



**The Green Ad Chain Reaction: The Perceived
Value as a Bridge Between Advertising Appeals,
Brand Attachment, and Purchase Intentions**

Dissertation

Master degree in International Business

César Santiago Patiño Armijos

Leiria, June of 2025



The Green Ad Chain Reaction: The Perceived Value as a Bridge Between Advertising Appeals, Brand Attachment, and Purchase Intentions

Dissertation

Master degree in International Business

César Santiago Patiño Armijos

Dissertation developed under the supervision of Doctor Cátia Fernandes Crespo, professor at the School of Technology and Management of the Polytechnic Institute of Leiria

Leiria, June of 2025

Originality and Copyright

This dissertation/project report is original, made only for this purpose, and all authors whose studies and publications were used to complete it are duly acknowledged.

Partial reproduction of this document is authorized, provided that the Author is explicitly mentioned, as well as the study cycle, i.e., master's degree in international business, 2024/2025 academic year, of the School of Technology and Management of the Polytechnic Institute of Leiria, and the date of the public presentation of this work.

Dedication

A mi madre por apoyarme e inspirarme y a mi padre por ser el mejor ejemplo.

Acknowledgments

First, I would like to thank God for this opportunity. Reaching this goal fills me with immense satisfaction. It has been a challenging journey, and I've had to make many sacrifices to achieve it. Now, I can say that it was all worth it.

However, I would not have been able to accomplish this goal without the invaluable support of Dr. Catia, my dissertation supervisor at the Polytechnic Institute of Leiria, to whom I am deeply grateful. From the beginning, she showed interest in this research. Her expertise, insightful suggestions, and constructive feedback were instrumental in guiding the development of this research.

Second, I would like to thank my family for their unwavering encouragement, above all to my parents, who have always believed in me and supported every one of my dreams. None of this would have been possible without you.

Third, thank you P. for having been there and for your support.

Finally, I am grateful to everyone who participated in the survey and contributed to this research.

Abstract

In recent decades, sustainability has emerged as a global imperative, driving businesses to shift toward green strategies that align with environmentally conscious consumers. However, expanding into international markets requires more than just sustainable intent, it demands cultural adaptation. Consumer responses to green advertising vary across nations, making it essential to understand how these green messages are interpreted. Therefore, green advertising is not merely a communication tool, it is a strategic bridge that connects brand values with consumer identity. This master's dissertation examines the impact of rational appeals (informativeness), emotional appeals, and advertising credibility on the perceived value of green ads and how this, in turn, influences brand emotional attachment, brand identification, and purchase intention. Additionally, it examines whether brand emotional attachment and brand identification influence purchase intention in both markets, Portugal and Ecuador. A survey of 410 participants was analysed using structural equation modelling (SEM). Results highlight that rational and credibility appeals significantly influence both markets, while emotional appeals proved effective only in Portugal. Additionally, environmental concern moderates the relationship between rational appeal and perceived value solely in the Portuguese context. Perceived ad value positively affects brand attachment, brand identification, and purchase intention, although only brand identification leads to purchase intention. These insights offer valuable implications for marketers and future research.

Keywords: Green Advertising, advertising appeals, the perceived value of ad, purchase intention, Portugal, Ecuador.

List of Figures

| | |
|--|----|
| Figure 2.1 Cultural comparison between Ecuador and Portugal | 19 |
| Figure 3.1 Conceptual Model | 21 |
| Figure 5.1 Reliability and Validity of the Model (Portuguese sample) | 47 |
| Figure 5.2 Reliability and Validity of the Model (Ecuadorian sample) | 47 |

List of Tables

| | |
|--|----|
| Table 4.1 Variables and its measures | 33 |
| Table 4.2 Common Method Portuguese Sample..... | 36 |
| Table 4.3 Common Method Bias Ecuadorian Sample | 37 |
| Table 4.4 Top 5 most mentioned brands Portugal | 40 |
| Table 4.5 Top 5 most mentioned brands Ecuador..... | 42 |
| Table 5.1 Descriptive Statistic Analysis of the Construct..... | 43 |
| Table 5.2 Cronbach's Alpha..... | 46 |
| Table 5.3 Reliability of Items for the Portuguese Sample | 48 |
| Table 5.4 Reliability of Items for the Ecuadorian Sample..... | 51 |
| Table 5.5 Discriminant Validity of the Portuguese Sample..... | 55 |
| Table 5.6 Discriminant Validity of the Ecuadorian Sample | 55 |
| Table 5.7 Hypotheses Verification for Portuguese Sample (two-tailed) | 56 |
| Table 5.8 Hypotheses Verification for Ecuadorian Sample (two-tailed)..... | 59 |

List of Graphs

| | |
|---|----|
| Graph 4.1 Sample Profile by Gender Portugal | 39 |
| Graph 4.2 Sample Profile by Age Portugal | 39 |
| Graph 4.3 Sample Profile by Level of Education Portugal | 40 |
| Graph 4.4 Sample Profile by Gender Ecuador | 41 |
| Graph 4.5 Sample Profile by Age Ecuador | 41 |
| Graph 4.6 Sample Profile by Level of Education Ecuador | 42 |

List of Abbreviations and Acronyms

| | |
|------------|-------------------------------|
| PVA | Perceived Value of Ad |
| BEA | Brand Emotional Attachment |
| SEM | Structural Equations Modeling |

Table of Contents

| | |
|--|-------------|
| Originality and Copyright | iii |
| Dedication..... | iv |
| Acknowledgments..... | v |
| Abstract | vi |
| List of Figures | vii |
| List of Tables..... | viii |
| List of Graphs | ix |
| List of Abbreviations and Acronyms..... | x |
| 1. Introduction | 1 |
| 1.1. Background..... | 1 |
| 1.2. Scope of the investigation..... | 2 |
| 1.3. Main research questions | 3 |
| 1.4. Contribution proposed..... | 3 |
| 1.5. Dissertation structure..... | 4 |
| 2. Literature Review | 6 |
| 2.1. Green Advertising | 6 |
| 2.2. Advertising Attributes..... | 8 |
| 2.3. Advertising Appeals: rational and emotional..... | 9 |
| 2.4. Advertising credibility..... | 11 |
| 2.5. Perceived value of advertising..... | 13 |
| 2.6. Brand emotional attachment..... | 14 |
| 2.7. Brand identification..... | 15 |
| 2.8. Purchase intention | 16 |
| 2.9. Green advertising cross-cultural considerations: Ecuador and Portugal comparison | 18 |
| 3. Conceptual model and hypothesis development..... | 21 |

| | |
|---|-----------|
| 4. Methodology | 32 |
| 4.1. Sampling Procedure | 32 |
| 4.2. Questionnaire development and Pre-test | 32 |
| 4.3. Measures | 33 |
| 4.4. Common method bias | 35 |
| 4.5. Non-response bias..... | 38 |
| 4.6. Sample profile..... | 38 |
| 5. Data analysis | 43 |
| 5.1. Descriptive analysis | 43 |
| 5.2. Validity and Reliability of the Measures and Structural Evaluation..... | 46 |
| 5.2.1. Reliability of the items | 47 |
| 5.2.2. Convergent Validity | 54 |
| 5.2.3. Discriminant Validity | 54 |
| 5.2.4. Evaluation of the Structural Model | 55 |
| 5.2.5. Results Evaluation..... | 56 |
| 6. Discussion and Conclusion | 62 |
| 6.1. Main Findings..... | 62 |
| 6.2. Theoretical and Managerial Implications..... | 65 |
| 6.3. Main Limitations and Suggestions for Future Research..... | 66 |
| References | 68 |
| Appendix A | 79 |

1. Introduction

1.1. Background

“Green advertising is not just about selling green products; it’s about shaping values and encouraging responsible consumption.” Nader Delafrooz

In recent decades, green advertising has gained significant relevance as public awareness of environmental degradation has increased globally. As consumers grow more conscious of sustainability, businesses have started to adopt green marketing strategies to align with the values and expectations of their audiences. Carrión-Bósquez et al. (2024) present valuable insight into the Ecuadorian context by examining how green advertising and eco-labels shape the environmental attitudes and awareness. Their study reveals that advertising applies a direct influence on purchasing behaviour, while eco-labels play a more significant role in fostering awareness and shaping attitudes. This distinction highlights the importance of understanding the mechanisms through which environmental messages affect consumer choices, especially in emerging economies where environmental consciousness is on the rise.

In a similar manner, Souza et al. (2009) explore the perception of green companies in Portugal, emphasizing the cultural underpinnings of consumer trust and skepticism. The study indicates that Portuguese consumers are particularly attentive to the authenticity of environmental claims and tend to evaluate corporate sustainability based on ethical alignment rather than marketing alone. This suggests that in culturally sensitive markets, green advertising must be carefully designed to reflect shared societal values and avoid superficial or misleading advertising green messages.

Due to this huge impact, Liu & Liu (2020) offer a comparative analysis of green advertising across cultural contexts. They argue that Western and Eastern audiences respond to environmental messaging in different ways. Western campaigns favouring individual empowerment and innovation, while Eastern counterparts emphasize collective harmony and social responsibility. Such findings reinforce the necessity of tailoring green advertising to the cognitive and cultural preferences of reach audiences.

Moreover, Halder et al. (2020) explore green consumption values across Europe, including Portugal. They find that collectivism and long-term orientation predict stronger pro-environmental values, whereas traditionalism can sometimes act as a barrier. Their analysis underscores the influence of both cultural and ethical dimensions on consumer behaviour and illustrates why a standardization model is insufficient when addressing sustainability through marketing. This cultural sensitivity seeks to compare how green advertising is perceived in two distinct national cultures to obtain brand's perceived value (Tam & Milfont, 2020). Another important dimension is the impact of environmental action. Alisat & Riemer (2015) emphasize that environmental engagement often requires leadership, community involvement, and a sense of social justice. For green advertising to resonate deeply, it should extend beyond individual messaging and connect to broader environmental movements and societal goals. Hirsh (2014) introduces a psychological perspective by exploring personality traits which predict environmental sustainability outcomes. These personality-driven insights suggest that green advertising may benefit from aligning its tone and content with prevailing psychological tendencies, such as empathy or openness to change. These studies illustrate the nature of green advertising and its perception with culture, values, and communication over time.

1.2.Scope of the investigation

The present study aims to examine which characteristics of green advertising contribute to enhancing the perceived value of the advertisement and, consequently, influence consumers' purchase intention, emotional attachment, and brand identification. To achieve this, a quantitative cross-cultural approach is adopted, focusing on the Portuguese and Ecuadorian markets. A structured survey will be conducted among consumers of green products in both countries.

Cross-cultural comparisons in green advertising are essential for identifying culturally tailored communication strategies, increasing message credibility, and fostering more effective global sustainability efforts (Srivastava et al., 2020). Capturing cultural variations, individual value systems, and varying levels of environmental concern is vital for generating new insights and more inclusive theoretical frameworks (Srivastava et al., 2020). Despite the amount of literature in this field, most existing studies concentrate on enterprises or a

single-country context (Higuera-Castillo et al., 2024). This narrow focus presents a significant gap, especially when it comes to understand the impact of cultural variation in consumer perceptions of green advertising and contributes a comparative perspective to the geographic diversification.

1.3. Main research questions

This study aims to analyse the extent to which the informativeness, emotional appeal, and credibility of green advertisements influence consumers' perceived value of the advertisement. Furthermore, it explores how this perceived value subsequently impacts brand attachment, brand identification, and purchase intention. All these relationships are analysed within the context of individuals' levels of environmental concern, acknowledging that it may significantly shape the way consumers interpret and respond to green advertising messages.

1.4. Contribution proposed

This study aims to contribute to the existing literature by placing a specific focus on green advertising, an area of growing importance within sustainable marketing. It seeks to explore how key advertising determinants, namely rational appeals, emotional appeals, and credibility, affect the perceived value of green advertising. By doing so, the research addresses a gap in the literature concerning the psychological and perceptual mechanisms that drive consumer response to environmentally themed advertisements (Santa & Drews, 2023).

Furthermore, the study intends to provide both theoretical insights and practical recommendations for marketing professionals. By examining how different types of advertising appeals and perceived credibility influence consumer behaviour in the context of green advertising, the findings can guide managers in designing more effective and persuasive campaigns. These contributions are expected to support more informed decision-making processes, helping organizations better align their communication strategies with sustainability goals and consumer expectations.

The growing emphasis on sustainability has led to increased interest in green advertising strategies among businesses and researchers alike. However, existing studies predominantly focus on single-country contexts or between countries that are in the same geographic zone. This gap presents an opportunity for cross-cultural research to explore how different cultural backgrounds affect the perception and effectiveness of green advertising efforts (Chwialkowska et al., 2020).

Recent literature underscores the importance of cultural context in shaping pro-environmental behaviours. Moreover, cultural values significantly influence consumers' environmental attitudes, suggesting that marketing strategies should be tailored to align with local cultural norms (Chwialkowska et al., 2020). Similarly, Vicente-Molina et al. (2013) demonstrate that environmental knowledge and pro-environmental behaviour vary across countries, emphasizing the need for culturally sensitive approaches in environmental campaigns.

Furthermore, Juma-Michilena et al. (2024) mentioned that there is a scarcity of studies exploring pro-environmental behaviours in Latin American countries, despite their unique environmental challenges and cultural dynamics. By including Ecuador in the analysis, this research not only fills a regional gap but also provides comparative insights. Additionally, countries like Portugal and Ecuador may differ in socio-economic development, environmental policy enforcement, and consumer trust in marketing, all of which may shape the effectiveness of green messaging. The findings are expected to provide insights for marketers in the development of more impactful and culturally sensitive green advertising communication strategies.

1.5.Dissertation structure

The structure of this study is organized into six chapters. The first chapter serves as an introduction, outlining the research topic, its relevance, and the objectives that guide the investigation. The second chapter presents the literature review, which provides previous academic research in the field of green advertising. It explores key concepts, such as advertising appeals and attributes, credibility, their influence on the perceived value of advertisements, as well as brand attachment, brand identification, and purchase intention. Additionally, this chapter highlights the cultural contexts of Portugal and Ecuador and their

relevance to green advertising. Building the theoretical framework, the third chapter introduces the conceptual model and formulates the research hypotheses. The fourth chapter details the methodology adopted in the study, including the data collection and analytical procedures. Chapter five presents the analysis of the data, showing the statistical findings derived from the research. Finally, the sixth chapter discusses the results, conclusions, interprets their implications for both theory and practice, and outlines the study's contributions. It also addresses the limitations encountered and provides recommendations for future research.

2. Literature Review

2.1. Green Advertising

2.1.1 Defining green advertising

Green advertising, also known as sustainable or eco-friendly advertising, is a marketing approach that emphasizes the ecological benefits of products or services. It highlights the favourable connection between a product and the environment, often presenting sustainable production methods, reduced environmental impact, or resource-efficient features (Ktisti et al., 2022). This form of advertising intends to resonate with environmentally conscious consumers by not only promoting green products but also promoting for a sustainable lifestyle and responsible corporate behavior (Agarwal & Kumar, 2020).

The development of green advertising is deeply connected to the broader concept of green marketing, which began in the 1970s in response to rising environmental concerns, including pollution, natural resources, and the push toward sustainable practices (Peattie, 1990). Early authors like Lazer (1969) emphasized the importance of integrating ecological considerations into business practices to address these growing challenges.

However, it was not until the 1980s and 1990s that green advertising start to gain importance. During this period, as consumers became more environmentally aware, companies started incorporating green messages into their marketing campaigns to appeal to this shifting market. As environmental concerns became mainstream, businesses began to promote not just products, but also sustainable corporate identities, aligning themselves with broader societal movements, like recycling initiatives or carbon footprint reduction. This phase represented a move from simply advertising product attributes to embracing corporate social responsibility as a key brand principle (Matthes et al., 2014).

Additionally, research from Peattie (1990) formally recognized green advertising as a distinct area of study within marketing. According to Agarwal & Kumar (2020) these studies have helped to explore the impact of environmental claims on consumer behavior, setting the groundwork for future research and industry practices. Over time, green advertising expanded significantly, particularly with the rise of digital and social media platforms.

These channels allowed companies to reach wider audiences, engage consumers directly, and promote eco-friendly messages more effectively. In recent decades, the evolution of green advertising has continued to align closely with technological advancements and impact in consumer behavior. The expansion of digital media has enabled brands to reach broader audiences and engage directly with consumers through interactive and personalized eco-friendly advertising campaigns (Ktisti et al., 2022).

2.1.2 The importance of green advertising and environmental concern

Green advertising has become an essential component of modern marketing strategies, reflecting the shift in consumer preferences towards sustainability and environmental consciousness. This form of advertising focuses on promoting products or services by highlighting their ecological benefits, such as reduced environmental impact, sustainable production methods, and energy efficiency. It increases the number of consumers who prioritize brands that align with their sustainability and social responsibility values (Lee, 2008).

Companies have recognized that emphasizing sustainability could enhance their brand image and differentiate them from competitors. This marked a strategic shift where businesses moved from merely selling products to promoting corporate responsibility values, appealing to a public increasingly invested in environmental conservation. Pancić et al. (2023) mentioned that the impact of green advertising extends beyond brand reputation; it significantly influences consumer behavior, fostering loyalty and driving repeat purchases.

Ganz & Grimes (2018) demonstrate that consumers are more likely to engage with brands they perceive as genuinely committed to environmental causes, particularly when advertisements present specific and credible information. This underscores the critical importance of authenticity in green advertising. In contrast, vague or exaggerated environmental claims can erode consumer trust and damage brand loyalty (Agarwal & Kumar, 2020).

Additionally, Pancić et al. (2023) found that advertisements combining transparency and clear environmental messaging significantly boost brand equity and repurchase intentions, particularly among young consumers who prioritize sustainability in their choices. Similarly,

Lee (2008) highlights the sensitivity of younger people to green messaging, as they tend to be more influenced by environmental and social issues, making them a vital target audience for green advertising efforts.

Beyond influencing individual behavior, green advertising has broader implications for market positioning. It serves as a critical differentiation tool, especially in saturated markets where products often appear similar. Brands that successfully integrate environmental messaging not only stand out but also tap into a growing consumer segment that prioritizes eco-friendliness. By doing so, these companies expand their market share and solidify their position as leaders in sustainability (Sander et al., 2021).

Green advertising contributes to promote social attitudes toward sustainability. By promoting eco-friendly products and educating the public about environmental issues, companies play a role in transmitting sustainable behaviors. This might not only drive immediate sales but also fosters long-term behavioral change, encouraging consumers to become in favor of sustainability (Milfont & Duckitt, 2010).

Therefore, the importance of green advertising lies in its ability to influence consumer perceptions and behaviors. It provides a platform for businesses to communicate their sustainability efforts effectively, thereby enhancing their corporate image and encouraging consumer engagement. It is also a powerful tool for businesses to differentiate themselves in a highly competitive market (Yannopoulou et al., 2024). By focusing on green initiatives, companies can set themselves apart and appeal to a growing segment of environmentally conscious consumers, which, in turn, can increase market share and profitability since green advertising is a key strategy for promoting environmentally friendly behaviors and enhancing brand legitimacy (Braga et al., 2024).

