



How Cruelty-free Logos Impact Brand Image. The Moderating Effect of Consumer Attitudes and Consumer Knowledge.

Daniela Rosa Paderne

Dissertation written under the supervision of Professor Paulo Romeiro

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ABSTRACT

We live in the era of the conscious consumer, where people are more than ever, deliberating their choices before they make a purchase. They care for a healthy lifestyle and the good of the environment, but are they already considering the benefits of choosing cruelty-free products? With the potential to keep growing in the next years, the cruelty-free market is already worth millions but, some of the most well-known brands in the industry have yet to adapt to this conscious way of production.

This research strived to investigate how the presence of cruelty-free logos on a product's package impacts the brand image, while also analyzing the moderation effect of attitudes towards green products and knowledge of cruelty-free.

During the investigation, three different stimuli were created based on the results of an online Pre-Survey. The stimuli created had either no logo, a certified cruelty-free logo or, an uncertified cruelty-free logo. Subsequently, those stimuli were then used on an online questionnaire where they were randomly assigned to each respondent.

Findings suggest that the presence of a cruelty-free logo on the product package does indeed increase brand image. It was proved that the knowledge of cruelty-free does impact the brand image yet, no hypotheses were confirmed. However, regarding attitudes towards green products, no hypotheses were confirmed.

This research aims to contribute to the literature gap surrounding cruelty-free and brand image, however, there is still a lot of space for further research due to the constant development of this topic.

Keywords: Cruelty-free, cruelty-free logos, certified logos, uncertified logos, green products, knowledge of cruelty-free, brand image.

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SUMÁRIO

Atualmente, vivemos numa era de consumidores conscientes, na qual as pessoas estão mais que nunca a refletir sobre as suas escolhas antes de fazerem uma compra. É dada importância a um estilo de vida saudável e opções que contribuam para o bem do planeta, no entanto, será que já estão a ser considerados os benefícios de produtos cruelty-free? Apesar do potencial de crescimento nos próximos anos e um mercado a valer milhares de milhões, a grande parte das marcas mais conhecidas na indústria ainda necessitam de se adaptar a esta forma de produção consciente.

Esta pesquisa pretende investigar como a presença de logótipos cruelty-free na embalagem de um produto influencia a imagem da marca, analisando também o efeito de atitudes em relação a produtos verdes e conhecimento de cruelty-free dos consumidores.

Durante o decorrer da investigação foram criados três estímulos fundamentados pelos resultados de um Pré-Questionário online. Os estímulos eram caracterizados por não ter logótipo, logótipo cruelty-free certificado ou, logótipo cruelty-free não certificado. Subsequentemente, os mesmos foram utilizados num Questionário Online e distribuídos aleatoriamente pelos inquiridos.

Os resultados revelaram que a presença de logótipo cruelty-free contribui para um aumento positivo da imagem da marca. Foi identificado impacto do conhecimento de cruelty-free na imagem da marca, no entanto, nenhuma hipótese foi confirmada. Quanto a atitudes em relação a produtos verdes, nenhuma hipótese foi confirmada.

Esta investigação pretende contribuir para a escassez de conhecimento na literatura em relação a produtos cruelty-free e imagem da marca, deixando ainda espaço para futuras investigações.

Keywords: Cruelty-free, logótipos cruelty-free, logótipos certificados, logótipos não certificados, produtos verdes, conhecimento de cruelty-free, imagem da marca.

Como Logótipos Cruelty-free Impactam a Imagem da Marca. Os Efeitos das Atitudes em
Relação a Produtos Verdes e Conhecimento de Cruelty-free.

Daniela Rosa Paderne

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GLOSSARY

DV – Dependent Variable

IV – Independent Variable

PETA – Ethical Treatment of Animals

RQ – Research Question

CHAPTER 1: INTRODUCTION

1.1 Background

As our world is currently facing significant environmental issues, the thought that these will preferably be solved with sustainable production and changes towards green consumerism is becoming a present reality in today's society (Sandhu et al., 2010). Over the past decades, topics such as environmental sustainability have become more influential and of bigger importance within consumers and researchers, leading consumers towards more conscious consumption patterns (Jansson, 2011; Leonidou et al., 2013; Powell et al., 2011).

Nowadays, consumers have at their reach green products in nearly every store they walk into. This accelerated increase in the available offer of green alternatives is followed by the distinctive marketing strategies used. Green products promotion is mostly done through eye-opening strategies on which the consumers are informed on how much they are sparing the environment if they make a more conscious purchase. This can be done by simply adding to the product eco or cruelty-free logos, or by providing information on quality, production process, safety, or health benefits associated with it (Gulbrandsen, 2006; Souza et al., n.d.; Thøgersen et al., 2010). By being exposed to this information, consumers have a great amount of knowledge to make more informed and ethical choices.

Crane and Matten (2004), define ethical consumption as a "conscious and deliberate decision to make certain consumption choices due to personal moral beliefs and values". Ethical consumers value products that transmit their own values and tend to favor those whose consumption does not put at risk humans, animals, or the environment (Huh, 2011; Lee, 2008). The term cruelty-free does not have an imposed clear definition yet, so it can be used in several contexts, representing different types of animal treatment. It can either indicate that the company does not test products on animals at all, or it can simply be a connotation to animal welfare, meaning that animals were used in the process but did not go through any pain or stress. Everything depends on the marketing purposes of the company and the laws that regulate the country (Lee, 2008).

It is rather noticeable that consumers are beginning to grow more conscious concerning this topic. This affirmation is supported by Euromonitor International that recognized the "Conscious Consumer" trend as part of the Top 10 Global Consumer Trends of 2019. Market Future Research also forecasted that the cruelty-free market will reach a total of 10 thousand million euros value worth until 2024, showing its growth potential.

Thus, if the demand for these products is growing, consequently, the market offer will also increase, with more companies communicating their products as cruelty-free or even creating

new alternatives for consumers. The problem is that not all consumers have high knowledge on this topic and, not all companies have ethical marketing strategies. So, if consumers do not pay attention and inform themselves about logos and brands, they can end up being misled by the term and buy products that are not cruelty-free, even though they display a logo affirming otherwise.

Until now, most research aims to explain the relationship between the presence of cruelty-free logos and consumers' purchase intentions. In order to close the existing gap in the literature, this research strives to understand if consumers are affected by the presence of cruelty-free logos on product packaging, and how that impacts the brand image. It will also be under analysis how the consumer's Attitudes Towards Green Products affect the Brand Image and its relationship with the Cruelty-free Logos. Finally, Knowledge of Cruelty-free will also be analyzed, studying the impact on Brand Image alone but also on the relationship between Cruelty-free Logos and Brand Image.

1.2 Problem Statement

The scope of this research is to understand how the presence of cruelty-free logos affects the brand image. Additionally, studying how that relationship is affected by their attitudes towards green products, and their knowledge on the topic of cruelty-free. Essentially, the problem statement can be addressed as:

How cruelty-free logos impact Brand Image. The moderating impact of Consumer Attitudes and Consumer Knowledge.

Knowing this, it becomes possible to formulate the following research questions:

RQ1: How does the presence of cruelty-free logos on product packaging affect the brand image?

RQ2: How do consumers' attitudes towards green products impact the relationship between cruelty-free logos and brand image?

RQ3: How does the knowledge of cruelty-free impact the relationship between cruelty-free logos and brand image?

1.3 Relevance

The interest in studying green consumerism and green products has been growing over the past years. However, some topics are still a bit inconclusive and lack further research.

Until now, when studying the effect of the presence of cruelty-free logos on product packaging, most researchers have focused their work on understanding the impact it has on the consumers' purchase intention. However, I've identified a clear lack of investigation and knowledge on the effect logos have on the brand image.

Adding to that, the available academic literature is more focused on understanding the factors that make green consumers want to buy the products, rather than on focusing on what are their attitudes and feelings towards it.

Regarding consumers' knowledge of topics such as cruelty-free, little to no attention has been paid to the subject. It is important that consumers buy these products but, besides that, it is also essential to understand if consumers know what they are buying. Are they buying cruelty-free products because they are informed on the topic so, consequently, they make conscious and deliberated choices? Are they just buying products that claim to be cruelty-free but aren't, to clear their conscience and feel good about themselves? Or are they not noticing they are buying cruelty-free products because they are not educated on the topic and so, they are not even aware of cruelty-free logos?

Ultimately, this study aims to help companies understand the importance of becoming cruelty-free and the influence that can have on consumers. Aspires to make companies understand that the importance of being cruelty-free is a growing concern for certain consumers and, possibly, an even bigger trend for the next years to come.

As for companies that are already established as cruelty-free, this research strives to help them understand if investing in a certified cruelty-free logo is worth it or not. It could also help understand if their possible the consumers are educated enough on the topic or if there is a need to create more informative and eye-opening campaigns.

1.4 Research Methods

In order to find a proper answer for the research questions, primary data was used. The first step is to prepare a critical review of the currently available literature on the topic. This data will be collected through a set of previous studies, academic journals, articles, and books, with a particular focus on package and logos, green products, attitudes and consumers, cruelty-free products, and brand image. The information gathered at this step will be a crucial element to form the hypotheses and analyze the data that will be collected in the next stage of the research. In order to elevate this research to an operational level, it will be necessary to conduct two primary data studies. Firstly, an initial online survey will be carried out with the intent to choose

the most fitting product category for this investigation to focus on. Logo awareness and recognition will also be assessed in this survey.

Then, the primary data collection process will end with a second study, a questionnaire distributed online. This will serve to evaluate the relationship between the presence of cruelty-free logos and brand image, while also studying the effect of all the moderators considered in the research. This questionnaire will include sections to assess usage and purchase behaviors, brand image, attitudes towards green products, knowledge of cruelty-free and, demographics. The responses gathered will be analyzed via IBM's SPSS statistical software using the most appropriate statistical tests for the data and for the hypothesis under study.

