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How cruelty-free logos influence
Consumers' Purchase Intention.
The effects of Brand Image, Logo
Awareness and Moral Obligation.

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ABSTRACT

Title of the dissertation: How cruelty-free logos influence Consumers' Purchase Intention. The effects of Brand Image, Logo Awareness and Moral Obligation.

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In a world where consumers involve themselves in the causes they believe, ethical consumption is getting the public's attention and cruelty-free products are no exception.

According to the Humane Society International, the European Union is now the world's largest cruelty-free cosmetic market. Despite that fact, in the literature, some space remains for investigation.

This study intended to comprehend how purchase intention is influenced by the existence of cruelty-free logos on package and how it affects brand image. The moderation impact of logo awareness and moral obligation were also included in the analysis.

To reach relevant conclusions, a focus group and a survey questionnaire were conducted. The last one was designed considering three different scenarios, which were randomly assigned to the respondents. Therefore, they could be confronted with a package without a cruelty-free logo, with an uncertified cruelty-free logo or with a certified cruelty-free logo.

Overall, the results revealed that cruelty-free logos lead to higher purchase intentions and that the visual effect of the logo positively affects brand image. It was also proved that brand image mediates the relationship between the visual effect of the cruelty-free logo and purchase intention. The moderation effect of logo awareness and moral obligation were not confirmed.

Keywords: Cruelty-free, cruelty-free logos, cruelty-free products, certified cruelty-free logos, uncertified cruelty-free logos, purchase of cruelty-free products, ethical consumption.

SUMÁRIO

Título da dissertação: Como logótipos cruelty-free influenciam as intenções de compra dos consumidores. Os efeitos da imagem de marca, da notoriedade do logótipo e da obrigação moral de comprar.

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Num mundo em que os consumidores lutam pelas causas em que acreditam, o consumo ético tem vindo a ganhar a atenção do público e produtos cruelty-free não são exceção.

De acordo com a Humane Society International, a União Europeia é agora o maior mercado de cosméticos cruelty-free. No entanto, na literatura, resta algum espaço para investigação na área. Este estudo pretende compreender como a intenção de compra é influenciada pela existência de logótipos cruelty-free na embalagem e como isso afeta a imagem de marca. O impacto moderador de conhecer o logótipo e da obrigação moral de comprar foram também incluídos na análise.

A fim de chegar a conclusões relevantes, foram realizados um focus group e um questionário. O último foi criado com base em três cenários diferentes, que foram atribuídos aleatoriamente aos inquiridos. Assim, os mesmos podiam ser confrontados com uma embalagem sem um logótipo cruelty-free, com um logótipo cruelty-free não certificado ou com um logótipo cruelty-free certificado.

Globalmente, os resultados revelaram que logótipos cruelty-free levam a intenções de compra mais elevadas e que o efeito visual do logótipo afeta positivamente a imagem de marca. Ficou também provado que a imagem de marca medeia a relação entre o efeito visual do logótipo cruelty-free e a intenção de compra. O efeito moderador de conhecer o logótipo e da obrigação moral de comprar não foram comprovados.

Palavras-chave: Cruelty-free, logótipos cruelty-free, produtos cruelty-free, logótipos cruelty-free certificados, logótipos cruelty-free não certificados, compra de produtos cruelty-free, consumo ético.

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LIST OF ABBREVIATIONS

Covid-19 - Corona Virus Disease 2019

MBA - Master of Business Administration

PETA - Ethical Treatment of Animals

RQ – Research Question

SPSS - Statistical Package for the Social Sciences

U.S – United States

VIF - Variance inflation factor

Vis. Elements of Package – Visual Elements of Package

Vs – Versus

CHAPTER 1: INTRODUCTION

1.1 Background and problem statement

Today we live in the “ethics era”, where consumers involve themselves in ethical judgements regarding companies’ business decisions (Smith, 1995). Consumers are now activists that can boycott and punish unethical behaviors, but they are also willing to reward ethical decisions made by companies (Carrigan & Attalla, 2001). According to Fernandes (2020), morality tends to lead to boycotts and the probability to engage in this type of behavior depends on the individuals’ moral values. In fact, consumers form certain expectations and beliefs based on disclosed information, and from that, they create reference points to make judgements. Therefore, consumers play a critical role in regulating corporate behavior (Creyer, 1997).

JingJing, Xinze, and Sitch (2008) suggested that ethical consumption includes positive buying, which means that consumers purchase products that meet their standards of ethics. To define what is an ethical purchase, they rely on heuristics (Sheehan & Lee, 2014).

The term cruelty-free informs consumers that the product is not tested on animals. However, the legal definition of the term varies based on the country and product category. Regardless of that, marketing messages are the key elements that allow customers to connect their values to a product. Animal rights are no expectation, so consumers who support this cause rely on the term cruelty-free to evaluate products and to form brand images (Sheehan & Lee, 2014).

Based on that, companies like Burt’s Bees, Whole Foods, and The Body Shop started communicating that their products are cruelty-free. However, the term can mislead consumers. In some countries, the logo can be used on the package, although the product or the ingredients have already been tested on animals. Additionally, companies hire other firms or use ingredients that were tested on animals previously (Sheehan & Lee, 2014). As a consequence, consumers may end up buying a product that is not cruelty-free.

To avoid these situations, organizations such as Leaping Bunny, PETA and Choose Cruelty-Free certify companies that do not test on animals with the official bunny logos. Hereupon, my research aims to understand if consumers are influenced by the presence of cruelty-free logos on the package (despite being official or not) and how it affects their purchase intentions. For that, it is necessary to consider the moderator effect of logo awareness, as it is expected that

consumers who recognize the logo will have higher purchase intentions for cruelty-free products.

Also, as stated before, it makes no sense to evaluate this relationship without considering the mediating effect of brand image. Consumers prefer brands that they can identify with (actual or ideal images of themselves) and, for that, they create brand associations which guide them in their purchases. The brand image created by the consumers is, in the end, the competitive advantage that makes them choose one brand instead of another (Ataman & Ülengin, 2003, p. 4). Therefore, it is expected that consumers who support animal rights are more likely to purchase cruelty-free products.

Finally, the moderator effect of moral obligation is going to be studied as consumers' decision-making process for ethical products can be influenced by the sense of moral obligation (Hwang et al., 2015). Thus, it is expected that moral obligation affects consumers' purchase intention for cruelty-free products.

1.2 Problem Statement

This research aims to understand how cruelty-free logos influence consumers' purchase intention, this is, how the visual element of the package, the logo, impacts consumers' decisions. The problem statement for this research can be stated as:

How cruelty-free logos influence Consumers' Purchase Intention. The effects of Brand Image, Logo Awareness and Moral Obligation.

This problem statement is going to be studied through the following research questions:

RQ1: Does displaying the cruelty-free logo, on the package, impact consumers' purchase intention?

RQ2: Are consumers aware of cruelty-free logos?

RQ2A: Can consumers distinguish certified cruelty-free logos from uncertified cruelty-free logos?

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

RQ4: How does logo awareness impact the relationship between cruelty-free logos and brand image?

RQ5: How does logo awareness impact the relationship between cruelty-free logos and purchase intention?

RQ6: How does moral obligation impact the relationship between brand image and purchase intention?

RQ7: How does moral obligation impact the relationship between cruelty-free logos and purchase intention?

1.3 Relevance

The European Commission revealed that, in 2017, 23.5 million animals were killed but just 10.9 of them for scientific research (Cruelty-free International). Despite the numbers, some improvements have been made. More than 1000 companies are certificated as cruelty-free and more than 40 countries approved laws to stop animal testing in the cosmetics. Modern non-animal methods have been developed to replace the old ones and, today, the largest cruelty-free cosmetic market, in the world, is located in the European Union (Humane Society International).

Animal testing is getting the public's attention and, according to a Pew Research Center poll, 52% of U.S adults are against it. In the beauty industry, a survey conducted by Nielsen showed that 57% of the respondents said that not testing on animals is moderately important (being the attribute most voted). Additionally, 43% of the respondents said they were willing to pay more for a cruelty-free product. It can be a sign that consumers are worrying about the topic.

In general, the present research aims to understand if consumers can recognize and distinguish cruelty-free logos and how it impacts their purchase intentions. Additionally, it intends to understand the brand associations that consumers create when confronted with cruelty-free logos and how their degree of animal consciousness generates a sense of moral obligation to purchase products not tested on animals.

Lastly, the author of the present dissertation expects this research to be useful to convince more companies of the importance of producing cruelty-free products and how they can benefit from consumers' positive brand associations by not testing on animals.

1.4 Research methods

To properly answer the research questions, both primary and secondary data were used. Regarding secondary sources, a set of articles were collected for the research topic (articles focused on the package, cruelty-free products, logo awareness, brand image, moral obligation, and purchase intention). The collection of primary data will allow a better understanding of the problem and it is going to be the starting point for primary data investigations.

The primary data will include qualitative and quantitative research. In terms of qualitative research, a focus group is going to be conducted, as it is flexible enough to screen ideas and discuss complex topics. The focus group aims to understand consumers' involvement with animal rights and animal testing. The participants of the focus groups should have different ages (adolescents, young adults, middle-aged adults, and old adults) to understand their opinions and beliefs about the topic.

For quantitative research, an online survey will be distributed to understand the causal relationship between the visual effect of cruelty-free logos and consumers' purchase intentions. The responses of the survey are going to be analyzed with IBM's SPSS statistical software. To achieve meaningful results the data will be treated with frequencies analysis, measures of dispersion and variation (mean), independent sample t-test and linear regression.

1.5 Dissertation outline

The present dissertation includes five different chapters. The following chapter includes the literature review, an in-depth analysis of the variables which influence purchase intentions for cruelty-free products and will result in the formulation of the hypotheses. The third chapter describes the methodology used to test the hypotheses. The methods selected to collect and analyze the data of the survey will be explained in detail, as well as the statistical tests applied. The fourth chapter focuses on the results obtained in the survey and the validation of the hypotheses defined previously. The last chapter includes the conclusions and limitations of the study and recommendations for future research.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The present chapter aims to be a theoretical framework focused on the research questions to develop the hypotheses that are going to be tested in the next chapter. Therefore, readers can expect a summary of the relevant insights that exist in the literature, regarding purchase intention, cruelty-free logos, brand image, logo awareness and moral obligation.

2.1 Purchase Intention

Purchase Intent reflects the likeliness of a consumer buying a product in the future, after evaluation (Morrison, 1979). This evaluation is based on the perceived value the consumer can get from purchasing the product (Chang & Wildt, 1994).

Engel (1995) split purchase intentions into three groups. Firstly, the unplanned purchases that are characterized by an impulsive decision. Secondly, the partially planned purchases where the consumer selects the brand in-store, having in mind the product category previously defined. Finally, the planned purchases identified as the choice of the product category and the brand before buying.

Purchase Intentions are a proxy of purchase behavior and help marketers forecasting the sales of a specific product (Newberry C. Robert et al., 2003). However, there is an attitude-behavior gap between what consumers express and what consumers do. In fact, there exists a gap between consumers who pretend to buy a product and consumers who buy it. The difference is even more notable in ethical purchases, as social factors are not the determinant criteria when making a purchase (Carrigan & Attalla, 2001).

Despite that, it is proven that high purchase intentions are likely to be translated into real purchases, which results in a positive relationship between purchase intention and purchase behavior (Armstrong et al., 2000). Based on that, the variable purchase intention is going to be used to study how displaying cruelty-free logos affects consumers' purchasing decisions.

Consumers' purchase intentions are influenced by different factors that, then, guide consumer behavior (Icek, 1991). Brown (2006) identified that personal, psychological, and social factors impact consumers' decision-making process. Kotler (2001), besides the ones mentioned before, included cultural factors. Berkowitz (1992) added situational factors as drivers of consumers' purchase intentions.