2.2. Advertising Attributes

Advertising attributes are generally categorized into two main types: environmental and functional. These attributes are essential in influencing consumer attitudes and actions, especially within green marketing. By understanding the specifics of each, marketers can design advertising campaigns that effectively align with consumer values and preferences.

Environmental attributes focus on highlighting the eco-friendly aspects of a product or service. These attributes are designed to appeal to consumers who prioritize sustainability and environmental responsibility in their purchasing decisions. For example, advertisements that emphasize the use of recyclable materials, reduced carbon footprints, or eco-friendly production processes fall under this category (Kim et al., 2021).

Consumers often respond positively to advertisements that incorporate clear, credible environmental benefits. The research by Banerjee et al. (1995) highlights those green ads tend to emphasize corporate social responsibility and eco-friendliness to build a favorable brand image. However, the effectiveness of these ads can vary depending on the depth of the information provided. Ads that detail specific environmental practices or benefits (e.g., recycling processes or energy efficiency) are perceived as more credible.

Functional attributes, on the other hand, focus on the practical and utilitarian benefits of the product. This approach appeals to consumers' need for efficiency, effectiveness, and performance. For instance, an advertisement may highlight the durability, quality, or technological innovation of a product, showcasing how it fulfills a specific consumer need or solves a problem (Banerjee et al., 1995). In the context of green advertising, functional attributes are often combined with environmental claims to enhance credibility and relevance.

Similarly, Zhang et al. (2024) examines green advertising attributes and their influence on consumer-perceived value. The research mentioned that when green attributes are presented with warmth messaging, they boost consumers' perceived social value of the brand, fostering a connection to the brand's environmental objectives. Conversely, competence appeals, which highlight product functionality, effectively convey practical benefits when used with non-green attributes. These findings suggest that adapting advertising attributes to consumer values can significantly elevate perceived value and influence purchase behavior.

2.3. Advertising Appeals: rational and emotional

Advertising appeals are marketing strategies designed to attract consumer attention and influence them to make positive decisions about a product or service. These appeals are

generally divided into two main categories: emotional and rational, each with their own unique features and goals.

Emotional appeals aim to connect with the consumer's feelings and emotions, focusing on evoking positive sensations such as happiness, security, love, or nostalgia. Zandpour & Harich (1996) states that the objective is to create an emotional bond between the product and the consumer. Moreover, those that are centered on storytelling and narratives, are more memorable for consumers and can influence their purchase intention even long after exposure to the advertisement (Young et al., 2019).

Emotional appeals are particularly effective for low-involvement products or those associated with pleasurable and symbolic experiences, such as fragrances or jewelry. Emotions serve as a significant antecedent in shaping consumer perceptions, influencing their attitudes toward the product and generating positive word-of-mouth (Kim et al., 2020; Zandpour & Harich, 1996).

On the other hand, rational appeals focus on providing logical and detailed information about the product's features and benefits. These appeals target the consumer's practical side, aiming to persuade through facts, technical data, and arguments emphasizing the product's efficiency, quality, or value (Young et al., 2019). Research indicates that rational appeals are more effective for high-involvement products or in markets where consumers value detailed information to make well-informed decisions (Zandpour & Harich, 1996).

Kim et al. (2020) explored how rational and emotional appeals complement each other in sustainable marketing strategies. The research concluded that maximizing the effectiveness of an advertisement requires balancing both approaches based on the characteristics and needs of the target audience. Rational appeals tend to be more effective for utilitarian-oriented consumers, while emotional appeals resonate with those seeking hedonic experiences.

Likewise, Zhang et al. (2024) explained the importance of specific advertising appeals within green marketing, showing that warmth and competence messages play a significant role in purchase intentions as well. For example, warmth appeals, which highlight a brand's caring and cooperative qualities, align well with green advertising efforts, helping consumers

perceive the brand as environmentally responsible and ethically motivated. In contrast, competence messages, which emphasize qualities such as skill, efficiency, and product quality, tend to perform better when associated with non-green appeals.

It is pertinent to consider cultural aspects when utilizing emotional versus rational appeals in advertising, as they are crucial to understanding the diverse ways different cultures process and respond to these types of messages. Cultural dimensions such as individualism vs. collectivism, power distance, or uncertainty avoidance play significant roles in shaping consumer behavior and preferences. For instance, in individualistic cultures (e.g., the United States), consumers are more likely to respond to rational appeals that emphasize product attributes and benefits, as they prioritize personal achievements and self-reliance. In contrast, collectivist cultures (e.g., many Asian countries) often respond better to emotional appeals that highlight social harmony, family, and community, as Young et al. (2019) and Zandpour & Harich (1996) mentioned.

Additionally, cultures with high uncertainty avoidance may prefer rational appeals that provide clear, information to reduce ambiguity and build trust. On the other hand, cultures with lower power distance and more openness to emotions may respond more favorably to emotional narratives that evoke strong feelings and build brand affinity through storytelling (Young et al., 2019; Zandpour & Harich, 1996).

Understanding these cultural variations allows marketers to tailor their advertising strategies more effectively, ensuring that the message resonates with the target audience and aligns with their cultural values and expectations, ultimately enhancing the ad's impact and effectiveness (Kim et al., 2020; Zandpour & Harich, 1996).

2.4. Advertising credibility

Advertising credibility is defined as the degree to which consumers perceive an advertisement as honest and believable. Firm's advertising must express clear and reliable ideas as consumer's judge and separate messages that feel genuine and aligned with a brand's identity from those that seem manipulative or misleading (Crespo et al., 2025).

This perception becomes especially crucial in green advertising campaigns, where credibility not only influences short-term attention but also shapes brand trust and market positioning. Verleye et al. (2023) provide empirical insight into this by identifying six key elements: honesty, clearness, detail, commitment, urgency, and shared value which promote credibility in green advertising.

Research by Verleye et al. (2023) shows that these six factors explain over 70% of how credible an ad is perceived and strongly influence both consumer motivation and brand consideration. Importantly, the research highlights that credible green advertising might actively shift consumer mindsets toward more sustainable consumption and make significant difference between brands.

In practice, credibility is what makes an ad feel worth paying attention to. When advertisements come from sources that consumers already respect whether it's a well-known spokesperson, expert endorsement, or a brand with a solid reputation as they're far more likely to capture interest, reduce skepticism, and motivate viewers to consider the product being promoted (Crespo et al., 2025).

However, advertising credibility also depends on how consumers cognitively process ad content. Lanero et al. (2020) explore this claim through the heuristic-systematic model, showing that consumers often use mental shortcuts when evaluating ad claims, particularly in low-involvement decisions like buying food or everyday products.

Furthermore, credibility judgments are shaped not only by message content but by how well consumers understand advertising symbols and labels. When knowledge is low, consumers may give a little credibility. Conversely, with higher knowledge and motivation, consumers become more critical, leading to more accurate assessments of advertising messages. This shows that credibility is not just a static perception, instead it could enable fast but trustworthy decision-making (Lanero et al., 2020).

This long-term effect is especially interesting in digital marketing, where credibility must often be established quickly and visually. Jayasingh et al. (2025) explore this in the context of AI-based virtual influencers, finding that credibility is a key predictor of consumer engagement and purchase intention. While attributes like attractiveness and entertainment

value help capture attention, they are not sufficient to drive deeper consumer behavior unless supported by credible message. Their findings reinforce that even in high-tech environments, credibility remains fundamental. Moreover, credibility not only shapes immediate consumer response but also affects how advertising messages are stored and recalled. If credibility is missing, not only does persuasion fail in the short term, but the message may also be forgotten (Bell et al., 2021).

2.5. Perceived value of advertising

PVA refers to consumers' overall evaluation of an advertisement's usefulness and worth, in other words, how beneficial and relevant they perceive the ad to be in helping them make informed decisions. PVA captures the specific attributes of an ad (informativeness, entertainment, credibility, and predisposition toward advertising) that drive consumer engagement and shape their perceptions of its utility (Crespo et al., 2025).

In the context of green advertising, where claims often rely on intangible environmental benefits, PVA becomes particularly important for building trust and reducing consumer skepticism. Zhang et al. (2024) highlight this by demonstrating how the temporal framing of green advertisements affects different dimensions of perceived value. Past-framed messages tend to enhance environmental value perceptions by offering concrete sustainability outcomes while current-framed messages evoke emotional value by appealing to consumers' aspirations and participation in eco-friendly actions.

Additionally, research by Wang & Li (2022) find that high PVA in green advertising significantly increases both green purchase and sharing intentions. Their findings show that strong PVA enhances not only individual brand trust but also the likelihood of consumers' preferences into buy products from green brands.

Similarly, Jalu et al. (2024) demonstrate that green brand innovation translates into stronger consumer loyalty when mediated by green perceived value, especially among environmentally conscious consumers. Together, these studies position PVA would be the key element in green marketing, enabling brands to convert abstract sustainability claims into tangible consumer engagement.

From a marketing perspective, PVA offers brands a diagnostic tool to understand what types of advertising content resonate most across different cultural or demographic contexts. As Crespo et al. (2025) show, in markets like Portugal and Belarus, ad credibility and consumers' predisposition toward advertising emerged as key predictors of PVA, indicating that campaigns must be adapted to align with local trust dynamics and media consumption habits. In this way, optimizing for PVA allows marketers to tailor messaging that not only informs, but also connects meaningfully with target audiences. Therefore, PVA allows to understand which ad elements consumers value most and how those preferences differ by market companies and adapt them to deliver the right mix of practical information, emotional engagement, and credible messaging, and fostering lasting brand relationships.

2.6.Brand emotional attachment

BEA refers to the deep emotional connection between consumers with a brand, characterized by strong feelings of affection, passion and association that go beyond satisfaction or loyalty. In contrast to cognitive brand identification, emotional attachment involves personal relevance and affective engagement since consumers see the brand as part of their own identity (Crespo et al., 2023).

This psychological attachment develops through a combination of factors, including product quality, user satisfaction, emotional or sensory gratification, and symbolic connections rooted in culture, memory, or lifestyle (Grisaffe & Nguyen, 2011). These antecedents reveal that emotional attachment is cultivated over time through both functional performance and emotionally experiences.

Once established, this emotional bond has powerful implications for marketing. Crespo et al. (2023) emphasize that emotionally attached consumers are more likely to defend the brand during crises, pay price premiums, and remain loyal even if there might be attractive alternatives. Loureiro et al. (2012) demonstrate that emotional attachment precedes brand love and, through trust and commitment, leads to long-term loyalty. Their study highlights that advertising strategies which reflect consumers' values and self-image can strengthen these relationships and promote durable consumer-brand connections.

Therefore, BEA is critically important because it transforms brands into extensions of consumers' self-concept, creating lasting differentiation in crowded markets. By fostering emotional connections through authentic storytelling, meaningful brand experiences, or aligned celebrity endorsements, companies can cultivate powerful relationships that sustain competitive advantage and generate higher lifetime value (Crespo et al., 2023). This is particularly relevant in sustainability-driven branding, where values alignment plays a crucial role.

In this context, green brand attachment becomes a key element for marketers. As Khan et al. (2022) demonstrate, when brands effectively communicate environmentally responsible practices, consumers develop strong emotional connections with them. This attachment, in turn, reinforcing the brand's value in consumers' minds. Emotional branding within green marketing helps consumers connect their personal values, such as environmental responsibility and health consciousness with their brand preferences.

Additionally, research from Grisaffe & Nguyen (2011) emphasizes the importance of social influence and community engagement as key drivers of brand emotional attachment. Consumers who feel part of a community or perceive that their social circle values a particular brand tend to develop stronger emotional ties to that brand. This social dimension not only reinforces individual attachment but also encourages positive word-of-mouth and loyalty, which are essential for long-term brand success and lead to enhanced brand equity and a more resilient competitive position in the market.

2.7. Brand identification

Brand identification is the process by which consumers see a brand as an extension of their own self-concept. It is a cognitive construct that reflects the degree to which individuals feel a sense of unity with a brand, often seeing the brand's attributes and values as closely aligned with their personal identity (Crespo et al., 2025). This construct goes beyond simple awareness, when people see a brand as reflecting who they are or who they aspire to be, the result is a strong psychological connection that may influences consumer behavior.

The formation of brand identification involves a dynamic interplay between the brand's communicated image and the consumer's self-concept. Factors, such as authenticity,

perceived quality, cultural congruence, and message clarity all influence how consumers interpret and integrate brand signals. According to Crespo et al. (2023), marketing strategies that emphasize storytelling, identity-driven messaging, and emotional resonance are particularly effective in cultivating this connection.

Luxury brands are distinguished by having some of the highest levels of brand recognition in the commercial landscape. Xi et al. (2022) show, for example, that in the luxury sector, brand identification is shaped by consumers' perceptions of social and emotional value. Consumers identify more strongly with luxury brands that allow them to express their social status or internal values. Their study highlights that brand information quality (message clarity and consistency) strengthens this identification process, making it an essential tool for marketers aiming to build high-involvement consumer–brand relationships.

Suhardi et al. (2022), on the other hand, extend the relevance of brand identification beyond the corporate world into higher education. In their study of a university program, they demonstrate that weak brand identity results in low engagement and awareness among prospective students. Conversely, when the brand identity is clearly defined and well communicated, it fosters stronger emotional and cognitive alignment with the institution. This supports the broader notion that brand identification can drive choice and loyalty across sectors, including those beyond traditional consumer markets.

From a business perspective, brand identification plays a crucial role in securing sustainable competitive advantage. Notably, their study found that brand identification mediates the relationship between authenticity and willingness to pay, indicating that when consumers perceive a brand as genuine, they are more likely to identify with it and assign greater value to it. This highlights how brand authenticity not only strengthens affective ties but also reinforces the economic value consumers place on the brand. This suggests that consistent and compelling brand communication is essential for translating perceived benefits into deeper identification (Fatma & Khan, 2023)

2.8. Purchase intention

Purchase intention refers to the likelihood that a consumer will decide to buy a particular product or service. It is a critical metric in marketing research as it serves as a proxy for future purchase behavior, providing insights into market demand and consumer interest (Crespo et al., 2024). Cross-cultural studies on purchase intention have shown that cultural values significantly shape how consumers plan their purchases, offering marketers valuable guidance on adapting strategies for different regions. For instance, in collectivist cultures, social influence and self-efficacy play a stronger role in motivating purchase decisions, while in more individualistic settings, personal attitudes and perceived usefulness of digital platforms are more influential (Peña-García et al., 2020).

From an enterprise perspective, purchase intention is a key indicator of marketing success and revenue. Companies monitor purchase intention to assess the effectiveness of their advertising campaigns and to forecast future sales. Research by Crespo et al. (2025) demonstrate that higher purchase intention can directly create a sustainable competitive advantage. Similarly, purchase intention in online web sites has increased over time. Wang et al. (2023) reveal that in cross-border e-commerce, factors like service quality, convenience, and trust contribute substantially to shaping purchase intention, especially when there is positive mediation by consumer attitude and perception of value.

Additionally, Morwitz et al. (2006) emphasize that the predictive power of purchase intention depends on specific conditions, such as: product type, time frame, and how the intention is measured. Their findings highlight that purchase intention tends to be a more accurate predictor for durable goods, short-term decisions, and when assessed using comparative measures.

The overall impact of purchase intention is significant, as it not only predicts immediate sales but also influences long-term consumer behavior and brand loyalty. Moreover, understanding the situational factors behind purchase intention enables marketers to develop strategies across cultures and channels. In today's digital and global marketplace, being able to convert intention into behavior is one of the most valuable capabilities for building lasting customer relationships and maintaining competitive strength (Peña-García et al., 2020; C. Wang et al., 2023).

2.9.Green advertising cross-cultural considerations: Ecuador and Portugal comparison

According to Zandpour & Harich (1996) culture is a significant factor to consider when examining emotional and rational appeals in advertising. The concept of "culture" involves how the world is perceived, organized, and communicated (Condon & Yousef, 1983; Hall, 1983; Singer, 1987) and how it is learned (Hofstede, 1991; as cited in Zandpour & Harich, 1996).

Therefore, conducting a cross-cultural comparison between Ecuador and Portugal allow to explore their distinct cultural traits through Hofstede's dimensions. This analysis will provide insights into how each country's cultural profile impacts social structures, communication, and business strategies.

On the one hand, the similarities emerge with Power Distance where both countries have high scores, indicating acceptance of hierarchical structures. In Ecuador (78), hierarchy is tied to social class and race, while in Portugal (63), it reflects the authority structure in organizations. Similarly, Uncertainty Avoidance exhibit that both countries have high levels of uncertainty avoidance, with Portugal scoring extremely high (99) and Ecuador also having a high score (67). This suggests both cultures prefer stability and rules, even if they might not always be followed (The culture factor, 2024).

The differences, on the other hand, begin with Individualism, where, Ecuador has a low score (24), indicating a strong collectivist society, while Portugal has a moderate score (59), suggesting a balance between individualistic and collectivistic tendencies. Motivation Towards Achievement (Masculinity), demonstrate that Ecuador scores higher (63) and is more achievement-oriented, whereas Portugal scores lower (31), emphasizing consensus and quality of life over competition. Long-term Orientation, indicate that Ecuador (24) shows a preference for tradition and short-term results, while Portugal (42) indicates a slightly more balanced, but still normative, approach. Finally, Indulgence ends up being a non-comparable variable because only Portugal has a score (33), indicating a restrained culture, whereas Ecuador's dimension score in this area is not provided (The culture factor, 2024).

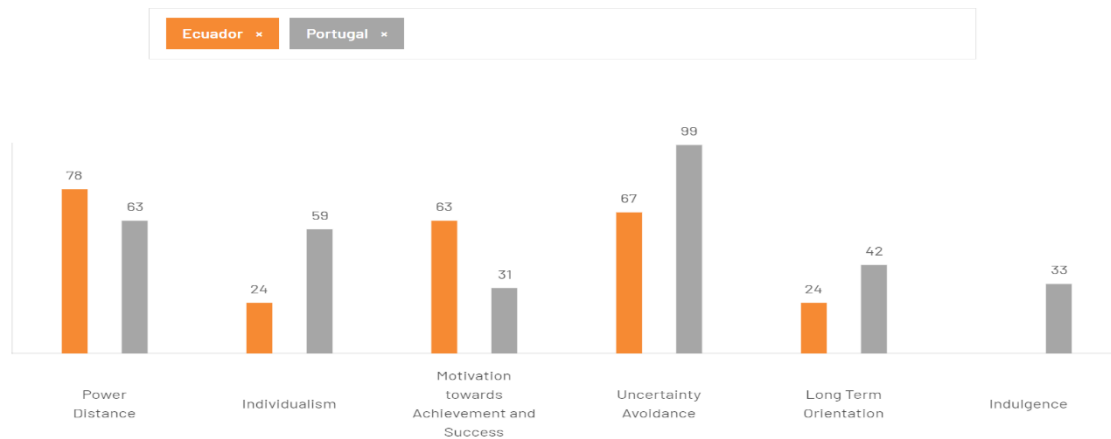


Figure 2.1 Cultural comparison between Ecuador and Portugal

A deep understanding of the environmental concerns, practices, and behaviors of consumers and businesses in Ecuador and Portugal is vital for assessing the effectiveness of green advertising. Despite both nations increasingly embracing sustainability, their strategies and reactions to environmental marketing might vary significantly.

