How can sustainable businesses make citizens equally more sustainable?

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Abstract

Purpose: This study analyses how firms' perceived ESG performance can contribute to clients' personal transformation and sustainable behaviors through the effects of brand commitment. We used communication transparency and the absence of greenwashing as a moderator for the proposed relationships.

Methodology: Using a structured questionnaire, this study collected data from a cross-sectional sample of 847 clients of Portugal's largest energy supplier. The questionnaires were sent randomly and anonymously by the company itself. Structural equation modeling was employed to test the proposed hypotheses.

Findings: The findings suggest that a company's ESG efforts may encourage people to adopt more sustainable behaviors through brand commitment. The results underscore the significance of businesses as key drivers in shaping consumer attitudes and behaviors, fostering a broader societal shift toward more responsible and sustainable consumption patterns. Communication transparency and the absence of potential greenwashing tend to boost the effects of companies' social efforts, improving commitment, customer personal transformation, and sustainable behavior.

Implications/originality: Based on signaling and social cognition theories, this study provides empirical evidence of how firms can influence clients to adopt sustainable behaviors. By integrating sustainability into their core business practices and engaging clients in meaningful ways, firms can create a ripple effect that extends beyond their products and services. Being sustainable means being more capable of delivering value for companies and all those who are related to them, empowering sustainable lives. The overall results further support the importance of businesses as key drivers in shaping consumer attitudes and behaviors, encouraging a broader societal shift toward more responsible and sustainable consumption patterns. Through a healthy dichotomy between firms and clients, it is possible to create conditions for society to generate value for present and future generations. These relationships need to be based on trustworthy behaviors to avoid increasing skepticism and to gain customer trust and commitment, leading to a behavioural transformation, towards sustainability.

Limitations: The research considers only one company's customers. The relationships between variables need to be explored in other practical case studies and longitudinal investigations to improve the potential for generalizing and establishing clear causalities.

Keywords: ESG performance, brand commitment, transparency, sustainable behavior

1. Introduction

Business plays an increasingly scrutinized role in sustainable development, coinciding with one of the most critical environmental and social challenges humanity has ever faced. Companies are expected not only to provide quality products and services but also to contribute more broadly to aspects of wellbeing by minimizing their ecological footprint, promoting inclusive economic growth, and providing motivations for sustainable behaviors among stakeholders (Frempong et al., 2021; Tiep Le et al., 2023). ESG performance is a new assessment level that shapes how consumers perceive products, influencing brand loyalty and driving long-run engagement in more responsible consumption patterns (Khan et al., 2016; Liang et al., 2016). ESG leaders drive value responsibly by aligning their strategies with the interests of multiple stakeholders, from consumers to the larger population. Not only this, but such alignment improves corporate reputation and sets these corporations as leaders in sustainability (Whelan & Fink, 2016; Baumgartner & Rauter, 2017). Again, while product differentiation is needed to showcase excellence in ESG performance, it needs to go beyond that by resonating solutions with customer wellbeing, establishing partnerships with shared value logic in mind, as well as strategies encompassing end-to-end internal and external consumption drivers (Nugroho et al., 2024).

Research carried out by Whelan and Fink (2016) and Baumgartner and Rauter (2017) shows that companies with aligned ESG filters can be seen as sustainability leaders through the eyes of investors, analysts, or consumers, which creates a competitive advantage along with benefits for brand equity. Additionally, Bhattacharya (2020) examines strategies for companies to move beyond environmental practices as value-creating by engaging consumers and employees in sustainable initiatives, deepening the relationship between ESG and consumer engagement. Tosun and Tavşan (2024) explore the influence of perceived corporate social responsibility on consumer wellbeing and brand love, proposing a novel theoretical model conceptualizing perceived firm sustainability performance and ethical consumption as antecedents of consumer happiness. Various other research shows that consumers have a more favorable attitude towards low-impact products, indicating a chance for companies with Ecological values (Chatrakamollathas & Nuengchamnong, 2024; Shehawy & Khan, 2024).

