1,308	,254	-,598	194	,275	,550	-,132	,221	-,568	,304

g" To what extent do you agree or disagree with this sentence?	Equal variances not assumed			-,604	188,495	,273	,547	-,132	,219	-,564	,299
"Many companies are making a serious effort to be more sustainable"	Equal variances assumed	,056	,812	1,052	194	,147	,294	,207	,197	-,181	,595
To what extent do you agree or disagree with this sentence?	Equal variances not assumed			1,053	183,463	,147	,294	,207	,197	-,181	,595

H5B – Age has a negative moderating role between SC_Rnd and GWP

Table X.6

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPK
X : SC_RND
W : AGE

Sample
Size: 198

OUTCOME VARIABLE:
GWPK

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,2695	,0726	,5396	5,0637	3,0000	194,0000	,0021

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,5201	,6552	3,8461	,0002	1,2278	3,8124
SC_RND	-,2885	,1286	-2,2431	,0260	-,5422	-,0348
AGE	-,0121	,0175	-,6894	,4914	-,0466	,0225
Int_1	,0051	,0034	1,5169	,1309	-,0015	,0118

Product terms key:

Int_1 : SC_RND x AGE

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0110	2,3009	1,0000	194,0000	,1309

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

Table X.7

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPRECO
X : SC_RND
W : AGE

Sample
Size: 199

OUTCOME VARIABLE:
GWPRECO

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2558	,0654	2,2324	4,5517	3,0000	195,0000	,0042

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,6867	1,3326	1,2657	,2071	-,9415	4,3149
SC_RND	,4231	,2616	1,6173	,1074	-,0928	,9390
AGE	,0125	,0356	,3503	,7265	-,0578	,0827
Int_1	-,0027	,0069	-,3869	,6993	-,0162	,0109

Product terms key:

Int_1 : SC_RND x AGE

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0007	,1497	1,0000	195,0000	,6993

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

----- END MATRIX -----

Table X.8

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPCOMP
X : SC_RND
W : AGE

Sample
Size: 199

OUTCOME VARIABLE:
GWPCOMP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,0928	,0086	1,8849	,5646	3,0000	195,0000	,6390

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,8502	1,2245	2,3276	,0210	,4352	5,2651
SC_RND	,2397	,2404	,9970	,3200	-,2344	,7137
AGE	,0278	,0327	,8488	,3970	-,0368	,0923
Int_1	-,0046	,0063	-,7302	,4661	-,0171	,0079

Product terms key:

Int_1 : SC_RND x AGE

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0027	,5332	1,0000	195,0000	,4661

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

H5C – Education has a positive moderating role between SC_Rnd and GWP

Table X.9

Run MATRIX procedure:

```
***** PROCESS Procedure for SPSS Version 4.2 *****

      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*****
Model   : 1
  Y     : GWPK
  X     : SC_RND
  W     : EDU

Sample
Size: 198

*****
OUTCOME VARIABLE:
  GWPK

Model Summary
      R      R-sq      MSE      F      df1      df2      p
,2395      ,0574      ,5485      3,9350      3,0000      194,0000      ,0094

Model
      coeff      se      t      p      LLCI      ULCI
constant      4,2628      ,8987      4,7431      ,0000      2,4902      6,0353
SC_RND      -,5208      ,1846      -2,8214      ,0053      -,8849      -,1567
EDU      -,6780      ,2644      -2,5647      ,0111      -1,1995      -,1566
Int_1      ,1278      ,0537      2,3794      ,0183      ,0219      ,2338

Product terms key:
  Int_1      :      SC_RND      x      EDU

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      ,0275      5,6614      1,0000      194,0000      ,0183
-----
      Focal predict: SC_RND      (X)
      Mod var: EDU      (W)

Conditional effects of the focal predictor at values of the moderator(s):

      EDU      Effect      se      t      p      LLCI      ULCI
2,0000      -,2652      ,0844      -3,1428      ,0019      -,4316      -,0988
3,0000      -,1373      ,0479      -2,8644      ,0046      -,2319      -,0428
4,0000      -,0095      ,0570      -,1669      ,8676      -,1220      ,1029

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

----- END MATRIX -----
```

Table X.10

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPRECO
X : SC_RND
W : EDU

Sample
Size: 199

OUTCOME VARIABLE:
GWPRECO

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2773	,0769	2,2050	5,4152	3,0000	195,0000	,0013

Model

	coeff	se	t	p	LLCI	ULCI
constant	-,2890	1,8019	-,1604	,8728	-3,8427	3,2648
SC_RND	,8830	,3701	2,3859	,0180	,1531	1,6129
EDU	,7248	,5300	1,3676	,1730	-,3205	1,7702
Int_1	-,1652	,1077	-1,5339	,1267	-,3776	,0472