In Ecuador, millennials demonstrate a growing awareness and engagement with green advertising, particularly when purchasing eco-friendly products. A study conducted in Quito and Guayaquil revealed that green advertising significantly influences millennials' environmental attitudes and purchasing behavior. While eco-labels help increase environmental awareness, they do not directly affect purchasing behaviors. This suggests that while Ecuadorian consumers are increasingly conscious of sustainable consumption, advertising remains the primary driver in shifting purchasing behaviors towards eco-friendly products (Carrión-Bósquez et al., 2024).

Similarly, Portugal shows a slightly different pattern in green consumer behavior. According to Correia et al. (2023), Portuguese consumers, especially those with higher education levels, are attentive to green marketing communications, which significantly impacts their green purchasing behavior. The study indicates that educated consumers and women are the most responsive to companies' green advertising efforts. However, the study also points out that while there is growing concern for environmental issues, this concern does not always translate into action; many Portuguese consumers engage in simple conservation behaviors

like saving water and electricity rather than actively participating in environmental activism or purchasing green products (Lopes et al., 2024).

3. Conceptual model and hypothesis development

In this chapter our conceptual model will be presented along with theoretical explanation for the hypotheses' formulation. This conceptual model seeks to analyze how the use of rational appeals, emotional appeals, and advertising credibility influence perceived value of green advertising, the impact of it on purchase intention, brand emotional attachment and brand identification, and the effect of these last two variables on purchase intention. Additionally, environmental concern is positioned as a moderating variable. The hypotheses aim to add an integrated understanding of green advertising.

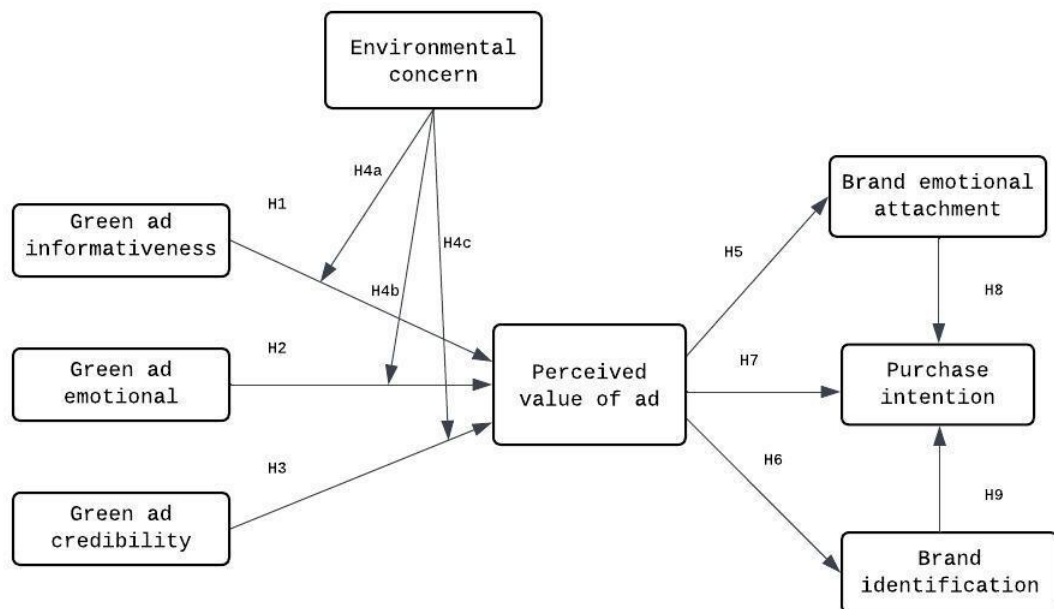


Figure 3.1 Conceptual Model

3.1 Key factors that influence the perceived value of green advertising

Research on green advertising highlights the crucial role of informativeness in forming consumers' perceptions of advertising value. According to Wang & Li (2022), the perceived quality of information in green ads, such as: clarity, credibility, and usefulness, significantly promote consumers' perceived value of the message. Their findings demonstrate that when environmental claims are detailed and easy to understand, consumers develop greater trust in the brand and are more likely to respond positively to the advertisement.

Similarly, Zhang et al. (2024) argue that consumers acquire higher value from green advertisements when the value proposition is communicated in a rational and believable way. Their study shows that clearly framed environmental benefits (for instance: CO₂ reductions or sustainable materials) strengthen perceived value. This occurs because informative ads allow consumers to evaluate the real impact of their choices, creating a sense of support and reinforce the utility of the message. As a result, informativeness becomes a value-creating mechanism, transforming green messages into tangible and therefore relevant content for the audience.

Gaber et al. (2019) also demonstrate that informativeness is a key determinant of advertising value, particularly in digital contexts like Instagram. In their study, consumers who perceived ads as informative reported significantly more favorable attitudes towards the advertising itself. The authors confirm that informativeness contributes directly to consumers' overall evaluation of ads, making the content feel more relevant, useful, and trustworthy.

While emotional triggers play a role in persuasion, consumers' perception of green value is primarily driven by how well the ad conveys. Wang et al. (2022) emphasize the importance of balancing rational cognition with emotional appeal in green messaging. Consumers are more likely to respond positively to advertisements that offer measurable benefits or practical solutions. This supports the idea that rational appeal enhances perceived advertising value, especially in contexts where consumers are skeptical or require justification for eco-friendly claims. As a result, we formulate the following hypothesis:

H1: *The rational appeal (informativeness) of green advertisements positively influences the perceived value of advertising.*

The effectiveness of emotional appeal in green advertising has been recognized as a key element in consumer perceptions of ad value. Wang et al. (2021) demonstrated that four specific types of positive emotional appeals (cherishing, yearning, pride, and admiration) significantly boost consumers perceived green value. These emotions help consumers to associate the brand with deeper affective meaning, thus increasing the perceived usefulness

and attractiveness of the ad. Emotional resonance not only draws attention but also helps internalize the brand's sustainability values.

Further supporting this relationship, Matthes et al. (2014) found that emotional green advertisements improved attitudes toward the ad, which in turn positively influenced brand attitude and message acceptance. Interestingly, this effect remained consistent of consumers' initial level of green involvement, suggesting that emotional appeal can reach a broader audience beyond those already environmentally engaged.

Complementing these findings, Higuera-Castillo et al. (2024) emphasized that emotional value is a central component of the overall perceived value in the context of green advertising. In their study on electric vehicle promotion, emotional messaging, such as hope, excitement, or pride about sustainability, was shown the influence in consumer decision-making and adoption behavior. By increasing emotional engagement, the advertisement was perceived as more meaningful, trustworthy, and personally relevant, all of which contribute to higher advertising value. Their results highlight that emotions strengthen not only affective response but also the perceived credibility and importance of the ad content.

While many studies focus on positive emotions, Balaskas et al. (2023) extend this understanding by showing that negative emotional appeals, such as: fear, guilt, and disgust, can also enhance perceived ad value when used strategically. Their findings suggest that the emotional tone (inspiring or cautionary) can cause a deeper cognitive and emotional processing, which in turn influences attitudes toward the ad. Whether through positive emotions like admiration and hope, or more serious ones like guilt or fear, the emotional tone of a green advertisement increases consumer involvement, enhances message relevance, and strengthens the overall value perceived by the audience. Additionally, it is important to consider the culture of the country since it could affect the decision-making. Taken this information into account, we propose the following hypothesis:

H2: *The emotional appeal of green advertisements positively influences the perceived value of advertising.*

Credibility in green ads is primarily driven by six elements: honesty, clearness, details, commitment, urgency, and shared value (Verleye et al., 2023a). Hasanah & Dewi, (2023) show that perceived credibility significantly and positively affects perceived value in the context of green advertising. Their study found that credibility is a relevant variable in para-social relationships (for instance: influencers and consumers). When green ads are seen as reliable, factual, and honest, consumers are more inclined to trust the message, which enhances their perception of the ad's utility and relevance (Hasanah & Dewi, 2023.)

Sigurdsson et al. (2018) further enhance the role of credibility by examining in-app mobile advertisements. While their study is not specific to green ads, it reveals that credibility, improves consumer attitudes toward advertising. Importantly, their cross-cultural analysis showed that credibility is a determinant of ad effectiveness, and that in markets like the UK it had a stronger effect than entertainment. This highlights the broad relevance of credibility in influencing perceived value across ad formats and cultural contexts.

Additionally, the classical model of advertising effectiveness proposed by MacKenzie et al. (1986), supports that the attitude toward the ad (shaped by trust and credibility) influences brand beliefs. In the context of green advertising, the credibility of the message strengthens favorable attitudes toward the ad itself, which in turn enhances perceptions of the brand and increases the ad's perceived value.

Taken together, these findings demonstrate that green advertising credibility is a fundamental element in enhancing perceived advertising value. By ensuring clarity, honesty, and alignment with shared values, which increase consumer engagement with green messages. As such, we proposed the following hypothesis:

H3: *The credibility of green advertisements positively influences the perceived value of advertising.*

3.2. The moderator effect of consumers' environmental concern

Environmental concern has emerged as a central psychological driver in sculping consumer responses to green marketing efforts. Research demonstrates that individuals with higher

environmental concern are more receptive to sustainability messages and more likely to engage in pro-environmental behavior. This underscores the idea that environmental concern, not only increases a general orientation toward sustainability, but also amplifies how consumers cognitively evaluate environmental benefits (Maduku, 2024).

From a cognitive standpoint, individuals with high environmental concern tend to engage in more thoughtful processing of environmental messages. Such consumers are more likely to consider the long-term consequences of their actions, making them particularly responsive to rational arguments embedded in green advertisements. When green advertising presents rational, argument-based appeals, consumers with high environmental concern are better equipped to obtain meaningful value from such content (Carrus et al., 2008).

Furthermore, green advertisements that focus on strong argument quality and evoke self-referential connections perform better when they align with a consumer's existing environmental values (Kao & Du, 2020). Consumers with greater environmental concern perceive higher value in advertising that aligns with their beliefs and knowledge systems, particularly when the ad uses rational appeals that emphasize environmental impact or product efficiency.

Adding to this, Holmgren et al. (2018) noted that consumers who are more environmentally concerned are likely to be more critical and analytical. Their concern prompts them to evaluate green advertising more deliberately, especially when the message includes logical. Therefore, we proposed the following hypothesis:

H4a: *Consumers' environmental concern positively moderates the relationship between green advertisements' rational appeal and the perceived value of advertising.*

Environmental concern plays an important role in how consumers interpret emotionally green messages. Maduku (2024) highlights that individuals who are deeply concerned about environmental issues tend to experience stronger anticipated emotions when exposed to sustainability-related messages.

These emotional responses are not only more intense but also more predictive of pro-environmental intentions. Consequently, when green advertisements employ emotional appeals (for instance: portraying ecological harm or communal responsibility), consumers with higher environmental concern are more likely to connect effectively with the message, thus perceiving it as more meaningful and valuable (Maduku, 2024).

Additionally, Böhm (2003) mentioned that specific emotions, like: fear, guilt, and moral outrage are powerful drivers of environmental risk perception and behavioral intentions. These emotions are more activated in individuals who are already involved in ecological issues. Therefore, when emotionally framed ads highlight the ethical or emotional dimensions of environmental responsibility, such messages resonate more strongly with environmentally concerned consumers, thereby increasing the ad's perceived relevance and persuasive power.

Similarly, consumers with strong environmental concern are more emotionally engaged with green advertisements because the message aligns with their values and priorities. According to Li (2025), individuals who are highly aware of environmental issues are not only more inclined to seek out eco-friendly products, but also more likely to respond favorably to advertisements that communicate environmental benefits.

This responsiveness is amplified when emotional appeals are used, as they create a sense of personal relevance and ethical urgency. In this context, green advertising is perceived not just as persuasive communication, but as a reaffirmation of the consumer's identity and moral stance, thereby increasing its perceived value (Li, 2025). In base of this information, we formulate the following hypothesis:

H4b: *Consumers' environmental concern positively moderates the relationship between green advertisements' emotional appeal and the perceived value of advertising.*

Consumers who are highly involved in environmental issues tend to be more accurate when evaluating the credibility of green advertisements. Okada et al. (2019) found that environmental awareness directly influences consumers' decision-making in the context of sustainable technologies, such as electric vehicles.

Importantly, these consumers rely not only on the product's environmental claims, but also on the perceived sincerity and trustworthiness of the message (credibility). As such, green advertising is more likely to be valued by environmentally concerned individuals, because it affirms their beliefs (Okada et al., 2019).

The role of message credibility becomes even more pronounced when advertising is processed in affective environments. Aylesworth & MacKenzie (1998) argue that consumers' mood and cognitive engagement are shaped by the media context in which an ad appears, which can affect how ad content, including credibility, is interpreted. For consumers with high environmental concerns, the credibility of a green ad may not only depend on the message itself, but also on how congruent and authentic it feels within its broader context. When the mood or narrative context supports environmental themes, these consumers are more likely to perceive the message as valuable.

In the area of green product advertising, visual and structural elements also shape perceived credibility. Wenting et al. (2022) emphasize that contextual factors like: advertisement design and framing (for instance: color, layout, and product type) significantly influence how consumers evaluate green product claims. For those with elevated environmental concern, these design features act as signals of credibility. A professionally presented, visually coherent green advertisement may enhance trust and, as a result, its perceived value. Environmental concern thus acts as a filter that amplifies the impact of ad credibility on consumers' perceptions of advertising effectiveness, reason why we suggested the following hypothesis:

H4c: *Consumers' environmental concern positively moderates the relationship between green advertisements' credibility and the perceived value of advertising.*

3.3. The impact of perceived value of advertising on consumer behavior

The relationship between PVA and brand attachment was examined by Yuxing et al. (2018), who analyze how various types of advertising affect brand attitudes across 575 brands. Their findings reveal that perceived value significantly increases because of advertising, particularly through digital and local traditional media. Additionally, the study underscores

that consumer perceptions of value, shaped by consistent advertising, are critical predictors of deeper behavioral outcomes, like brand preference and loyalty, a foundation for emotional attachment.

Moreover, Petravičiūtė et al. (2021) showed that perceived value is a strong antecedent of emotional brand attachment in the luxury brand context. They demonstrated that consumers who perceive high value in a brand are more likely to feel emotionally connected to it. Their investigation supports the mediating role of emotional attachment between perceived value and behavior, affirming that value-driven perceptions are key to developing affective connections with brands.

Similarly, Liu et al. (2020) demonstrate how various value dimensions (functional, symbolic, and hedonic) contribute to sentimental value, which in turn mediates the formation of emotional brand attachment. Though their study focuses on hotel brands, the conceptual insights was that consumer perceptions of value, often influenced through advertising narratives, activate sentimental evaluations that enhance attachment.

Multidimensional conceptualization of perceived value (functional, emotional, and social) further emphasizes the complexity of consumer responses to brand messaging. While not only focused on advertising, previous research also suggests that when authenticity and perceived value are high, consumers are more inclined to emotionally connect with brands, even under adverse circumstances (Papadopoulou et al., 2023). These findings reinforce the broader theoretical framework where perceived value serves as a trigger for emotional attachment (Papadopoulou et al., 2023). Reason why, we proposed the following hypothesis:

H5: *The perceived value of advertising positively influences brand emotional attachment.*

Empirical research suggests that perceived value significantly influences brand identification. Engalina & Laulita (2024) examine smartphone market in Indonesia and demonstrate that the perceived value has a direct and significant effect on how consumers identify with a brand. The research highlights that when consumers feel that they are

receiving value from a brand's offerings, they are more inclined to associate themselves with that brand.

In the context of cross-border e-commerce the perceived value acts as a key mediator between brand characteristics and consumer-brand identification. Li et al. (2024) demonstrate that both functional and emotional perceived value influence the consumer's psychological alignment with a brand. The study positions perceived value as a bridge between how a brand is presented and how consumers come to see themselves in relation to that brand across cultural contexts.

Additionally, Sichtmann et al. (2019) reveal that advertising strategies emphasizing brand's global reach or local authenticity, contribute to consumers' identification with the brand, not only through quality perceptions, but also by activating and motivating deeper emotional connections. This reinforces the idea that perceived value, especially when communicated effectively through advertising, serves as a foundation for identity-driven brand relationships.

On the other hand, Lam et al. (2013) provide insight into how perceived quality and brand congruity (both influenced by advertising) contribute to the growth of consumer-brand identification over time. The symbolic alignment and perceived utility combine to build identification that is not fleeting but reinforce with continued positive value communication. This underscores the importance of perceived value, as conveyed through consistent and strategic advertising, in cultivating consumer-brand connections. Therefore, we formulated the following hypothesis:

H6: *The perceived value of advertising positively influences brand identification.*

The perceived value of advertising plays a significant role in the purchase intention context. PVA is the most influential factor that captures attention and enhances consumer decision-making (Ahmad et al., 2024). This supports the idea that consumers are more likely to choose one brand when they perceive tangible or emotional value in advertisements (Ahmad et al., 2024).

Moreover, Balaji & Maheswari (2021) affirm that perceived value acts as a decisive determinant of purchase intention. Their research in the Indian retail context revealed that store image attributes affect shopper attitude, which in turn shapes their perceived value and subsequent buying intention.

Adding a broader psychological perspective, Liao et al. (2022) explored how PVA contributes to purchase intention. Their moderated mediation model emphasized that consumers' perceptions are not only based on the product or service but also on how these offerings are communicated. In other words, how advertising transmits perceived value. Together, these findings underscore an important insight: when advertising is perceived as having higher value, it motivates purchasing behavior. All things considered; we proposed the following hypothesis:

H7: *The perceived value of advertising positively influences purchase intention.*

3.4 The influence of brand emotional attachment and brand identification on purchase intention

Previous research demonstrates that emotional attachment to a brand plays a crucial role inside consumer decision-making process because there is a significant and positive relationship between brand emotional attachment and purchase intention, especially in the context of low-involvement convenience products. This suggests that the emotional ties consumers form with familiar and easily accessible brands can lead directly to repeated purchase behavior (Gilal et al., 2021).

Expanding on this, Shimul (2022), in a comprehensive literature review, consolidates findings from over 170 studies and confirms that emotional attachment to brands consistently correlates with increased purchase intention across various product and cultural contexts. The review also clarifies that attachment enhances a brand's relevance to the consumer's identity, and as a result, reinforces repeat purchase decisions.