Age, gender, occupation, economic conditions, personality and self-consciousness are classified as personal factors (Stejskal, 2008). It is expected that individuals with a high degree of animal self-consciousness will feel morally obligated to purchase cruelty-free products. Based on that, it makes sense to study moral obligation as a variable that impacts consumers' purchase intentions.

As psychological factors, it is possible to identify: motivation, perception, and knowledge. Motivation guides consumers' behavior while perception is defined as the analysis of the information received from the environment. Knowledge is about giving relevant data to the public that can influence the purchase decision (Stejskal, 2008). By using visual elements of the package such as the cruelty-free logo, brands are communicating that the product is not tested on animals. That knowledge can influence consumers' brand image (perceptions and associations) and, ultimately, consumers' purchase intentions.

Social factors incorporate the impact of the opinions of reference groups and family, opinion leaders and the social class which the individual belongs to. Cultural factors are the ones that influence consumers' behavior by being included in a culture (Stejskal, 2008). Situational factors are the ones that affect consumers' purchase decision in the exact moment the purchase is happening, such as the social and psychological environment and the time available (Berkowitz et al. 1992).

To sum up, different factors influence consumers' purchase intentions. However, this research aims to understand how cruelty-free logos, logo awareness, brand image and moral obligation affect consumers' purchase intentions.

2.2 Elements of Package

The package can be defined as a container used to transport a product. However, the importance of package goes beyond its logistic functions. The package is a crucial sales tool that can communicate the brand identity. In fact, consumers tend to buy products that can help express themselves. Therefore, a well-designed package can catch consumers' attention and convince them to make a purchase (Kumar Agariya et al., 2012).

According to Rentie & Brewer (2000), 73% of the purchase decisions happen at the store and, in a period of 20 minutes, consumers are exposed to 24000 brands. Based on that, it is possible

to affirm that package is a competitive tool that influences consumers' purchase decisions (Butkevičiene et al., 2008).

Smith & Taylor (2004) argued that an efficient package must be designed based on variables like form, size, colour, graphics, material, and flavour. Vila & Ampuero (2007) divided the elements of the package into graphic elements (colour and images) and structural elements (form and materials). Both these classifications exclude verbal components of the package.

Rentie & Brewer (2000) defined that the package of a product includes verbal and visual elements. Verbal elements communicate information to consumers, and it impacts consumers' cognitive reflections. Examples of verbal elements are product name, brand, information, and instruction of usage. On the other hand, visual elements aim to generate emotions in the consumer. Colour, shape, size, images, and symbols are classified as visual elements. Similarly, Silayoi & Speece (2007) highlighted the existence of visual elements and informational elements.

Visual elements of the package have a high impact in low involvement categories, where the purchase decision is not based on an intensive analysis of the benefits of the product, but rather in the first impression, communicated through image, colour, size and shape. Additionally, they have a decisive role in purchases done under time pressure, where stimulus orient the decision-making process (Silayoi & Speece, 2007). Regarding verbal elements of the package in high involvement purchases, information about the product is the determining factor that guides the decision to buy or not a product (Kumar Agariya et al., 2012).

Based on these pieces of evidence, it makes sense to follow Rentie & Brewer's approach that considers visual and verbal elements of the package, which affect both high and low involvement purchases.

2.2.1 Visual Elements of Package – The Logo

The logo can be defined as a symbol or graphic that distinguishes one brand from its competitors and it can be classified in three typologies: *symbolic logo* (just a graphical representation of a brand), *a text defined as a logo* or a *mixed logo*, which results from the combination of the ones mentioned before (Ad'r et al., 2012).

An effective logo is characterized by being easily identifiable (it must be familiar to the public), with clear meaning to the target. Additionally, when visualized it should lead to feelings of

appreciation (Hem & Iversen, 2004). Therefore, the logo is a visual sign that communicates with consumers, allows them to build positive associations and, ultimately, brand equity (Ad'r et al., 2012).

According to Carter (2005), the logo should be original to distinguish one brand from its competitors, simple to be comprehended by the public, memorable and easily adaptable to different sizes and media.

Additionally, Van Riel and Van den Ban (2001) affirmed that logos have intrinsic and extrinsic properties. The first are related to the design of the logo and how the combination of visual elements affects consumers' perceptions. The latter are connected to associations generated by the logo, that could be linked to past experiences or messages communicated by brands.

From the literature, it is possible to see different opinions regarding logo change. Some authors have seen it as a sign that the brand is modern and follows market trends (Muller, Koehler & Crettaz, 2011). Others highlighted the importance of extrinsic properties of logos and that the change should be carefully considered, especially if the logo is associated with a favourable reputation in consumers' minds (Girard et al., 2013).

Independently of that, it is true that consumers look for brands that help them express who they are or their desired image. In this process, the logo plays a crucial role, as it allows the public to easily establish brand stereotypes and evaluations about the brand personality (just by looking at a visual element) (Japutra et al., 2018).

As an example, The Body Shop helps consumers that support animal rights expressing their values, by displaying the cruelty-free logo (Japutra et al., 2018). A more detailed analysis of these specific logos is done in the following topic.

2.2.2 Cruelty-free Logos

The concept cruelty-free means that the product is not tested on animals, and it emerged because of historical milestones. In 1876, it was approved the first law that allowed companies to test on animals, denominated as the *British Cruelty to Animal Act*. The book *Animal Liberation*, published in 1975, got the public's attention and resulted in the research of alternatives methods to test products. Since then, many companies went cruelty-free (De Freitas Michel & Vargas, 2017).

Cruelty-free companies defend the use of *In Vitro* Testing, Computer (*in silico*) Modelling, Human Volunteers, Human tissues, and Human-Patient Simulators as safe alternatives to animal testing (Cruelty Free International & PETA). *In Vitro* Testing consists of growing human cells in laboratories that can become miniatures of human organs, called “organs-on-chips”, which are used to study human reactions to diseases or drugs. This method already proved to be efficient in the research of chemicals, vaccines, and drugs. Computer (*in silico*) modelling is about using computer models (of heart, skin, digestive system) that predict how the human body responds to a chemical. Another method is using human volunteers by applying just a one-time micro dosing. Human tissues can replace animal testing and give useful insights about human biology. At last, Human-Patient Simulators are also used to study the human response to medical interventions and injections (Cruelty Free International & PETA).

Despite the existence of these alternative methods, companies can mislead consumers by selling products or using ingredients that have already been tested on animals or hiring other firms to test (still communicating that they are cruelty-free). To avoid that, Leaping Bunny, PETA and Choose Cruelty-Free certify brands with cruelty-free logos (Sheehan & Lee, 2014).

To be certified by Leaping Bunny, it is necessary to establish a cut-off day to stop animal testing before the application, a cruelty-free policy is implemented, companies cannot test on animals neither can third parties and they are subject to audits (Cruelty Free International). The same rules are adopted by Choose Cruelty-free, but the company needs to be cruelty-free 5 years before the application. If the company is younger than 5 years, the accreditation is given if no evidence of animal testing is found (Choose Cruelty-free). PETA’s process is easier as companies just need to fill out a questionnaire and prove that they are cruelty-free in the moment of the application, because after that audits are not conducted (PETA).

There are three certified cruelty-free bunny logos, and each one belongs to the organizations mentioned before. The Leaping Bunny logo means that the brand and its suppliers do not test on animals and do not sell products to China (where animal testing is mandatory). The PETA logo indicates the same, but products are sold in China (if produced there), which means that animal testing occurs. The Choose Cruelty-Free logo guarantees that the brand, the brand’s parent companies, and its suppliers do not test on animals and it does not sell in China (Free the Bunnies).

Despite being certified by these organizations, some brands do not communicate that they are cruelty-free because they are not willing to pay a fee to display the official logo on the package (\$350 in the case of PETA). Also, it is possible to find brands that, in fact, do not test on animals but instead of paying the costs to be certified, prefer to use uncertified cruelty-free logos (Sheehan & Lee, 2014).

The term “cruelty-free” is not regulated and, as a result, brands can use the logo on the package even if they are testing on animals. However, it is expected that consumers would prefer to buy products with the certified cruelty-free logo instead of the uncertified logo.

For consumers that fight for animal rights, the logo is extremely motivating, which means that the *halo effect* of the logo makes them believe they are making superior and socially responsible purchases (Sheehan & Lee, 2014). Additionally, as mentioned before, consumers seek brands that help express themselves. Based on that, the following hypotheses are suggested:

H1. The cruelty-free logo impacts consumers' purchase intention.

H2. Certified cruelty-free logos have higher purchase intention than uncertified cruelty-free logos.

2.3 Brand Image

Brand Image can be defined as attitudes, feelings, and associations that consumers have towards a brand. Also, it is the set of meanings developed by the public regarding the functional, financial, and social characteristics of a brand. Overall, it can be described as consumers' sum of impression towards one specific brand (Lee et al., 2014).

A favorable brand image can distinguish one brand from its competitors. Also, consumers tend to remember more negative shopping experiences than pleasant purchases because negative associations remain longer in consumers' mind (Girard et al., 2013). Therefore, companies need to invest in communicating strong brand identity and positioning to ensure that the brand stays in consumers' minds linked to positive associations (Lee et al., 2014).

In that process, the logo plays an important role as it can boost consumers' perceptions. In fact, if the design of the logo expresses the brand personality, the public is more likely to create brand images. This visual element of the package is a result of a combination of different components such as colors, fonts, and forms. Altogether, they can evoke meaningful feelings

and associations (Luffarelli et al., 2019). Based on that, cruelty-free logos can generate impactful emotions.

Researchers developed by Chan et al. (2013), Fleck et al. (2012), and Thwaites et al. (2012) suggest that a positive brand image will result in higher purchase intentions. Romaniuk and Nenycz-Thiel (2011) affirmed that if the buying frequency is high it will be translated into high brand associations. Due to the existence of positive brand associations, consumers differentiate one brand from its competitors, by considering the value-added they would get with the purchase. Therefore, a strong brand image leads to an increase in consumers' commitment to the brand, which influences consumers' willingness to purchase, repurchase and recommend that specific brand (Vogel et al., 2008).

It is proven that high environmental knowledge positively impacts the purchase intentions for cruelty-free products (Alaouir et al., 2019). The communication of environmentally friendly choices makes consumers create green brand images, which influences consumers' purchase intentions (Norazah, et al, 2013). Therefore, if environmental consumers generate green brand images, and they have high purchase intentions for cruelty-free products, they will also create cruelty-free images. Based on that, the following hypothesis is proposed:

H3. Brand image mediates the relationship between the visual effect of cruelty-free logos and consumers' purchase intention.

2.4 Logo Awareness

The logo is a visual sign of a brand and it aims to remain in consumers' mind (Herskovitz and Crystal, 2010, p.21). As a result, companies invest large amounts in designing a meaningful and impactful logo that would add value to consumers' perceptions and evaluations towards a brand (Van Riel & Van den Ban, 2001).

The minimal level of awareness about a brand is called brand recognition. When the consumer can establish a connection between the brand and its product categories, without help, it is denominated as brand recall. Awareness is top of mind when consumers mention one brand first compared to its competitors, without support (Bayunitri & Putri, 2016). To raise awareness the name of the brand is crucial (it should attract consumers) as well as the use of advertising and promotions (Shahid et al., 2017).

The logo is the visual cue that guides consumers, by the existence of logo associations such as evaluations about the product attributes. In fact, logo awareness leads to the recognition of a

brand and its linked associations (Homburg et al., 2010). When consumers are confronted with a logo, it raises a set of judgements about the brand image of the company (Van Heerden and Puth, 1995), which leads to the following hypothesis:

H4. Logo Awareness moderates the relationship between the visual effect of cruelty-free logos and brand image.

At the point of purchase, the logo is the initial visual stimulus that produces a response. Even before the purchase, consumers can be aware of the logo and its product category. In some cases, the logo may be related to positive or negative thoughts, despite no previous shopping experience with the brand (Girard et al., 2013).