1.5 Dissertation Outline

The present dissertation will be divided into a total of five chapters. The following chapter consists of a detailed literature review, providing readers an in-depth understanding of the hypothesis and how they are supported by the existing academic knowledge on the topics. The third chapter comprises the research methodology for this investigation. It will consist of a detailed description of all the studies conducted intensively describing the methods and how the data is measured and analyzed in each statistical test used. The fourth chapter will present the results of the previously collected data in order to interpret it and analyze the veracity of each hypothesis. Lastly, the fifth chapter will be composed of a conclusion, covering the main findings and limitations of this study, as well as recommendations to help further research.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The present chapter comprises a theoretical framework focusing on the topics of this investigation. The current knowledge present in the literature is investigated, summarized, analyzed, and interconnected, enabling the development of the hypothesis studied. Topics such as brand image, packaging, cruelty-free logos, and green consumerism are addressed. Ending with the exposure of the conceptual framework, enabling the reader to visualize all the relationships between variables analyzed.

2.1 Brand Image

Brand Image is defined as a “set of brand associations that are anything linked in memory to a brand, usually in some meaningful way” (Aaker, 1991), meaning that consumers perception of a specific brand is reflected by a cluster of associations that consumers make regarding the same (Ân et al., n.d.).

Brand Image can also be defined as set of beliefs that consumers have about a particular brand (Kotler and Armstrong, 1996), which play a huge role during the decision-making process that consumers make every time purchase a product. Brand image generates a positive effect on brand loyalty (Sung et al., 2010; Teck Ming, 2011) and brand trust (Esch et al., 2006; Teck Ming, 2011).

Green Brand Image is a series of perceptions and associations that consumers keep in their minds concerning a particular brand that takes time to commit about environmental issues. It is often associated with consumers who worry about the environment, which has become a sustainable business practice over the years (Kewakuma & Ratnawati, 2021). Green Brand Image is formed by customer perceptions of a company that commits to the environment, and it has the power to influence customers buying behavior (Mourad & Ahmed, 2012; Rahmi et al., 2017). Green Brand Image does not only relate to products consumers buy but also to the company's behavior regarding environmental topics (Grant, 2008). Until today, there isn't a lot of research relating to Brand Image and the use of cruelty-free logos, but still, green brand image can be assessed through some evaluations such as benchmark, reputation, performance, concern, and trustworthiness (Chen, 2010).

2.2 Packaging

Even though packaging is associated with many aspects of marketing, its strongest association is with product. As a matter of fact, literature even proposes that packaging can effectively become the product when it comes to low involvement products (Silayoi & Speece, 2004). This

might suggest that new packaging ideas should be aligned with new product development processes and trends (Simms & Trott, 2010).

Bone (2000) defines packaging as a "cross-functional and multidimensional aspect of marketing that has become increasingly important in consumer needs satisfaction, cost savings and the reduction of package material usage leading to substantial improvements in corporate profits." If initially, the main function of packaging was to protect the product, now it is rather seen as a substantial sales tool capable of influencing consumers, attract their attention, describe the product and, guarantee the final sale (Kotler and Armstrong, 1996).

Product packaging now also plays an important role when it comes to product promotion since it allows consumers to easily identify brands and retain information on price, quality, quantity, and ingredients. Packaging is essential for consumers considering it's the only thing they see before the purchase, allowing them to easily identify logos, instantly knowing what to expect from the product (Ampuero & Vila, 2006). Since product packaging and logos have such a direct connection, it became crucial to explore these notions.

2.2.1 Visual Elements of Packaging – Logos

Logos help consumers to distinguish one brand among its competitors and are classified into three typologies: a symbolic logo (graphic representation); a text defined logo (letters or numbers); and a mixed logo (combination of both) (Ad'r et al., 2012).

A memorable and efficient logo should be legible and easy to understand and to reproduce, and recognizable. Furthermore, a logo should also be designed directly towards the target in order to capture their attention and create a connection, consequently evoking a positive effect on them (Cohen, 1986).

Van Riel and Van den Ban (2001) confirm that logos have intrinsic and extrinsic characteristics that will affect each individual perception and interpretation of the logo itself. Intrinsic properties are related to the design of the logo and how all the graphic elements affect consumers. Extrinsic properties are originated from the associations consumers make with the company. More specifically, the organization's past behavior, past communication strategies, and values.

Additionally, it is noticeable that consumers tend to look for brands that allow them to express themselves or their desired self (Park et al., 2013). This is done by allowing consumers to easily identify brands, making evaluations about the brand, and establishing stereotypes they want to be associated with (Japutra et al., 2018). For example, a consumer who follows a vegan lifestyle

probably does not wish to be associated with brands that test their products on animals so, this person will look for cruelty-free alternatives.

2.2.2 Cruelty-Free Logos

The term “cruelty-free” is not currently regulated, which means that brands can use uncertified cruelty-free logos, even if they are testing on animals. To avoid companies misleading consumers, certified cruelty-free logos were created. The most known and trustable cruelty-free logos are the Leaping Bunny, PETA, and Choose Cruelty-Free logos (Sheehan & Lee, 2014). To be certified by PETA, companies need to fill out a questionnaire on which they present prove they are cruelty-free at the moment of the application. Since products certified by PETA can be sold in China, it means that, sometimes, they are not cruelty-free and have ingredients that have been through animal testing (PETA).

Regarding Choose Cruelty-Free, companies need to be established as cruelty-free for 5 years before they apply for the certification (Choose Cruelty-Free). With this condition, they guarantee that the company, its suppliers, and third parties related to it have not done any animal testing through all the production processes (Free the Bunnies).

Lastly, the Leaping Bunny certification is considered the most trusted gold standard program of cruelty-free products and companies. To be Leaping Bunny approved, companies need to establish a cruelty-free cut-off date before they apply. Neither the main company nor third parties can do any animal testing on the product at any time of the production process and, they are subjected to audits. Because the company and suppliers cannot perform tests on animals, they cannot sell the products in China on B2B but only directly to the client (Cruelty-Free International).

Nevertheless, it is important to note that there are companies that are cruelty-free but do not display any type of certified logo on their products’ packaging. That is because, in order to have these certifications, companies must pay annual fees, and smaller companies might not have enough resources and end up using uncertified cruelty-free logos, which might confuse informed consumers on the veracity of the claim (Sheehan & Lee, 2014).

In hypothetical terms:

H1: Packages with cruelty-free logos have a positive impact on the brand image.

H2: Packages with certified cruelty-free logos have a higher positive impact on the brand image than packages with uncertified cruelty-free logos.

2.3 Green Consumer

Green consumerism can be defined as an encouragement for consumers to engage in environmentally friendly behaviors that aim to protect the environment and the health of humans and animals (Tseng, 2016).

In recent decades, consumers' interest in more environmentally friendly alternatives has been growing, resulting in the appearance of the green consumer (Chen, 2008). Green consumers are aware of and have an interest in environmental issues (Soonthonsmai, 2007). They avoid products that have the potential to create a risk to the health of others; harm the environment; consume unnecessary energy; contain ingredients that come from threatened habitats or species and might have engaged in animal cruelty during its production process (Hailes, 2007).

Since the consumer of cruelty-free products fits into the category of green consumer, it becomes relevant to draw the profile of this consumer in order to understand preferences and purchase behavior.

2.3.1 Social Demographic Profile of the Green Consumer

Researchers have identified sociodemographic characteristics such as gender, age, income level, and education as factors that influence the purchase intention of ecological products (Chahal & Mehta, 2013).

Regarding gender studies, significant differences have been found between men and women when it comes to environmental attitudes (Harris & Goode, 2010; Tikka et al., 2000), with women showing more positive attitudes towards the environment. This discrepancy is due to the fact that women express more environmental concern and, consequently, a greater disposition to engage in sustainable behaviour (Lee, 2008).

Generation wise, Millennials (born between the early 1980s and 1996) and Generation Z (born 1997 until early-mid 2000s) seem to show greater concern for the environment, revealing a clear preference for green products at the time of purchase (Ottman et al., 2006; Sharma et al., 2016). Nevertheless, since these consumers are younger, most of them have less purchasing power, far from older generations, who are expected to have higher yields and be less price sensitive. Despite that, younger consumers are the ones who value ecological products the most, being more likely to pay a premium price for them (Radman, 2005).

Lastly, education is also referred to as an important demographic variable. Education influences purchase behaviour because consumers with a higher education degree are individuals more aware of environmental issues (Nittala, 2014).

2.4 Green Products

Interest in green products has been growing in the past few years, with researchers observing increases in consumer demand (Chen, 2008), environmental protection policies, green specializations developed by universities, and increases in the number of scientific research papers (Hartmann & Apaolaza Ibáñez, 2006; Nyborg, Howarth, & Brekke 2006). Even though the research in this field has been thriving, the definition of green products remains a very inarticulate concept embracing several dimensions (McDonagh & Prothero, 1992). With poorly defined boundaries and literature lacking a consistent definition (Hartmann & Apaolaza Ibáñez, 2006; Rivera-Camino, 2007), it is normal that consumers are starting to increasingly question the real nature of green products.

Green products' definitions usually stand from three different points of view: academia, business, and consumers (Durif et al., 2010). Nevertheless, since the priorities are diverse, the keywords each focuses on are consequently different and, the currently proposed definitions end up neglecting crucial notions on the topic (McDonagh & Prothero, 1992). This could indicate a current gap in the literature, thus, meaning that there is still room to integrate more explored and updated research on the topic.

Despite that, the most relevant point of view to focus on for the current research is the consumer's perspective. Consumers perceive green products as those that are recyclable, not tested on animals, biological, organic, or energy-efficient (Schlegelmilch et al., 1996).