Although earlier studies emphasize the increasing consumer inclination towards purchasing goods with lower environmental effects (Ramtiyal et al., 2024), some pathways that link ESG performance and consumer behavior still need to be investigated (Lee, 2024), while other gaps subsist in the literature. First, there is limited research on how perceived ESG performance directly affects brand commitment and whether this commitment translates into sustainable consumer behaviors (Fatma et al., 2022). Second, existing studies have mainly examined the short-term value creation of ESG initiatives by influencing the corporate reputation or financial performance of firms, but they largely ignore long-term outcomes such as developing trust-based relationships with customers over time by continuously providing sustainability-orientated products and services (Calderón-Monge et al., 2020; Gulati et al., 2023). In addition, the transformative role of experiences (Pung et al., 2020) has not been explored and needs to be investigated. Finally, limited empirical evidence on how sectors like energy can use ESG performance as a tool for promoting sustainable lifestyles of consumers and inducing changes in society at large towards sustainable consumption practices also prevails (Khalil & Khalil, 2022; Narayanan & Singh, 2023).

This study seeks to address these gaps by investigating the relationship between perceived ESG performance and brand commitment and how this relationship influences consumers' sustainable behaviors. Based on signaling theory and social cognition theory, the study investigates what kind of sustainability signals firms send to consumers through their activities and how such signals influence consumers' behaviors. While signaling theory helps to explain the way that companies signal bold and visible sustainability messages (Connelly et al., 2011; Spence, 1973), social cognition theory and concepts such as observational learning and self-efficacy may help to explain how those signals are translated into individual/collective behavioral change (Bandura, 2001).

This research uses a cross-section survey of 847 randomized clients of the largest Portuguese energy supplier to bring light to these dynamics. A structured questionnaire distributed anonymously by the company is used to collect data, which is analyzed using structural equation modeling (SEM) to test hypotheses. The results indicate that perceived ESG performance positively affects brand commitment, which enhances clients' involvement in sustainable behaviors. Our findings add to the developing literature on the impact of businesses in shifting consumer attitudes, highlighting that sustainable behaviors should be aligned with business practices and communication strategies (Sanchez–Chaparro et al, 2024; Khan & Fatma, 2023).

These are important findings that have significant implications. Moreover, they emphasize that businesses are essential in this societal shift towards responsible consumption. The virtuous cycle of sustainable development—whereby the integrity and ESG commitment of companies greatly determine their reputation, which in turn influences consumer behavior—also leads to the spirit to generate long-term value (Wang & Sarkis, 2017; Elshaer et al., 2024). This research underscores the integral role of businesses in societal shifts towards responsible consumption, empowering different stakeholders and highlighting their importance in the sustainability movement. This study also contributes to the literature by providing practical implications and guidelines for organizations that try to improve their ESG practices and create bonds with their stakeholders, resulting in a behavioral change (Fatma et al., 2022) under signaling and social cognition theories. It highlights the need for a more comprehensive, open pathway towards sustainability - strengthening loyalty to brands and, ultimately, broader societal well-being.

This study makes an important contribution by enriching our understanding of how goodwill created (or destroyed) by firms via their ESG performance can influence consumer behavior indirectly, facilitating businesses as potential green foil for sustainable lifestyles. In conclusion, this important study confirms that sustainability is a core component of any business strategy that must now adapt to address the growing needs and preferences of individual consumers and general populations while ensuring companies are doing their part to meet societal needs for current and future generations (Fatma et al., 2022). The findings in this study enable firms to develop strategies that strengthen positive ESG outcomes, aiding in strategic planning, stakeholder perception, and market advantage.