According to a study developed by Conec Inc. (2009), 79% of the consumers would change from one brand to another if a socially responsible behavior is adopted. It is also proved that customers are more loyal to socially responsible brands. As a result, it is possible to affirm that it can become the firm's competitive advantage (Mattera et al., 2012).

Macdonald and Sharp (2000) affirmed that the recognition of the brand is the most important criteria in the purchase decision. Therefore, considering that consumers reward and prefer socially responsible attitudes, it is expected that consumers who are aware of cruelty-free logos would be more likely to purchase products not tested on animals, which results in the following hypothesis:

H5. Logo Awareness moderates the relationship between the visual effect of cruelty-free logos and consumers' purchase intention.

2.5 Moral Obligation

Morality is described as the rules and norms that guide the individual's behaviors in a society. It is learned and updated constantly by individuals because of the society and culture where they are included (Hannah et al., 2005).

According to the literature, moral obligation is defined as the degree to which an individual feels the responsibility to behave morally when confronted with an ethical dilemma. The process of making ethical decisions includes four stages: the recognition of a moral problem, the development of moral judgements (about what is right or wrong), moral intent, and the commitment to behave morally (Haines et al., 2008).

When confronted with moral decisions, an individual can rely on consequentialism or formalism. The first concept is about facing a moral dilemma thinking about what leads to the greatest good in society (ends-based decision) (Brady, 1985). The second one is an obligation-based approach that uses rules to define moral behavior (Kant, 1994).

Social consensus is also a relevant variable to mention, which is the degree of social agreement regarding a moral issue. In the presence of high social consensus, individuals guide their actions based on the moral judgements of the society (Reynolds & Ceranic, 2007).

Additionally, in the process of adopting moral behaviors, moral identity plays a crucial work. It establishes an individual's criteria to evaluate what is right or wrong (Reynolds & Ceranic, 2007). In fact, if a strong moral identity exists individuals are more likely to engage in moral behaviors (Colby & Damon, 1992; Oliner, 1992). Moral identity includes two scopes, namely internalization and symbolization. Internalization defends that moral identity is influenced by how important moral traits are perceived by individuals. On the other hand, symbolization is the degree to which individuals behave morally publicly (Aquino & Reed, 2002).

According to Keller, the evaluation of brand image is connected to a set of personal thoughts (Keller, 2001). Additionally, consumers purchase brands which meet their standards of ethics (Carrigan & Attalla, 2001). The more an ethical issue is perceived as important by an individual, the more likely it is to feel a sense of obligation to engage in ethical behaviors (Haines et al., 2008). Based on that, if the brand image of a company meets consumers' ethical standards and the issue is important to them, they would feel morally obligated to act ethically, which results in the following hypothesis:

H6. Moral Obligation moderates the relationship between brand image and consumers' purchase intention.

Ethical purchases are driven by the desire to support the well-being of society. According to Shaw (et al., 2006), ethical consumption is motivated by the sense of obligation felt by consumers. Considering that the purchase of cruelty-free products is perceived by consumers as an ethical consumption (Bu & Go, 2008), it is possible to define the subsequent hypothesis:

H7. Moral Obligation moderates the relationship between the visual effect of cruelty-free logos and consumers' purchase intention.

2.6 Conceptual Framework

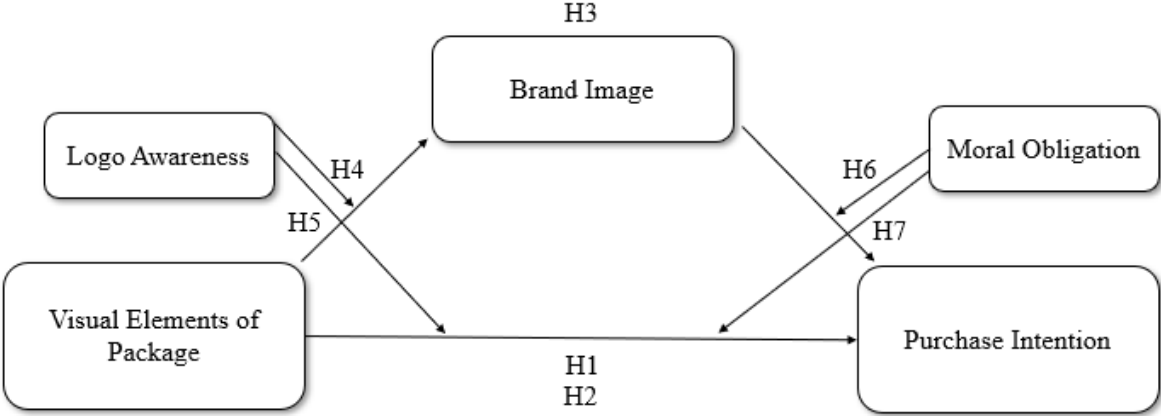


Figure 1: Conceptual Framework

CHAPTER 3: METHODOLOGY

This chapter explains the methodology used to analyze the research questions and aims to present the procedures adopted to test the hypotheses previously defined in chapter 2. It includes the research approach and the description of how primary data was collected. A detailed explanation about data collection, measurements and data analysis is also presented.

3.1 Research Approach

The research methods used are exploratory, descriptive, and explanatory. Exploratory research helps to understand a problem using existing literature as well as interviews and focus groups. Descriptive research are factual representations of the reality in analysis and they aim to fill in the missing parts of the investigation. Explanatory research is about matching ideas to establish a cause-effect relationship among the research variables (Saunders, Lewis, & Thornhill, 2009). In this thesis, both exploratory and explanatory methods are going to be applied.

Also, the research approach presented is the result of a triangulation method, which includes qualitative and quantitative methods to collect data to answer the research questions.

In terms of qualitative research, a focus group was done with participants of different ages. The sample size was based on the literature that suggests that a focus group should have from four to twenty participants (McLafferty, 2004). For this research eight individuals were interviewed, belonging to the adolescents, young adults, middle-aged adults, and old adult segments, to understand how age affects consumers' perceptions about cruelty-free products. This qualitative research method included a structured guide to get some insights, later used in quantitative research. The guide is available in Appendix 1- Focus Group.

The use of a focus group is justified by the fact that it is flexible enough to achieve a depth analysis of the topic, namely to understand if consumers are aware of animal testing, their opinions about the topic as well as the categories that they highlight as more cruelty-free. However, it is also a very time-consuming process (McLafferty, 2004).

Regarding quantitative research, an online questionnaire was developed through the Qualtrics platform. Then, it was launch on social networks. It was available to answer either in Portuguese or in English to be comprehended by all the participants and analyzed with the use of statistical tests conducted with SPSS software.

The use of a questionnaire allows the collection of a large amount of data with the application of a fast and inexpensive method. Despite that, participants may provide dishonest answers or avoid some questions (Jones, Baxter & Khanduja, 2013).

3.2 Primary Data

Regarding primary data, two studies were conducted. First, as a pilot study, a focus group was organized. Then, based on meaningful insights, from the qualitative research, it was possible to develop a questionnaire with the different stimuli to better understand the topic in analysis and to answer the research questions proposed at the beginning of this thesis.

3.2.1 Focus Group

3.2.1.1 Data Collection

The focus group aimed to understand consumers' habits and preferences for cruelty-free products, namely how the participants describe a cruelty-free consumer and to comprehend the reasons which influence their decision to go or not for products not tested on animals (Appendix 1- Focus Group). The buying behavior and the decision-making process of cruelty-free products were studied to comprehend which criteria influence the purchase and where it happens (in-store or online). The focus group was also useful to get insights about the product categories and brands that first come to consumers' mind when thinking about cruelty-free products.

The last part of the focus group included a section dedicated to analyzing consumers' perceptions towards eight cruelty-free logos. The idea was to understand their opinions about the presented logos, namely if they would change something about them and if they considered that the message was well communicated through the logo. It was also evaluated the participant's ability to recognize and distinguish certified cruelty-free logos from the other ones.

The focus group was conducted with eight participants with different age groups and genders. To avoid respondents bias, all the participants fill out the questions of each section individually first, and, after that, the debate was opened.

3.3.1.2 Results

The results of the study showed that all the participants were conscious of the existence of animal testing. However, one middle-age adult did not know that cruelty-free products were being sold.

The respondents described a cruelty-free consumer as someone who cares about animal rights and whose purchases are oriented based on these criteria. Also, the participants mentioned that a cruelty-free consumer is extremely altruistic, by engaging in purchases that avoid animal suffering.

Regarding the use of cruelty-free products, 75% of the participants affirmed they use products not tested on animals, such as cosmetics (shampoo, shower gel, cream, deodorant, makeup, toothpaste) and natural products (vitamins and minerals, antifungal, and anti-inflammatories). The reasons which drive the purchase are the desire to adopt ethical purchases (by not testing on animals and buying products with a sustainable package) and the opportunity to have access to a natural product. Also, the respondents highlighted the durability of the products that maintain the same quality of products tested on animals. Despite that, the price was referred as a disadvantage.

Concerning the two respondents that did not use cruelty-free products, one explained that he was unaware of the existence of this type of products and the other said that animal testing was not a determinant when making a purchase. Both respondents were men (middle-age adult and adolescent).

The decision-making process is guided by package information, in the case of the older ones, and by online reviews, blogs, and web pages in the youngest segment. It is also important to refer that the buying process of the respondents was influenced by family members, working colleges, and vegan and sustainable living influencers. All the participants that buy cruelty-free products prefer to do the purchase in-store to evaluate the product.

When asked to recall cruelty-brands, 100% of the respondents that use products not tested on animals mentioned cosmetic brands such as the Feno de Portugal, The Body Shop, Herbal Essences, Lush, Biork and Balea. Regarding the participants' associations with these brands, they mentioned that they perceive them as socially responsible and ecological brands (by not using plastic packaging) and one mentioned that these brands helped her express herself.

The evaluation of the cruelty-free logos resulted in some interesting insights. For instance, 25% of the participants said that the logos from PETA (logo A and C) were childish and not trustworthy. The logo from Choose Cruelty-free (logo H) was considered by 75% of the respondents as the most reliable logo and the most appropriate to communicate that a product is not tested on animals. About the Leaping Bunny logo (logo F), 25% of participants, not

familiar with cruelty-free products, referred that a text saying “not tested on animals” was missing and, consequently, they would not be able to recognize the message that the logo intends to inform. For uncertified logos, logo D was considered attractive by its simplicity.

Among the eight respondents, only one was able to distinguish certified from uncertified logos. Two other participants, the ones not so knowledgeable about cruelty-free products, were able to identify certified logos by the presence of the registered trademark symbol in the Choose Cruelty-free logo and Leaping Bunny logo. Other respondent mentioned that just the logo from PETA was certified as it was possible to read the name of the organization. The rest of the respondents considered that all of them were certified.

Participants expect to see these logos in the front package and 87.5% of them admitted being willing to pay an extra to have access to a cruelty-free product.

Other comments mentioned during the discussion highlighted the importance of having a cruelty-free section in-store and the need to communicate more with consumers, through awareness campaigns.

3.2.2 Survey questionnaire

3.2.2.1 Data Collection

To analyze how consumers, react to the presence of cruelty-free logos on the product, a survey questionnaire was distributed between the 21st November 2020 and 25th November 2020. The survey was published online in social networks in Portuguese and English to have access to a large amount of data.

This study aims to study consumers’ perceptions about cruelty-free logos. Therefore, a non-probability sampling technique was adopted. A convenience sample was selected to obtain data quickly. However, the results may be subject to biases (Jager, Putnick & Bornstein, 2017).

The questionnaire included three different scenarios, randomly spread through the respondents, to see if consumers’ purchase intentions vary according to the existence of a cruelty-free logo on the package (certified or not). The first scenario presented the package of a cosmetic with no logo, the second one included an uncertified cruelty-free logo and the last one a certified cruelty-free logo.