2.4.1 Attitude Towards Green Products

Allport (1935) defined attitude as “a mental and neural state of readiness, which exerts a directing, influence upon the individual’s response to all objects and situations with which it is related”. Since attitudes are made of beliefs and evaluations (Assael, 1998), when a person holds some in a product, subsequent convictions are evaluated together, forming attitudes. Thøgersen & Olander (2002) suggest that causality flows in the order: values-attitude-behavior. Proven to be correct, this means that values impact attitudes that, consequently, will affect a person's behavior regarding a specific brand.

Due to the recent environmental issues, consumers around the world are becoming more concerned about their choices. The scale of the current environmental problems and the impact they could have on future generations has not been unnoticed by consumers who are, more than ever, willing to change their habits for the good of the environment (Cheah & Phau, 2011; Kilbourne & Pickett, 2008; Manaktola & Jauhari, 2007). This increase in environmental concern has caused a growth in the demand for products less harmful to the environment

(Ramayah et al., 2010). Having detected a change in the consumers' behaviors, business companies are strategically planning ways to embrace green into their activities. We are witnessing product innovation towards green and sustainability.

Previous studies have been conducted on whether the increase of environmental concern leads to a positive attitude of consumers towards green products (Chan, 2000; Hassan, 2014; Tang et al., 2014). Researchers have concluded that consumers who express more concern about the environment are more likely to have positive attitudes towards green products, which is reflected in their product choices (Awad, 2011). According to Freestone (2008), consumers are evolving to become individuals with socially conscious mindsets, which is something that, consequently, will most likely lead to practice of ethical behaviors.

As stated, brand image is determined by a set of beliefs that consumers have about a particular brand (Kotler and Armstrong, 1996). Therefore, this means that consumers will probably identify with a brand if it matches their ethical values and interests in social responsibility (Chen, 2010).

Knowing this, it's possible to affirm that if a brand matches consumers' social responsibility levels, it will generate positive beliefs about that specific brand, having a positive impact on the brand image. Thus, in the context of the present study, it's possible to hypothesize:

H3: Consumers' attitudes towards green products moderates the relationship between cruelty-free logos and brand image.

2.5 Cruelty-Free Products

The concept of cruelty-free does not have a clear imposed definition. However, PETA considers that a company or brand is cruelty-free when takes the position that it will not allow any kind of animal testing on their finished products, suppliers, product ingredients, and third parties involved in the production process.

The first law that allowed companies to do animal testing was approved in 1876. Since then, several published books, papers, or movements against animal cruelty have gotten public attention, making companies change their ways (Finn & Stark, 2015). The EU came to take measures and, in 2013, banned cosmetics tests on animals within the region. The intention was to ensure that companies would stop testing on animals while also preventing the sale of products that contain ingredients previously tested in another part of the world. Unfortunately, it was identified a loophole that would enable companies to test products in countries like China and still be able to sell them in the EU. Essentially, companies can market animal-tested products inside the EU, as long as the test results aren't used to demonstrate the product's safety,

and companies rely on data from non-animal tests to market the products (PETA & Cruelty-Free International).

If some companies refuse to make a change, others had already implemented good practices a long time ago. Several alternatives to animal testing methods have been offered to help overcome the negative consequences of animal tests and avoid more unethical procedures. Therefore, the strategy of the 3 Rs was born, standing for reduction, refinement, and replacement of animal testing methods (Ranganatha & Kuppast, 2012). The hypothesis of the replacement of animals was presented in 1957 by Charles Hume and William Russell. The suggested approach challenges companies to use the minimum number of animals, reducing the total on the experiment. Researchers must carefully refine every step of the process to minimize the pain and distress animals can feel during the experience (Zurlo et al., 1996).

Balls (1994) defines animal replacement as "any scientific method employing non-sentient material which may replace the use of conscious living vertebrates in animal experimentation." He further distinguishes between relative replacement, when animals are used in the experiment but are not exposed to any distress, and absolute replacement when there is no use of animals at any part of the experiment. Inside replacement strategies, there are several options companies can perform, such as: in vitro models, computer models, and new analyzing techniques (Balls, 2002). In Vitro testing consists in growing human cells in a laboratory that have the potential to later become miniatures of human organs. This method has proven to be very helpful in studying human reactions to diseases or drugs. Computer models focus on replicating parts of the human body (heart, skin, digestive system) to predict how it will normally respond to contact with certain chemicals. Another method used consists of resourcing to human volunteers and applying a one-time micro-dosing since human tissues can replace animal tests and give helpful information about human biology (Cruelty-Free International & PETA).

Regardless of all the opportunities companies have, some still choose to use unethical procedures or hire partners that do while claiming to be cruelty-free, which creates some controversy within industries. To avoid that type of behavior, some organizations created certified cruelty-free logos to help consumers make informed choices.

Most consumers have a very incorrect belief of what most cruelty-free products are, which might be to the fact that cruelty-free does not have an imposed definition. Adding that to the unregulated use of uncertified logos leads to confusion among consumers of what cruelty-free really stands for. In fact, a brand might benefit from using an uncertified logo if the consumer is not well-educated on the topic, leading to a positive effect on the brand image. This lead to the following hypothesis:

H4: Consumers' knowledge of cruelty-free moderates the relationship between cruelty-free logos and brand image.

2.6 Conceptual Framework

This next figure presents the structure of all the relationships between variables and the resulting hypothesis being studied:

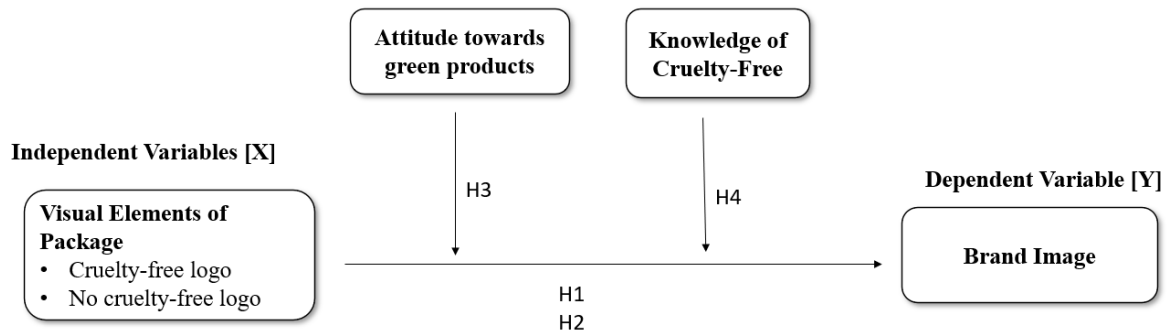


Figure 1: Conceptual Framework

CHAPTER 3: METHODOLOGY

The current chapter exposes the methodology used to analyze the research questions and each corresponding hypothesis. It starts by exposing the research approach used and, after that, the topic of primary data is covered, providing a detailed description of both studies conducted.

3.1 Research Approach

When conducting research, the methods most used are exploratory, descriptive, and explanatory. Exploratory research it's applied when someone wishes to understand what they are observing, and if there are any theories that will help them succeed in it (Saunders et al., 2007). Descriptive research is performed when the researcher wants to explain and clarify in detail what is happening while filling in the gaps, extending the knowledge on the topic (Saunders et al., 2007). As for explanatory research, researchers need to establish cause-effect relationships between variables that will later be analyzed (Saunders et al., 2007).

It is important to highlight that the goal of this present research is to explore how cruelty-free logos can impact the brand image when consumers are exposed to them, while also taking into consideration their attitudes and knowledge on the topic.

To reach that goal, the first step was to create a pre-survey to choose the category investigated. The purpose was to avoid researcher bias and choose a product category that respondents would be familiar with.

Next, quantitative research was developed, through an online questionnaire produced on the Qualtrics platform. After the data collection, statistical analysis was conducted with SPSS software.

3.2 Primary Data

To allow a deep understanding of the topic under analysis and, to be able to answer the research question of the analysis, two studies were conducted. First, a category survey was developed, followed by a survey questionnaire that served as the main study of the research.

3.2.1 Category Identification – Category Survey

To begin, a market segment of cruelty-free products had to be performed through a pre-study. This would guarantee that the final chosen product is familiar among consumers while also avoiding investigator bias, reassuring the precision of the process.

3.2.1.1 Data Collection

For the first study, the most suitable method was a questionnaire since the intention was to collect quantitative data on cruelty-free logos and products in a structured and standardized way (Saunders et al., 2007). This questionnaire was spread online due to its high speed in collecting the necessary data and, it was available in Portuguese and English to avoid language constraints. The data gathered was collected through a non-probability sampling technique, gathering a convenience sample. Even though this technique might make the results subject to a certain level of bias, it was chosen due to time constraints and limitations of resources (Malhotra et al., 2017).

The pre-study started with a section regarding logo awareness. The intent was to understand if the respondents could recognize and identify the cruelty-free logo used. Among the most trustable certified logos, the Leaping Bunny was the one selected to use in this investigation since PETA has recognized it as the most trustworthy one and easier for consumers to identify. After that block, a question regarding awareness of the cruelty-free logo was presented measured by a 7-point Likert scale. This aimed at understanding how many respondents were aware of cruelty-free logos but could not recognize or identify the Leaping Bunny.

The last block was fully dedicated to the category choice. The categories presented were selected based on; past literature related to cruelty-free products and brands; PETA's cruelty-free brands' portfolio. The selected categories were: BabyCare, HairCare, Cosmetics, Oral Hygiene, Fragrances, Body Hygiene, SkinCare, Vitamins and Supplements, Intimate Care, and Cleaning Products. All categories were presented to the respondents randomly (Appendix 1).

3.2.1.2 Measurement

To understand the logo awareness, respondents were asked how much they agreed with a statement measured using a 7-point Likert scale that went from 1=Strongly Disagree to 7=Strongly Agree. To measure the choice of the final category, a multiple-choice question was applied. This was the most suitable method since the respondents were able to select more than one of the alternatives given (Malhotra et al., 2017).