This paper is structured as follows: The introduction describes the relevance and background of corporate ESG performance on consumer sustainability behaviors and points out the existing gaps in the literature regarding this relationship. The following section is Research Background and Hypothesis Development, which synthesizes relevant theories, including signaling and social cognition, to develop the theoretical basis of the proposed hypotheses related to ESG performance, brand commitment, and sustainable consumer behaviors. Under Methodology, the study describes how data were collected, the sample details, and the analytical approach (in this case, using SEM). The results of the hypothesis test, which showed how perceived ESG performance affected brand commitment and its influence on sustainable behaviors, are presented in this order in the Findings section. Then, the Discussion addresses the implications of those findings, considering the effects of moderation by transparency and mediation on brand engagement. The paper ends with Contributions, Managerial Implications, and Directions for Future Research, discussing contributions to theory and some practical recommendations for companies on how to strengthen the engagement of their consumers with ESG issues.

2. Research background and hypothesis development

2.1. Signaling and Social Cognition Theories

The first underlying theories studied regarding environmental, social, and governance (ESG) problems were agency and stakeholder theories. Primarily, ESG was used to protect shareholders, based on agency theory. However, due to the evolution of the market, the focus recently turned to companies' sustainable continuity. Sustainable companies can create value for all internal and external stakeholders. Given this evolution, studies started to be based on stakeholder theory. Jamali (2006) stated that organizations' current challenges include changing their priorities towards more holistic performance evaluation models at various levels, including measures related to multiple stakeholders. Companies with improved vision and awareness of stakeholders' needs will potentially tend to focus on social responsibility (Hussain et al., 2018). However, with the evolution of markets, studying the various business contexts and deepening new supporting theories becomes relevant (Kowalski & Matusiak, 2019).

In recent years, ESG factors have gained significant traction in business and society. This shift reflects a growing recognition that businesses have responsibilities beyond mere profit generation (Zhou et al., 2022). Furthermore, the critical role of consumers in putting pressure on companies to adopt more responsible practices is recognized. Companies that do not respond to these demands risk losing customers and facing negative consequences for their reputation (Song et al., 2023). Consumer psychology and signaling theory (ST) provide information about brand achievement's types, favourability, strength, and uniqueness to cultivate value in customers' minds (Keller, 1993). Signaling theory helps describe behavior when two parties' access different and incomplete information (Connelly et al., 2011; Spence, 1973). Typically, one party, the sender (i.e., firm), chooses how to communicate (i.e., signal) that information, and the other party, the receiver (i.e., consumer), chooses how to interpret the signal. Fundamentally, signaling theory reduces information asymmetry between two parties (Spence, 2002). Signaling theory has been used in previous investigations, whether in employee commitment and employer reputation (Dögl & Holtbrügge, 2014), accounting (Uyar et al., 2020), but mostly in management studies (Connelly et al., 2011). This theory has been notably employed in explaining the potential benefits for firms in adopting ESG practices based on consumers' vision (Fu et al., 2022; Koh et al., 2022; Lee et al., 2022; Song et al., 2023).

Social Cognitive Theory (SCT), developed by Albert Bandura (2008), is a psychological theory that emphasizes the role of cognitive processes in shaping human behavior. SCT posits that individuals learn from observing others through social interactions, experiences, and environmental factors (Bandura, 2008; Syed, 2017). This theory explores how people interpret, analyze, remember, and use information about the social world. It focuses on how individuals perceive others, form impressions, make attributions, and how these processes influence their behavior (M. Liu et al., 2023; Rabaya & Saleh, 2022). When applied to ESG factors and consumer behavior, social cognition theory can offer insights into how consumers perceive and respond to companies' ESG practices (Rabaya & Saleh, 2022).