In total, 562 answers were collected, but only 434 of them were valid. Respondents that do not use or buy shower gel were excluded, as they are not familiar with the product category, as well as outliers and respondents that did not understand the manipulation question.

3.2.2.2 Measurement / Indicators

Based on the focus group, it was possible to create the stimulus used in the survey questionnaire. The product category more recalled by respondents as cruelty-free was cosmetics. Therefore, to evaluate consumers' purchase intentions for cruelty-free products, three cosmetic packages were developed (Appendix 2 – Package Designs). Respondents of the focus group were, again, consulted to select the most attractive package. The results showed that 62,5% of the respondents preferred the aloe vera design. Therefore, it was used as a stimulus in the survey questionnaire (Appendix 3- Survey Questionnaire).

Three different surveys were designed, each one with a different package. The control group was exposed to a cosmetic package without any cruelty-free logo while the other groups were confronted with a certified and uncertified logo. The certified logo selected was the one from Choose Cruelty-free, as it was considered the most reliable logo by the focus group participants. For the uncertified logo, logo D was used as respondents mentioned its attractiveness. The different stimuli created are presented below.



Figure 2: Stimuli used in the survey questionnaire

The survey questionnaire started with screening questions such as the age of the respondents and their buying and usage behavior towards shower gel. Therefore, respondents aged below fifteen years old were not included in the analysis as well as individuals that never buy or use the product category in analysis. Then, respondents were confronted with the package of a cosmetics to understand their purchase intentions and how the logo influences consumers' brand image. The following sections of the survey included consumers' evaluations of the cruelty-free logo, their level of familiarity and recognizability. In the end, respondents were asked to express how moral obligation impacts the decision to buy cruelty-free products. All the data was collected with the use of existing constructs that were slightly adapted to the research.

To analyze consumers' purchase intentions, the image of a cosmetic was displayed along with a five-item construct from Spears and Singh (2004), measured with a 7-point Likert scale.

To understand the impact of the logo on the package a set of questions were defined. The objective was comprehending consumers' perceptions towards the visual elements of the package. For that, statements like "The logo makes a strong impression on my visual sense or other senses" and "I find the logo interesting in a sensory way" were included.

To study consumers' awareness of the logo, a 7-point Likert scale was applied to collect data about the respondent's level of familiarity and recognisability for cruelty-free logos. The statements "I feel very familiar with the logo" and "The logo is recognizable" were chosen. Additionally, to evaluate if respondents can distinguish certified logos from uncertified the statement "The logo is distinct from other cruelty-free logos" was added to the survey.

To analyse the impact of the logo on consumers' brand image, a 7-point Likert scale was selected. Additionally, the literature review showed that an ethical purchase is driven by consumers' sense of obligation. To see if purchase intentions are influenced by that variable, the statements "Buying a cruelty-free product instead of a conventional product would feel like the morally right thing" and "Buying a cruelty-free product instead of a conventional product would not make one feel guilty" were evaluated.

Framework	Measure	Items	Scale	Reference	Cronbach's α
Independent Variable	Visual elements of Package	3	7-point Likert scale	(Brakus et al., 2009)	0.93
Moderator	Logo Awareness	8	7-point Likert scale	(Foroudi et al., 2019)	Logo familiarity – 0.946 Logo recognisability – 0.858
Moderator	Moral Obligation	3	7-point Likert scale	(Hwang et al., 2015)	0.87
Mediator	Brand Image	4	7-point Likert scale	(Abosag & Farah, 2014)	0.90
Dependent Variable	Purchase Intentions	5	7-point Likert scale	(Spears & Singh, 2004)	0.97

Table 1: Measurement Model

3.3 Data Analysis

The data collected was analyzed using SPSS. To characterize the sample, descriptive statistics were used to get insights about demographics. In detail, frequencies were selected to analyze the respondent's gender, age, education level and gross annual income.

A set of statistical tests were defined to study the hypotheses proposed in the literature review chapter. A linear regression model was used to study how cruelty-free logos influence consumers' purchase intentions, as the dependent and the independent variable are metric.

To analyze if consumers have higher purchase intentions for certified cruelty-free, an independent-sample t-Test was conducted, to check significant differences among the two groups assigned to cruelty-free logos.

Moderation and a mediation analysis were performed based on the Hayes' macro PROCESS in SPSS (Hayes, 2017), to investigate if cruelty-free logos impact purchase intentions, due to the presence of intermediary variables such as logo awareness, positive brand image, and moral obligation.

CHAPTER 4: RESULTS AND DISCUSSION

The present chapter aims to analyze the data collected through a survey questionnaire. First, the sample is characterized based on demographical questions. Then, the hypotheses established previously will be studied in detail with the use of statistical tests.

4.1 Results

4.1.1 Outliers

In total, 562 responses were collected but only 434 of them were considered valid. Different criteria of exclusion were selected. From the 562 respondents, 61 of them did not buy or use shower gel. As they were not familiar with the product category, they were removed from the sample.

Additionally, the manipulation question resulted in the elimination of 43 respondents that did not understand the question. As a result, to avoid unclear responses due to the lack of attention while answering the questionnaire, they were removed from the study.

An outlier is defined as a point in the dataset that is very different from the others in a specific measure (Aggarwal & Yu, 2001). With the use of the Mahalanobis Distance analysis it was possible to remove 24 respondents that were considered outliers, according to the distances verified between these respondents and the mean of the distribution of the remaining respondents.

4.1.2 Sample Characterization

To a better understanding of the sample, the respondents were divided according to the stimulus assigned to them. The data cleaning resulted the following distribution: 149 respondents answered to the stimulus that did not include a cruelty-free logo, 147 received the stimulus with the uncertified cruelty-free logo and 138 answered to the certified cruelty-free logo.

To characterize the sample, table 2 was developed to split the respondents into the existing scenarios to analyze demographic variables (gender, age, level of education and yearly gross income). Additionally, the total number of respondents was divided between the groups created.

		No Logo	Uncertified logo	Certified Logo	Total
Respondents		149	147	138	434
Gender	Female	77.9%	76.2%	74.6%	76.3%
	Male	22.1%	23.8%	24.6%	23.5%
	Other	0.0%	0.0%	0.7%	0.2%
Age	15-19	21.5%	15.0%	18.1%	18.2%
	20-39	62.4%	63.3%	58.7%	61.5%
	40-59	16.1%	17.7%	21.0%	18.2%
	60-74	0.0%	4.1%	2.2%	2.1%
Education Level	Less than High School Degree	2.0%	2.0%	0.0%	1.4%
	High School Graduate or similar	26.8%	27.9%	26.8%	27.2%
	Professional Degree	5.4%	4.1%	3.6%	4.4%
	Bachelor's Degree	49.7%	47.6%	47.1%	48.2%
	Master's Degree, MBA or similar	15.4%	18.4%	21.0%	18.2%
	Doctoral Degree or PhD	0.7%	0.0%	1.4%	0.7%
Yearly Gross Income	Less than 10.000€	56.4%	50.3%	49.3%	52.1%
	10.000€-29.999€	33.6%	35.4%	31.9%	33.6%
	30.000€-49.999€	5.4%	5.4%	14.5%	8.3%
	50.000€ or more	4.7%	8.8%	4.3%	6.0%

Table 2: Sample Characterization

A convenience sample was collected and, consequently, most of the respondents are females (76.3%). Regarding age, 61.5% are aged between 20 and 39 years old. Among the respondents, 48.2% have a bachelor's degree and 52.1% have a gross annual income lower than 10.000€. Moreover, 94.5% of the respondents were Portuguese and the others came from Angola, Brazil, Chile, China, Colombia, France, Germany, Italy, Mexico, Mozambique, Netherlands, Poland, and Switzerland.

Further analysis showed that the higher the age of the respondents, the higher the gross annual income. For example, 66,7% of the respondents who have a gross annual income between 60.000€ and 69.999€ are aged between 45 and 49 years old. Also, the higher the level of education, the higher the gross annual income. In fact, among the respondents that have a gross annual income between 90.000€ and 99.999€, 66,7% of them have a master's degree, MBA, or similar degree.

4.1.3 Measure reliability

All the selected constructs used in the survey questionnaire were extracted from the literature. However, as mentioned before, some of them were slightly adopted to this research. Therefore, it makes sense to study the reliability of the chosen constructs.

Cronbach's alpha measures the consistency of a set of items combined in a scale and varies between 0 and 1. The higher the coefficient, the higher the reliability (Gliem, 2003). All the constructs ended up having a Cronbach's alpha higher than 0.80. According to George and Mallery (2003), an alpha higher than 0.80 is good and higher than 0.90 is excellent. Therefore, it is possible to affirm that all constructs have high reliability.

Before the calculation of this indicator, some variables were recoded, namely purchase intentions and visual elements of package. The analysis resulted in the reduction of some items to improve the Cronbach's alpha. In the case of moral obligation, deleting the item "Buying a cruelty-free product instead of a conventional product would not make one feel guilty" led to the change of an alpha of 0.727 to 0.818. To conclude, table 3 shows in detail the Cronbach's alpha of each variable.

Construct	Before Item Reduction		After Item Reduction	
	# of items	Cronbach's α	# of items	Cronbach's α
Visual elements of Package - Uncertified Logo	3	0.833		
Visual elements of Package - Certified Logo	3	0.805		
Logo Awareness - Uncertified Logo	8	0.864		
Logo Awareness - Certified Logo	8	0.805		
Moral Obligation - Uncertified Logo	3	0.809	2	0.857
Moral Obligation - Certified Logo	3	0.727	2	0.818
Brand Image- Uncertified Logo	4	0.877		
Brand Image- Certified Logo	4	0.829		
Purchase Intentions - No Logo	5	0.803		
Purchase Intentions - Uncertified Logo	5	0.896		
Purchase Intentions - Certified Logo	5	0.849		

Table 3: Cronbach's alphas of the study

4.1.4 Manipulation Check

To investigate if respondents were able to recognize the existence of a cruelty-free logo on the package, a manipulation question was created.

Among the respondents who received the stimulus without a logo, 25 said that the product included a cruelty-free logo. Among the respondents who got the stimulus with a logo, 18 affirmed that the product did not have a cruelty-free logo.

In total, 43 respondents among the 477 (excluding outliers and individuals that do not buy or use shower gel) did not understand the manipulation. Therefore, 91% of them answered the question correctly, which implies that the manipulation was well done.

Additionally, if these respondents were included in the hypothesis testing, all results would be the same.

4.2 Results from the Hypotheses Test

Before starting the hypotheses test, it was necessary to verify if the data was parametric or non-parametric. This analysis indicates which are the right tests to apply, according to the data.

The data is considered non-parametric if it is not normally distributed. According to Saunders, Lewis, and Thornhill (2009), to adopt parametric tests the data needs to complete a set of criteria, namely:

- The data cases should be independent;
- The data cases should be normally distributed;
- The population from which the sample was collected should have equal variances;
- The data should be numerical.

Considering the data collected through the survey questionnaire, it was possible to conclude that it was parametric. First, the answers of respondents were independent. Second, the normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) showed that the sample was normally distributed.

Additionally, the normal Q-Q Plot reflected that the data was close to the diagonal, which means that the data was normally distributed. Finally, equal variances were assumed, and the data collected was numerical (categorical responses were recoded).

Therefore, the tests conducted to accept or reject the hypotheses were selected to be suitable for parametric data.

4.2.1 The impact of Cruelty-free Logos on Consumers' Purchase Intentions

To predict the value of one variable (dependent variable) based on the other (independent variable), a linear regression was used. When the study simply focuses in comprehending the effect of one independent variable in the dependent variable, a bivariate regression (also

denominated as simple linear regression) is the correct test to apply (Burns & Veeck, 2017). This research aims to understand if cruelty-free logos (independent variable) influence purchase intentions (dependent variable), therefore, a bivariate regression was conducted (Appendix 4 - Linear Regression).