3.2.1.3 Analysis and Results

The quantitative data of this research study was collected and analyzed through Qualtrics and SPSS Statistics 26, respectively. This questionnaire gathered a total of 108 completed answers, 107 valid and 1 excluded for not meeting the requirements.

Initially, frequency statistics were applied (Appendix 2), and, as it's shown, most respondents can't identify the cruelty-free logo. Nonetheless, 18 respondents still identified it as a "cruelty-free product" and 1 as "not tested on animals". Even though they cannot identify the logo without previous context, the majority acknowledges being aware of the existence of cruelty-free logos (Appendix 3). Regarding product purchase, 54% has already acquired a cruelty-free product while a close bunch admits not knowing if they have done it or not, which might indicate that some people aren't paying much attention to that matter yet (Appendix 4).

Finally, to understand which categories respondents associated with cruelty-free, frequency statistics were performed (Appendix 5). The results show that Skin Care products were considered as the mode, having been mentioned by a total of 75 people. The categories that came closer were Hair Care and Cosmetics, with 60 and 57 answers, respectively. Subsequently, it is justifiable to consider SkinCare as the most suitable category to pursue this investigation with.

3.2.1.4 New Brand/Product Development

After the selection of the category, it was important to select the final product within the category. The most appropriate product choice was a moisturizing cream considering the fact that it is a basic product that most people are familiar with, thus generating the capacity to easily give opinions.

And so, a fictitious brand and product were developed to help prevent and avoid consumer bias related to pre-developed brand sentiments and perceptions on existing products. These new mock-up packages were designed and created through Adobe Photoshop CS6 software, and so, the Untypical moisturizing cream was born.

3.2.2 Main Study – Survey Questionnaire

The next step of this research was to understand the underlying relationships between the variables at study. In order to reach that goal, quantitative data was collected and analyzed through the main questionnaire. This will enable the hypothesis to be tested, consequently, helping to answer the research questions.

3.2.2.1 Data Collection

The main study of this investigation consisted of an online questionnaire, distributed through social media platforms between November 17th 2021 and November 28th 2021. The online distribution method was chosen since it provides the research with a high-speed information collection. Regarding the reasoning for using Portuguese and English as the survey languages

and choosing a convenience sampling technique, they are the same as the ones previously stated (Sub-Chapter 3.2.1.1).

The study aims to understand how cruelty-free logos impact the brand image while also taking into consideration their knowledge and attitudes on the subject. It includes three different visual stimuli corresponding to the three different scenarios under study: no cruelty-free logo, certified cruelty-free logo and, uncertified cruelty-free logo. All the stimuli were randomly allocated to the respondents. Before the survey was distributed online, a pilot survey was conducted with eight individuals.

The target of this study was women who use moisturizing creams. Therefore, two initial questions were included in the survey in order to exclude the participants that were not eligible for the study. The first question displayed was regarding gender and automatically excluded respondents that did not identify as "Female" or "Non-binary". This decision was made considering the social demographic profile of the green consumer (Sub-Chapter 2.3.1) since it has been proved that women are more interested and knowledgeable on the topics that involve green products, as well as skincare products. This will provide the investigation with a sample of respondents more likely to have an opinion on the topics under study.

This was then followed by a section that assessed how much the consumers knew about moisturizing creams and their usage and purchase behaviors. Those who expressed that they do not use moisturizing creams were excluded from the study. As for those who do not buy moisturizing creams but use them, they were included. After this section, the respondents were presented with a scenario and the respective stimuli. This was followed by randomly presented blocks that assessed the brand image, knowledge of cruelty-free products, attitudes towards green products and, a manipulation question. The final section of the survey addressed the demographic characteristics (Appendix 6).

A total of 229 responses were gathered, with 169 valid. The answers not included were cut from the analysis due to reasons previously mentioned and for not being able to answer the manipulation question correctly.

3.2.2.2 Measurement

Since the study included three different stimuli, it was important to choose the cruelty-free logos used. In the previous study (Sub-Chapter 3.2.1), the respondents were presented with the Leaping Bunny and, only 19.6% of the respondents could recognize it without the support of any text referring to its origin or purpose. So, this time, the respondents were still presented with the same logo but with a version that includes the name. The investigation carried on with

this logo because it's the most reliable one (Peta), and so, it would probably be easier for respondents to recognize this version than to use a different logo. As for the third stimuli, the uncertified logo was selected due to its graphic similarity to the certified logo used in the study. The stimuli under study are presented below.



Figure 2: Stimuli 1- No Logo



Figure 3: Stimuli 2 – Certified Cruelty-free Logo



Figure 4: Stimuli 3 – Uncertified Cruelty-free Logo

To analyze the impact of the cruelty-free logo on the respondents' brand image, a six-item construct from Martínez & de Chernatony (2004) was applied. These were measured with a 7-point Likert scale from 1=Strongly Agree to 7=Strongly Disagree.

To understand attitudes towards green products, the respondents were exposed to a five-item construct from Suki, (2016). The construct was adapted from a 5-point to a 7-point Likert scale from 1=Strongly Agree to 7=Strongly Disagree.

To study knowledge of cruelty-free, it was necessary to adapt the construct from previous research on the scope of subject knowledge. So, with the guidance of a scale from Flynn & Goldsmith (1999), a nine-item construct was adapted to the study. For example, if the original

construct was "I know pretty much about fashion clothing", the adapted one is "I know pretty much about cruelty-free products". Nonetheless, by mistake, only 8 items were used in the questionnaire. However, as the Cronbach Alpha of the original study is 0.91, considered excellent (George & Mallery, 2003), the error isn't problematic. This block was also measured with the same 7-point Likert scale.

Framework	Measure	Items	Scale	Reference	Cronbach α
IV	Visual Elements of Package Attitudes	3	7-point Likert Scale	Brakus et al., (2009)	0,93
Moderator	Towards Green Products	5	Likert Scale	Suki, N. (2016)	0,84
Moderator	Knowledge of Cruelty-free	9	7-point Likert Scale	Flyn & Goldsmith, (1999)	na
DV	Brand Image	6	7-point Likert Scale	Martinez E., & Chernatony, L. (2004)	0,84

Table 1: Operational Model

3.2.2.3 Analysis and Results

Data was collected through Qualtrics and analyzed on SPSS software. To characterize the sample, Descriptives were used on demographics and purchase and usage habits. Frequencies were used to get more detail on the sociodemographic profile of the respondents and possible consumers of cruelty-free products.

The reliability of the constructs was assessed through Cronbach's alpha and, the values were classified based on the guidelines presented by George and Mallery (2003). Afterward, the relationship between the IV and DV was tested using a Linear Regression and Mann-Whitney U Test. The first was used to study how cruelty-free logos impact brand image, while the second intendeds to understand if certified cruelty-free logos generate a bigger impact on the brand image than uncertified logos.

Lastly, Hayes' PROCESS model 2 was employed to understand how the moderators impact the relationship between the IV and the DP. For all the statistical tests, the significance level was set at 5%.

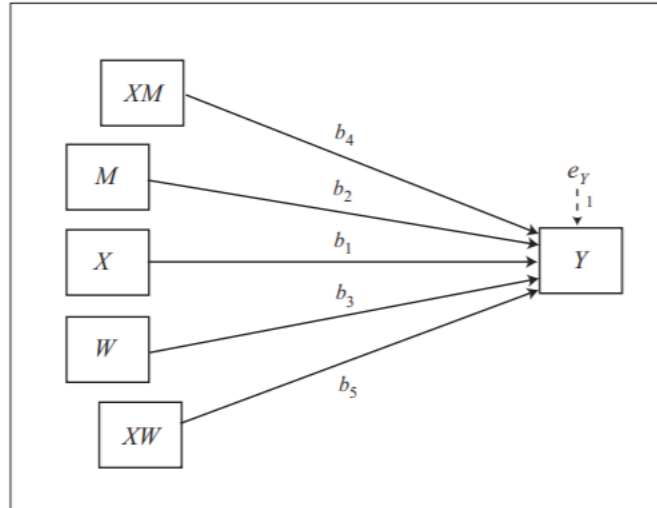


Figure 5: Statistical Diagram Model 2 – 2 moderators, 2-way interactions with predictor only

CHAPTER 4: RESULTS AND DISCUSSION

The following chapter is devoted to analyzing and understanding the results of the main study. Characterization of the study sample is provided, followed by hypothesis testing and the full model.

4.1 Data-Preparation Process

The questionnaire registered a total of 212 responses initiated. After filtering the concluded ones, a total of 187 responses were accepted, which implies a response rate of 88%. During the process of data cleaning, 11 participants were dropped since they identified with another gender besides “Female” or “Non-binary”. Furthermore, since the questionnaire aims to analyze those who use moisturizing cream, 7 participants were dropped for not meeting these requirements, leaving a total of 169 respondents exposed to the stimuli.

In order to simplify the process of data analysis, the respondents were divided into groups according to the stimulus they had been exposed to and, the missing values were coded. The final result of the data cleaning process resulted in the following: 59 respondents were exposed to the product that did not contain any logo, 56 respondents were exposed to the product that contained a certified cruelty-free logo, and 54 respondents were exposed to the product with the uncertified cruelty-free logo.

4.1.1 Outliers

An outlier can be defined as a case on the dataset with atypical values compared to the others under the same measure (Malhotra et al., 2017). Outliers should be eliminated in order to avoid errors in the statistical analysis, which can be achieved by performing the Mahalanobis Distance analysis. After performing this test, 1 outlier was identified and removed from the analysis due to how it distanced itself from the other results within the group of the dataset. The outlier identified had been exposed to the product with the certified cruelty-free logo.