In summary, signaling theory provides insights into how companies use ESG practices to communicate information to consumers and stakeholders. By strategically signaling their commitment to sustainability, social responsibility, and ethical governance, companies can differentiate themselves, manage risks, build trust and reputation, and meet regulatory requirements, ultimately enhancing their competitive advantage and long-term viability in the marketplace. Additionally, social cognition theory provides a framework for understanding how consumers perceive, interpret, remember, and respond to companies' ESG practices (Fu et al., 2022; Song et al., 2023). By considering the cognitive processes underlying consumer behavior, businesses can develop strategies to enhance their ESG performance, improve consumer perceptions, and build stronger relationships with their target audience (Grimmer, 2018; Nguyen & Johnson, 2020). Thus, the combination of signaling and social cognition theories may give us the rationale to investigate and explain how firms' perceived ESG performance can contribute to consumers' transformation and sustainable behaviors through the effects of brand commitment.

2.2 ESG performance perception

Over the decades, corporate social responsibility (CSR), environmental, social, and governance (ESG), and sustainability concepts have evolved into what they are today; that evolution varies from region to region. Sustainability Reporting in Developed Countries like the US, UK, and Italy has pushed forward, focusing on sustainability reporting through practice, where the former aligns its focus more towards CSR practice. In contrast, the latter two developed countries prefer ESG disclosure practices. Conversely, ESG ratings are heavily focused on emerging markets but are still in a nascent stage of sustainability disclosure (Jayachandran et al., 2024). Divisive social responsibility has been geared toward long-term business ethics, and sustainability is part and parcel of core corporate strategies. A constellation of global forces and increasing stakeholder demands propel the paradigm shift (Sukma & Ismail, 2023). The evolution from CSR to ESG has also affected the corporate governance landscape, changing tasks for governance and oversight bodies. A vital connection is made between CSR/ESG ideas and human rights, which are integral to any corporate culture (Jovanović & Jovanovič, 2024).

In short, CSR, ESG, and sustainability have matured into a broader umbrella of corporate responsibility. The DESGGO (Democratic ESG Green Ocean) framework using the Company Democracy Model encourages organizations to adopt and enhance their ESG strategies (Markopoulos et al., 2020). These changes have resulted in a strategic pivot to sustainability, stakeholder capitalism, and strong regulation with an impact-driven CSR landscape that is high-stakes and competition-oriented, which aligns with the economic diversification agenda (Antwi-Boateng & Harasi, 2024). These concepts continue to evolve and, shortly, will be an integral part of global business practices and corporate decision-making. This eventually implies that ESG performance perception is the perceived view of external stakeholders such as investors, consumers, employees, regulators, and communities on the Environmental, Social, and Governance practices/performances of any given firm (Shafique et al., 2021; Agrawal, 2024). As one remedy for sustainability issues, considering the different dimensions of firm activity, ESG has arisen as a kind of business (Huang, 2021). ESG factors include various sustainability-related practices, corporate social responsibility efforts, and ethical business conduct. Stakeholders experience ESG performance differently, which may be affected by external factors – industry standards, corporate image or reputation, news stories, blogs, or social media sources- or their identities, beliefs, attitudes, values, and opinions. Stakeholders often look favorably at companies for which they have the perception of high ESG performance. The potential benefits include a better brand image, higher investor trust, boosted workforce morale, and reduced vulnerability against ESG risks. As a result, ESG performance perception is the view of internal and external stakeholders on a company's environmental, social, and governance practices and performance (Gigante et al., 2023). It will drive stakeholder decisions affecting investor decisions, consumer preferences, employee loyalty, and corporate reputation. The ESG perceived performance captures the value in a broader aspect by taking account of actual performance linked to value creation (Amanullah et al., 2024; Liu et al., 2023); however, it is the perception of firms' efforts.