Before taking the test, a set of assumptions must be verified: the error term should be normally distributed, the mean of error term should be zero, the variance of error term should be a constant and independent of the values of X, the error terms should be independent of each other, and the variables of the independent variable X should be fixed. All the assumptions were confirmed.

The Pearson correlation was positive (0.479) which means that the existence of a cruelty-free logo on the package results in high scores in the variable purchase intentions. Also, no evidence of multicollinearity was found since the correlation between the cruelty-free logos and purchase intention was below 0.80. Tolerance was higher than 0.04, the VIF was lower than 2.5, and the Condition Index lower than 15, so the data was not subject to multicollinearity problems.

Regarding the explanatory power of the model, only 23% of the variance of purchase intentions was explained by the model. However, the p-value given by the ANOVA table was lower than the level of significance ($p=0.00<0.05$), so the model was statistically significant and a good fit for the data.

The equation of model was given by the expression:

$$\text{Purch. Inten} = 3.040 + 1.476 \text{ Vis. Elements of Package (Cruelty – free Logo)}$$

The intercept was 3.040 and indicates the purchase intentions for the shower gel when the cruelty-free logo was not displayed. On a scale from 1 to 7, where 1 means “I would not buy it” and 7 “I would buy it”, the purchase intentions without the logo are 3.040. When the cruelty-free logo was displayed on package, purchase intentions went up 1.476, *ceteris paribus*. Additionally, the p-value was lower than the level of significance ($p=0.00<0.05$), so it was possible to reject the null hypothesis:

H0: The coefficient for Vis. Elements of Package (Cruelty – free Logo) is equal to 0.

Therefore, it was proved that the cruelty-free logo has a statistically significant effect on purchase intention. As a result, **hypothesis 1 was verified**.

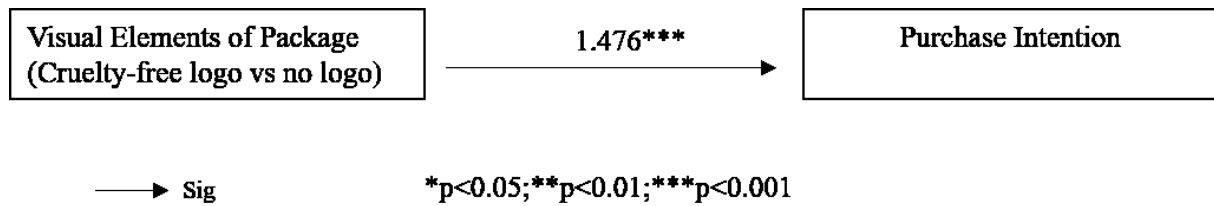


Figure 3: The Effect of Cruelty-free Logos on Purchase Intentions

4.2.2 Purchase Intentions for uncertified and certified Cruelty-free Logos

To test if there are significant differences between two groups, the test to apply is denominated Independent Sample t-test (Burns & Veeck, 2017). In this research, two different groups were defined according to stimulus assigned to the respondents. Therefore, to study if there are differences in the purchase intention of respondents that got the uncertified logo and respondents that received the certified logo, an Independent Sample t-test was conducted (Appendix 5 - Independent Sample t-test).

Before starting the test, the assumptions of the test must be confirmed. The dependent variable (purchase intention) was measured in a continuous scale and the independent variable was defined as two independent categorical groups (the group with an uncertified cruelty-free logo and the group with a certified cruelty-free logo). Additionally, the results of one group were independent from the results of the other, outliers were removed, and the variable purchase intentions was normally distributed in both groups. At this point, just one of the assumptions was missing confirmation: the existence of homogeneity of variances.

Levene's test of homogeneity of variances showed a p-value higher than 0.05 ($p=0.231>0.05$), so the null hypothesis was not rejected:

$$H_0: \sigma^2 \text{Uncertified Cruelty} - \text{free Logo} = \sigma^2 \text{Certified Cruelty} - \text{free Logo}.$$

Therefore, all the assumptions were verified, and it was possible to proceed with the analysis of the Independent Sample t-test. The test revealed a p-value higher than 0.05 ($p\text{-value}=0.238>0.05$) and, therefore, the null hypothesis was not rejected:

$$H_0: \mu \text{Uncertified Cruelty} - \text{free Logo} = \mu \text{Certified Cruelty} - \text{free Logo}.$$

Even though the mean of the purchase intentions for the product with the certified cruelty-free logo were higher than the mean of the uncertified logo (4.61 versus 4.42), nonstatistical significant difference was found. Therefore, the purchase intention of the respondents was not statistically different when presented with a certified cruelty-free logo than when presented with an uncertified cruelty-free logo, which means that respondents cannot distinguish the logos. As a result, **hypothesis 2 was rejected**, as the certified cruelty-free logo did not have higher purchase intentions than the uncertified.

4.2.3 Moderation and Mediation Model (Process Model 29)

To discover whether the moderation effect of logo awareness and moral obligation and the mediation effect of brand image were present in the model, the PROCESS analysis tool was used with model 29 (Appendix 6 - Output Process Model 29). This model includes 1 mediator (brand image) and 2 moderators (logo awareness and moral obligation).

According to the literature, the conceptual framework of this thesis is a moderated mediation model as it studies the multiple effects that result from mediation and moderation processes (Borau, El Akremi, Elgaaied-Gambier, Hamdi-Kidar & Ranchoux, 2015). The model was conducted only with the 285 respondents that received the stimulus with the cruelty-free logo, despite being certified or not. The visual effect of the logo (independent variable) was evaluated with the construct developed by Brakus (2009).

4.2.3.1 Mediation

The mediation process is defined as the inclusion of a third variable that affects the relationship of two other variables (independent and dependent variable) in a causal sequence (MacKinnon, Fairchild & Fritz, 2007). This research aims to understand if brand image is a mediator of the relationship of the logo's visual effect and purchase intention. If so, the logo's visual effect should have a statistically significant impact effect on brand image ("a path") and brand image a statistically significant effect on purchase intention ("b path"). All these relationships are visually summarized in figure 4.

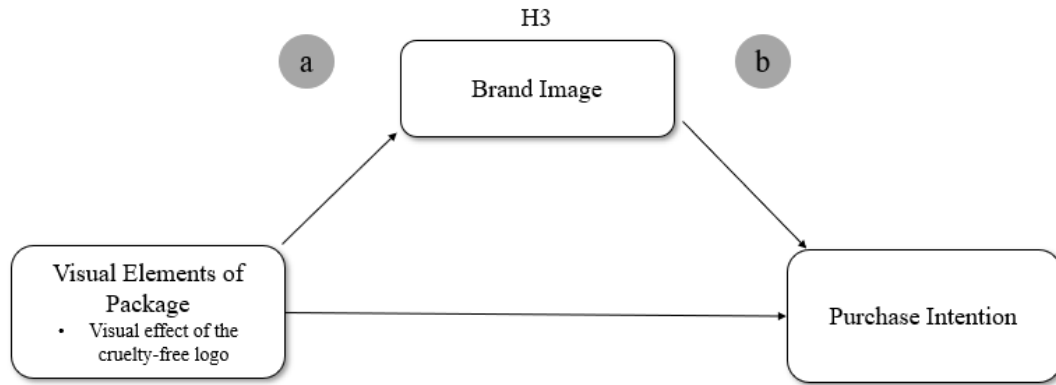


Figure 4: The Mediation effect of Brand Image

According to the PROCESS analysis tool, it was possible to conclude that visual elements of package had a statistically significant effect on brand image ($p=0.00<0.05$). Therefore, brand image is defined by the expression:

$$\text{Brand Image} = -0.5966 + 0.9138\text{Vis. Elements of Package}$$

From the interpretation of the expression, it is observable that respondents who provide a negative evaluation of the logo generate a negative brand image. On contrast, respondents who evaluate the brand positively are, on average, 0.9138 units higher in brand image, ended up with a positive brand image.

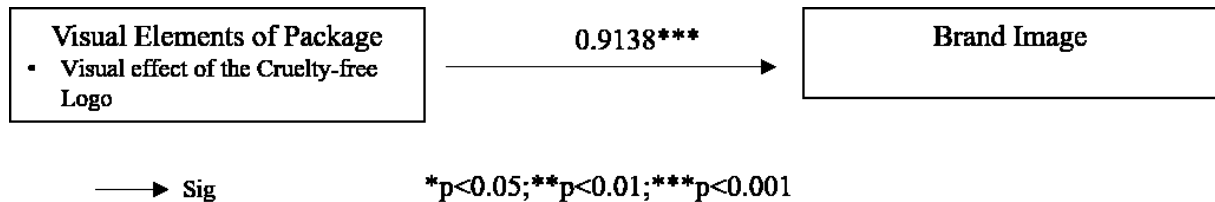


Figure 5: The impact of the Visual Effect of the Cruelty-free Logo on Brand Image

Additionally, the output revealed that brand image had a statistically significant effect on purchase intentions ($p=0.00<0.05$). In fact, respondents who have a positive brand image are estimated to be 0.3010 units higher in their purchase intentions.

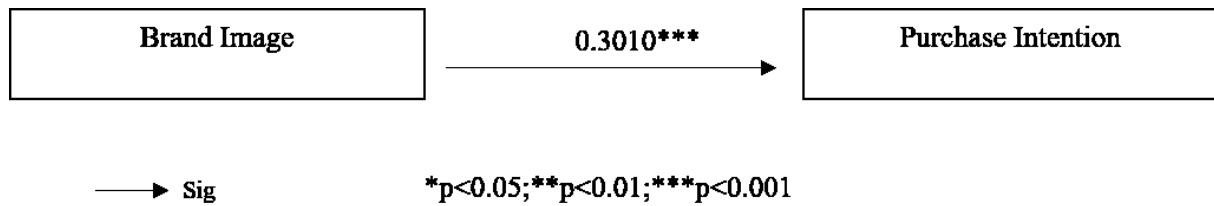


Figure 6: The impact of Brand Image on Purchase Intentions

Furthermore, respondents who find the logo interesting in a visual way and are affected by the presence of brand image are, on average, 0.2751 units ($a*b=0.2751$) higher in their purchase intention.

A full mediation is established by the existence of an indirect effect statistically different from zero, in a 95% bootstrap confidence interval. If a direct effect is also verified (the independent variable impacts the dependent variable), the third variable is considered as a partial mediator instead of a full mediator (Demming, Jahn, & Boztug, 2017). The visual effect of the logo impacts purchase intention ($p=0.0211 < 0.05$), consequently, brand image is a partial mediator. Despite that, **H3 was verified**.

4.2.3.2 Moderation

Moderation is defined as the interaction of two variables that explain another variable. The inclusion of a third variable (moderator) which has a statistically significant effect results in relevant improvements in the explanation of the variance of the dependent variable (Borau, El Akremi, Elgaaied-Gambier, Hamdi-Kidar & Ranchoux, 2015). This thesis pretends to analyze if:

- Logo awareness moderates the relationship between the visual effect of the cruelty-free logo and brand image (“a path”);
- Moral obligation moderates the relationship between brand image and purchase intention (“b path”);
- Logo awareness and Moral obligation moderate the relationship between the visual effect of the cruelty-free logo and purchase intention (“c’ path”).