Furthermore, research by Natalia et al. (2021) in the cosmetics industry showed that emotional attachment mediates the relationship between celebrity endorsements and

purchase intentions. This study found that when consumers emotionally bond with a brand, the likelihood of them making a purchase increase significantly.

Moreover, Mnqanqeni & Shava (2023) highlighted the unique contribution of brand emotional attachment in predicting repurchase intentions. Their research, set in the South African context, confirms that emotional brand attachment has a statistically significant impact on consumers' intent to buy again. This supports the notion that fostering emotional connections with customers can be a robust strategy for increasing purchase behavior, which leads to formulating the following hypothesis:

H8: *Brand emotional attachment positively influences purchase intention.*

According to Aziz & Ahmed (2023), brand identification is a powerful predictor of customer behavior. Their study demonstrates that consumer brand identification directly influences purchase intention, and that this relationship is partially mediated by customer brand engagement. This means that consumers who see a brand as reflective of their identity are not only more emotionally engaged but also more likely to intend to purchase it.

After that, Acar et al. (2024) further validate this link in a multicultural context by emphasizing how brand identity aligns with individual lifestyle and self-concept. Their research confirms that a strong brand identity enhances brand-lifestyle congruence and brand satisfaction. These constructs, in turn, significantly increase repurchase intention.

Additionally, Chen et al. (2022) offer a detailed understanding by distinguishing between identification with the brand and identification with other users of the brand's social media pages. Their dual identification model reveals that brand identification is especially effective for promotion-focused consumers, as it fulfills their aspirations for achievement and self-expression. These consumers are more inclined to repurchase brands that align with their personal goals and social identities. When brands succeed in becoming part of the consumer's identity, they increase both engagement and behavioral loyalty, therefore we proposed the following hypothesis:

H9: *Brand identification positively influences purchase intention.*

4. Methodology

4.1. Sampling Procedure

Data was collected through an online survey created using Google Forms, conducted between December 2024 and February 2025. The questionnaire was originally written in English and later translated into Portuguese and Spanish to effectively perform the study. The survey includes variables designed to examine the impact of green advertising within a cross-cultural context, focusing on how it is perceived in each country.

The key variables used for the conceptual framework were identified during the literature review and are measured using validated scales that have been applied in previous academic research. The Portuguese and Ecuadorian versions of the survey were distributed through multiple channels. This included: word-of-mouth sharing (primarily friends of friends), and postings the links on Facebook and Instagram pages of universities in both countries. Additionally, the Portuguese version was distributed to students at the Polytechnic Institute of Leiria and shared with individuals at academic events.

As a result of this strategy, an important number of participants from both Portugal and Ecuador were reached. Ultimately, a total of 410 valid responses were collected: 202 from Portugal and 208 from Ecuador.

4.2. Questionnaire development and Pre-test

The survey was initially designed in English. However, the Portuguese and Spanish versions were used for preliminary testing. In November 2024, each translated version was sent to a sample of 10 participants to gather feedback on the clarity of the questions and statements, the overall structure of the questionnaire, and to identify any errors. This testing phase also allowed the evaluation of logical flow and average completion time, with the purpose of producing improved final versions.

Both the Portuguese and Spanish surveys were subsequently reviewed by seven individuals to correct any issues related to language use, meaning, and grammar. The

finalized survey was organized into three main sections: (1) environmental concern, (2) personal opinions about a brand and its advertising, including perceptions of the measured variables, and (3) demographic information.

Before proceeding to the second section, participants were asked to name a brand that came to mind when they thought of green advertising. The subsequent questions in section two were then answered based on that selected brand. Respondents were required to choose only one answer per question, and completion of all survey questions was mandatory. A copy of the final English version of the questionnaire is available in Appendix A.

4.3.Measures

The following variables were selected to examine green advertising and its influence on consumer behaviour. These variables emerged from a comprehensive review of academic literature related to the topic.

Participants were asked to assess 44 individual items corresponding to the selected variables, using a five-point Likert scale (1 = "strongly disagree", 2 = "disagree", 3 = "neutral", 4 = "agree", 5 = "strongly agree").

Table 4.1. presents the variables included in the study with the corresponding items and their original sources:

Table 4.1 Variables and its measures

| Variable | Items | Adapted from |
|------------------------------|---|-------------------------|
| Environmental Concern | <ol style="list-style-type: none"> 1. I am concerned about the environment. 2. The condition of the environment affects the quality of my life. 3. I am willing to make sacrifices to protect the environment. | (Roberts & Bacon, 1997) |

| | | |
|---------------------------------------|---|--|
| | 4. My actions impact the environment. | |
| Green ad Informativeness | <ol style="list-style-type: none"> 1. Advertisements supply relevant information on products. 2. Advertising provides timely information on products. 3. Advertisements tell people about products when they need the information. | (Ducoffe, 1995) |
| Green ad Emotional | <ol style="list-style-type: none"> 1. This ad makes me feel excited and stimulated. 2. The ad gives me a sense of peace and calm. 3. This ad makes me feel relaxed and friendly. | (Edell & Chapman Burke, n.d.) and (Holbrook & Batra, 1987) |
| Green ad Credibility | <ol style="list-style-type: none"> 1. I use advertisements as a reference for purchasing. 2. I trust advertisements. | (Liang, 2004) |
| Perceived value of advertising | <ol style="list-style-type: none"> 1. The ad of the brand X was useful to me. 2. The ad of brand X was valuable to me. 3. The ad of brand X was an important source of information to me. | (Zeng et al., 2009) |
| Purchase intention | <ol style="list-style-type: none"> 1. I consider brand X to be my first choice in buying services or products. 2. I would buy more products of brand X in the future. | (Zeithaml et al., 1996) |

| | | |
|-----------------------------------|---|----------------------------|
| | <ol style="list-style-type: none"> 3. I would consider purchasing the product of brand X in the short term. 4. I would consider purchasing the product of brand X in the long term. | |
| Brand identification | <ol style="list-style-type: none"> 1. I like what this brand stands for. 2. This brand has an attractive identity. 3. I recognize myself in this brand. 4. My sense of who I am matches my sense of this brand. | (Bhattacharya & Sen, 2003) |
| Brand emotional attachment | <ol style="list-style-type: none"> 1. This brand reflects who I am as a person. 2. I feel a deep attachment to this brand. 3. I am loyal to this brand because it aligns with my values. | (Malär et al., 2011) |

4.4. Common method bias

Common method bias was assessed using exploratory factor analysis (Podsakoff et al., 2003). The results did not indicate the presence of a single factor accounting for the majority of variance in either the Portuguese or Ecuadorian samples. In the Portuguese sample, the analysis resulted in 4 factors with Eigenvalues above 1, with the first factor explaining around 33% of the variance – Table 4.2. In the Ecuadorian sample, the analysis resulted in 5 factors with Eigenvalues above 1, with the first factor explaining around 31% of the variance – Table 4.3. Therefore, it can be concluded that common method bias is not a concern in this dataset.

Table 4.2 Common Method Portuguese Sample

| Component | Initial Eigenvalues | | |
|-----------|---------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % |
| 1 | 33,049 | 70,316 | 70,316 |
| 2 | 1,949 | 4,147 | 74,464 |
| 3 | 1,563 | 3,326 | 77,790 |
| 4 | 1,064 | 2,264 | 80,054 |
| 5 | 0,953 | 2,027 | 82,081 |
| 6 | 0,745 | 1,585 | 83,666 |
| 7 | 0,580 | 1,233 | 84,899 |
| 8 | 0,560 | 1,192 | 86,091 |
| 9 | 0,513 | 1,091 | 87,182 |
| 10 | 0,501 | 1,066 | 88,247 |
| 11 | 0,465 | 0,989 | 89,236 |
| 12 | 0,418 | 0,889 | 90,126 |
| 13 | 0,355 | 0,756 | 90,882 |
| 14 | 0,312 | 0,664 | 91,545 |
| 15 | 0,291 | 0,620 | 92,165 |
| 16 | 0,282 | 0,601 | 92,766 |
| 17 | 0,247 | 0,526 | 93,292 |
| 18 | 0,243 | 0,517 | 93,809 |
| 19 | 0,218 | 0,464 | 94,273 |
| 20 | 0,199 | 0,423 | 94,697 |
| 21 | 0,188 | 0,401 | 95,097 |
| 22 | 0,175 | 0,373 | 95,470 |
| 23 | 0,166 | 0,353 | 95,823 |
| 24 | 0,157 | 0,334 | 96,157 |
| 25 | 0,142 | 0,303 | 96,460 |
| 26 | 0,138 | 0,293 | 96,753 |
| 27 | 0,127 | 0,270 | 97,023 |
| 28 | 0,118 | 0,252 | 97,275 |
| 29 | 0,109 | 0,233 | 97,508 |
| 30 | 0,108 | 0,230 | 97,738 |
| 31 | 0,097 | 0,206 | 97,944 |
| 32 | 0,094 | 0,201 | 98,145 |
| 33 | 0,090 | 0,191 | 98,336 |
| 34 | 0,085 | 0,180 | 98,516 |
| 35 | 0,081 | 0,172 | 98,688 |
| 36 | 0,075 | 0,159 | 98,847 |
| 37 | 0,069 | 0,146 | 98,993 |

| | | | |
|----|-------|-------|---------|
| 38 | 0,068 | 0,145 | 99,137 |
| 39 | 0,062 | 0,132 | 99,269 |
| 40 | 0,056 | 0,120 | 99,389 |
| 41 | 0,052 | 0,110 | 99,499 |
| 42 | 0,050 | 0,106 | 99,605 |
| 43 | 0,043 | 0,092 | 99,697 |
| 44 | 0,041 | 0,087 | 99,784 |
| 45 | 0,038 | 0,080 | 99,864 |
| 46 | 0,033 | 0,070 | 99,935 |
| 47 | 0,031 | 0,065 | 100,000 |

Table 4.3 Common Method Bias Ecuadorian Sample

| Component | Initial Eigenvalues | | |
|-----------|---------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % |
| 1 | 30,902 | 65,750 | 65,750 |
| 2 | 3,001 | 6,386 | 72,135 |
| 3 | 2,143 | 4,560 | 76,695 |
| 4 | 1,206 | 2,566 | 79,261 |
| 5 | 1,055 | 2,245 | 81,506 |
| 6 | 0,865 | 1,839 | 83,346 |
| 7 | 0,796 | 1,694 | 85,039 |
| 8 | 0,725 | 1,543 | 86,583 |
| 9 | 0,619 | 1,317 | 87,900 |
| 10 | 0,498 | 1,060 | 88,960 |
| 11 | 0,439 | 0,934 | 89,894 |
| 12 | 0,345 | 0,734 | 90,628 |
| 13 | 0,340 | 0,723 | 91,351 |
| 14 | 0,327 | 0,696 | 92,047 |
| 15 | 0,279 | 0,594 | 92,641 |
| 16 | 0,264 | 0,561 | 93,202 |
| 17 | 0,237 | 0,504 | 93,706 |
| 18 | 0,229 | 0,488 | 94,194 |
| 19 | 0,209 | 0,444 | 94,638 |
| 20 | 0,196 | 0,416 | 95,054 |
| 21 | 0,183 | 0,390 | 95,445 |
| 22 | 0,173 | 0,369 | 95,814 |
| 23 | 0,162 | 0,344 | 96,157 |
| 24 | 0,149 | 0,316 | 96,474 |
| 25 | 0,141 | 0,300 | 96,774 |
| 26 | 0,129 | 0,274 | 97,048 |

| | | | |
|----|-------|-------|---------|
| 27 | 0,124 | 0,264 | 97,311 |
| 28 | 0,115 | 0,244 | 97,556 |
| 29 | 0,108 | 0,230 | 97,786 |
| 30 | 0,101 | 0,215 | 98,002 |
| 31 | 0,094 | 0,199 | 98,201 |
| 32 | 0,090 | 0,192 | 98,392 |
| 33 | 0,084 | 0,179 | 98,571 |
| 34 | 0,078 | 0,166 | 98,737 |
| 35 | 0,075 | 0,159 | 98,896 |
| 36 | 0,069 | 0,146 | 99,042 |
| 37 | 0,065 | 0,138 | 99,180 |
| 38 | 0,057 | 0,121 | 99,301 |
| 39 | 0,052 | 0,110 | 99,411 |
| 40 | 0,046 | 0,098 | 99,508 |
| 41 | 0,044 | 0,094 | 99,603 |
| 42 | 0,039 | 0,082 | 99,685 |
| 43 | 0,037 | 0,078 | 99,763 |
| 44 | 0,035 | 0,074 | 99,838 |
| 45 | 0,032 | 0,067 | 99,905 |
| 46 | 0,023 | 0,050 | 99,954 |
| 47 | 0,021 | 0,046 | 100,000 |

4.5. Non-response bias

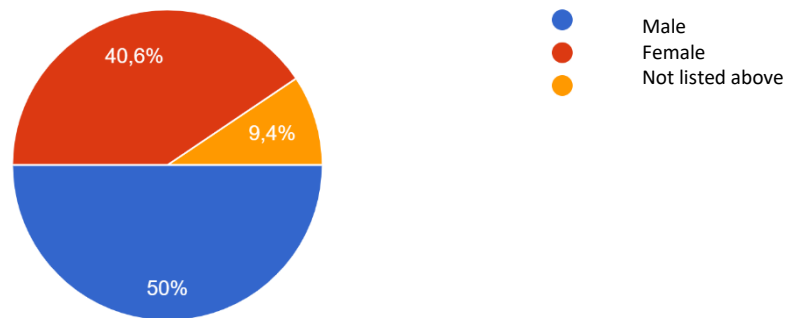
To assess non-response bias, early and late respondents, defined as the first 75% and the last 25% of returned questionnaires, respectively, were compared across all constructs of the conceptual model in both the Portuguese and Ecuadorian samples (Armstrong & Overton, 1977). Non-significant differences were found between the two groups.

4.6. Sample profile

The survey included a demographic section aimed at obtaining deeper insights into the participants' profiles and better characterizing the sample. This section consisted of questions related to participants' opinions, gender, nationality, age, and level of education. Overall, the study focuses on the Portuguese and Ecuadorian markets. In the following section, the demographic profile of each market will be examined, beginning with the Portuguese market.

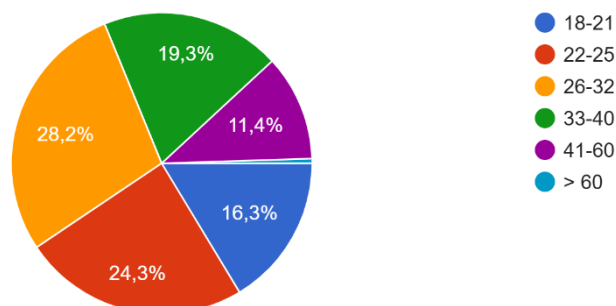
The Portuguese sample profile consists of 202 individuals that participated in the survey, whereby 40,6 % are female, 50% are male, and 9,4% that does not identify either gender (Graph 4.1). It can be concluded that there are more male participants in the survey.

Graph 4.1 Sample Profile by Gender Portugal



The age distribution in the pie chart is divided into six groups, with most showing significant levels of participation. The largest segment of Portuguese respondents falls within the 26–32 age group (28.2%), followed by the 22–25 group (24.3%) as the second largest. The third most represented group is 33–40 years old (19.3%), followed by the 18–21 age group (16.3%) and the 41–60 group (11.4%). No single age group dominates the chart. A small portion of respondents were over 60 years old. (Graph 4.2).

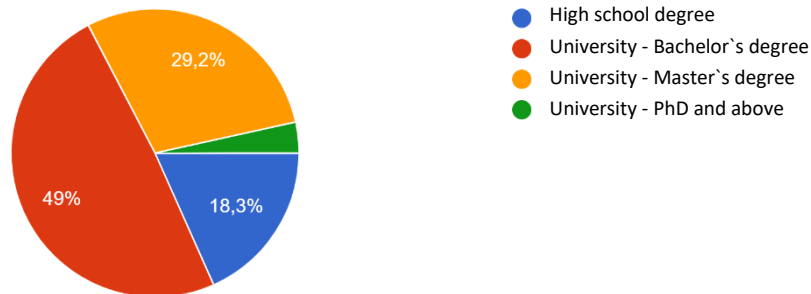
Graph 4.2 Sample Profile by Age Portugal



Regarding the highest level of education within the Portuguese sample, 49% of participants hold a university bachelor's degree, followed by 29.2% who have completed a master's

degree. Additionally, 18.3% have a high school diploma, while 3.5% have attained a PhD and above (Graph 4.3).

Graph 4.3 Sample Profile by Level of Education Portugal

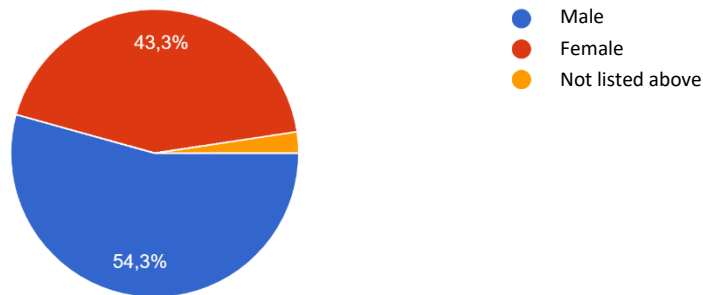


As previously mentioned, participants were asked to name a brand they associate with green advertising. The table 4.4 presents the five most frequently mentioned brands within the Portuguese sample. Continente was the most cited, chosen by approximately 14.86% of respondents, followed by Pingo Doce with 4.46%. Notably, all five of the top-mentioned brands are Portuguese.

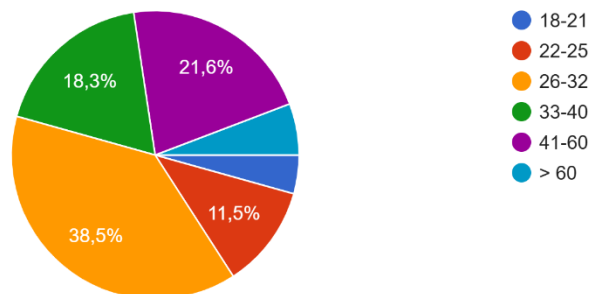
Table 4.4 Top 5 most mentioned brands Portugal

| Brand | Mentions |
|------------|----------|
| Continente | 30 |
| Pingo Doce | 9 |
| Luso | 7 |
| Compal | 7 |
| Worten | 6 |

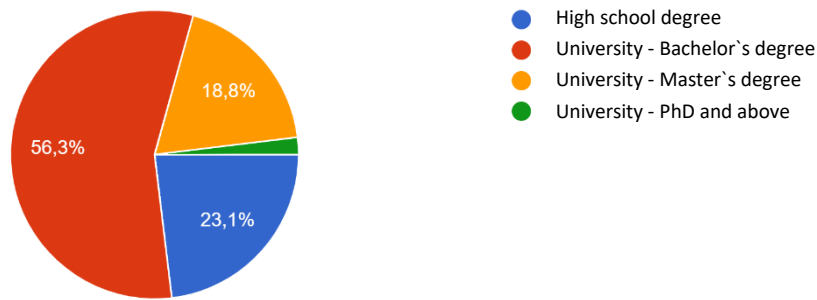
The Ecuadorian sample is composed of 208 participants in total. Among them, 54.3% identified as male, 43.3% as female, and less than 3% selected “Not listed above” (Graph 4.4). Overall, the gender distribution within the Ecuadorian sample is relatively balanced, with a nearly equal representation of male and female respondents.