4.1.2 Manipulation Check

The next crucial step was to understand whether the participants could identify the presence of a cruelty-free logo on the product package, thus the inclusion of the manipulation question in the questionnaire.

Among the respondents exposed to the stimulus of the product without the logo, 14 were not able to answer the manipulation question properly, affirming the product contained a cruelty-free logo. Regarding the participants exposed to the certified cruelty-free logo 14 said that the

product did not include any logo. As for the group exposed to the uncertified cruelty-free logo, 8 were not able to give the right answer.

It is important to mention that if these respondents had been included in the hypothesis testing, the analysis would still provide the research with the same results.

4.2. Sample Characterization

The majority of the sample is composed of Portuguese (91,7%) respondents, between the ages of 18 and 34 (78,8%). Most of them have already finished high school, a bachelor's or, a master's degree (97,8%) and are either employed, still a student or, a student-worker (96,2%). In addition to that, most participants affirm to have a gross income of up to 1499€/month or, have no income (83,3%) (Appendix 7).

Regarding how much they know about moisturizing creams, the majority (76,5%) affirm to know between 41% and 80% of what there is to know. In terms of their usage habits, there was a rather close division among the options of using it daily (38,6%), 6-4 times a week (20,5%), and 2-3 times a week (40,9%). When it comes to purchasing habits, a large portion affirms to buy moisturizing creams every six months (56,9%), while others were split between buying it annually (18,9%), every three months (19,7%) or, even monthly (4,5%) (Appendix 8).

It is clear how similar the respondents are among each other, and even though that ensures homogeneity between them, the sample under study is most likely not representative of the population.

4.3. Measures Reliability

The constructs used were previously extracted and validated in the literature, with some of them having gone through slight changes to fit the research. Despite previous validation, it was found to be essential to study the reliability of the constructs under analysis. Therefore, the Cronbach alpha coefficient was employed to measure the internal consistency of the items used on the construct. The values of the Cronbach alphas vary between 0 and 1 and, were all qualified based on the guidelines presented by George and Mallery (2003).

All the constructs under analysis have a Cronbach alpha superior or very near 0,80. Thus, is it possible to consider that all constructs have good enough or high reliability.

During the analysis of this coefficient, it was necessary to reduce an item of the brand image construct. The item removed was "The brand provides good value for money", since it did not make sense to include it because no part of this research mentions the product's price. This led to a positive change in the brand image alpha on the three stimuli, now having alphas between 0,789 and 0,866.

Before the calculation of this indicator, it was also necessary to recode items part of the Knowledge of cruelty-free construct. A total of 3 items were recoded in order to be possible to analyze positive and negative affirmations together.

Besides this, no more changes were made. The Cronbach's alpha of each variable can be found in table 2.

	Before reduction		After reduction		Quality
	N° of items	Cronbach α	N° of items	Cronbach α	
Brand Image – No Logo	6	0,758	5	0,791	Acceptable
Brand Image – Certified Logo	6	0,769	5	0,789	Acceptable
Brand Image – Uncertified Logo	6	0,828	5	0,866	Good
Knowledge - No Logo	8	0,937			Excellent
Knowledge - Certified Logo	8	0,942			Excellent
Knowledge - Uncertified Logo	8	0,961			Excellent
Attitudes - No Logo	5	0,936			Excellent
Attitudes - Certified Logo	5	0,881			Good
Attitudes - Uncertified Logo	5	0,909			Excellent

Table 2: Cronbach's alpha

4.4. Results from the Hypothesis Testing

Before moving forward with the analysis, it was crucial to assess if the data was parametric or non-parametric. This is an important preliminary step since, indicates which analyses are suitable for the research, according to the type of data. For the data to be considered as parametric, there are some criteria the data must follow.

The nature of the hypothesis proposes a comparison between 3 variables assigned to the respondents. These respondents were randomly exposed to one of the three stimuli. Since no respondent was exposed to more than one stimuli, it is guaranteed the independence of observations.

In order to assess if the data is normally distributed, a Kolmogorov-Smirnov and a Shapiro-Wilk analysis were performed (Appendix 9). After considering the results, it was found that the data is not normally distributed among the three groups and, therefore, the data fails the normality assumption. To overcome this discovery, nonparametric tests were employed, where possible.

4.4.1. Impact of Cruelty-Free Logos on Brand Image

Hypothesis 1: Packages with cruelty-free logos positively impact the brand image

To understand the nature of the relationship between these variables, that is, how the dependent variable is related to the independent variables, it was necessary to perform a Linear Regression analysis. This particular research aims to study if cruelty-free logos (IV) have an impact on the brand image (DV). Thus, a bivariate regression was conducted. To be able to proceed with the analysis, a dummy variable was recoded for Visual Elements of Package (Cruelty-free logo vs. No logo).

Before moving forward, it was necessary to verify a set of assumptions. Even though this is a test designed for parametric data, and this data is non-parametric, if we consider the sample size ($N=132 > 30$) and resort to the Central Limit Theorem (CTL), it is possible to assume that the variables of the sample follow a normal distribution. Regarding the assumption of the normal distribution of errors, it is possible to observe that the distribution of errors is close to the diagonal (Appendix 10), thus validating the assumption. It was also confirmed that the mean of error term was zero, the variance is constant and independent and, all error terms are independent of each other. Once everything was confirmed, it was possible to move forward with the analysis.

No multicollinearity issues were identified. The correlation between the variables is below 0.80, Tolerance higher than 0.04, VIF lower than 2.5 and, a Condition Index lower than 15. The Pearson Correlation is positive ($0,484 > 0$), which indicates that the presence of cruelty-free logos on packages results in high scores in the DV, Brand Image.

When it comes to the explanatory power of the model, it is capable of explaining 23.4% of the variance of the DP (Appendix 13). Nevertheless, when looking at the p-value given by the ANOVA table (Appendix 14), it is a value below the level of significance ($p=0.00 < 0.05$), which means that the model is statistically significant. The following expression defines the equation of the model under study:

$$\text{Brand Image} = 4,333 + 1,069 \text{ Visual Elements of Package (Cruelty-free logo)}$$

On a scale from 1 to 7, the $B=4,333$ (Appendix 15) represents the value for the brand image of the product when it was displayed without a cruelty-free logo. When the logo was introduced, the brand image went up 1.069, *ceteris paribus*. Once again, the p-value was lower than the level of significance ($p=0.00 < 0.05$), which made it possible to reject the null hypothesis:

H0: The coefficient of Visual Elements of Package (Cruelty-free logo) is equal to 0

Consequently, this means that the cruelty-free logo has a statistical effect on the brand image.

As a result, **hypothesis 1 was confirmed.**

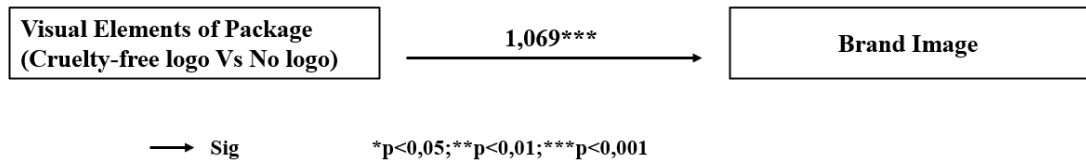


Figure 6: The Impact of Cruelty-free Logos on Brand Image

4.4.2. Brand Image of Certified and Uncertified Cruelty-Free Logos

H2: Packages with certified cruelty-free logos have a higher positive impact on the brand image than packages with uncertified cruelty-free logos.

The Mann-Whitney U test was performed to understand whether the brand image differed based on the cruelty-free logo that was presented on the stimuli (Certified Logo Vs. Uncertified Logo). On average, the certified cruelty-free logo showed slightly higher mean values (M=5.4390; SD=0,87547) when compared to the uncertified logo (M=5,3696; SD=0,91113) (Appendix 17). On top of that, the higher mean rank value (44,54) on the certified logo suggests that the brand image was, again, slightly higher for this logo than for the uncertified one (43,52)(Appendix 18). However, we need to keep in mind that the values are very close among the groups.

Thus, it is possible to conclude that there are no statistically significant differences between the logos on the brand image (U=921,000; p>0,05) (Appendix 19).

Curiously, it was discovered that Certified Cruelty-free Logos and Uncertified Cruelty-free logos have a similar impact on the brand image of the product presented. Consequently, this means that **hypothesis H2 was rejected.**

4.4.3. Moderation Model (Process Model 2)

H3: Consumers' attitudes towards green products moderate the relationship between the effect of cruelty-free logos and brand image.

H4: Consumers' knowledge of cruelty-free moderates the relationship between the effect of cruelty-free logos and brand image.

H3 and H4 propose that Attitudes Towards Green Products and Knowledge of Cruelty-free moderate the relationship between cruelty-free logos and the Brand Image, and therefore follow model 2 of the PROCESS analysis tool developed by Hayes (2013). The Logos variable used was conducted as a dummy variable to distinguish between respondents exposed to stimuli with logos and those who weren't. The resulting matrix can be found in Appendix 20.

By analyzing the results from the data extracted, it is possible to conclude that the overall model of the relationship between cruelty-free logos and brand image explains part of the variation on the DV ($R^2=0.47$; $F(5,126)=22,0608$; $p=0.000$).

By looking at the p-values of each direct effect of the variables under study, it is possible to notice that Knowledge of Cruelty-free is the only one with a statistically significant effect ($b_3=0,6746$; $p=0,0045$). Adding to that, bootstrap confidence intervals do not straddle zero (M_2 , 95% $CI=0,2132$ to $1,1359$), which suggests that the variable has an indirect influence on the relationship between the cruelty-free logos and the Brand Image.

The remaining variables, including Logos ($b_1'=-0,1456$; $p=0,8853$), and Attitudes Towards Green Products ($b_2'=0,0695$; $p=0,5483$), are not statistically significant at a 5% significance level.