Product terms key:

Int_1 : SC_RND x EDU

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0111	2,3527	1,0000	195,0000	,1267

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

Table X.11

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPCOMP
X : SC_RND
W : EDU

Sample
Size: 199

OUTCOME VARIABLE:
GWPCOMP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1416	,0201	1,8631	1,3301	3,0000	195,0000	,2658

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,7321	1,6563	1,0458	,2970	-1,5345	4,9987
SC_RND	,5908	,3402	1,7367	,0840	-,0801	1,2618
EDU	,6195	,4872	1,2715	,2051	-,3414	1,5803
Int_1	-,1519	,0990	-1,5346	,1265	-,3472	,0433

Product terms key:

Int_1 : SC_RND x EDU

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0118	2,3551	1,0000	195,0000	,1265

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

H5D – Income has a positive moderating role between SC_Rnd and GWP

Table X.12

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPK
X : SC_RND
W : INCOME

Sample
Size: 195

OUTCOME VARIABLE:

GWPK

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1877	,0352	,5655	2,3252	3,0000	191,0000	,0762

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,5018	,5033	4,9707	,0000	1,5090	3,4945
SC_RND	-,1640	,1002	-1,6362	,1034	-,3617	,0337
INCOME	-,2421	,2264	-1,0694	,2862	-,6887	,2045
Int_1	,0360	,0441	,8173	,4148	-,0509	,1230

Product terms key:

Int_1 : SC_RND x INCOME

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0034	,6680	1,0000	191,0000	,4148

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

----- END MATRIX -----

Table X.13

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPRECO
X : SC_RND
W : INCOME

Sample
Size: 196

OUTCOME VARIABLE:
GWPRECO

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2815	,0792	2,2252	5,5068	3,0000	192,0000	,0012

Model

	coeff	se	t	p	LLCI	ULCI
constant	,7617	,9984	,7629	,4465	-1,2076	2,7310
SC_RND	,5514	,1988	2,7735	,0061	,1593	,9436
INCOME	,7047	,4491	1,5689	,1183	-,1812	1,5906
Int_1	-,1175	,0875	-1,3426	,1810	-,2900	,0551

Product terms key:

Int_1 : SC_RND x INCOME

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0086	1,8026	1,0000	192,0000	,1810

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

----- END MATRIX -----

Table X.14

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPCOMP
X : SC_RND
W : INCOME

Sample
Size: 196

OUTCOME VARIABLE:
GWPCOMP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1994	,0398	1,8436	2,6508	3,0000	192,0000	,0501

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,4371	,9088	3,7821	,0002	1,6446	5,2296
SC_RND	,2504	,1810	1,3834	,1682	-,1066	,6073
INCOME	,1527	,4088	,3734	,7093	-,6537	,9590
Int_1	-,0733	,0796	-,9204	,3585	-,2303	,0838

Product terms key:

Int_1 : SC_RND x INCOME

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0042	,8472	1,0000	192,0000	,3585

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

----- END MATRIX -----

H5E – Nationality has a moderating role between SC_Rnd and GWP

Table X.15

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPK
X : SC_RND
W : NATION

Sample
Size: 197

OUTCOME VARIABLE:

GWPK

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1813	,0329	,5552	2,1858	3,0000	193,0000	,0910

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,0019	,2832	7,0697	,0000	1,4434	2,5604
SC_RND	-,0956	,0571	-1,6755	,0954	-,2081	,0169
NATION	,0305	,0602	,5065	,6131	-,0882	,1491
Int_1	-,0057	,0128	-,4443	,6573	-,0310	,0196

Product terms key:

Int_1 : SC_RND x NATION

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0010	,1974	1,0000	193,0000	,6573

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

----- END MATRIX -----

Table X.16

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPRECO
X : SC_RND
W : NATION

Sample
Size: 198

OUTCOME VARIABLE:
GWPRECO

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2750	,0756	2,2053	5,2894	3,0000	194,0000	,0016

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,9941	,5643	3,5336	,0005	,8811	3,1071
SC_RND	,3437	,1137	3,0228	,0028	,1195	,5680
NATION	,0123	,1199	,1024	,9185	-,2242	,2487
Int_1	,0034	,0255	,1347	,8930	-,0469	,0538

Product terms key:

Int_1 : SC_RND x NATION

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0001	,0181	1,0000	194,0000	,8930

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

Table X.17

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPCOMP
X : SC_RND
W : NATION

Sample
Size: 198

OUTCOME VARIABLE:
GWPCOMP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1342	,0180	1,8765	1,1854	3,0000	194,0000	,3165