Graph 4.4 Sample Profile by Gender Ecuador

Most participants fall within the 26–32 age group (38.5%) and the 41–60 age group (21.6%). The third most represented segment is the 33–40 age group, accounting for 18.3% of the sample. This is followed by the 22–25 age group at 11.5%, while the remaining two age categories each represent less than 6% of the total (Graph 4.5).

Graph 4.5 Sample Profile by Age Ecuador

In terms of educational background, most of the Ecuadorian sample (56.3%) holds a university bachelor's degree. Additionally, 23.1% have completed high school, while 18.8% possess a university master's degree. Only a small portion of respondents (1.9%) hold a PhD (Graph 4.6).

Graph 4.6 Sample Profile by Level of Education Ecuador

Ecuadorian participants were also asked to name a brand they associate with green advertising. The table below displays the five most frequently mentioned brands. Supermaxi and Nestlé were each cited 15 times, representing approximately 7.21% of the total sample. They were followed by Trü, Holcim, and Coca-Cola, each mentioned 11 times (5.29%), and Dasani, mentioned 7 times (3.37%) (Table 4.5). Among these, Supermaxi and Trü are Ecuadorian brands, while Coca-Cola and Dasani originate from the United States, and Holcim and Nestlé are a Swiss company.

Table 4.5 Top 5 most mentioned brands Ecuador

| Brands | Mentions |
|----------------------------|-----------------|
| Supermaxi / Nestlé | 15 |
| Trü/ Holcim / Coca-Cola | 11 |
| Dasani | 7 |

5. Data analysis

5.1. Descriptive analysis

A descriptive analysis was conducted to gain a clearer understanding of the content and behaviour of each variable and its associated items within the research. For this study, the mean and standard deviation for each item were calculated using Microsoft Excel (Table 5.1). Additionally, the internal consistency of each construct was examined. This is typically measured by the degree of correlation among items intended to assess the same underlying concept. To evaluate internal reliability, Cronbach's Alpha was applied, as it is the most used coefficient.

While it is commonly recommended that Cronbach's Alpha values exceed 0.7 for acceptable reliability (Churchill, 1979), other studies suggest that values above 0.6 may also be considered sufficient, depending on the context of the research and the early stage of scale development (Gliem & Gliem, 2003). As shown in Table 5.2, all calculated Alpha values exceed 0.7, indicating that the measurement used in this study demonstrate consistency for the Portuguese and Ecuadorian samples.

Table 5.1 Descriptive Statistic Analysis of the Construct

| Construct | Items | Portugal | | Ecuador | |
|-----------------------|---|----------|--------------------|---------|--------------------|
| | | Mean | Standard Deviation | Mean | Standard Deviation |
| Environmental Concern | 1. I am concerned about the environment. | 3,9059 | 1,1870 | 3,9087 | 1,3500 |
| | 2. The condition of the environment affects the quality of my life. | 3,7921 | 1,1913 | 3,8846 | 1,2726 |
| | 3. I am willing to make sacrifices to protect the environment. | 3,6535 | 1,1455 | 3,7212 | 1,2963 |
| | 4. My actions impact the environment. | 3,6931 | 1,2358 | 3,6394 | 1,3260 |

| | | | | | |
|---------------------------------------|---|--------|--------|--------|--------|
| Green ad informativeness | 1. This brand's advertisements supply relevant information on products. | 3,6683 | 1,1125 | 3,5817 | 1,1889 |
| | 2. This brand's advertising provides timely information on products. | 3,6188 | 1,0548 | 3,5577 | 1,1616 |
| | 3. This brand's advertisements tell people about products when they need the information. | 3,5990 | 1,0756 | 3,5096 | 1,1754 |
| Green ad emotional | 1. This ad makes me feel excited and stimulated. | 3,3317 | 1,1564 | 3,2788 | 1,2155 |
| | 2. The ad gives me a sense of peace and calm. | 3,4158 | 1,0951 | 3,4375 | 1,1696 |
| | 3. This ad makes me feel relaxed and friendly. | 3,5396 | 1,1201 | 3,4615 | 1,2072 |
| Green ad credibility | 1. I use this brand's advertisements as a reference for purchasing. | 3,3168 | 1,1670 | 3,4519 | 1,1826 |
| | 2. I trust this brand's advertisements. | 3,5495 | 1,1197 | 3,4712 | 1,2155 |
| Perceived value of advertising | 1. The ad of this brand was useful to me. | 3,6733 | 1,1513 | 3,4712 | 1,1995 |
| | 2. The ad of this brand was valuable to me. | 3,3911 | 1,0369 | 3,3558 | 1,1992 |
| | 3. The ad of this brand was an important source of information to me. | 3,4554 | 1,0653 | 3,3606 | 1,1917 |

| | | | | | |
|-----------------------------------|--|--------|--------|--------|--------|
| Purchase intention | 1. I consider this brand to be my first choice in buying services or products. | 3,3861 | 1,1630 | 3,4519 | 1,1948 |
| | 2. I would buy more products of this brand in the future. | 3,6386 | 1,0665 | 3,5481 | 1,1989 |
| | 3. I would consider purchasing the product of this brand in the short term. | 3,5297 | 1,1380 | 3,5433 | 1,1664 |
| | 4. I would consider purchasing the product of this brand in the long term. | 3,6287 | 1,0677 | 3,5337 | 1,1994 |
| Brand identification | 1. I like what this brand stands for. | 3,6535 | 1,1057 | 3,5865 | 1,1927 |
| | 2. This brand has an attractive identity. | 3,6931 | 1,1351 | 3,5673 | 1,1939 |
| | 3. I recognize myself in this brand. | 3,4950 | 1,1643 | 3,4519 | 1,1826 |
| | 4. My sense of who I am matches my sense of this brand. | 3,3119 | 1,1446 | 3,3846 | 1,2063 |
| Brand emotional attachment | 1. This brand reflects who I am as a person. | 3,2475 | 1,0919 | 3,4205 | 1,2397 |
| | 2. I feel a deep attachment to this brand. | 3,2129 | 1,1059 | 3,2212 | 1,2661 |
| | 3. I am loyal to this brand because it aligns with my values. | 3,1931 | 1,1230 | 3,2885 | 1,2678 |

Table 5.2 Cronbach's Alpha

| Construct | Portugal | Ecuador |
|---------------------------------------|-----------------|----------------|
| Environmental Concern | 0,957 | 0,943 |
| Green ad Informativeness | 0,959 | 0,955 |
| Green ad Emotional | 0,960 | 0,951 |
| Green ad Credibility | 0,895 | 0,940 |
| Perceived value of advertising | 0,937 | 0,961 |
| Purchase intention | 0,959 | 0,963 |
| Brand identification | 0,957 | 0,967 |
| Brand emotional attachment | 0,968 | 0,965 |

5.2. Validity and Reliability of the Measures and Structural Evaluation

The data analysis in this study was conducted using Structural Equation Modeling (SEM) via Partial Least Squares (PLS) methodology, employing the SmartPLS 4.1.0 software (Ringle, Wende & Becker, 2024). SEM, a multivariate analytical technique commonly applied in social science research, was chosen due to its capacity to model and test complex relationships between observed indicators and variables (Suhr, 2006).

PLS, as an SEM technique, is particularly advantageous for estimating models without relying on distributional assumptions, making it suitable for prediction purposes (Hulland, 1999). Additionally, the assessment of the PLS model begins with the evaluation of the measurement model, ensuring the reliability and validity of the constructs, and proceeds with the structural model analysis for each market segment.

To initiate the analysis, graphical diagrams were developed for both market samples (Figure 5.1 and Figure 5.2), visually representing the SEM models. In these diagrams, rectangles represent measured variables, circles represent latent constructs, and arrows illustrate hypothesized directional relationships among the variables (Suhr, 2006.).

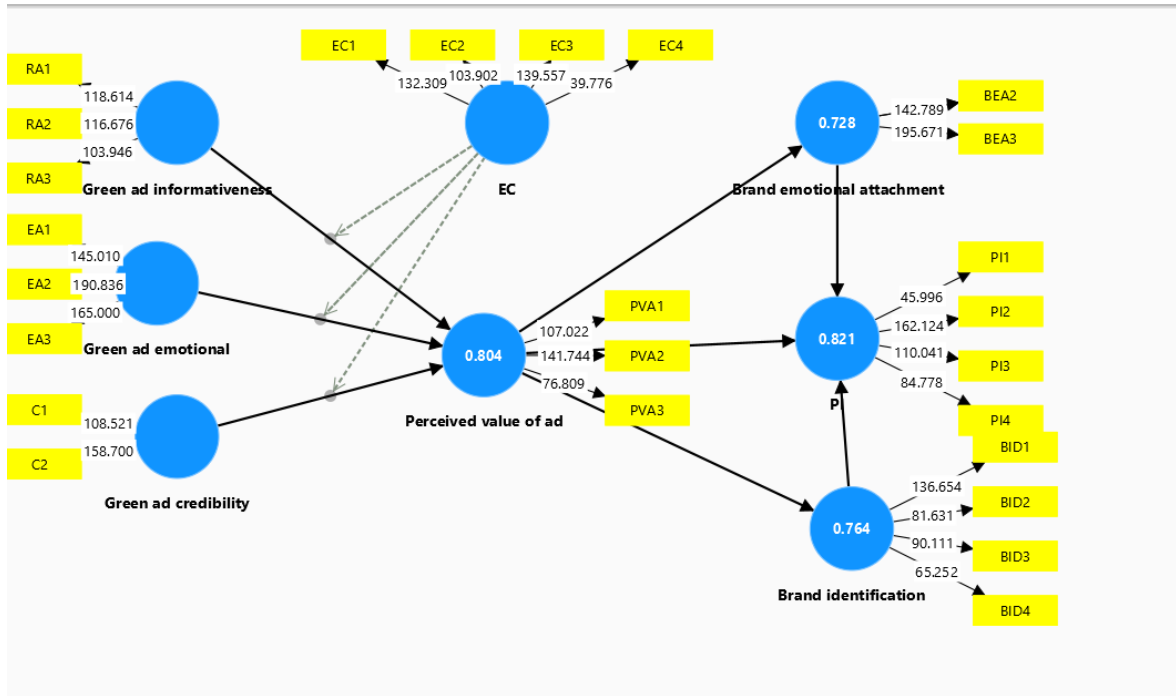


Figure 5.1 Reliability and Validity of the Model (Portuguese sample)

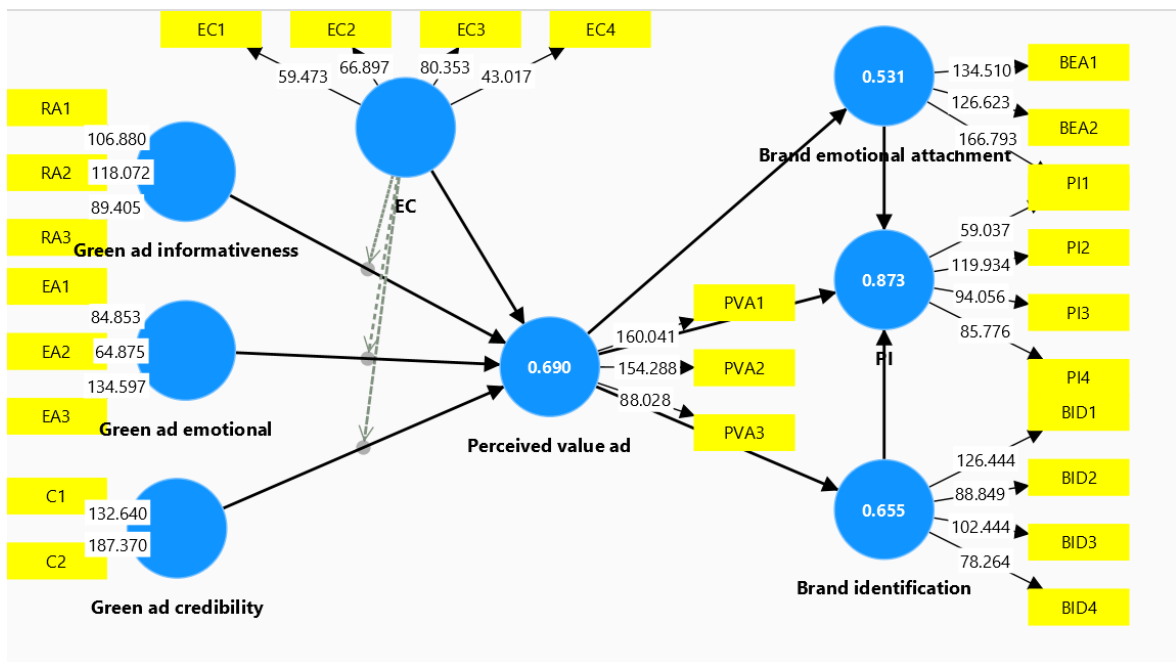


Figure 5.2 Reliability and Validity of the Model (Ecuadorian sample)

5.2.1. Reliability of the items

The evaluation of model started with an item-level assessment, focusing on the correlation between each variable and its associated construct. This step reflects that the indicator shares more variance with its corresponding construct than it does with measurement error. In structural models, factor loadings represent standardized regression coefficients, illustrated by the directional arrows from each observed item to its associated latent variable.

According to accepted guidelines, loadings of 0.70 or higher indicate that the indicator shares more variance with the construct than with measurement error (Hair et al., 2020).

All variables included in this study exhibited loadings exceeding the 0.70 (as presented in Tables 5.3 and 5.4), thereby confirming their item reliability and reinforcing the measurement model. As Hair et al. (2020) note, loadings above this point are essential for ensuring that the constructs are well-represented by their indicators in reflective measurement models.

Table 5.3 Reliability of Items for the Portuguese Sample

| Construct | Items | Factor Loading | Cronbach Alpha | Composite Reliability | AVE | R² |
|------------------------------|---|-----------------------|-----------------------|------------------------------|------------|----------------------|
| Environmental Concern | 1. I am concerned about the environment. | 0,952 | 0,9574 | 0,9691 | 0,8870 | - |
| | 2. The condition of the environment affects the quality of my life. | 0,949 | | | | |
| | 3. I am willing to make sacrifices to protect the environment. | 0,954 | | | | |
| | 4. My actions impact the environment. | 0,911 | | | | |
| Green advertisements | 1. This brand's advertisements supply relevant information on products. | 0,961 | 0,9587 | 0,9732 | 0,9237 | - |

| | | | | | | |
|---------------------------------------|---|-------|--------|--------|--------|----------|
| | 2. This brand's advertising provides timely information on products. | 0,966 | | | | |
| | 3. This brand's advertisements tell people about products when they need the information. | 0,957 | | | | |
| Green ad Emotional | 1. This ad makes me feel excited and stimulated. | 0,961 | 0,9600 | 0,9740 | 0,9259 | - |
| | 2. The ad gives me a sense of peace and calm. | 0,968 | | | | |
| | 3. This ad makes me feel relaxed and friendly. | 0,958 | | | | |
| Green ad Credibility | 1. I use this brand's advertisements as a reference for purchasing. | 0,947 | 0,8952 | 0,9501 | 0,9050 | - |
| | 2. I trust this brand's advertisements. | 0,955 | | | | |
| Perceived value of advertising | 1. The ad of this brand was useful to me. | 0,939 | 0,9368 | 0,9596 | 0,8879 | 0,803994 |
| | 2. The ad of this brand was valuable to me. | 0,955 | | | | |
| | 3. The ad of this brand was an important source of information to me. | 0,933 | | | | |
| Purchase intention | 1. I consider this brand to be my first choice in buying services or products. | 0,905 | 0,9588 | 0,9701 | 0,8904 | 0,821353 |

| | | | | | | |
|-----------------------------------|---|-------|--------|--------|--------|----------|
| | 2. I would buy more products of this brand in the future. | 0,965 | | | | |
| | 3. I would consider purchasing the product of this brand in the short term. | 0,952 | | | | |
| | 4. I would consider purchasing the product of this brand in the long term. | 0,951 | | | | |
| Brand identification | 1. I like what this brand stands for. | 0,951 | 0,9567 | 0,9686 | 0,8853 | 0,763774 |
| | 2. This brand has an attractive identity. | 0,940 | | | | |
| | 3. I recognize myself in this brand. | 0,959 | | | | |
| | 4. My sense of who I am matches my sense of this brand. | 0,912 | | | | |
| Brand emotional attachment | 1. This brand reflects who I am as a person. | 0,962 | 0,9676 | 0,9788 | 0,9391 | 0,727914 |
| | 2. I feel a deep attachment to this brand. | 0,973 | | | | |
| | 3. I am loyal to this brand because it aligns with my values. | 0,972 | | | | |

Table 5.4 Reliability of Items for the Ecuadorian Sample

| Construct | Items | Factor Loading | Cronbach Alpha | Composite Reliability | AVE | R² |
|---------------------------------|---|-----------------------|-----------------------|------------------------------|------------|----------------------|
| Environmental Concern | 1. I am concerned about the environment. | 0,926 | 0,9426 | 0,9588 | 0,8534 | - |
| | 2. The condition of the environment affects the quality of my life. | 0,939 | | | | |
| | 3. I am willing to make sacrifices to protect the environment. | 0,940 | | | | |
| | 4. My actions impact the environment. | 0,890 | | | | |
| Green ad Informativeness | 1. This brand's advertisements supply relevant information on products. | 0,956 | 0,9551 | 0,9710 | 0,9177 | - |
| | 2. This brand's advertising provides timely information on products. | 0,966 | | | | |
| | 3. This brand's advertisements tell people about products when they need the information. | 0,952 | | | | |

| | | | | | | |
|---------------------------------------|--|-------|--------|--------|--------|---------|
| Green ad Emotional | 1. This ad makes me feel excited and stimulated. | 0,944 | 0,9509 | 0,9683 | 0,9107 | - |
| | 2. The ad gives me a sense of peace and calm. | 0,955 | | | | |
| | 3. This ad makes me feel relaxed and friendly. | 0,963 | | | | |
| Green ad Credibility | 1. I use this brand's advertisements as a reference for purchasing. | 0,969 | 0,9397 | 0,9707 | 0,9430 | - |
| | 2. I trust this brand's advertisements. | 0,973 | | | | |
| Perceived value of advertising | 1. The ad of this brand was useful to me. | 0,967 | 0,9606 | 0,9744 | 0,9270 | 0,69015 |
| | 2. The ad of this brand was valuable to me. | 0,967 | | | | |
| | 3. The ad of this brand was an important source of information to me. | 0,954 | | | | |
| Purchase intention | 1. I consider this brand to be my first choice in buying services or products. | 0,927 | 0,9630 | 0,9731 | 0,9004 | 0,87308 |
| | 2. I would buy more products of this brand in the future. | 0,964 | | | | |

| | | | | | | |
|-----------------------------------|---|-------|--------|--------|--------|---------|
| | 3. I would consider purchasing the product of this brand in the short term. | 0,956 | | | | |
| | 4. I would consider purchasing the product of this brand in the long term. | 0,949 | | | | |
| Brand identification | 1. I like what this brand stands for. | 0,960 | 0,9669 | 0,9758 | 0,9096 | 0,65481 |
| | 2. This brand has an attractive identity. | 0,958 | | | | |
| | 3. I recognize myself in this brand. | 0,951 | | | | |
| | 4. My sense of who I am matches my sense of this brand. | 0,946 | | | | |
| Brand emotional attachment | 1. This brand reflects who I am as a person. | 0,963 | 0,9649 | 0,9771 | 0,9344 | 0,53126 |
| | 2. I feel a deep attachment to this brand. | 0,970 | | | | |
| | 3. I am loyal to this brand because it aligns with my values. | 0,968 | | | | |

5.2.2. Convergent Validity

To conduct the analysis of the reliability of the constructs in this model, three complementary statistical indicators were utilized: Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Cronbach's alpha serves as a foundational metric for internal consistency, evaluating the degree to which items within a construct consistently represent the underlying variable (Cronbach, 1951). Additionally, composite reliability was also calculated, as it provides a more flexible estimation of internal consistency that accommodates varying item loadings (Fornell & Larcker, 1981).