The interaction between Attitudes Towards Green Products and cruelty-free logos was also not proven to be statistically significant ($b_4=0,1324$; $p=0,4015$). So, according to the output, **hypothesis H3 was not validated**.

As for the interaction between the presence of cruelty-free logos and the Knowledge of Cruelty-free on the brand image, it also was not proven ($b_5=0,0923$; $p=0,7665$) to be statistically significant. Consequently, **hypothesis 4 was not validated**.

Effect on Brand Image	Coefficient	se	t	p-value	Confidence Interval	
					Lower limit	Upper limit
Logos	-0,1456	1,0076	-0,1445	0,8853	-2,1397	1,8484
Attitudes	0,0695	0,1154	0,6019	0,5483	-0,1589	0,2978
Attitudes * Logos	0,1324	0,1572	0,8417	0,4015	-0,1788	0,4435
Knowledge	0,6746	0,2331	2,8936	0,0045	0,2132	1,1359
Knowledge * Logos	0,0923	0,3101	0,2976	0,7665	-0,5214	0,7059

Table 3: Direct effect and interactions between the variables under study and the impact on the Brand Image

To conclude, neither Attitudes Towards Green Products and Knowledge of Cruelty-free are moderators for the relationship between the IV and the DV. However, it can be considered that,

with 95% confidence, that the indirect effect of Knowledge of Cruelty-free is positive and statistically different from zero, which confirms that it has an impact on the relationship between the IV and the DV.

4.4.4 Hypothesis Testing Overview

Hypothesis	Description	Result
H1	Packages with cruelty-free logos positively impact the brand image	Significant and Validated
H2	Packages with certified cruelty-free logos have a higher positive impact on the brand image than packages with uncertified cruelty-free logos.	Not Significant
H3	Consumers' attitudes towards green products moderate the relationship between the effect of cruelty-free logos and brand image.	Not Significant
H4	Consumers' knowledge of cruelty-free moderates the relationship between the effect of cruelty-free logos and brand image.	Not Significant

Table 4: Results from hypothesis testing

CHAPTER 5: CONCLUSIONS AND LIMITATIONS

As previously mentioned, this research strived to identify whether or not the presence of cruelty-free logos on product packaging has an impact on the brand image, and how far that relationship can be explained by the consumers' attitudes towards green products and also their knowledge of cruelty-free. It was also important to analyze if there were any changes on the impact on the DV if the logos were certified or uncertified.

Keeping this in mind, the following chapter provides a summary of the findings of the study and draws conclusions while combining the results with the known literature. Managerial and academic implications will be identified, as well as the research limitations and proposals for future research topics.

5.1 Main Findings and Conclusions

The research started with a pre-survey for the selection of the category, in which the results indicated that the most suitable product category to carry out the research was skin care products. After this, the moisturizing cream was selected as the final product to study due to its simplicity. To minimize brand familiarity effects led by previous positive or negative experiences, a fictitious brand and product were developed. Then, the main survey was conducted, allowing the gather of data through an online questionnaire. Its design had the goal of studying three different stimuli under the same scenario. The first one was a moisturizing cream with no logo on the package, the second stimuli included the same product with a certified cruelty-free logo on the package, while the third one had an uncertified cruelty-free logo.



Figure 7: The three visual stimuli created

During the questionnaire, all the respondents were randomly assigned to one of the three stimuli. All of this was necessary in order to investigate the proposed research questions and the respective hypothesis, whose main findings are described below.

5.1.1 The Impact of Cruelty-free logos on Brand Image

The first research question of the present investigation aimed to understand how the display of cruelty-free logos on product packaging impacts the brand image.

After proceeding with the data analysis, it was possible to reach a reliable judgment. It was concluded that the display of the cruelty-free logo increases the overall brand image perception by 1,069 units. As a matter of fact, on a scale from 1 to 7 (ascendent feelings), when the logo is present on the product's package, the brand image goes from 4,333 to 5,402. Consequently, it is possible to affirm that the display of a cruelty-free logo does indeed generate positive feelings, consequently, impacting the brand image in a positive way.

According to the cited literature, consumers tend to look for brands that allow them to express themselves or their desired self (Park et al., 2013). When keeping in that the trend "Conscious Consumer" was part of the Top 10 Global Consumer Trends of 2019, it is possible to say that conscious shopping, including green and cruelty-free products, will become a bigger tendency in the years to come due to the consumers' grown concern (Euromonitor International).

Studying the relationship between cruelty-free logos and brand image was easily a straightforward decision due to an identified lack of research in the literature. Even though topics surrounding cruelty-free are rather recent, several researchers have previously dedicated their time trying to understand how logos impact consumers' purchase intention. However, these studies rarely connect cruelty-free logos and brand image, giving this present research more space to contribute with meaningful insights. The results of this investigation come to strengthen the present relation between the elements under study, suggesting that cruelty-free logos impact the brand image. This affirmation is justified by the fact that respondents who were exposed to the product without a logo did not have such high positive feelings towards the brand when compared to the ones who were exposed to a logo.

5.1.2 The Moderating Impact of Attitudes Towards Green Products in the Relationship Between the Presence the Cruelty-free Logos and Brand Image

The second RQ focused on the impact of consumers' attitudes towards green products on the relationship between the display of cruelty-free logos (certified or uncertified) and brand image. Past literature (Sub-chapter 2.4.1) has concluded that consumers with positive attitudes towards

green products are very likely to reflect that on the products they purchase, meaning that they are more likely to identify with a brand that matches their values and interests. The more they identify with the brand, the higher the brand image perception will be for them.

Despite this, no statistically significant interaction was found during the analysis and so, Attitudes Towards Green Products is not a moderator of the model.

5.1.3 The Moderating Impact of Knowledge of Cruelty-free in the Relationship Between the Presence the Cruelty-free Logos and Brand Image

The third, and last, RQ aims to understand the impact of the consumers' knowledge of cruelty-free on the relationship between the display of cruelty-free logos (certified or uncertified) and brand image. As mentioned in the literature (Sub-chapter 2.5), the term cruelty-free does not have a clear imposed definition yet. This is a clear sign of how recent it is, and how much this topic still needs to evolve. With that being said, there is not much research available on the present literature that connects the three variables under study. Consequently, this might suggest that any discovery done will contribute to the knowledge of the scientific community. Process was used to test if the consumers' knowledge of cruelty-free was a statistically significant moderator in the model. The analysis concluded that the variable Knowledge of Cruelty-free alone created an impact on consumers feelings towards the brand image. Ideally, this means that a respondent exposed to a product will have a higher positive feelings towards the brand image if their knowledge on cruelty-free is larger. Logically, if someone does not know a thing about cruelty-free, that will not generate an impact on how that person feels towards the brand image.

Yet, when evaluating the relationship between the display of cruelty-free logos and knowledge of cruelty-free with the brand image, no statistically significant discoveries were made. Meaning that, even though a relationship was found, Knowledge of Cruelty-free is not a moderator of the model.

5.2 Managerial Implications

This research presents an important milestone under the context it is in. Professionals in the field of marketing and management should always be on top of consumer trends and how they evolve throughout the years, so they are able to answer their needs as quickly as possible (Sharma, 2012). It is important to understand what consumers are looking for, to strategically plan what to offer them. With interests and concerns in sustainability, green products, veganism, and cruelty-free growing more and more each year, companies must be prepared to face the demand in the market.

The results of this investigation highlight the importance of becoming cruelty-free and, consequently, having the rights to display the certified logo on the product's package.

Whether companies choose to display a certified or uncertified cruelty-free logo, data shows that both can positively impact the brand image. Thus, companies should start changing their ways and become more environmentally friendly, investing in cruelty-free practices as it is seen as valuable by the eyes of the consumers.

Furthermore, the research also proved that a higher knowledge about cruelty-free can actually improve the brand image in a positive way. This might suggest that maybe companies should start educating consumers on the topic, approaching them in more informative ways through their campaigns.

5.3 Academic Implications

As previously mentioned, this investigation came to contribute to a clear existing gap in the literature. Whether about cruelty-free products alone, but also their connection and how much they can impact the brand image, literature on the topic is still very new and unexplored.

So, since the investigation is dealing with such a recent topic, it made total sense that the respondents would be the ones to choose the category under study. In this way, researcher bias was avoided, and the respondents were evaluating a category they felt comfortable giving opinions about. Skincare as the final selected category seemed to be the wiser choice due to all the brands on this category that are joining the cruelty-free market.

Past researchers focused on investigating cruelty-free related to ethics, demographics, price, environmental consciousness, and purchase intention. This investigation stands out by using variables new to the literature, providing future researchers with a different point of view on the subject.

5.4 Limitations and Further Research

As this is an investigation being done under a master's thesis dissertation, it is important to be aware of all the limitations that come with it. While reading the paper, one should keep in mind limitations regarding money and time constraints.

Firstly, the gathered sample cannot be representative of the whole population, since it was collected through a convenience sampling technique leading to a random distribution of demographics. The study gathered a total of 169 completed answers. For future research, to achieve more reliable results, it would be useful to use a larger sample, with demographics evenly distributed.

Secondly, the research was limited to only one product category. Thus, no conclusions can be made on other categories that might be rising on the cruelty-free market. Other categories will likely evoke different feelings from the consumers and so, it would generate higher or lower impacts on the brand image.

Thirdly, due to the fact that most of the variables under study are relatively recent to the literature, there is not a lot of research done on the topics yet. This is important to mention because, since there were variables that haven't previously been studied in the literature, it might become hard to make comparisons and draw conclusions. Future research should have a balance on topics that are already well explored, and topics that are new to the literature.