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,5738	,5206	6,8652	,0000	2,5471	4,6004
SC_RND	,1474	,1049	1,4048	,1617	-,0595	,3542
NATION	,0929	,1106	,8398	,4021	-,1252	,3110
Int_1	-,0276	,0236	-1,1693	,2437	-,0740	,0189

Product terms key:

Int_1 : SC_RND x NATION

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0069	1,3674	1,0000	194,0000	,2437

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

----- END MATRIX -----

Tables Y – H6 – PROCESS v4.2 by Andrew F. Hayes, Model 1

Table Y.1

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPK
X : SC_RND
W : GWPCHANN

Sample
Size: 195

OUTCOME VARIABLE:
GWPK

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,3048	,0929	,5317	6,5193	3,0000	191,0000	,0003

Model	coeff	se	t	p	LLCI	ULCI
constant	2,5068	,4131	6,0681	,0000	1,6920	3,3217
SC_RND	-,2477	,0824	-3,0067	,0030	-,4102	-,0852
GWPCHANN	-,1178	,0900	-1,3098	,1918	-,2953	,0596
Int_1	,0395	,0181	2,1873	,0299	,0039	,0752

Product terms key:
Int_1 : SC_RND x GWPCHANN

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0227	4,7844	1,0000	191,0000	,0299

Focal predict: SC_RND (X)
Mod var: GWPCHANN (W)

Conditional effects of the focal predictor at values of the moderator(s):

GWPCHANN	Effect	se	t	p	LLCI	ULCI
2,0000	-,1687	,0552	-3,0581	,0025	-,2774	-,0599
2,0000	-,1687	,0552	-3,0581	,0025	-,2774	-,0599
6,0000	-,0106	,0582	-,1816	,8561	-,1254	,1042

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

----- END MATRIX -----

Table Y.2

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPRECO
X : SC_RND
W : GWPCHANN

Sample
Size: 196

OUTCOME VARIABLE:
GWPRECO

Model Summary	R	R-sq	MSE	F	df1	df2	p
	,3835	,1471	2,0542	11,0383	3,0000	192,0000	,0000

Model	coeff	se	t	p	LLCI	ULCI
constant	1,6036	,8120	1,9749	,0497	,0020	3,2053
SC_RND	,5653	,1619	3,4913	,0006	,2460	,8847
GWPCHANN	,1308	,1768	,7398	,4604	-,2180	,4796
Int_1	-,0641	,0355	-1,8054	,0726	-,1342	,0059

Product terms key:
Int_1 : SC_RND x GWPCHANN

Test(s) of highest order unconditional interaction(s):	R2-chng	F	df1	df2	p
X*W	,0145	3,2595	1,0000	192,0000	,0726

Focal predict: SC_RND (X)
Mod var: GWPCHANN (W)

Conditional effects of the focal predictor at values of the moderator(s):

GWPCHANN	Effect	se	t	p	LLCI	ULCI
2,0000	,4371	,1084	4,0322	,0001	,2233	,6509
2,0000	,4371	,1084	4,0322	,0001	,2233	,6509
6,0000	,1806	,1144	1,5795	,1159	-,0449	,4062

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

----- END MATRIX -----

Table Y.3

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : GWPCOMP
X : SC_RND
W : GWPCHANN

Sample
Size: 196

OUTCOME VARIABLE:
GWPCOMP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,0868	,0075	1,9055	,4858	3,0000	192,0000	,6925

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,3876	,7821	4,3315	,0000	1,8450	4,9302
SC_RND	,1736	,1560	1,1132	,2670	-,1340	,4812
GWPCHANN	,1118	,1703	,6563	,5124	-,2242	,4477
Int_1	-,0253	,0342	-,7397	,4604	-,0928	,0422

Product terms key:

Int_1 : SC_RND x GWPCHANN

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0028	,5472	1,0000	192,0000	,4604

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

----- END MATRIX -----

Tables Z – H7 – PROCESS v4.2 by Andrew F. Hayes, Model 4

Frequency GPIAGWP

Table Z.1 - If you recognized to be in front of a case of Greenwashing, would you still buy that product?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	55	27,6	27,6	27,6
	Maybe, but I would feel skeptical about buying any sustainable brand	17	8,5	8,5	36,2
	Maybe, if I'm fond of that brand	13	6,5	6,5	42,7
	Maybe, if I don't have other choices (e.g. because of the high price of other real green products or because of the lack of them)	69	34,7	34,7	77,4
	Maybe, if i really like that product	40	20,1	20,1	97,5
	Yes	3	1,5	1,5	99,0
	Other (please specify)	2	1,0	1,0	100,0
	Total	199	100,0	100,0	