Similarly, convergent validity was evaluated through the AVE, which determines the proportion of variance captured by a latent construct relative to measurement error (Larcker, 1981). An AVE above 0.50 suggests that, on average, the construct explains more than half of the variance in its indicators, an essential starting point for establishing convergent validity (Chin, 1998). As shown in Tables 5.3 and 5.4, all constructs exceeded the minimum standards across Cronbach's alpha (>0.70), composite reliability (>0.70), and AVE (>0.50) for both the Portuguese and Ecuadorian samples, with the lowest AVE values being 0.8853 and 0.8534, respectively. These results provide robust evidence supporting both the reliability and convergent validity of the measurement model (Hair et al., 2020).

5.2.3. Discriminant Validity

Discriminant validity complements convergent validity by ensuring that constructs intended to be unrelated, are. It assesses whether indicators measuring a specific construct are not strongly correlated with indicators of different constructs within the same structural model (Fornell & Larcker, 1981). In this study, discriminant validity was examined by comparing the square root of the Average Variance Extracted (AVE) for each construct with the correlations between that construct and others in the model (Fornell & Larcker, 1981).

Discriminant validity is established when the square root of the AVE for a construct exceeds the corresponding inter-construct correlations in the same row and column of the matrix. This indicates that each construct shares more variance with its associated indicators than with other constructs. The results, presented in Tables 5.5 and 5.6, confirm that all constructs

meet this requirement, thereby supporting the model's discriminant validity (Forner & Larcker, 1981).

Table 5.5 Discriminant Validity of the Portuguese Sample

| | Brand emotional attachment | Brand identification | EC | Green ad credibility | Green ad emotional | Green ad informativeness | PI | Perceived value of ad |
|----------------------------|----------------------------|----------------------|--------------|----------------------|--------------------|--------------------------|--------------|-----------------------|
| Brand emotional attachment | 0.969 | | | | | | | |
| Brand identification | 0.870 | 0.941 | | | | | | |
| EC | 0.679 | 0.799 | 0.942 | | | | | |
| Green ad credibility | 0.842 | 0.886 | 0.773 | 0.951 | | | | |
| Green ad emotional | 0.825 | 0.873 | 0.735 | 0.876 | 0.962 | | | |
| Green ad informativeness | 0.762 | 0.880 | 0.820 | 0.857 | 0.832 | 0.961 | | |
| PI | 0.805 | 0.899 | 0.764 | 0.870 | 0.848 | 0.847 | 0.944 | |
| Perceived value of ad | 0.853 | 0.874 | 0.757 | 0.852 | 0.862 | 0.816 | 0.843 | 0.942 |

Note: The scores in bold on the diagonal are the square root of AVE.

Table 5.6 Discriminant Validity of the Ecuadorian Sample

| | Brand emotional attachment | Brand identification | EC | Green ad credibility | Green ad emotional | Green ad informativeness | PI | Perceived value ad |
|----------------------------|----------------------------|----------------------|--------------|----------------------|--------------------|--------------------------|--------------|--------------------|
| Brand emotional attachment | 0.967 | | | | | | | |
| Brand identification | 0.886 | 0.954 | | | | | | |
| EC | 0.556 | 0.648 | 0.924 | | | | | |
| Green ad credibility | 0.828 | 0.894 | 0.588 | 0.971 | | | | |
| Green ad emotional | 0.855 | 0.886 | 0.620 | 0.912 | 0.954 | | | |
| Green ad informativeness | 0.758 | 0.867 | 0.650 | 0.885 | 0.868 | 0.958 | | |
| PI | 0.834 | 0.930 | 0.656 | 0.922 | 0.880 | 0.889 | 0.949 | |
| Perceived value ad | 0.729 | 0.809 | 0.647 | 0.785 | 0.748 | 0.790 | 0.802 | 0.963 |

Note: The scores in bold on the diagonal are the square root of AVE.

5.2.4. Evaluation of the Structural Model

Researchers are advised to assess the structural model through the R^2 statistic, which indicates the proportion of variance explained by each endogenous latent variable. As recommended by Falk (2014), R^2 values should ideally exceed 0.10 to reflect a minimally acceptable level of explanatory power. As shown in Tables 5.1 and 5.2, all dependent constructs in the model meet or closely approach.

In line with Falk (2014) framework, R^2 not only serves as a practical indicator of model quality but also plays a critical role in validating hypothesized relationships in models where traditional fit indices are unavailable. Moreover, they emphasize that while high R^2 values enhance confidence in a model's predictive relevance, these should be interpreted within the broader context of the model's theoretical coherence and measurement reliability.

5.2.5. Results Evaluation

In the following page, Table 5.7 provides a summary of the hypothesis testing conducted for the Portuguese market with an evaluation of the corresponding results.

Table 5.7 Hypotheses Verification for Portuguese Sample (two-tailed)

| Hypothesis | T-Value | Path Coefficient (β) | Result |
|---|----------|------------------------------|-----------|
| H1: The rational appeal (informativeness) of green advertisements positively influences the perceived value of advertising. | 2.504* | 0.193 | Supported |
| H2: The emotional appeal of green advertisements positively influences the perceived value of advertising. | 4.702*** | 0.431 | Supported |
| H3: The credibility of green advertisements positively influences the perceived value of advertising. | 3.379** | 0.309 | Supported |
| H4a: Consumers' environmental concern positively moderates the relationship between green advertisements' rational appeal and the perceived value of advertising. | 2.882** | 0.170 | Supported |

| | | | |
|--|-----------|--------|----------------------|
| H4b: Consumers' environmental concern positively moderates the relationship between green advertisements' emotional appeal and the perceived value of advertising. | 0.515 | -0.037 | Not supported |
| H4c: Consumers' environmental concern positively moderates the relationship between green advertisements' credibility and the perceived value of advertising. | 1.422 | -0.112 | Not supported |
| H5: The perceived value of advertising positively influences brand emotional attachment. | 46.458*** | 0.853 | Supported |
| H6: The perceived value of advertising positively influences brand identification. | 44.412*** | 0.874 | Supported |
| H7: The perceived value of advertising positively influences purchase intention. | 2.540* | 0.242 | Supported |
| H8: Brand emotional attachment positively influences purchase intention. | 0.025 | 0.002 | Not supported |
| H9: Brand identification positively influences purchase intention. | 5.989*** | 0.685 | Supported |
| * p < .05; ** p < .01; *** p < .001; two-tailed test was used for all hypotheses | | | |

As presented in Table 5.7, Hypothesis 1 is supported by the results as shown by the following values: (β) = 0.193; $p < 0.05$; t-value = 2.504. Therefore, the results demonstrate that **green ad informativeness** positively influences the **perceived value of ad**.

Hypothesis 2 is supported by the results as shown by the following values: (β) = 0.431; $p < 0.01$; t-value = 4.702. Thus, the results demonstrate that the **green ad emotional appeal** is positively related to the **perceived value of ad**.

Hypothesis 3 is supported by the results as shown by the following values: $(\beta) = 0.309$; $p < 0.01$; $t\text{-value} = 3.379$. The results show that **green ad credibility** positively influences the **perceived value of ad**.

Hypothesis 4a is supported, as indicated by the following statistical outcomes: $\beta = 0.170$, $p < 0.01$, and $t\text{-value} = 2.882$. These results demonstrate that **environmental concern**, acting as a moderating variable, has a positive influence on the relationship between **green ad informativeness** and **perceived value of the ad**.

On the other hand, Hypothesis 4b, as indicated by the following statistical outcomes: $\beta = -0.037$, $p > 0.05$, and $t\text{-value} = 0.515$. These results indicate that the moderator effect of **environmental concern** on the relationship between **green ad emotional appeal** and **perceived value of the ad** is not supported.

Hypothesis 4c is not supported, as indicated by the following statistical outcomes: $\beta = -0.112$, $p > 0.05$, and $t\text{-value} = 1.422$. These results do not provide statistical support for the moderation effect of **environmental concern** on the relationship between **green ad credibility** and **perceived value of the ad**.

Hypothesis 5 is supported, as evidenced by the statistical results: $\beta = 0.853$, $p < 0.001$, and a $t\text{-value}$ of 46.458. These findings indicate a positive influence of the **perceived value of the ad** on **brand emotional attachment**.

Hypothesis 6 is supported, as evidenced by the statistical results: $\beta = 0.874$, $p < 0.001$, and a $t\text{-value}$ of 44.412. These findings indicate a positive relationship between the **perceived value of the ad** and **brand identification**.

Additionally, Hypothesis 7 is supported, as evidenced by the statistical results: $\beta = 0.242$, $p < 0.05$, and a $t\text{-value}$ of 2.540. These findings support the existence of a positive effect of the **perceived value of the ad** on **purchase intention**.

However, Hypothesis 8 is not supported, as evidenced by the statistical results: $\beta = 0.002$, $p > 0.05$, and a $t\text{-value}$ of 0.025. These findings indicate that the effect of **brand emotional attachment** on **purchase intention** is not statistically significant.

Finally, Hypothesis 9 is supported by the results as shown by the following values: (β) = 0.685; $p < 0.001$; t -value = 5.989. The results show that **brand identification** positively influences **purchase intention**.

The second sample consists of the Ecuadorian market. Table 5.8 presents its hypotheses verification, followed by the evaluation of the results.

Table 5.8 Hypotheses Verification for Ecuadorian Sample (two-tailed)

| Hypothesis | T-Value | Path Coefficient (β) | Result |
|--|----------|------------------------------|---------------|
| H1: The rational appeal (informativeness) of green advertisements positively influences the perceived value of advertising. | 3.162** | 0.295 | Supported |
| H2: The emotional appeal of green advertisements positively influences the perceived value of advertising. | 0.241 | -0.028 | Not supported |
| H3: The credibility of green advertisements positively influences the perceived value of advertising. | 3.781*** | 0.411 | Supported |
| H4a: Consumers' environmental concern positively moderates the relationship between green advertisements' rational appeal and the perceived value of advertising. | 0.210 | 0.019 | Not supported |
| H4b: Consumers' environmental concern positively moderates the relationship between green advertisements' emotional appeal and the perceived value of advertising. | 0.950 | -0.142 | Not supported |
| H4c: Consumers' environmental concern positively moderates the relationship between green advertisements' credibility and the perceived value of advertising. | 0.766 | 0.084 | Not supported |

| | | | |
|--|-----------|--------|---------------|
| H5: The perceived value of advertising positively influences brand emotional attachment. | 17.067*** | 0.729 | Supported |
| H6: The perceived value of advertising positively influences brand identification. | 25.363*** | 0.809 | Supported |
| H7: The perceived value of advertising positively influences purchase intention. | 2.811** | 0.142 | Supported |
| H8: Brand emotional attachment positively influences purchase intention. | 0.489 | 0.0036 | Not supported |
| H9: Brand identification positively influences purchase intention. | 11.340*** | 0.784 | Supported |
| * p < .05; ** p < .01; *** p < .001; two-tailed test was used for all hypotheses | | | |

As presented in Table 5.8, Hypothesis 1 is supported by the results as shown by the following values: (β) = 0.295; $p < 0.01$; t -value = 3.162. Therefore, the results demonstrate that **green ad informativeness** positively influences the **perceived value of ad**.

Hypothesis 2 is not supported by the results as shown by the following values: (β) = -0.028; $p > 0.05$; t -value = 0.241. Thus, the results demonstrate that the effect of **green ad emotional appeal** on the **perceived value of ad** is not statistically significant.

Hypothesis 3 is supported by the results as shown by the following values: (β) = 0.411; $p < 0.001$; t -value = 3.781. The results show that **green ad credibility** positively influences the **perceived value of ad**.

On the other hand, Hypothesis 4a is not supported, as indicated by the following statistical outcomes: $\beta = 0.019$, $p > 0.05$, and t -value = 0.210. These results demonstrate that **environmental concern** does not moderate the relationship between **green ad informativeness** and **perceived value of the ad**.

Hypothesis 4b is not supported, as indicated by the following statistical outcomes: $\beta = -0.142$, $p > 0.05$, and t -value = 0.950. These results demonstrate that the moderator effect of

environmental concern on the relationship between **green ad emotional appeal** and **perceived value of the ad** is not supported.

Hypothesis 4c is not supported, as indicated by the following statistical outcomes: $\beta = 0.084$, $p > 0.05$, and $t\text{-value} = 0.766$. These results demonstrate that **environmental concern** does not moderate the relationship between **green ad credibility** and the **perceived value of the ad**.

Hypothesis 5 is supported, as evidenced by the statistical results: $\beta = 0.729$, $p < 0.001$, and a $t\text{-value}$ of 17.067. These findings indicate a positive influence of the **perceived value of the ad** on **brand emotional attachment**.

Hypothesis 6 is supported, as evidenced by the statistical results: $\beta = 0.809$, $p < 0.001$, and a $t\text{-value}$ of 25.363. These findings indicate a positive relationship between the **perceived value of the ad** and **brand identification**.

Additionally, Hypothesis 7 is supported, as evidenced by the statistical results: $\beta = 0.142$, $p < 0.01$, and a $t\text{-value}$ of 2.811. These findings indicate a positive relationship between the **perceived value of the ad** and **purchase intention**.

However, Hypothesis 8 is not supported, as evidenced by the statistical results: $\beta = 0.036$, $p > 0.05$, and a $t\text{-value}$ of 0.489. These findings indicate that **brand emotional attachment** does not statistically influence **purchase intention**.

Finally, Hypothesis 9 is supported by the results as shown by the following values: $(\beta) = 0.784$; $p < 0.001$; $t\text{-value} = 11.340$. The results show that **brand identification** positively influences **purchase intention**.

6. Discussion and Conclusion

6.1. Main Findings

This study examines how key attributes of green advertising influence the perceived value of advertising, with a special focus on cross-cultural analysis in Portugal and Ecuador. Additionally, it analyses how the perceived value of advertising affects consumers' purchase intentions, emotional attachment to brands, and brand identification across both markets. By comparing these two cultural contexts, the research aims to provide valuable insights for both academic understanding and practical marketing strategies. The conceptual model was developed using well-established studies from respected international journals to ensure a solid and trustworthy foundation. The results of the structural analysis, along with statistical tests for validity and reliability, confirmed that the methods and measures used were appropriate and significant.

The findings reveal that, in general, the tested green advertising attributes—*informativeness appeal, emotional appeal, and credibility appeal*—positively influence the perceived value of green advertising. These results align with previous studies by Zhang et al. (2024) which highlight the role of information clarity and emotional resonance in shaping consumer perceptions of environmentally themed messages. In addition, Wang & Li (2022) found that when green ads provide relevant and truthful environmental information, they not only increase purchase intentions but also enhance the overall value consumers assign to the advertisement. This suggests that informative content in green ads meets consumers' needs for credible and useful information, thereby elevating the ad's perceived value.

Furthermore, Li & Shan (2025) demonstrated that when consumers perceive green ads as informative and credible, it fosters trust in the brand's environmental claims. This trust not only increases the ad's effectiveness but also its perceived value, as consumers feel more confident in the brand's commitment to sustainability and when green advertisements effectively communicate environmental benefits, they align with consumers' personal values, leading to a higher perceived value of the ad. This alignment not only enhances the ad's appeal but also strengthens consumers' intentions to engage in sustainable consumption (Li, 2025).

Therefore, credible green advertisements, those perceived as honest, clear, detailed, urgency and committed, significantly enhance the perceived value of the ad. Research by Verleye et al. (2023) identifies these key elements that drive the credibility of green advertising. These elements collectively explain 72% of the credibility in green advertising, which in turn accounts for 59% of consumers' motivation to prefer sustainable products over conventional ones.

Credible green advertisements serve as signals of a brand's authentic commitment to environmental sustainability. When consumers perceive green ads as credible, they infer that the brand is genuinely invested in sustainable practices, which elevates the ad's perceived value. Research by Suci Nurhalisa (2023) supports this, showing that green advertising has a substantial positive effect on green credibility.

Recent studies underscore the pivotal role of storytelling elements and credible eco-labels in green advertisements. Kumar et al. (2025) found that story conciseness, argument strength, and eco-label credibility significantly bolster green brand credibility, which in turn enhances the perceived value of the advertisement.

However, in the Ecuadorian sample, the effect of the emotional appeal on the perceived value of advertising was nonsignificant, contradicting findings from Portugal. This contradiction suggests that the emotional appeal might be less effective among Ecuadorian consumers, and one possible explanation, especially in cultures with emerging awareness of green advertising, lies in the concept of emotional saturation. According to Escalas & Bettman (2005) emotional saturation turns consumers into less responsive or resistant to emotionally messages due to overexposure or perceived lack of authenticity and can cause consumers to disengage from emotional appeals overall when the emotional tone is too strong or inconsistent with their lived experience. In Ecuador, this phenomenon may explain why emotional appeal and emotional attachment led to negative outcomes. Additionally, research by Leonidou & Skarmeas (2015) indicates that consumers in developing economies may interpret emotional environmental messaging as deceptive if it lacks credible backing or is perceived as disingenuous.