Furthermore, the nature of the main study created a limitation for the research scenario. The respondents were presented with a fictitious brand, which they were unfamiliar with, therefore, it might be harder for them to have opinions and feelings towards the product. Consequently, it is not recommended for well-established brands to draw conclusions directly from this study because consumers already have an opinion about them based on previous experiences and knowledge. Future research should also focus on using real products from real brands since the brand image is a variable that aggregates a lot of personal feelings.

Because the topic of cruelty-free is so new, there still remains a lot of space for researchers to explore different relations. It would be interesting to explore more how knowledge actually affects the brand image or even purchase intention. Experimentation could be done to test if the consumers' purchase intention for cruelty-free products changes after being exposed to an informative campaign about it. It would be intriguing to understand if the interest grows as the knowledge increases.

It would also be intriguing to include more diversified logos (such as vegan) in the investigation. While also, understanding how consumers react to different packages regarding the sustainability level. It would be interesting to investigate if consumers prefer the logos, the sustainable packages or, even want the combination of both.

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APPENDICES

Appendix 1: Category Identification – Survey

Dear respondent,

This survey has an estimated duration of 1 minute.

The main objective of understudy is to understand your authentic perceptions of cruelty-free brands and products. Please answer honestly as your opinion is very valuable.

All responses collected are confidential, so your anonymity is assured.

Thank you so much for your time and collaboration!

Block 1: Logo Awareness



Q1- Do you recognize the logo above?

- Yes (1)
- No (2)

Q2- If you previously answered yes, what is it?

Block 2: Cruelty-free products

PETA (People for the Ethical Treatment of Animals) is a non-governmental organization dedicated entirely to protecting the rights of animals.

PETA considers that a brand or product is **cruelty-free** when: it does not include ingredients tested on animals, and final products do not involve any kind of animal testing performed by the company or third parties.

Q3- To what extent do you agree with the following statement: "I am aware of cruelty-free certification logos"?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Q4- Have you ever purchased a cruelty-free product?

- Yes (1)
- No (2)

- I don't know (3)

Block 3: Category Identification

Q5- From the following categories, which do you associate with cruelty-free products? Select all the options that apply.

- Baby Care (1)
- Hair Care (2)
- Cosmetics (3)
- Oral Hygiene (4)
- Fragrances (5)
- Body Hygiene (6)
- Skincare (7)
- Vitamins and Supplements (8)
- Intimate Care (9)
- Cleaning Products (10)

Appendix 2: Category Identification – Cruelty-free Logo Recall

Do you recognize the logo above?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	19,4	19,6	19,6
	No	86	79,6	80,4	100,0
	Total	107	99,1	100,0	
Missing	System	1	0,9		
Total		108	100,0		

What is it?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		88	81,5	81,5	81,5
	cruelty free	1	0,9	0,9	82,4
	Cruelty free	1	0,9	0,9	83,3
	Cruelty Free Product	1	0,9	0,9	84,3
	cruelty-free	12	11,1	11,1	95,4
	Cruelty-free	1	0,9	0,9	96,3
	Produto não testado em animais	1	0,9	0,9	97,2
	Produtos cruelty free	1	0,9	0,9	98,1
	Produtos Cruelty free	1	0,9	0,9	99,1
	Sustainability certification	1	0,9	0,9	100,0
	Total	108	100,0	100,0	

Appendix 3: Category Identification – Cruelty-free Logo Awareness

To what extent do you agree with the following statement: “I am aware of cruelty-free certification logos”?

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Strongly Disagree	2	1,9	1,9	1,9
	Disagree	6	5,6	5,7	7,5
	Somewhat Disagree	12	11,1	11,3	18,9
	Neither Agree nor Disagree	10	9,3	9,4	28,3
	Somewhat Agree	22	20,4	20,8	49,1
	Agree	35	32,4	33,0	82,1
	Strongly Agree	19	17,6	17,9	100,0
	Total	106	98,1	100,0	
Missing	System	2	1,9		
Total		108	100,0		

Appendix 4: Category Identification – Cruelty-free Products Purchasing Habits

Have you ever purchased a cruelty-free product?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	53,7	53,7	53,7
	No	6	5,6	5,6	59,3
	I don't know	44	40,7	40,7	100,0
	Total	108	100,0	100,0	

Appendix 5: Category Identification – Category Choice

Statistics											
		From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Baby Care	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Hair Care	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Cosmetics	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Oral Hygiene	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Fragrances	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Body Hygiene	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Skin Care	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Vitamins and Supplements	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Intimate Care	From the following categories, which do you associate with cruelty-free products? Select all the options that apply. Cleaning Products
N	Valid	28	60	57	24	26	30	75	32	21	20
	Missing	80	48	51	84	82	78	33	76	87	88

Appendix 6: Main Study – Survey Questionnaire

Dear respondent,

Thank you in advance for participating in this questionnaire. This research is being done under a Master Thesis in Management with Specialization in Strategic Marketing at Católica-Lisbon School of Business and Economics.

This survey will take around **6 minutes to complete** and, I kindly ask you to **answer all questions truthfully** since it's very important to understand your authentic perceptions and intentions. Please, bear in mind that there are **no correct or incorrect answers**.

All the information is confidential, so **your anonymity is ensured**. The data gathered will be used exclusively for **research purposes** on the development of my master thesis.

In case of any doubt, please do not hesitate to contact: s-dpaderne@ucp.pt

Thank you for helping me become a Master!

Block 1: Screening Questions

Q1- What gender do you identify with?


- Male (1)
- Female (2)
- Non-binary (3)
- Prefer not to say (4)

End survey if "Male" is selected

End survey if "Prefer not to say" is selected

Block 2: Introductory Questions

Q2- On a scale from 0 to 100, please state how much you know about **moisturizing creams**. Consider that 0 means you don't know anything about it, and 100 means you know everything.

0	10	20	30	40	50	60	70	80	90	100
										

Q3- On average, **how often do you use** moisturizing cream?

- Daily (1)
- 2-3 times a week (2)
- 4-6 times a week (3)
- Never (4)

End survey if "Never" is selected

Q4- On average, **how often do you buy** moisturizing cream?

- Weekly (1)
- Every month (2)
- Every three months (3)
- Every six months (4)
- Annually (5)
- Never (6)

Block 3- Stimuli

Q5- Now, imagine that you are at your favorite retailer of personal care and beauty products. You want to buy a new moisturizing cream and, after looking through some of the alternatives, **you find the product shown below and take a deep look at it.**



Randomly, display one of the three stimuli

Block 4- Brand Image

Q6- Please, **indicate your level of agreement** to the following statements regarding the image you just saw.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The brand provides good value for money (1)							
There is a reason to buy the brand instead of others (2)							
The brand has personality (3)							
The brand is interesting (4)							
I have a clear impression of the type of people who consume the brand (5)							
The brand is different from competing brands (6)							

Randomly, display the six statements

Block 5- Knowledge of Cruelty-Free

Q7- Please, indicate your level of agreement with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I know pretty much about cruelty-free products (1)							
I know how to judge the authenticity of a cruelty-free product (2)							
I think I know enough about cruelty-free products to feel pretty confident when I make a purchase (3)							
I do not feel very knowledgeable about cruelty-free products (4)							
Among my circle of friends, I'm one of the "experts" on cruelty-free products (5)							
Compared to most people, I know less about cruelty-free products (6)							
When it comes to cruelty-free products I really don't know a lot (7)							
I can tell if a cruelty-free product is worth the price or not (8)							

Randomly, display the eight statements

Block 6- Attitudes Towards Green Products

Q8- Please, indicate your level of agreement with the following statements.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I feel that green products' environmental reputation is							

generally reliable (1)							
I feel that green products' environmental performance is generally dependable (2)							
I feel that green products' environmental claims are generally trustworthy (3)							
Green products' environmental concern meets my expectations (4)							
Green products' keep promises and responsibilities for environmental protection (5)							

Randomly, display the five statements

Block 7- Manipulation Question

Q9- Does the product have a cruelty-free logo?

- Yes (1)
- No (2)

Randomly, display blocks 4,5,6, and 7

Block 8- Demographics

Q10- What is your age?

- Under 18 (1)
- 18 - 24 (2)
- 25 - 34 (3)
- 35 – 44 (4)
- 45 - 54 (5)
- 55 - 64 (6)
- 65 or older (7)

Q11- What country are you from?

Afghanistan 

Q12- What is the highest level of school you have completed?

- Less than high school degree (1)
- High school graduate or equivalent (2)
- Bachelor's degree (3)

- Master's degree/MBA (4)
- PHD/Post-Doctoral degree (5)

Q13- What is your current occupation?

- Student (1)
- Student-Worker (2)
- Employed (3)
- Unemployed (4)
- Retired (5)

Q14- What is your individual monthly gross income?