First, we argue that there is a crucial need to integrate signaling theory and social cognition theory in explaining perceived ESG performance, as indicated by multiple studies in the above-provided background. Accordingly, signaling theory emerged as necessary in explaining some elements of the effect ESG performance has on different aspects of firm behavior and perception from stakeholders—for instance, Wan et al. Signaling theory has been used by Y. L. (2023) to study the effects of ESG performance on firm innovation efficiency. The study's results indicate that ESG performance enhances innovation efficiency and signals to stakeholders for firms' efforts to promote sustainable development by enhancing their firm image through superior ESG performance and innovation (Wan et al., 2023). Consistently, Zhang and Liu (2022) also find evidence supporting the signaling hypothesis by demonstrating that ESG performance alleviates credit constraints via more channels, sending positive signals to investors and creditors and enhancing financial flexibility (Zhang & Liu, 2022). Though not directly labeled as such, social cognition theory may be indicated in papers focusing on perceptions and cognitive mechanisms about ESG-related concepts (Chegaretti et al., 2023). For example, Guo and Yang (2024) examine the impact of firm-level perception of carbon risk on its ESG performance, discovering that Appendix ESG disclosures positively correlate with a higher perception of carbon risk (Guo & Yang, 2024). This is consistent with social cognition theory because it shows how a cognitive process (risk perception) affects behavior (ESG performance). Finally, we note that signaling theory is the leading framework to explain how ESG performance is perceived – subsequent studies primarily draw on it as a foundation for theorizing. Hence, signals in general are indicated by many researchers as an explanatory mechanism between ESG and different outcomes of firms (Santos et al., 2024). Although not mentioning the social cognition theory, some studies researched perceptions and cognitive processes associated with ESG (Lee, 2024). These theories help understand how ESG performance relates to and is utilized by firms/stakeholders for decision-making.

2.3 ESG performance perception and brand commitment

Fullerton (2005) states that brand commitment means a compelling psychological and emotional connection with a consumed brand, directing consumption retention and long-lasting involvement. Brand commitment is not the same as being satisfied or repurchasing a product; it can be measured by how aligned a person is with brand direction and attributes. Such a connection encourages customer loyalty, advocacy, and buyer churn resistance in an over-competitive market (Popp & Woratschek, 2017). As consumers are swamped with countless options, creating and sustaining brand loyalty is critical to the sustainability of any business (Yuan, 2024). Due to the high level of ethical consumption that consumers require today, tomorrow will demand more outstanding brand commitment (Amoko et al., 2021) as consumers disregard brands that do not partake in suitable ethics and sustainable practices. Brands that communicate these new values become a source of more profound emotional connection with consumers in an age where sustainability and social impact expectations are at all-time highs (Fatma et al., 2022). It explains exceptional loyalty and sustainability, especially during crises when credibility has become critical for a brand. As a result, brand commitment leads to loyal consumers. Eventually, a competitive advantage guarantees market leadership over competitors in a market that values intangibles in an increasing way (Porter & Kramer, 2011).

ESG practices often lead to better consumer perspectives concerning the brand, and these effects are likely to be amplified in an environment where climate change risks, social inequality, and corporate ethics are increasingly discussed (Nugroho, 2024). Consumers will form a higher emotional connection with the brands they believe are engaged in ESG issues, affecting their choice (Fatma et al., 2016). This makes ESG performance a particularly pertinent driver of consumer loyalty. The recent literature also establishes the link between strong ESG performance and higher levels of customer loyalty and engagement alongside corporate reputation (Maaloul et al., 2023; Xu et al., 2024). According to Porter and Kramer (2011), vital ESG behaviors drive consumer choices; thus, ESG is part of the brand selection condition in a competitive position. A solid ESG performance indicates to consumers that a corporation has high ethical, sustainable, and social responsibility standards (Lee, 2024). It creates a good signal in the market, making the company unique compared to those who do not observe these values. For example, businesses that work to minimize their carbon footprint or advocate for equality are perceived as part of a solution to create lasting positive changes and well-being in society (Nugroho et al., 2024; Seroka-Stolka, 2023). The consumer needs to learn precisely how the business works behind the scenes. This gap of information (or information asymmetry) can be mitigated by a cross-sectional assessment of ESG performance that leads to an empirical, transparent, and verifiable measurement of a company's economic, social, and environmental performance (Banerjee & David, 2024). This transparency builds trust and reassures consumers about the ethical standards of the brands they engage with, enhancing their emotional connection with the brand.