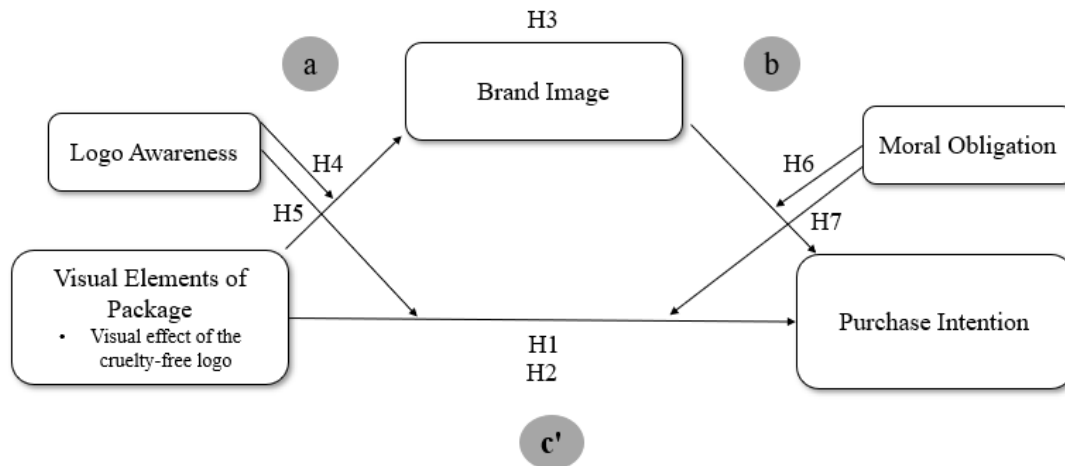


Figure 7: The Moderation Effect of Logo Awareness and Moral Obligation

The output showed that logo awareness does not impact brand image ($p=0.1281>0.05$). Additionally, no statistically significant interaction was found between the visual effect of the cruelty-free logo and logo awareness on brand image ($p=0.9166>0.05$). Therefore, logo awareness is not a moderator of the relationship of the visual effect of the cruelty-free logo and brand image. Consequently, **hypothesis 4 was rejected**.

Effect on Brand Image	Coefficient	P-value	Confidence Interval	
			Lower Limit	Upper Limit
Logo Awareness	0.1756	0.1281	-0.0509	0.4020
Vis. Elements of Package * Logo Awareness	-0.0151	0.9166	-0.2987	0.2685

Table 4: The interaction of the Visual Effect of the Cruelty-free Logo and Logo Awareness on Brand Image

Regarding the interaction between brand image and moral obligation, the same situation was verified. The interaction was not statistically significant ($p=0.6228>0.05$). Thus, **hypothesis 6 was rejected**.

Effect on Purchase Intentions	Coefficient	P-value	Confidence Interval	
			Lower Limit	Upper Limit
Moral Obligation	0.0142	0.8769	-0.1666	0.1951
Brand Image * Moral Obligation	-0.0204	0.6228	-0.1022	0.0613

Table 5: The interaction of Brand Image and Moral Obligation on Purchase Intentions

The effect of logo awareness and moral obligation on purchase intentions was not confirmed ($p=0.2003$ and $p=0.8769$, respectively). Furthermore, the interaction between the visual effect of the cruelty-free logo and logo awareness on purchase intentions was not proved ($p=0.8419>0.05$). Based on the output, **hypothesis 5 was rejected**.

Additionally, the interaction between the visual effect of the cruelty-free logo and moral obligation was not statistically significant ($p=0.4207>0.005$), so **hypothesis 7 was rejected**.

Effect on Purchase Intentions	Coefficient	P-value	Confidence Interval	
			Lower Limit	Upper Limit
Logo Awareness	0.1485	0.2003	-0.0792	0.3763
Vis. Elements of Package * Logo Awareness	0.0293	0.8419	-0.2597	0.3183
Moral Obligation	0.0142	0.8769	-0.1666	0.1951
Vis. Elements of Package * Moral Obligation	0.1210	0.4207	-0.1745	0.4166

Table 6: The interaction of the Visual Effect of the Cruelty-free Logo with Logo Awareness and Moral Obligation on Purchase Intentions

To conclude, the index of the moderated mediation proved that logo awareness and moral obligation are not moderators of the model. The results revealed that no significant moderated mediation was verified. In a 95% bootstrap confidence interval, logo awareness and moral obligation were not statistically different from zero ($CI= [-0.0123;0.0190]$), which means that neither variable is moderator of the model.

4.3 Hypotheses Testing Overview

	Hypothesis	Outcome
H1	The cruelty-free logo impacts consumers' purchase intention.	Significant and validated
H2	Certified cruelty-free logos have higher purchase intention than uncertified cruelty-free logos.	Not significant
H3	Brand image mediates the relationship between the visual effect of cruelty-free logos and consumers' purchase intention.	Significant and validated
H4	Logo Awareness moderates the relationship between the visual effect of cruelty-free logos and brand image.	Not significant
H5	Logo Awareness moderates the relationship between the visual effect of cruelty-free logos and consumers' purchase intention.	Not significant
H6	Moral Obligation moderates the relationship between brand image and consumers' purchase intention.	Not significant
H7	Moral Obligation moderates the relationship between the visual effect of cruelty-free logos and consumers' purchase intention.	Not significant

Table 7: Overview of the results of the hypotheses testing

CHAPTER 5: CONCLUSIONS AND LIMITATIONS

The present dissertation aimed to understand how cruelty-free logos impact purchase intention. Additionally, the mediator effect of brand image and the moderator effect of logo awareness and moral obligation were also studied.

This chapter is a summary of the conclusions of the research developed. The main conclusions of the research were based on the interpretation of the questionnaire results, analyzed with IBM's SPSS statistical software. Furthermore, managerial, and academic implications were examined as well as possible limitations and further research.

5.1 Main Findings & Conclusions

The results obtained were the outcome of a survey questionnaire that was conducted online. It was designed to study three different scenarios. The first scenario included the package of a shower gel without a cruelty-free logo (control group), the second scenario considered an uncertified cruelty-free logo, and the last one a certified cruelty-free logo. Respondents were randomly assigned to a scenario among the existing ones to investigate the research questions defined. The main findings are described below.

5.1.1 The impact of Cruelty-free Logos on Purchase Intentions

The first research question of this thesis aimed to understand how displaying cruelty-free logos on packages influences purchase intention. Through the analysis of the data, it was possible to conclude that displaying the logo positively impacts purchase intention. In fact, presenting the logo increases purchase intention by 1.476 units. Consequently, when the logo is exhibited, purchase intentions go from 3.040 to 4.516, on a scale from 1 ("I would not buy it") and 7 ("I would buy it").

According to the literature, the logo is highly motivating and makes consumers think that they are making a socially responsible purchase (Sheehan & Lee, 2014). In fact, the results confirm what was previously suggested in the literature since the cruelty-free logo impacts purchase intentions. The respondents who received the package without the logo had lower purchase intentions compared to respondents that got the stimulus with the cruelty-free logo (uncertified or certified).

5.1.2 Consumers' awareness of Cruelty-free Logos

The second research question was meant to study if consumers were aware of cruelty-free logos. On average, on a scale from 1 to 7, the awareness of the uncertified logo was 4.35 and the awareness of the certified logo was 4.39. As a result, consumers' awareness of cruelty-free logos is classified as average.

Furthermore, it was evaluated if consumers were able to distinguish certified cruelty-free logos from uncertified ones. The item "The logo is distinct from other cruelty-free logos" was evaluated by respondents, on a scale from 1 to 7, resulting in an assessment of 4.39 for the uncertified cruelty-free logo and 4.48 for the certified logo. The results revealed that consumers were not able to distinguish them, otherwise one would expect that the evaluation of the certified logo was near 7.

Using an Independent sample t-test, it was concluded that purchase intentions for the certified cruelty-free logo were not statistically different from the purchase intentions of the uncertified logo ($p=0.238>0.05$). If consumers were able to distinguish them, it would be expected that purchase intentions would be higher for the certified logo, which was not verified.

Thus, the combination of all these insights demonstrates that consumers' awareness of cruelty-free logos is average, and they are not able to distinguish a certified logo from an uncertified logo.

5.1.3 The Mediation impact of Brand Image in the relationship between the Visual Effect of the Cruelty-free Logo and Purchase Intentions

The third research question intended to comprehend how brand image impacts the purchase of cruelty-free products. The results showed that the brand image is a partial mediator of the relationship of the visual effect between the cruelty-free logo and purchase intention.

Indeed, it was proved that a positive evaluation of the logo increased by 0.9138 consumers' brand image. As stated in the literature review, the visual elements of the package generate meaningful feelings and associations (Luffarelli et al., 2019).

Moreover, the results demonstrated that brand image positively impacts purchase intention. Respondents who had a positive brand image were 0.3010 units higher in their purchase intentions. The outcomes are in line with research developed by Chan et al. (2013), Fleck et al.

(2012), and Thwaites et al. (2012), which confirm that a positive brand image leads to higher purchase intentions.

The definition of a mediator is described as a third variable that generates a causal sequence (MacKinnon, Fairchild & Fritz, 2007). Brand image affects the purchase of cruelty-free products in a causal sequence as the visual effect of the logo generates a positive brand image that is translated into higher purchase intentions.

5.1.4 The Moderation impact of Logo Awareness in the relationship between the Visual Effect of the Cruelty-free Logo and Brand Image

Regarding the fourth research question, the results revealed that no statistically significant interaction was confirmed between the visual effect of the logo and logo awareness on the brand image ($p=0.9166>0.05$). Thus, it was possible to conclude that logo awareness is not a moderator of the relationship between the visual effect of the cruelty-free logo and brand image.

According to Sheehan & Lee's (2014) study, the presence of a cruelty-free symbol in a product is enough to make consumers create an image about the brand, such that it is safer and more socially responsible than other brands. This happens even if consumers have never seen the symbol before and, therefore, do not know if it is trustworthy or not. Hence, this can justify why logo awareness does not moderate the relationship previously mentioned.

5.1.5 The Moderation impact of Logo Awareness in the relationship between the Visual Effect of the Cruelty-free Logo and Purchase Intentions

The fifth research question intended to analyze how logo awareness impacts the purchase of cruelty-free products. Similarly, the interaction of the visual effect of the logo and logo awareness on purchase intentions was not statistically significant ($p=0.8419>0.05$). Consequently, one cannot affirm that logo awareness is a moderator of the relationship between the visual effect of the cruelty-free logo and purchase intentions.

A possible reason to justify the fact that logo awareness is not a moderator of the relationship under investigation was defined based on the research developed by Sheehan & Lee (2014). According to them, the presence of the term cruelty-free in the package of a product is so strong that consumers rely on heuristics to make decisions. When consumers are faced with information that a product is cruelty-free, they prefer to buy it instead of a product that has no information concerning this, even if there is a chance that the information is misleading. When

there exists the chance that a product avoids animal suffering, even if that chance is not real, it is enough to make consumers purchase a product identified as cruelty-free. Thus, this can be the motive of why logo awareness does not moderate the relationship in the analysis.

5.1.6 The Moderator impact of Moral Obligation in the relationship between Brand image and Purchase Intentions

The sixth research question was intended to evaluate the moderation effect of moral obligation in the relationship between brand image and purchase intentions. No statistically significant interaction was found ($p=0.6228>0.05$), so the moral obligation is not a moderator of the model.

In Ulrich and Sarasin's (1995) investigation, it is demonstrated that brand image, price, value, and convenience are more important for consumers when purchasing a product than ethics. Despite having an ethical image of the brand in their minds, it does not mean that consumers will feel morally obligated to purchase the product, since there are other product attributes that may influence the purchase decision that are not included in this study. Consequently, this can explain why moral obligation does not moderate the relationship mentioned above.

5.1.7 The Moderator impact of Moral Obligation in the relationship between the Visual Effect of the Cruelty-free Logo and Purchase Intentions

The results of the seventh research question showed that no statistically significant interaction was proved between the relationship of the visual effect of the cruelty-free logo and moral obligation in purchase intentions ($p=0.4207>0.005$). Thus, moral obligation is not a moderator of the visual effect of the cruelty-free logo and purchase intentions.

Based on Adomaviciute's (2013) research, the moral obligation to engage in ethical consumption is higher for hedonic products than utilitarian. In this dissertation, the product used in the study, shower gel, is a utilitarian product. The fact that it is a utilitarian product may be the reason why moral obligation is not a moderator in this case. Thus, these findings can be the reason why moral obligation does not moderate the relationship in examination.