- No Income (1)
- Less than 500€ (2)
- 500€ - 999€ (3)
- 1000€ - 1499€ (4)
- 1500€ - 1999€ (5)
- 2000€ - 2499€ (6)
- 2500€ - 2999€ (7)
- 3000€ - 3499€ (8)
- 3500€ - 4000€ (9)
- More than 4000€ (10)
- Prefer not to say (11)

Appendix 7: Main Study – Sample Characteristics

DEMOGRAPHICS – FREQUENCY STATISTICS					
Variable	Values	No Logo	Certified Logo	Uncertified Logo	Total
Respondents		45	41	46	132
Age	Under 18	0,0%	0,0%	0,0%	0,0%
	18-24	51,1%	61,0%	63,0%	58,3%
	25-34	17,8%	24,4%	19,6%	20,5%
	35-44	15,6%	2,4%	8,7%	9,1%
	45-54	15,6%	12,2%	8,7%	12,1%
	55-64	0,0%	0,0%	0,0%	0,0%
	65 or older	0,0%	0,0%	0,0%	0,0%
Nationality	Portuguese	95,6%	87,8%	91,3%	91,7%
	Other	4,4%	12,2%	8,7%	8,3%
Education	Less than High School	2,2%	0,0%	2,2%	1,5%
	High School	31,1%	19,5%	30,4%	27,3%
	Bachelor	53,3%	58,5%	56,5%	56,1%
	Master	11,1%	22,0%	10,9%	14,4%
	PhD	2,2%	0,0%	0,0%	0,8%
Occupation	Student	24,4%	31,7%	30,4%	28,8%
	Student-Worker	20,0%	17,1%	19,6%	18,9%
	Employed	51,1%	46,3%	47,8%	48,5%
	Unemployed	4,4%	4,9%	0,0%	3,0%
	Retired	0,0%	0,0%	2,2%	0,8%
	No Income	28,9%	29,3%	30,4%	29,5%
	Less than 500€	0,0%	4,9%	0,0%	1,5%

	500€ - 999€	42,2%	29,3%	30,4%	34,1%
	1000€ - 1499€	8,9%	17,1%	28,3%	18,2%
	1500€ - 1999€	6,7%	12,2%	8,7%	9,1%
Income	2000€ - 2499€	6,7%	0,0%	0,0%	2,3%
	2500€ - 2999€	2,2%	2,4%	0,0%	1,5%
	3000€ - 3499€	0,0%	2,4%	0,0%	0,8%
	3500€ - 4000€	2,2%	0,0%	0,0%	0,8%
	More than 4000€	2,2%	2,4%	0,0%	1,5%
	Prefer not to say	0,0%	0,0%	2,2%	0,8%

Appendix 8: Main Study – Sample Characteristics Habits

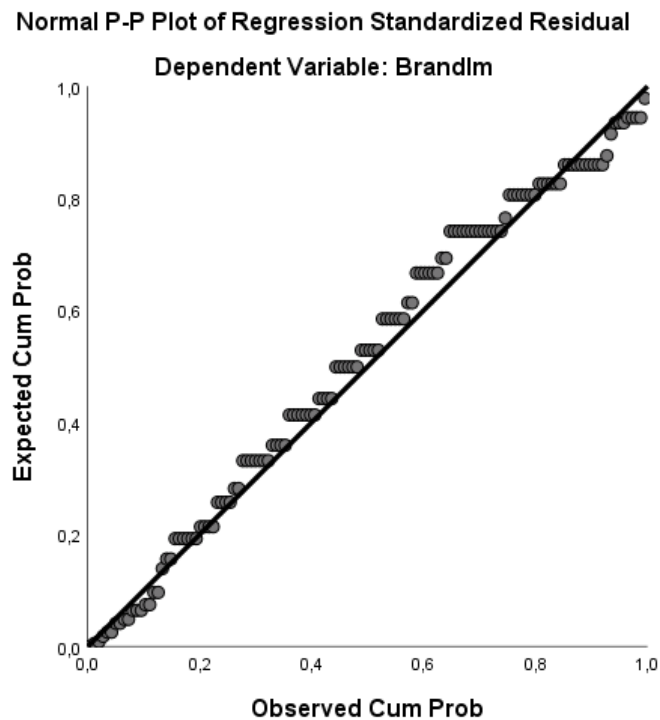
HABITS – FREQUENCY STATISTICS					
Variable	Values	No Logo	Certified Logo	Uncertified Logo	Total
Level of Knowledge	0 – 10	0,0%	2,4%	2,2%	1,5%
	11 – 20	0,0%	4,9%	4,3%	3,0%
	21 – 30	20,0%	2,5%	4,3%	9,1%
	31 – 40	6,7%	9,7%	2,2%	6,1%
	41 – 50	13,3%	2,5%	15,3%	10,6%
	51 – 60	15,6%	26,8%	19,5%	20,5%
	61 – 70	37,7%	34,1%	32,5%	34,8%
	71 – 80	2,3%	14,7%	15,3%	10,6%
	81 – 90	4,4%	2,4%	2,2%	3,0%
	91 - 100	0,0%	0,0%	2,2%	0,8%
Usage Habits	Daily	37,8%	36,6%	41,3%	38,6%
	6-4 times a week	24,4%	17,1%	19,6%	20,5%
	2-3 times a week	37,8%	46,3%	39,1%	40,9%
Purchase Habits	Every month	0,0%	7,3%	6,5%	4,5%
	Every 3 months	26,7%	14,6%	17,4%	19,7%
	Every 6 months	53,5%	56,1%	60,9%	56,9%
	Annually	20,0%	22,0%	15,2%	18,9%
	Never	0,0%	0,0%	0,0%	0,0%

Appendix 9: Test of Normality – Kolmogorov-Smirnov and Shapiro-Wilk

Test of Normality: Kolmogorov-Smirnov									
Group	Brand Image			Knowledge of Cruelty-Free			Attitudes Towards Green Products		
	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.
No Logo	0,099	45	0,200	0,139	45	0,030	0,190	45	0,000
Certified Logo	0,129	41	0,082	0,144	41	0,033	0,167	41	0,006
Uncertified Logo	0,138	46	0,028	0,126	46	0,066	0,127	46	0,062
Test of Normality: Shapiro-Wilk									
Group	Brand Image			Knowledge of Cruelty-Free			Attitudes Towards Green Products		
	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.
No Logo	0,980	45	0,613	0,946	45	0,035	0,893	45	0,001

Certified Logo	0,958	41	0,136	0,952	41	0,080	0,923	41	0,008
Uncertified Logo	0,894	46	0,001	0,933	46	0,011	0,919	46	0,003

Appendix 10: Linear Regression - Normal Distribution of Errors Assumption



Appendix 11: Linear Regression – Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
Brand Image	5,0379	1,05139	132
Cruelty-Free Logo Vs. No Logo	0,6591	0,47582	132

Appendix 12: Linear Regression – Pearson Correlation

Pearson Correlation	
Cruelty-Free Logo Vs. No Logo	
Logo	
Brand Image	0,484

Appendix 13: Linear Regression – Model Summary

	R	R Square	Adjusted R Square	Durbin-Watson
Model Summary	0,484	0,234	0,228	1,574

Appendix 14: Linear Regression – ANOVA

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	33,891	1	33,891	39,721	0,000

Appendix 15: Linear Regression – Coefficients

Coefficients						
	Unstandardized Coefficients B	Standardized Coefficients B	t	Sig.	Tolerance	VIF
Constant	4,333		31,470	0,000		
Cruelty-Free Logo Vs No Logo	1,069	0,484	6,302	0,000	1,000	1,000

Appendix 16: Linear Regression – Colinearity Diagnosis

Colinearity Diagnosis		
Dimension	Eigenvalue	Condition Index
1	1,812	1,000
2	0,188	3,103

Appendix 17: Mann-Whitney U – Descriptive Statistics

Descriptive Statistics			
	N	Mean	Std. Deviation
Certified Cruelty-Free Logo	41	5,4390	0,87547
Uncertified Cruelty-Free Logo	46	5,3696	0,91113

Appendix 18: Mann-Whitney U – Ranks

Means Rank			
	N	Mean Rank	Sum of Ranks
Certified Cruelty-Free Logo	41	44,54	1826,00
Uncertified Cruelty-Free Logo	46	43,52	2022,00

Appendix 19: Mann-Whitney U – Test Statistics

Test Statistics	
	Brand Image
Mann-Whitney U	921,000
Wilcoxon U	2002,000
Z	-0,188
Asymp. Sig. (2-tailed)	0,851

Appendix 20: Output Process Model 2

Model : 2
 Y : BrandIm - Brand Image
 X : Logos - Visual Elements of Package

W : Attitud - Attitudes Towards Green Products
 Z : Know - Knowledge of Cruelty-free

Sample
 Size: 132

OUTCOME VARIABLE:

BrandIm

Model Summary

R	R-sq	MSE	F	df1	df2	p
,6832	,4668	,6128	22,0608	5,0000	126,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,4755	,7704	1,9153	,0577	-,0490	3,0001
Logos	-,1456	1,0076	-,1445	,8853	-2,1397	1,8484
Attitud	,0695	,1154	,6019	,5483	-,1589	,2978
Int_1	,1324	,1572	,8417	,4015	-,1788	,4435
Know	,6746	,2331	2,8936	,0045	,2132	1,1359
Int_2	,0923	,3101	,2976	,7665	-,5214	,7059

Product terms key:

Int_1 : Logos x Attitud
 Int_2 : Logos x Know

Logos

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

	R2-chng	F	df1	df2	p
X*W	,0030	,7085	1,0000	126,0000	,4015
X*Z	,0004	,0886	1,0000	126,0000	,7665
BOTH	,0065	,7659	2,0000	126,0000	,4671

Focal predict: Logos (X)
 Mod var: Attitud (W)
 Mod var: Know (Z)

Data for visualizing the conditional effect of the focal predictor:
 Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

Logos	Attitud	Know	BrandIm
,0000	4,2348	3,2842	3,9851
1,0000	4,2348	3,2842	4,7030
,0000	4,2348	3,8305	4,3536
1,0000	4,2348	3,8305	5,1219
,0000	4,2348	4,3768	4,7222
1,0000	4,2348	4,3768	5,5409
,0000	5,2970	3,2842	4,0589
1,0000	5,2970	3,2842	4,9174
,0000	5,2970	3,8305	4,4274
1,0000	5,2970	3,8305	5,3363
,0000	5,2970	4,3768	4,7959
1,0000	5,2970	4,3768	5,7552
,0000	6,3592	3,2842	4,1327
1,0000	6,3592	3,2842	5,1317

,0000	6,3592	3,8305	4,5012
1,0000	6,3592	3,8305	5,5507
,0000	6,3592	4,3768	4,8697
1,0000	6,3592	4,3768	5,9696

END DATA.

GRAPH/SCATTERPLOT=

Attitud WITH BrandIm BY Logos /PANEL ROWVAR= Know .

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

Level of confidence for all confidence intervals in output:

95,0000

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