Accordingly, we propose the following hypotheses:

H1: ESG perception as a positive impact on Brand Commitment.

2.4 From brand commitment to sustainable behaviors and personal growth

As the world is becoming increasingly turbulent, people are chasing a better quality of life where they can afford higher comfort, safety, and security. In the 21st century, more apparent expressive understandings of happiness have transcended that foundational dimension of material security to not only materiality as the highest levels of pure expressions of spiritual fulfillment and intrinsic knowing are interrelated with core tightly woven elements essential for personal identity (Kashdan et al., 2024). In this way, personal change is not self-improvement but a means of actualizing a more extensive set of social values. We can see this change in changing (e.g., stimulating) consumption behaviors as individuals reevaluate their choices and value social connection and awareness of global challenges such as climate change more (White et al., 2019). Consumers are increasingly aware of these problems, and now they seek to align their values with their consumption habits, leading toward more ethical, sustainable choices (Parvatiyar & Sheth, 2023). In this context, the United Nations Sustainable Development Goals (SDGs) offer an integrated framework to address ecological and social challenges and prompt roles for businesses and consumers as integral players in this transition (UNGC, 2019). Climate action quotations from recent climate change conferences, COP26 and COP27, have clarified that the compulsion of climate action adds up as consumer preferences are a crucial driver for sustainability. Furthermore, exchanges at the World Economic Forum's meetings in Davos reaffirmed the primacy of business and technological progress as an engine of sustainable development (Stefán, 2024).

With the evolution of individual-level change to social movement, citizen awareness, and responsibility gradually dictate the requirement for sustainable products and services (Jackson, 2005; Anker et al., 2022). The new consumer is seen as an agent of change, helping to build a fairer and more sustainable world. In this new pattern, companies have addressed the role of enablers – which creates change for the shoppers. Consumer–service provider interactions transcend mere betting scenarios, representing unique settings where behaviors, values, and sustainability practices unfold (Laukkanen & Tura, 2022). Complying with these expectations and having sustainability as a core value will drive this transformation and place the companies ahead of their competitors (Brozović et al., 2020).

Brand loyalty is a crucial driver of sustained behavior change. Questions about how relationships between consumers and brands help to develop new behaviors can be explored with insights from signaling (Spence, 2002) and social cognition theories (Bandura, 1986). Signaling theory reminds us that this is the case regarding consumers' perceptions of transparency, and social cognition points to the role of social influence in behavioral change. By being transparent about their sustainable intentions, companies create brand value and allow consumers to express their values in the marketplace by aligning where they spend with the orientation of those brands (Lin et al., 2021). These sustainable brands are transforming consumer consumption, and their lives, mindsets, and interactions with the world are slowly altering individual levels (Hasan et al., 2024) and normative or self-enhancing consumer behavior (Kim et al., 2024). Consumers choose environmentally and socially sound brands, which signifies a demonstrable contribution to sustainability. This positive feedback loop, where sustainable consumers encourage brands to be bolder innovators, further links individual behavior to firm action (Reppmann et al., 2024).

Moreover, each purchasing decision integrates into the fabric of a societal shift. By harmonizing personal values with consumption habits, individuals become part of a global movement striving to balance personal fulfillment with planetary well-being (Zhan, 2022). The average consumer's day-to-day decision-making is often on autopilot. However, there are consequences — and if consumers realize the impact of those decisions and can plan for a future when sustainability stakeholders are rewarded, and those working against them face challenges. The alliance between values and economics is the holy ground for a sustainable, equitable prospect where each step leads to a flourishing, just, and developing community. This mindful consumption can release the power to improve society and restore a future balance for the entire ecosystem in a brother sense (Nugroho et al., 2024; Kim et al., 2024; Tiep Le et al., 2023).