5.2 Managerial Implications

The present dissertation leads to important conclusions in the field of marketing and management. In a context where consumers are more activists than ever, willing to reward ethical decisions made by companies (Carrigan & Attalla, 2001), the results of this study highlight the importance of displaying the cruelty-free logo on the package.

The inclusion of a cruelty-free logo on the package, despite being certified or not, impacts brand image positively. Therefore, companies should invest in creating a cruelty-free brand image as consumers perceive it as valuable. Even if not aware of cruelty-free logos, the visual effect of the logo is enough to generate a cruelty-free brand image.

Furthermore, the research revealed that the use of cruelty-free logos on the package and the presence of a cruelty-free brand image result in higher purchase intentions. Even though consumers do not feel morally obligated to purchase cruelty-free products, they exposed the intention to purchase the product in the analysis.

Thus, companies should put effort into developing cruelty-free products as they can largely benefit from it. Companies may not be able to support the cost of being certified, but it is important to produce cruelty-free products and to communicate that message to consumers.

5.3 Academic Implications

Regarding the academic implications of this dissertation, this study contributed to the existing gap in the literature concerning cruelty-free products.

Furthermore, the study is different from the others and it was conducted with a focus on cruelty-free logos, certified and uncertified. All the research was developed considering the value added to consumers and companies using the logo on the package.

Past research have investigated the impact of social media, attitudes towards animal rights, altruism, environmental knowledge, financial factors on the purchase intentions for cruelty-products. However, this dissertation included variables as brand image and moral obligation that were already combined in the analysis of ethical consumption but not largely with the cruelty-free products.

The research was done in the shower gel product category, as it meant to contribute to the area of cosmetics where large advances have been made regarding cruelty-free products.

5.4 Limitations and Further Research

During the development of this dissertation some limitations and further research were identified and are now mentioned in this section.

First, regarding the sample size, 434 responses were valid. To achieve more accurate conclusions, a larger sample would be useful.

Secondly, the research was focused on one specific product category, shower gel, so the results cannot be generalized as they may be different in other product categories such as detergents, where cruelty-free options are emerging.

Thirdly, it is important to mention that there is an attitude-behavior gap between what consumers express and what consumers do. That gap is larger in the case of ethical purchases (Carrigan & Attalla, 2001). The variable purchase intention was used as a proxy for real purchases, however direct conclusions about purchase intentions should be carefully taken and combined with field data.

Fourthly, the impact of Covid-19 should be mentioned. According to the focus group, consumers perceive cruelty-free products as being more expensive. Considering that the unemployment rate is increasing, because of the current pandemic, purchase intentions may have been affected by this reality.

A lot of space remains for research. It would be especially interesting to study how consumers' willingness to pay would affect purchase intentions. The data showed that respondents have higher purchase intentions for cruelty-free products, but it is crucial to understand if they are willing to pay an extra to access a product not tested on animals and which is the average maximum amount they consider as acceptable.

At last, it would be valuable to study how the combination of cruelty-free logos and vegan logos affects consumers' purchase intentions and how it impacts the brand image. These logos can be linked to each other as some products are not only cruelty-free, but also vegan. Thus, it would be interesting to investigate this combination.

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APPENDICES

Appendix 1- Focus Group

The presented focus group guide was developed based on the Lab Session 2 of the course Marketing Research, at the Universidade Católica Portuguesa.

Introduction

Welcome, and thank you for attending this focus group. I appreciate the time that you have taken to be present at this event. This focus group discussion intends to assess your current opinions and views about cruelty-free products. The discussion will be conducted casually, and your responses will be anonymous. Additionally, the group's transcribed notes will contain no information that would link a member to a statement.

Every member should try to answer the questions as precisely and truthfully as possible. If there are questions that you do not feel comfortable answering, you don't have to do so. Nevertheless, I encourage you to try to answer and to be as involved as much as you can. Remember that in this discussion that are no right or wrong answers. The focus group discussion has an estimated duration of two hours.

Let now us set some rules that should be respected throughout the debate.

Ground rules:

- Only one person speaks at a time. Moreover, please do not engage in any other side conversation when someone is talking.
- You do not have any particular order to speak.
- When you do have something to say, feel free to do so, as there are many of you in the group, and it is important to hear everyone's opinion.
- There is no right and no wrong answer. You should listen to others' opinions, even if eventually you disagree with it.

Does anyone have any questions? Then, let us begin.

Get-acquainting period

First, I would like everyone to introduce themselves. Can you tell us your name and where are you from? How did you end up here today? Are you motivated to participate in this focus group?

Questions:

1. Consumers habits and preferences for cruelty-free products

- 1.1 How do you describe a cruelty-free consumer?
- 1.2 How do you define cruelty-free products?
- 1.3 Do you use cruelty-free products? If yes, please tell me some examples.
- 1.4 What are the main reasons for you to go or not go for cruelty-free products?
- 1.5 Think about a cruelty-free product that you have. What do you like and dislike about them?

2. The buying behavior and decision-making process of cruelty-free products

Now please consider the last time you went shopping for cruelty-free products.

- 2.1 What was the situation that leads you to buy cruelty-free products?
- 2.2 How do you describe your search process?
- 2.3 Which information sources and criteria did you use in the decision-making process?
- 2.4 What were the most important attributes when buying cruelty-free products?
- 2.5 Was anyone involved in your buying process? If yes, how?
- 2.6 Where did you buy the cruelty-free products (in-store or online)?

3. Cruelty-free Product Categories

- 3.1 Which product categories do you identify as cruelty-free?
- 3.2 Which cruelty-free product categories do you buy? Explain the reasons why.
- 3.3 What advantages and disadvantages do you think cruelty-free product categories have?
- 3.4 Now, imagine that you can talk directly to a person who is responsible for producing cruelty-free products from a category that you identified before. What would you like to ask?

4. Cruelty-free Brands

- 4.1 What cruelty-free brands do you know?
- 4.2 Which cruelty-free products do you buy from those brands?
- 4.3 What do you associate with each brand mentioned before?
- 4.4 Which brands do you prefer and why?
- 4.5 What are the similarities and differences among those cruelty-free brands?

5. Cruelty-free Logos

Now take a look at these cruelty-free logos.



Logo A



Logo B



Logo C



Logo D



Logo E



Logo F



Logo G



Logo H

- 5.1 What do you think about these logos?
- 5.2 Would you like to change anything? If yes, what?
- 5.3 What message do you think these logos are trying to communicate?
- 5.4 Are these logos certified by reliable organizations?
(If any of the participants says that not all of them are certified, ask which ones are)
- 5.5 Where do you expect to see these logos?
- 5.6 Are you willing to pay an extra to have access to a product with these logos?

6. Opportunities

- 6.1 Given all the knowledge that you have about cruelty-free products, what new characteristics and features would you like to see in these products?

Conclusion

Thank you for your participation. Your opinions will be a valuable contribution to my thesis. I hope that you enjoyed the discussion.

Appendix 2 – Package Designs



Appendix 3- Survey Questionnaire

Start of Block: Introduction

Q1

Dear Participant,

Thank you in advance for your willingness to answer this questionnaire.

It was created as part of my master's thesis.

The questionnaire takes about 6 minutes. The answers are confidential and there are no right or wrong answers.

If you have any questions or feedback, please do not hesitate to contact me:
152119087@alunos.lisboa.ucp.pt

Thank you for your contribution!

Beatriz Cadete

Q2 How old are you?

- Less than 15 (1)
- 15-19 (2)
- 20-24 (3)
- 25-29 (4)
- 30-34 (5)
- 35-39 (6)
- 40-44 (7)
- 45-49 (8)
- 50-54 (9)
- 55-59 (10)
- 60-64 (11)
- 65-69 (12)
- 70-74 (13)
- 75-79 (14)
- 80-84 (15)
- 85 or more (16)

Skip To: End of Survey If Q2 = 1


End of Block: Screening questions

Start of Block: Introductory questions

Q3 On a scale from 0 to 100, rate your level of knowledge about shower gel. Consider that 0 means you know nothing about shower gel and 100 means you know everything about shower gel.

0 10 20 30 40 50 60 70 80 90 100

Level of knowledge about shower gel ()



Q4 How often do you buy shower gel?

- Never (1)
- Daily (2)
- Weekly (3)
- Monthly (4)
- Quarterly (5)
- Every six months (6)
- Annually (7)

Skip To: End of Survey If Q4 = 1

Q5 How often do you use shower gel?

- Never (1)
- Daily (2)
- Weekly (3)
- Monthly (4)
- Quarterly (5)
- Every six months (8)
- Annually (9)

Skip To: End of Survey If Q5 = 1

End of Block: Introductory questions

Start of Block: Purchase intentions



Q6 Imagine you are in front of a supermarket shelf and find this shower gel. Pay attention to the product.

Please indicate your level of agreement with the following statements.

	Strongly Disagree (1)	Disagree (3)	Slightly Disagree (4)	Neutral (5)	Slightly Agree (6)	Agree (7)	Strongly Agree (8)
I would never buy it. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I definitely intend to buy it. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a very low purchase interest. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would definitely buy it. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would probably not buy it. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 Imagine you are in front of a supermarket shelf and find this shower gel. Pay attention to the product.

Please indicate your level of agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
I would never buy it. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I definitely intend to buy it. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a very low purchase interest. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would definitely buy it. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would probably not buy it. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q8 Imagine you are in front of a supermarket shelf and find this shower gel. Pay attention to the product.

Please indicate your level of agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
I would never buy it. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I definitely intend to buy it. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a very low purchase interest. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would definitely buy it. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would probably not buy it. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Purchase intentions

Start of Block: Brand perceptions

Q7.1 Please indicate your level of agreement with the following statements referring to the logo presented on the product.

The logo makes me think that...

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
There is a reason to buy the brand instead of others. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand has a good personality. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand is interesting. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand is different from competing brands. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Q8 [1] (Recode) , Is Displayed

Q8.1 Please indicate your level of agreement with the following statements referring to the logo presented on the product.

The logo makes me think that...

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
There is a reason to buy the brand instead of others. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand has a good personality. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand is interesting. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The brand is different from competing brands. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Brand perceptions

Start of Block: Manipulation

Display This Question:

If Q6 [1] (Recode) , Is Displayed

Q6.1 Does the product have a cruelty-free logo?

- Yes (1)
- No (2)

Display This Question:

If Q7.1 [1] (Recode) , Is Displayed

Q7.2 Does the product have a cruelty-free logo?

- Yes (1)
- No (2)

Display This Question:

If Q8.1 [1] (Recode) , Is Displayed

Q8.2 Does the product have a cruelty-free logo?