Notably, in the Ecuadorian analysis, all the tested moderating effects by environmental concern were nonsignificant. In the Portuguese sample, only one of the three tested

moderating effects was supported, namely the moderator effect of environmental concern on the relationship between green ad informativeness and the perceived value of ad. As a moderator variable, environmental concern is expected to amplify or diminish the relationship between an independent and dependent variable. On one hand, a study focusing on Generation Z in Portugal identified environmental concern as a primary antecedent influencing green purchasing decisions, highlighting that individuals with elevated environmental awareness are more receptive to informative green advertisements (Lopes et al., 2024). This aligns with findings from a study on Portuguese plant-based beverage consumers, where green informativeness was found to significantly affect loyalty intentions, suggesting that informative content in green advertising enhances perceived value, especially among environmentally conscious consumers (Inês & Moreira, 2023). On the other hand, the lack of significance of the moderating effects in the Portuguese and Ecuadorian samples suggests that even among environmentally conscious individuals, green ad messages fail to resonate since consumers with elevated environmental concern often scrutinize green advertisements more critically, which could be perceived as manipulative or deceptive ad if there is no trustworthy backing (Balaskas et al., 2023). In addition, the lack of institutional trust or limited environmental education (Dangelico & Vocalelli, 2017) turn green ad into untruthful and unbelievable because it may not align with the consumer's environmental values (Verleye et al., 2023).

Furthermore, the perceived value of advertising positively influences brand emotional attachment, brand identification, and purchase intention across both markets. This supports the findings of Sardju (2025) and De Faria & Vieira (2024), emphasizing the central role of perceived value in driving consumer-brand relationships and behavioural outcomes. Similarly, both brand emotional attachment and brand identification also had significant positive effects on purchase intention, corroborating research by Sardju (2025).

On the other hand, in both markets brand emotional attachment has a nonsignificant effect on purchase intention. Gilal et al. (2021) suggest that emotional or symbolic associations with a brand do not always align with practical or economic considerations. In fact, for high-involvement products, such as electronics, luxury goods, or environmentally friendly (green) products, the decision-making process tends to be more rational (Gilal et al., 2021).

In terms of the impact of brand identification on purchase intention, both Portuguese and Ecuadorian consumers demonstrated the existence of a stronger positive effect, indicating a more cognitively tied to consumer-brand relationship. This suggests that regardless of cultural orientation, consumers in both markets respond more effectively when green advertisements are identified as valuable and trustworthy, even though the specific drivers of that value may differ (Zhang et al., 2024).

6.2. Theoretical and Managerial Implications

Green advertising has become a fundamental component of marketing strategy. As environmental awareness continues to grow worldwide, green advertising is increasing. Within this landscape, the present study offers valuable contributions to the field of green marketing. It underscores the crucial role of perceived ad value in the effectiveness of green advertising, emphasizing that the impact of ad messages depends not merely on their content, but on the extent to which consumers perceive them as meaningful within their individual and cultural contexts (Kotler et al., 2021). Furthermore, this research adds to the literature on cross-cultural comparison by demonstrating that key attributes do not function uniformly across different cultural settings.

The results obtained in the Portuguese and Ecuadorian context highlight the limitations of implementing standardized models without considering the specific cultural and market conditions of each setting. This underscores the importance of incorporating cultural nuances and the degree of market maturity into strategies for communicating sustainability (Leonidou & Skarmeas, 2015). Moreover, the lack of support for the relationship between emotional attachment and purchase intention challenges the commonly held assumption that emotional bonds always lead to positive consumer behavior. This insight points to the need for deeper investigation into the boundary conditions and underlying mechanisms that may weaken this relationship within green marketing frameworks (Gliem & Gliem, 2003).

From a managerial perspective, the findings lead to the following key implications:

- Cultural adjusting is essential: Given these insights, the implications for green advertising strategy in each market become clearer. In Portugal, emotional storytelling may be effective when combined with educational or fact-based content,

as this aligns with their cultural preference for structured and credible information (Hofstede Insights, 2025). In Ecuador, green advertising should prioritize credibility and informativeness, as these are more likely to enhance perceived value and avoid emotional saturation. Focus on tangible environmental benefits and community involvement are more likely to generate engagement and intention to purchase (Leonidou et al., 2013). These strategic adjustments will help brands align their green communication efforts with local cultural contexts.

- Green advertising should prioritize value-building: Both countries demonstrate that perceived advertising value is the primary pathway to influencing brand outcomes and purchase intentions. Marketers should focus on clarity, usefulness, and authenticity, ensuring that green claims are substantiated, practical, and relatable. This has strategic relevance for global brands aiming to build trust across culturally diverse markets.
- Green marketing strategy must evolve beyond emotional triggers: The finding of a nonsignificant relationship between emotional attachment and purchase intention reveals the danger of relying solely on sentiment. Green campaigns must go further: integrating purpose-driven content, culturally sensitive appeals, and evidence-based claims to create sustainable engagement even for individuals with high or low environmental concern. This positions green advertising not just as a communication tool but also create value.

These implications are particularly relevant for marketing managers operating in international business and culturally segmented markets, as they highlight the dual need for consistency in perceived value creation and flexibility in emotional positioning.

6.3. Main Limitations and Suggestions for Future Research

Although this study contributes valuable marketing insights into green advertising across different cultural contexts, several limitations must be acknowledged, along with suggestions for future research. First, the reliance on self-reported surveys may have introduced social desirability bias, especially relevant in ethically charged topics such as

environmental responsibility. Participants may have overstated their pro-environmental attitudes or intentions to conform to socially accepted norms.

Second, the study employed environmental concern as a moderator variable; however, this construct demonstrated nonsignificant effects within the proposed model. Future studies could explore the use of alternative moderators, such as environmental attitude. For example, Balaskas et al. (2023) found that ads evoking negative emotions demonstrated a significant positive effect on consumers' attitudes toward the green ad and their intention to purchase the promoted green product. Conversely, ads eliciting positive emotions did not exhibit the same effect. This suggests that the type of emotional appeal used in green advertising can differentially impact consumer perceptions and behaviours. This analysis could provide further insights into the role of emotional appeals as developed in this model.

Third, the sample predominantly comprised university students, which restricts the generalizability of the findings to the broader population. Including a more diverse sample in terms of age, occupation, and socioeconomic background could provide a more comprehensive understanding of consumer responses to green advertising.

Fourth, the cross-national comparison was between Portugal and Ecuador. These two countries have different levels of economic development and cultural characteristics. While informative, future research should extend the analysis to additional countries to capture a broader range of cultural and environmental awareness contexts. This would enhance the external validity of the model and allow for a more global assessment of green advertising effectiveness.

Finally, future research should consider the inclusion of additional contextual variables, particularly in developing economies where environmental consciousness is evolving. For instance, institutional trust could significantly shape how green advertising messages are interpreted and translated into consumer behaviour.

References

- Acar, A., Büyükdağ, N., Türten, B., Diker, E., & Çalışır, G. (2024). The role of brand identity, brand lifestyle congruence, and brand satisfaction on repurchase intention: a multi-group structural equation model. *Humanities and Social Sciences Communications*, *11*(1). <https://doi.org/10.1057/s41599-024-03618-w>
- Agarwal, N. D., & Kumar, V. V. R. (2020). Three decades of green advertising – a review of literature and bibliometric analysis. *Benchmarking*, *28*(6), 1934–1958. <https://doi.org/10.1108/BIJ-07-2020-0380>
- Ahmad, A. H., Idris, I., Rong, G. H., Ula, R., Fauzi, A., Rahman, N. A., & Masri, R. (2024). Research The Role of Perceived Value in Advertising Message on Purchase Intention: A Case of Malaysian Millennial. *Consumers International Journal of Business and Quality*. <https://e-journal.citakonsultindo.or.id/index.php/IJBQR>
- Alisat, S., & Riemer, M. (2015). The environmental action scale: Development and psychometric evaluation. *Journal of Environmental Psychology*, *43*, 13–23. <https://doi.org/10.1016/j.jenvp.2015.05.006>
- Armstrong, J. S., & Overton, T. S. (1977). Estimating Nonresponse Bias in Mail Surveys. In *Source: Journal of Marketing Research* (Vol. 14, Issue 3).
- Aylesworth, A. B., & MacKenzie, S. B. (1998). Context is key: The effect of program-induced mood on thoughts about the ad. *Journal of Advertising*, *27*(2), 17–31. <https://doi.org/10.1080/00913367.1998.10673550>
- Aziz, M. A., & Mirza Ashfaq Ahmed. (2023). Consumer Brand Identification and Purchase Intentions: The Mediating Role of Customer Brand Engagement. *Journal of Entrepreneurship and Business Venturing*, *3*(1). <https://doi.org/10.56536/jebv.v3i1.38>
- Balaji, K., & Maheswari, R. (2021). Impact of Store Image Dimensions on Shopper's Attitude, Perceived Value, and Purchase Intention. *SAGE Open*, *11*(1). <https://doi.org/10.1177/2158244021994824>
- Balaskas, S., Panagiotarou, A., & Rigou, M. (2023). Impact of Environmental Concern, Emotional Appeals, and Attitude toward the Advertisement on the Intention to Buy Green Products: The Case of Younger Consumer Audiences. *Sustainability (Switzerland)*, *15*(17). <https://doi.org/10.3390/su151713204>
- Banerjee, S., Gulas, C. S., & Iyer, E. (1995). Shades of green: A multidimensional analysis of environmental advertising. *Journal of Advertising*, *24*(2), 21–31. <https://doi.org/10.1080/00913367.1995.10673473>

- Bell, R., Mieth, L., & Buchner, A. (2021). Source memory for advertisements: The role of advertising message credibility. *Memory and Cognition*, 49(1), 32–45.
<https://doi.org/10.3758/s13421-020-01075-9>
- Bhattacharya, C. B., & Sen, S. (2003). Consumer-Company Identification: A Framework for Understanding Consumers' Relationships with Companies. In / *Journal of Marketing* (Vol. 67).
- Böhm, G. (2003). Emotional reactions to environmental risks: Consequentialist versus ethical evaluation. *Journal of Environmental Psychology*, 23(2), 199–212.
[https://doi.org/10.1016/S0272-4944\(02\)00114-7](https://doi.org/10.1016/S0272-4944(02)00114-7)
- Braga, L. D., Tardin, M. G., Perin, M. G., & Boaventura, P. (2024). Sustainability communication in marketing: a literature review. *RAUSP Management Journal*.
<https://doi.org/10.1108/RAUSP-10-2023-0205>
- Carrión-Bósquez, N., Veas-González, I., Naranjo-Armijo, F., Llamo-Burga, M., Ortiz-Regalado, O., Ruiz-García, W., Guerra-Regalado, W., & Vidal-Silva, C. (2024). Advertising and Eco-Labels as Influencers of Eco-Consumer Attitudes and Awareness—Case Study of Ecuador. *Foods*, 13(2).
<https://doi.org/10.3390/foods13020228>
- Carrus, G., Passafaro, P., & Bonnes, M. (2008). Emotions, habits and rational choices in ecological behaviours: The case of recycling and use of public transportation. *Journal of Environmental Psychology*, 28(1), 51–62.
<https://doi.org/10.1016/j.jenvp.2007.09.003>
- Chen, S., Min, Q., & Xu, X. (2022). Understanding the Relative Impact of Dual Identification on Brand Loyalty on Social Media: The Regulatory Fit Perspective in Different Cultures. *Frontiers in Psychology*, 13.
<https://doi.org/10.3389/fpsyg.2022.901706>
- Chin, W. W. (2000). *The Partial Least Squares Approach to Structural Equation Modeling*. <https://www.researchgate.net/publication/311766005>
- Churchill, G. A. (1979). Measure and Construct Validity Studies.
- Chwialkowska, A., Bhatti, W. A., & Glowik, M. (2020). The influence of cultural values on pro-environmental behavior. *Journal of Cleaner Production*, 268.
<https://doi.org/10.1016/j.jclepro.2020.122305>
- Correia, E., Sousa, S., Viseu, C., & Larginho, M. (2023). Analysing the Influence of Green Marketing Communication in Consumers' Green Purchase Behaviour. *International Journal of Environmental Research and Public Health*, 20(2).
<https://doi.org/10.3390/ijerph20021356>

- Crespo, C. F., Ferreira, A. G., & Cardoso, R. M. (2023). The influence of storytelling on the consumer–brand relationship experience. *Journal of Marketing Analytics*, *11*(1), 41–56. <https://doi.org/10.1057/s41270-021-00149-0>
- Crespo, C. F., Ferreira, A. G., Ribeiro, F. M., & Alshevskaya, T. (2025). Unlocking the Power of Ads: A Cross-Cultural Examination of Consumers’ Advertising Value Perceptions. *Journal of International Consumer Marketing*. <https://doi.org/10.1080/08961530.2024.2447720>
- Crespo, C. F., Ferreira, A. G., Ribeiro, F. M., & Popa, V. (2024). The Effect of Celebrity Endorsement on Brand Equity: A Cross-Cultural Comparison. *Journal of International Consumer Marketing*. <https://doi.org/10.1080/08961530.2024.2324779>
- Cronbach, L. J. (n.d.). Coefficient alpha and the internal structure of tests*. in *psychometrika* (Vol. 16, Issue 3).
- Dangelico, R. M., & Vocalelli, D. (2017). “Green Marketing”: An analysis of definitions, strategy steps, and tools through a systematic review of the literature. In *Journal of Cleaner Production* (Vol. 165, pp. 1263–1279). Elsevier Ltd. <https://doi.org/10.1016/j.jclepro.2017.07.184>
- De Faria, C. F., & Vieira, J. M. C. (2024). Green Perceived Value in the Brand-Consumer Relationship: An Empirical Study of Its Determinants in Managing Global Brands. *Smart Innovation, Systems and Technologies*, *344*, 323–339. https://doi.org/10.1007/978-981-99-0333-7_24
- Ducoffe, R. H. (1995). How consumers assess the value of advertising. *Journal of Current Issues and Research in Advertising*, *17*(1), 1–18. <https://doi.org/10.1080/10641734.1995.10505022>
- Edell, J. A., & Chapman Burke, M. (2019). *The Power of Feelings in Understanding Advertising Effects*. <http://jcr.oxfordjournals.org/>
- Engelina, J., & Laulita, N. B. (2024). The Influence of Perceived Quality, Perceived Value of Cost, Brand Identification, and Brand Trust on Brand Loyalty Mediated by Customer Satisfaction in Batam City. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, *13*(2), 698–718. <https://doi.org/10.30588/jmp.v13i2.1329>
- Escalas, J. E., & Bettman, J. R. (2005). You are what they eat: the influence of reference groups on consumers’ connections to brands.
- Falk, R. F. (2014). A Primer for Soft Modeling. <https://www.researchgate.net/publication/232590534>
- Fatma, M., & Khan, I. (2023). CSR Influence on Brand Loyalty in Banking: The Role of Brand Credibility and Brand Identification. *Sustainability (Switzerland)*, *15*(1). <https://doi.org/10.3390/su15010802>

- Gaber, H. R., Wright, L. T., & Kooli, K. (2019). Consumer attitudes towards Instagram advertisements in Egypt: The role of the perceived advertising value and personalization. *Cogent Business and Management*, 6(1).
<https://doi.org/10.1080/23311975.2019.1618431>
- Ganz, B., & Grimes, A. (2018). Measures that can boost outcomes from environmental product claims. *Journal of Advertising Research*, 58(4), 476–486.
<https://doi.org/10.2501/JAR-2018-001>
- Gilal, F. G., Gilal, N. G., Gilal, R. G., Gong, Z., Gilal, W. G., & Tunio, M. N. (2021). The Ties That Bind: Do Brand Attachment and Brand Passion Translate into Consumer Purchase Intention? *Central European Management Journal*, 29(1), 14–38.
<https://doi.org/10.7206/cemj.2658-0845.39>
- Gliem, J. A., & Gliem, R. R. (2003). Midwest Research to Practice Conference in Adult, Continuing, and Community Education.
- Grisaffe, D. B., & Nguyen, H. P. (2011). Antecedents of emotional attachment to brands. *Journal of Business Research*, 64(10), 1052–1059.
<https://doi.org/10.1016/j.jbusres.2010.11.002>
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Halder, P., Hansen, E. N., Kangas, J., & Laukkanen, T. (2020). How national culture and ethics matter in consumers' green consumption values. *Journal of Cleaner Production*, 265. <https://doi.org/10.1016/j.jclepro.2020.121754>
- Hasanah, I., & Dewi, W. (2023). Purchase intention: strong effects of green advertising attributes, para-social relationships, and perceived credibility (Vol. 11, Issue 1).
- Higuera-Castillo, E., Liébana-Cabanillas, F., Santos, M. A. Dos, Zulauf, K., & Wagner, R. (2024). Do you believe it? Green advertising skepticism and perceived value in buying electric vehicles. *Sustainable Development*. <https://doi.org/10.1002/sd.2932>
- Hirsh, J. B. (2014). Environmental sustainability and national personality. *Journal of Environmental Psychology*, 38, 233–240. <https://doi.org/10.1016/j.jenvp.2014.02.005>
- Holbrook, M. B., & Batra, R. (2018). Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising. <http://jcr.oxfordjournals.org/>
- Holmgren, M., Kabanshi, A., Marsh, J. E., & Sörqvist, P. (2018). When $A+B < A$: Cognitive bias in experts' judgment of environmental impact. *Frontiers in Psychology*, 9(MAY). <https://doi.org/10.3389/fpsyg.2018.00823>