Bar Chart

If you recognized to be in front of a case of Greenwashing, would you still buy that product? - Selected Choice

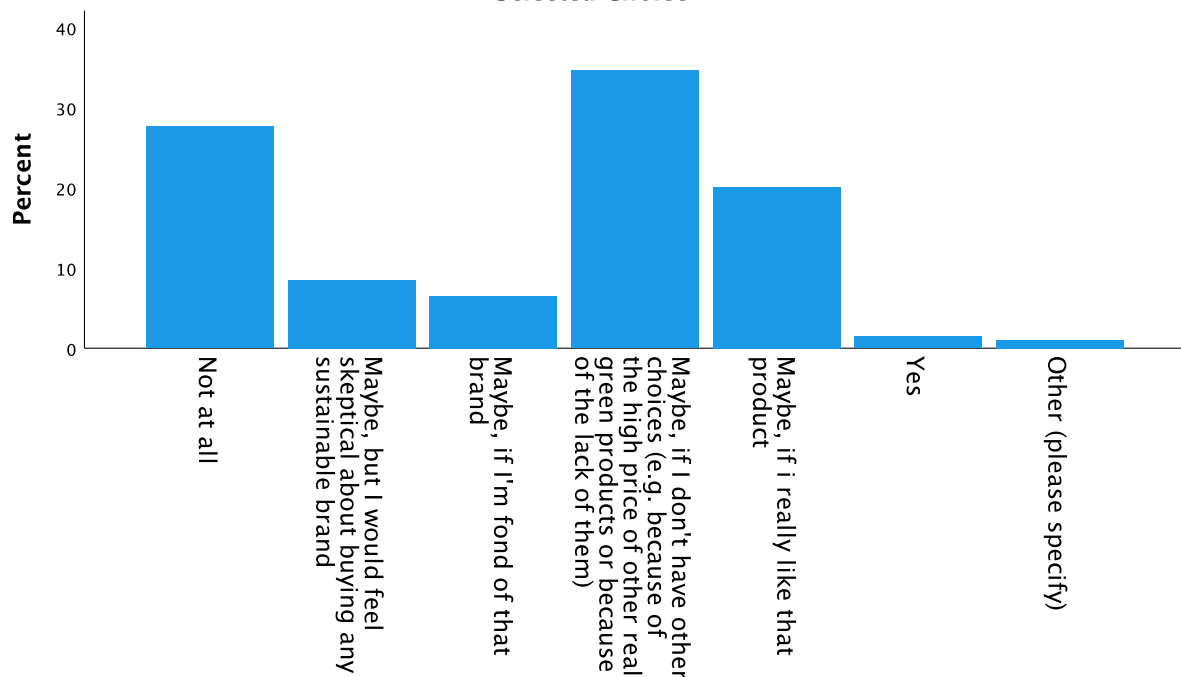


Figure Z.1 – GPIAGWP

Table Z.2

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 4
Y : GPIAGWP
X : SC_RND
M : GWPRECO

Sample
Size: 199

OUTCOME VARIABLE:
GWPRECO

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2544	,0647	2,2115	13,6267	1,0000	197,0000	,0003

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,1333	,4435	4,8099	,0000	1,2586	3,0080
SC_RND	,3276	,0887	3,6914	,0003	,1526	,5026

OUTCOME VARIABLE:
GPIAGWP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1483	,0220	2,5815	2,2051	2,0000	196,0000	,1130

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,1391	,5065	8,1713	,0000	3,1401	5,1381
SC_RND	-,2053	,0991	-2,0703	,0397	-,4008	-,0097
GWPRECO	,0143	,0770	,1857	,8528	-,1375	,1661

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-,2053	,0991	-2,0703	,0397	-,4008	-,0097

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
GWPRECO	,0047	,0287	-,0512	,0647

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

----- END MATRIX -----

Regression SC_Rnd & GPIAGWP

Table Z.3 - Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Merged SC ^b	.	Enter

a. Dependent Variable: If you recognized to be in front of a case of Greenwashing, would you still buy that product? - Selected Choice

b. All requested variables entered.

Table Z.4 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,148 ^a	,022	,017	1,603

a. Predictors: (Constant), Merged SC

Table Z.5 - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11,296	1	11,296	4,397	,037 ^b
	Residual	506,061	197	2,569		
	Total	517,357	198			

a. Dependent Variable: If you recognized to be in front of a case of Greenwashing, would you still buy that product? - Selected Choice

b. Predictors: (Constant), Merged SC

Table Z.6 - Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4,170	,478		8,723	<,001
	Merged SC	-,201	,096	-,148	-2,097	,037

a. Dependent Variable: If you recognized to be in front of a case of Greenwashing, would you still buy that product? - Selected Choice