Yes (1)

No (2)

End of Block: Manipulation

Start of Block: Logo Awareness

Display This Question:

If Q7.2 . 1 Is Displayed

Q7.3 Please indicate your level of agreement with the following statements referring to the logo presented.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
I feel very familiar with the logo. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel very experienced with the logo. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I have enough information to make an informed judgment about the logo. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is recognizable. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo recognizability has influence on my decision. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is easily recalled. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is distinct from other cruelty-free logos. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is memorable. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Q8.2 , 1 Is Displayed

Q8.3 Please indicate your level of agreement with the following statements referring to the logo presented.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
I feel very familiar with the logo. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel very experienced with the logo. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I have enough information to make an informed judgment about the logo. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is recognizable. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo recognizability has influence on my decision. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is easily recalled. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is distinct from other cruelty-free logos. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The logo is memorable. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Logo awareness

Start of Block: Perceptions about the logo

Display This Question:

If Q7.3 [1] (Recode) , Is Displayed

7.4 Please indicate your level of agreement with the following statements referring to the logo presented.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
The cruelty-free logo makes a strong impression on my visual sense or other senses. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find the cruelty-free logo interesting in a sensory way. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The cruelty-free logo does not appeal to my senses. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Q8.3 [1] (Recode) , Is Displayed

Q8.4 Please indicate your level of agreement with the following statements referring to the logo presented.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
The cruelty-free logo makes a strong impression on my visual sense or other senses. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find the cruelty-free logo interesting in a sensory way. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The cruelty-free logo does not appeal to my senses. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Perceptions about the logo

Start of Block: Moral obligation

Display This Question:

If 7.4 [1] (Recode) , Is Displayed

Q7.5 Please indicate your level of agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
Buying a cruelty-free product instead of a conventional product would feel like making a personal contribution to something better. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying a cruelty-free product instead of a conventional product would feel like the morally right thing to do. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying a cruelty-free product instead of a conventional product would not make one feel guilty. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Q8.4 [1] (Recode) , Is Displayed

Q8.5 Please indicate your level of agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
Buying a cruelty-free product instead of a conventional product would feel like making a personal contribution to something better. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying a cruelty-free product instead of a conventional product would feel like the morally right thing to do. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying a cruelty-free product instead of a conventional product would not make one feel guilty. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Moral obligation

Start of Block: Demographics

Q9 What is your gender?

- Female (1)
 - Male (2)
 - Other (3)
-



Q10 What is your nationality?

▼ Afghanistan (1) ... Zimbabwe (1357)

Q11 What is your highest education level?

- Less than High School Degree (1)
 - High School Graduate or similar (2)
 - Professional Degree (3)
 - Bachelor's Degree (4)
 - Master's Degree, MBA or similar (5)
 - Doctoral Degree or PhD (6)
-

Q12 What is your approximate yearly gross income?

- Less than 10.000€ (1)
- 10.000€-19,999€ (2)
- 20.000€-29,999€ (3)
- 30.000€-39,999€ (4)
- 40.000€-49,999€ (5)
- 50.000€-59,999€ (6)
- 60.000€-69,999€ (7)
- 70.000€-79,999€ (8)
- 80.000€-89,999€ (9)
- 90.000€-99,999€ (10)
- 100.000€ or more (11)

End of Block: Demographics

Appendix 4 -Linear Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
Purchase Intention	4.001	1.465	434
Cruelty-free logo vs No logo	0.657	0.475	343

Pearson Correlation	
	Cruelty-free logo vs No logo
Purchase Intention	0.479

	R	R Square	Adjusted R Square	Durbin-Watson
Model Summary	0.479	0.229	0.228	1.908

ANOVA		
	F	Sig
Regression	128.631	0.000

Coefficients						
	Unstandardized B	Standardized Coefficients Beta	t	Sig	Tolerance	VIF
Constant	3.040		28.824	0.000		
Cruelty-free logo vs No logo	1.476	0.479	11.342	0.000	1.000	1.000

Collinearity Diagnostics		
	Eigenvalue	Condition Index
Dimension 1	1.810	1.000
Dimension 2	0.190	3.090

Appendix 5 - Independent Sample t-test

Group Statistics				
	Cruelty-free Logo	N	Mean	Std. Deviation
Purchas Intention	Uncertified	147	4.42	1.422
	Certified	138	4.61	1.279

Independent Sample t-test							
	Levene's Test for Equality of Variances		t-test of Equality of Means			95% Confidence Interval of the Difference	
	F	Sig	Sig (2-tailed)	Mean Difference	Std. Error Diference	Lower	Upper
Purchase Intention - Equal Variances assumed	1.443	0.231	0.238	-0.190	0.161	-0.506	0.126

Appendix 6 - Output Process Model 29

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 3.5 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
 Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 29
 Y : PIQ2Q3 - Purchase Intention
 X : LOGOREC - The visual effect of the Cruelty-free logo
 M : BIQ2Q3 - Brand Image
 W : LAQ2Q3 - Logo Awareness
 Z : MOQ2Q3 - Moral Obligation

Sample
 Size: 285

OUTCOME VARIABLE:
 BIQ2Q3

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,4035	,1628	1,4809	18,2171	3,0000	281,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-,5966	,1392	-4,2861	,0000	-,8707	-,3226
LOGOREC	,9138	,1672	5,4646	,0000	,5846	1,2430
LAQ2Q3	,1756	,1150	1,5263	,1281	-,0509	,4020
Int_1	-,0151	,1441	-,1048	,9166	-,2987	,2685

Product terms key:
 Int_1 : LOGOREC x LAQ2Q3

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

	R2-chng	F	df1	df2	p
X*W	,0000	,0110	1,0000	281,0000	,9166

 Focal predict: LOGOREC (X)
 Mod var: LAQ2Q3 (W)

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/
  LOGOREC LAQ2Q3 BIQ2Q3 .
BEGIN DATA.
  ,0000 -1,1209 -,7934
  1,0000 -1,1209 ,1373
  ,0000 ,0000 -,5966
  1,0000 ,0000 ,3172
  ,0000 1,1209 -,3999
  1,0000 1,1209 ,4970
```

```
END DATA.
GRAPH/SCATTERPLOT=
  LAQ2Q3 WITH BIQ2Q3 BY LOGOREC .
```

OUTCOME VARIABLE:
 PIQ2Q3

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,4983	,2483	1,4158	13,0716	7,0000	277,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,1856	,1609	26,0181	,0000	3,8689	4,5023
LOGOREC	,4491	,1936	2,3192	,0211	,0679	,8303
BIQ2Q3	,3010	,0607	4,9588	,0000	,1815	,4204
LAQ2Q3	,1485	,1157	1,2838	,2003	-,0792	,3763
Int_1	,0293	,1468	,1996	,8419	-,2597	,3183
MOQ2Q3	,0142	,0919	,1550	,8769	-,1666	,1951
Int_2	,1210	,1501	,8064	,4207	-,1745	,4166
Int_3	-,0204	,0415	-,4924	,6228	-,1022	,0613

Product terms key:

```
Int_1 : LOGOREC x LAQ2Q3
Int_2 : LOGOREC x MOQ2Q3
Int_3 : BIQ2Q3 x MOQ2Q3
```

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

	R2-chng	F	df1	df2	p
X*W	,0001	,0399	1,0000	277,0000	,8419
X*Z	,0018	,6503	1,0000	277,0000	,4207
BOTH(X)	,0022	,4132	2,0000	277,0000	,6620
M*Z	,0007	,2424	1,0000	277,0000	,6228

 Focal predict: LOGOREC (X)
 Mod var: LAQ2Q3 (W)
 Mod var: MOQ2Q3 (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/
  LOGOREC   LAQ2Q3   MOQ2Q3   PIQ2Q3   .
BEGIN DATA.
  ,0000    -1,1209   -1,3513   3,9999
  1,0000    -1,1209   -1,3513   4,2526
  ,0000    -1,1209   ,0000    4,0191
  1,0000    -1,1209   ,0000    4,4354
  ,0000    -1,1209   1,3513   4,0384
  1,0000    -1,1209   1,3513   4,6182
  ,0000    ,0000    -1,3513   4,1664
  1,0000    ,0000    -1,3513   4,4519
  ,0000    ,0000    ,0000    4,1856
  1,0000    ,0000    ,0000    4,6347
  ,0000    ,0000    1,3513   4,2049
  1,0000    ,0000    1,3513   4,8175
  ,0000    1,1209   -1,3513   4,3328
  1,0000    1,1209   -1,3513   4,6512
  ,0000    1,1209   ,0000    4,3521
  1,0000    1,1209   ,0000    4,8340
  ,0000    1,1209   1,3513   4,3713
  1,0000    1,1209   1,3513   5,0169
END DATA.
GRAPH/SCATTERPLOT=
  LAQ2Q3   WITH     PIQ2Q3   BY     LOGOREC   /PANEL   ROWVAR=   MOQ2Q3   .
-----
      Focal predict: BIQ2Q3   (M)
      Mod var:      MOQ2Q3   (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/
  BIQ2Q3   MOQ2Q3   PIQ2Q3   .
BEGIN DATA.
  -1,3230   -1,3513   3,9190
  ,0000    -1,3513   4,3537
  1,3230    -1,3513   4,7884
  -1,3230   ,0000    4,0821
  ,0000    ,0000    4,4803
  1,3230    ,0000    4,8785
  -1,3230   1,3513   4,2453
  ,0000    1,3513   4,6069
  1,3230    1,3513   4,9685
END DATA.
GRAPH/SCATTERPLOT=
  BIQ2Q3   WITH     PIQ2Q3   BY     MOQ2Q3   .

```

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Conditional direct effect(s) of X on Y:

LAQ2Q3	MOQ2Q3	Effect	se	t	p	
LLCI	ULCI					
-1,1209	-1,3513	,2527	,2806	,9004	,3687	-
,2998	,8051					
-1,1209	,0000	,4163	,2328	1,7883	,0748	-
,0420	,8745					
-1,1209	1,3513	,5798	,3345	1,7333	,0841	-
,0787	1,2384					

,0000	-1,3513	,2855	,2813	1,0150	,3110	-
,2682	,8393					
,0000	,0000	,4491	,1936	2,3192	,0211	
,0679	,8303					
,0000	1,3513	,6127	,2796	2,1914	,0293	
,0623	1,1631					
1,1209	-1,3513	,3184	,3656	,8709	,3846	-
,4013	1,0380					
1,1209	,0000	,4820	,2738	1,7603	,0795	-
,0570	1,0209					
1,1209	1,3513	,6455	,3140	2,0561	,0407	
,0275	1,2636					

Conditional indirect effects of X on Y:

INDIRECT EFFECT:

LOGOREC	->	BIQ2Q3	->	PIQ2Q3			
LAQ2Q3		MOQ2Q3	Effect	BootSE	BootLLCI	BootULCI	
-1,1209		-1,3513	,3058	,1146	,1163	,5573	
-1,1209		,0000	,2801	,0927	,1221	,4808	
-1,1209		1,3513	,2544	,1041	,0708	,4774	
,0000		-1,3513	,3003	,0983	,1256	,5085	
,0000		,0000	,2750	,0813	,1295	,4469	
,0000		1,3513	,2498	,0992	,0707	,4564	
1,1209		-1,3513	,2947	,1147	,0942	,5459	
1,1209		,0000	,2699	,1018	,0940	,4883	
1,1209		1,3513	,2451	,1177	,0518	,5129	

Index of moderated moderated mediation

Index	BootSE	BootLLCI	BootULCI
,0003	,0075	-,0123	,0190

Indices of conditional moderated mediation by W

MOQ2Q3	Index	BootSE	BootLLCI	BootULCI
-1,3513	-,0050	,0527	-,1196	,0901
,0000	-,0045	,0478	-,1033	,0855
1,3513	-,0041	,0446	-,0946	,0878

***** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *****

OUTCOME VARIABLE:

BIQ2Q3

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	-,5966	-,5949	,1589	-,9144	-,2908
LOGOREC	,9138	,9110	,1810	,5562	1,2765
LAQ2Q3	,1756	,1765	,1288	-,0867	,4196
Int_1	-,0151	-,0164	,1525	-,3083	,2877

OUTCOME VARIABLE:

PIQ2Q3

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	4,1856	4,1898	,1777	3,8496	4,5412
LOGOREC	,4491	,4426	,2083	,0305	,8448
BIQ2Q3	,3010	,3021	,0634	,1752	,4220
LAQ2Q3	,1485	,1463	,1407	-,1306	,4157

Int_1	,0293	,0324	,1714	-,2864	,3742
MOQ2Q3	,0142	,0162	,0998	-,1903	,2024
Int_2	,1210	,1217	,1544	-,1676	,4326
Int_3	-,0204	-,0198	,0449	-,1080	,0698

***** 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

W values in conditional tables are the mean and +/- SD from the mean.

Z values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:
LAQ2Q3 MOQ2Q3 BIQ2Q3

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