- Hulland, J. (1999). Use of partial least squares (pls) in strategic management research: a review of four recent studies. In *Strategic Management Journal Strat. Mgmt. J* (Vol. 20).
- Inês, A., & Moreira, A. C. (2023). The influence of perceived value and brand equity on loyalty intentions. the case of plant-based beverages' consumers. *Polish Journal of Management Studies*, 27(1), 97–116. <https://doi.org/10.17512/pjms.2023.27.1.06>
- Jalu, G., Dasalegn, G., Japee, G., Tangl, A., & Boros, A. (2024). Investigating the Effect of Green Brand Innovation and Green Perceived Value on Green Brand Loyalty: Examining the Moderating Role of Green Knowledge. *Sustainability (Switzerland)*, 16(1). <https://doi.org/10.3390/su16010341>
- Jayasingh, S., Sivakumar, A., & Vanathaiyan, A. A. (2025). Artificial Intelligence Influencers' Credibility Effect on Consumer Engagement and Purchase Intention. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(1), 17. <https://doi.org/10.3390/jtaer20010017>
- Juma-Michilena, I. J., Ruiz-Molina, M. E., Gil-Saura, I., & Belda-Miquel, S. (2024). Pro-environmental behaviours of generation Z: A cross-cultural approach. *International Review on Public and Nonprofit Marketing*. <https://doi.org/10.1007/s12208-024-00395-9>
- Kao, T. F., & Du, Y. Z. (2020). A study on the influence of green advertising design and environmental emotion on advertising effect. *Journal of Cleaner Production*, 242. <https://doi.org/10.1016/j.jclepro.2019.118294>
- Khan, S. A. R., Sheikh, A. A., Ashraf, M., & Yu, Z. (2022). Improving Consumer-Based Green Brand Equity: The Role of Healthy Green Practices, Green Brand Attachment, and Green Skepticism. *Sustainability (Switzerland)*, 14(19). <https://doi.org/10.3390/su141911829>
- Kim, C., Jeon, H. G., & Lee, K. C. (2020). Discovering the role of emotional and rational appeals and hidden heterogeneity of consumers in advertising copies for sustainable marketing. *Sustainability (Switzerland)*, 12(12). <https://doi.org/10.3390/su12125189>
- Kim, W., Cha, S., Rizzo, C., & Piper, L. (2021). *How Attributes of Green Advertising Affect Purchase Intention: The Moderating Role of Consumer Innovativeness*. <https://doi.org/10.3390/su>
- Ktisti, E., Hatzithomas, L., & Boutsouki, C. (2022). Green Advertising on Social Media: A Systematic Literature Review. In *Sustainability (Switzerland)* (Vol. 14, Issue 21). MDPI. <https://doi.org/10.3390/su142114424>
- Kumar, P., Jhavar, A., Shetty, K., & Varshney, S. (2025). Green ad stories' characteristics and green brand trust: examining the moderating role of consumer expertise through

- the elaboration likelihood model lens. *Journal of Marketing Theory and Practice*.
<https://doi.org/10.1080/10696679.2025.2463080>
- Lam, S. K., Ahearne, M., Mullins, R., Hayati, B., & Schillewaert, N. (2013). Exploring the dynamics of antecedents to consumer-brand identification with a new brand. *Journal of the Academy of Marketing Science*, *41*(2), 234–252.
<https://doi.org/10.1007/s11747-012-0301-x>
- Lanero, A., Vázquez, J. L., & Sahelices-Pinto, C. (2020). Heuristic thinking and credibility of organic advertising claims: The role of knowledge and motivations. *Sustainability (Switzerland)*, *12*(21), 1–19. <https://doi.org/10.3390/su12218776>
- Larcker, D. F. (1981). CLAES FORNELL Structural Equation Models With Unobservable Variables and Measurement Error: Algebra and Statistics. In *Journal of Marketing Research: Vol. XVIII*.
- Lazer, W. (1969). Marketing's Changing Social Relationships. In *Journal of Marketing* (Vol. 33).
- Lee, K. (2008). Opportunities for green marketing: Young consumers. *Marketing Intelligence and Planning*, *26*(6), 573–586.
<https://doi.org/10.1108/02634500810902839>
- Leonidou, C. N., Katsikeas, C. S., & Morgan, N. A. (2013). “Greening” the marketing mix: Do firms do it and does it pay off? *Journal of the Academy of Marketing Science*, *41*(2), 151–170. <https://doi.org/10.1007/s11747-012-0317-2>
- Leonidou, C. N., & Skarmeas, D. (2015). Gray Shades of Green: Causes and Consequences of Green Skepticism. *Journal of Business Ethics*, *144*(2), 401–415.
<https://doi.org/10.1007/s10551-015-2829-4>
- Li, D. (2025). Impact of green advertisement and environmental knowledge on intention of consumers to buy green products. *BMC Psychology*, *13*(1).
<https://doi.org/10.1186/s40359-025-02538-x>
- Li, Q., Tan, J., & Jiao, Y. (2024). Research on the formation mechanism of brand identification in cross-border e-commerce platforms — Based on the perspective of perceived brand globalness/localness. *Heliyon*, *10*(3).
<https://doi.org/10.1016/j.heliyon.2024.e25155>
- Li, Y., & Shan, B. (2025). The influence mechanism of green advertising on consumers' purchase intention for organic foods: the mediating roles of green perceived value and green trust. *Frontiers in Sustainable Food Systems*, *9*.
<https://doi.org/10.3389/fsufs.2025.1515792>
- Liang, T.-P. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study Article in. In *International Journal of Electronic Commerce* (Vol. 22).
<https://www.researchgate.net/publication/228819052>

- Liao, S. H., Hu, D. C., & Chou, H. L. (2022). Consumer Perceived Service Quality and Purchase Intention: Two Moderated Mediation Models Investigation. *SAGE Open*, 12(4). <https://doi.org/10.1177/21582440221139469>
- Liu, S., & Liu, X. (2020). Culture and Green Advertising Preference: A Comparative and Critical Discursive Analysis. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01944>
- Liu, Y., Kou, Y., Guan, Z., Hu, J. J., & Pu, B. (2020). Exploring hotel brand attachment: The mediating role of sentimental value. *Journal of Retailing and Consumer Services*, 55. <https://doi.org/10.1016/j.jretconser.2020.102143>
- Lopes, J. M., Gomes, S., Suchek, N., & Nogueira, S. (2024). The hidden reasons behind generation Z's green choices. *Discover Sustainability*, 5(1). <https://doi.org/10.1007/s43621-024-00764-8>
- Lopes, P. R., Rosário, A. T., & Rosário, F. S. (2024). Sustainable Brand Advertising—The Green Advertising for Generation Z, a Qualitative LRSB Analyze. *Platforms*, 2(2), 84–100. <https://doi.org/10.3390/platforms2020006>
- Loureiro, S. M. C., Ruediger, K. H., & Demetris, V. (2012). Brand emotional connection and loyalty. *Journal of Brand Management*, 20(1), 13–27. <https://doi.org/10.1057/bm.2012.3>
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations. *Journal of Marketing Research*, 23(2), 130–143. <https://doi.org/10.1177/002224378602300205>
- Maduku, D. K. (2024). How environmental concerns influence consumers' anticipated emotions towards sustainable consumption: The moderating role of regulatory focus. *Journal of Retailing and Consumer Services*, 76. <https://doi.org/10.1016/j.jretconser.2023.103593>
- Malär, L., Krohmer, H., Hoyer, W. D., & Nyffenegger, B. (2011). Emotional Brand Attachment and Brand Personality: The Relative Importance of the Actual and the Ideal Self. *Journal of Marketing*, 75, 35–52.
- Matthes, J., Wonneberger, A., & Schmuck, D. (2014). Consumers' green involvement and the persuasive effects of emotional versus functional ads. *Journal of Business Research*, 67(9), 1885–1893. <https://doi.org/10.1016/j.jbusres.2013.11.054>
- Milfont, T. L., & Duckitt, J. (2010). The environmental attitudes inventory: A valid and reliable measure to assess the structure of environmental attitudes. *Journal of Environmental Psychology*, 30(1), 80–94. <https://doi.org/10.1016/j.jenvp.2009.09.001>

- Mnqanqeni, L., & Shava, H. (2023). The effect of brand experience and attachment on customer repurchase intentions: Evidence from South Africa. *Journal of Contemporary Management*, 20(2), 445–469. <https://doi.org/10.35683/jcm23014.231>
- Morwitz, V. G., Steckel, J. H., & Gupta, A. (2006). *WHEN DO PURCHASE INTENTIONS PREDICT SALES?*
- Natalia, U., Rizan, M., & Rahmi, S. E. (2021). Celebrity endorser contribution towards local cosmetic purchase intention (Vol. 4, Issue 2).
- Okada, T., Tamaki, T., & Managi, S. (2019). Effect of environmental awareness on purchase intention and satisfaction pertaining to electric vehicles in Japan. *Transportation Research Part D: Transport and Environment*, 67, 503–513. <https://doi.org/10.1016/j.trd.2019.01.012>
- Pancić, M., Serdarušić, H., & Ćucić, D. (2023). Green Marketing and Repurchase Intention: Stewardship of Green Advertisement, Brand Awareness, Brand Equity, Green Innovativeness, and Brand Innovativeness. *Sustainability (Switzerland)*, 15(16). <https://doi.org/10.3390/su151612534>
- Papadopoulou, C., Vardarsuyu, M., & Oghazi, P. (2023). Examining the relationships between brand authenticity, perceived value, and brand forgiveness: The role of cross-cultural happiness. *Journal of Business Research*, 167. <https://doi.org/10.1016/j.jbusres.2023.114154>
- Peattie, K. J. (1990). Painting marketing education (Or how to recycle old ideas). *Journal of Marketing Management*, 6(2), 105–125. <https://doi.org/10.1080/0267257X.1990.9964120>
- Peña-García, N., Gil-Saura, I., Rodríguez-Orejuela, A., & Siqueira-Junior, J. R. (2020). Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*, 6(6). <https://doi.org/10.1016/j.heliyon.2020.e04284>
- Petravičiūtė, K., Šeinauskienė, B., Rūtelionė, A., & Krukowski, K. (2021). Linking luxury brand perceived value, brand attachment, and purchase intention: The role of consumer vanity. *Sustainability (Switzerland)*, 13(12). <https://doi.org/10.3390/su13126912>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. In *Journal of Applied Psychology* (Vol. 88, Issue 5, pp. 879–903). <https://doi.org/10.1037/0021-9010.88.5.879>
- Roberts, J. A., & Bacon, D. R. (1997). Exploring the Subtle Relationships between Environmental Concern and Ecologically Conscious Consumer Behavior.
- Sander, F., Föhl, U., Walter, N., & Demmer, V. (2021). Green or social? An analysis of environmental and social sustainability advertising and its impact on brand

- personality, credibility and attitude. *Journal of Brand Management*, 28(4), 429–445. <https://doi.org/10.1057/s41262-021-00236-8>
- Santa, J. C., & Drews, S. (2023). Heuristics processing of green advertising: Review and policy implications. In *Ecological Economics* (Vol. 206). Elsevier B.V. <https://doi.org/10.1016/j.ecolecon.2023.107760>
- Sardju, H. (n.d.). *The Influence of Green Knowledge and Green Perceived Value on Purchase Intention Mediated by Green Lifestyle* (Vol. 6, Issue 1). <https://ijble.com/index.php/journal/index>
- Shimul, A. S. (2022). Brand attachment: a review and future research. *Journal of Brand Management*, 29(4), 400–419. <https://doi.org/10.1057/s41262-022-00279-5>
- Sichtmann, C., Davvetas, V., & Diamantopoulos, A. (2019). The relational value of perceived brand globalness and localness. *Journal of Business Research*, 104, 597–613. <https://doi.org/10.1016/j.jbusres.2018.10.025>
- Sigurdsson, V., Menon, R. G. V., Hallgrímsson, A. G., Larsen, N. M., & Fagerstrøm, A. (2018). Factors Affecting Attitudes and Behavioral Intentions Toward In-app Mobile Advertisements. *Journal of Promotion Management*, 24(5), 694–714. <https://doi.org/10.1080/10496491.2018.1405523>
- Souza, C. D', Muthalay, S., Taghian, M., & Pereira, F. (n.d.). *Portugal Case Study: Consumer perception of green companies*.
- Srivastava, S., Singh, S., & Dhir, S. (2020). Culture and International business research: A review and research agenda. In *International Business Review* (Vol. 29, Issue 4). Elsevier Ltd. <https://doi.org/10.1016/j.ibusrev.2020.101709>
- Suci Nurhalisa, T. W. Y. L. Y. U. T. (2023). Analysis of Green Product, Green Advertising, Green Perceived Value, Green Trust, and Green Purchase Intention of Aqua Product in Special Region of Yogyakarta. *Journal of International Conference Proceedings*, 6(6), 42–51. <https://doi.org/10.32535/jicp.v6i6.2653>
- Suhardi, D. A., Susilo, A., Priyanto, S. H., & Abdi, A. S. (2022). Brand auditing and the development of the brand salience management model of the Statistics Study Program. *Journal of Innovation and Entrepreneurship*, 11(1). <https://doi.org/10.1186/s13731-022-00215-6>
- Suhr, D. (2025). *The Basics of Structural Equation Modeling*.
- Tam, K. P., & Milfont, T. L. (2020). Towards cross-cultural environmental psychology: A state-of-the-art review and recommendations. *Journal of Environmental Psychology*, 71. <https://doi.org/10.1016/j.jenvp.2020.101474>

- Verleye, G., De Ruyck, A., Vermeulen, W., & Schoenaers, I. (2023). Credibility of green advertising: six elements that drive credibility in green advertising. *Frontiers in Communication*, 8. <https://doi.org/10.3389/fcomm.2023.1056020>
- Vicente-Molina, M. A., Fernández-Sáinz, A., & Izagirre-Olaizola, J. (2013). Environmental knowledge and other variables affecting pro-environmental behaviour: Comparison of university students from emerging and advanced countries. *Journal of Cleaner Production*, 61, 130–138. <https://doi.org/10.1016/j.jclepro.2013.05.015>
- Wang, C., Liu, T., Zhu, Y., Wang, H., Wang, X., & Zhao, S. (2023). The influence of consumer perception on purchase intention: Evidence from cross-border E-commerce platforms. *Heliyon*, 9(11). <https://doi.org/10.1016/j.heliyon.2023.e21617>
- Wang, J., He, Z., Wang, J., Bao, J., & Gao, J. (2021). *The Impact of Positive Emotional Appeals On The Green Purchase Behavior*. <https://doi.org/10.21203/rs.3.rs-918616/v1>
- Wang, J., & Li, A. (2022). The Impact of Green Advertising Information Quality Perception on Consumers' Response: An Empirical Analysis. *Sustainability (Switzerland)*, 14(20). <https://doi.org/10.3390/su142013248>
- Wang, J., Yang, X., He, Z., Wang, J., Bao, J., & Gao, J. (2022). The Impact of Positive Emotional Appeals on the Green Purchase Behavior. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.716027>
- Wenting, F., Yuelong, Z., Xianyun, S., & Chenling, L. (2022). Green advertising is more environmentally friendly? The influence of advertising color on consumers' preferences for green products. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.959746>
- Xi, X., Yang, J., Jiao, K., Wang, S., & Lu, T. (2022). “We buy what we wanna be”: Understanding the effect of brand identity driven by consumer perceived value in the luxury sector. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1002275>
- Yannopoulou, N., Chandrasapth, K., Bian, X., Jin, B., Gupta, S., & Liu, M. J. (2024). How Disinformation Affects Sales: Examining the Advertising Campaign of a Socially Responsible Brand. *Journal of Business Research*, 182. <https://doi.org/10.1016/j.jbusres.2024.114789>
- Young, C., Gillespie, B., & Otto, C. (2019a). The impact of rational, emotional, and physiological advertising images on purchase intention: How TV Ads influence brand memory. *Journal of Advertising Research*, 59(3), 329–341. <https://doi.org/10.2501/JAR-2019-010>
- Young, C., Gillespie, B., & Otto, C. (2019b). The impact of rational, emotional, and physiological advertising images on purchase intention: How TV Ads influence brand

- memory. *Journal of Advertising Research*, 59(3), 329–341.
<https://doi.org/10.2501/JAR-2019-010>
- Yuxing, R., Bauer, D., Joo, M., & Wilbur, K. C. (2018). *Advertising and Brand Attitudes: Evidence from 575 Brands over Five Years*. <https://cmosurvey.org/wp-content/uploads/sites/15/2018/02/The>
- Zandpour, F., & Harich, K. R. (1996). Think and feel country clusters: a new approach to international advertising standardization. *International Journal of Advertising*, 15(4), 325–344. <https://doi.org/10.1080/02650487.1996.11104663>
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60(2), 31–46.
<https://doi.org/10.1177/002224299606000203>
- Zeng, F., Huang, L., & Dou, W. (2009). Social Factors in User Perceptions and Responses to Advertising in Online Social Networking Communities. *Journal of Interactive Advertising*, 10(1), 1–13. <https://doi.org/10.1080/15252019.2009.10722159>
- Zhang, X., Chen, K., & Li, S. (2024). The effects of green advertising appeal and message type on purchase intention. *Journal of Retailing and Consumer Services*, 81.
<https://doi.org/10.1016/j.jretconser.2024.104007>
- Zhang, Y., Liu, J., & Li, X. (2024). Value delivery in green consumption: the effect of advertisement value proposition on consumer perception and purchase intention. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1339197>

Appendix A

Survey – English version



Green Advertising

Good morning/afternoon/evening and thank you for your participating !

I am a master`s student at the Polytechnic Institute of Leiria and I am conducting this survey as part of academic research on the analysis of environmental and functional attributes in Green Advertising.

Green Advertising refers to promotional efforts that highlight the environmental benefits of products or services. This type of advertising emphasizes sustainable practices and encourages eco-friendly consumer choices. To provide further clarity, reference images have been included to illustrate examples of brands that engage in green advertising.

The survey will take less than 5 minutes to complete. All data will remain confidential and will be used solely for academic purposes. The only personal information requested will be your age, gender, nationality, and education level.

Your cooperation is greatly appreciated.

Please respond to the following statements to get started (1=strongly disagree; *
5= strongly agree)

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| I am concerned about the environment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The condition of the environment affects the quality of my life | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am willing to make sacrifices to protect the environment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My actions impact the environment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| I understand the environmental issues that are happening nowadays | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have above-average knowledge about current environmental issues. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have good knowledge of current environmental issues. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I can identify the symbols of environmental in advertising or on the package in the product | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

To proceed to the next part of the survey, please think of a brand that engages in green advertising and write its name in the space provided below *

Tu respuesta _____

Taken into consideration the brand mentioned above, please answer the following statements

Overall, I think this brand is ... *

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Honest | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cheerful | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Imaginative | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Up-to-date | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reliable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Successful | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Upper-class | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Charming | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tough | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

I think the advertising of this brand is... *

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Good | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Pleasant | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Favorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Unconvincing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Credible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

I think the advertising of this brand was... *

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Useful for me | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Valuable to me | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| An important source of information to me | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

For the final section, please continue thinking about the brand mentioned above *
as you respond to the following statements

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Its advertisements supply relevant information on products or services. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Its advertising provides timely information on products or services. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Its advertisements tell people about products when they need the information | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| After seeing this ad, I had intense feelings | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I was emotionally attracted by the key message of their ad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The emotional aspect of their ad leads me to like the ad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I use its advertisements as a reference for purchasing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I trust in their advertisements | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

I consider this brand to be my first choice in buying services or products

I would buy more products of this brand in the future

I would consider purchasing the product of this brand in the short term

I would consider purchasing the product of this brand in the long term

I like what this brand stands for

This brand has an attractive identity

I recognize myself in this brand

My sense of who I am matches my sense of this brand

This brand reflects who I am as a person

I feel a deep attachment to this brand

I am loyal to this brand because it aligns with my values

What is your highest/finished education ? *

- High school degree
- University - Bachelor`s degree
- University - Master`s degree
- University - PhD and above

What is your nationality ? *

Tu respuesta _____

How old are you ? *

- 18-21
- 22-25
- 26-32
- 33-40
- 41-60
- > 60

Gender *

- Female
- Male
- Not listed above