2.4.1 Brand commitment and personal transformation

Brand commitment is one of the critical concepts that marketing scholars have studied, even with an evolving approach over time. Early work on brand commitment, such as Cohen and Houston (1972), focused on explaining the relationship between attitude and behavior, suggesting that commitment reduces the complexity of the consumer decision problem. Building on this, Martin and Goodell (1991) investigated how the consumer view of the product and consumption behavior depends on the consumer's commitment. Brand commitment is more vital than repeat purchase behavior; it is attitudinal and behavioral. Brand commitment identifies consumer-brand relationships that have recently occupied an essential place in the literature (Fullerton, 2003).

According to social cognition theory, learning happens by watching other individuals behave, especially those they see as role models. Consumers who are strongly connected to a brand tend to perceive it as a role model in the areas it advocates, whether innovation, sustainability, or social activism (Sung et al., 2009). As an illustration, a green brand can motivate its loyal consumers to perform green behavior by recycling or minimizing waste (Bulmer et al., 2024). Such type of learning promotes imitating behaviors, a cornerstone of changing behavior.

Similarly, social cognition theory highlights the influence of self-efficacy or the confidence a person has in his/her ability to perform behaviors that will result in the desired outcomes (Bandura, 1986). A relationship with a brand that provides meaningful tools, education, and opportunities to engage in socially constructive ways may increase consumers' feelings of empowerment to create a lasting impact (Araújo, 2023). For instance, a brand that offers tools for decreasing energy use or tips for green living can help motivated consumers practice the same behaviors. This newfound self-efficacy is one of the significant motivators for change.

Additionally, consumers offered brand engagement towards the brands they are committed to may receive beneficial consequences, which can be economic or psychological, that can result in consumer savings due to green products, social approvals, or individual advantages (Lubowiecki-Vikuk, 2021). These rewards serve as reinforcement, motivating consumers to continue or further expand their changed behavior. This means that, in addition to solidifying loyalty, brand commitment also triggers wide-ranging behavioral changes that help effect personal change, especially in value-consistent domains of self (Khandai et al., 2023; Escalas, 2004; Fournier, 1998).

Accordingly, we propose the following hypotheses:

H2: Brand engagement has a positive impact on Personal Transformation.

2.4.2 Brand commitment and normative sustainable behaviors

One of the critical components of social cognition theory is observational learning, which is the process of learning behaviors and attitudes by observing others, especially those considered models or authority figures (Fuente, 2023). When consumers firmly commit to that brand, they perceive that sustainable brand as a catalyst for good behavior. Specifically, the brand demonstrates what is considered average or typical in sustainable behavior, such as minimizing carbon emissions or participating in recycling programs (Bandura, 1986; Escalas & Bettman, 2003). From this perspective, devoted consumers exhibit these behaviors and view them as a behavioral "norm" or expectation for appropriate behavior (White et al., 2019). This high brand commitment persuades consumers to carry out sustainable actions, while consumer behavioral intention makes those actions firmly committed.

For example, brands championing environmental sustainability encourage customers to adopt eco-friendly behaviors such as energy-saving practices, minimizing waste, and sustainable living (Prakash et al., 2024). These consumers internalize the sustainable brand ethos themselves, believing that these behaviors are good and that it is socially expected to engage in them. It is consistent with the notion of "normative social influence" (the tendency for individuals to conform to the attitudes and behaviors of others to either be liked or accepted) that Bagozzi (2000) discusses in the context of consumer behavior.

In addition, social cognition theory highlights that brands are resources and channels for consumer information. Sustainable behaviors are reinforced by this provision, together with confidence in one ability to execute certain behaviors (self-efficacy) (Chen & Shang, 2024). By providing such tools for awareness and action, brands enhance consumers' self-efficacy while feeling informed and capable of acting eco-friendly (Bandura, 1997; Lee et al., 2009). Such empowerment enables longer-term maintenance of normative sustainable behaviors and turns brand-consumer commitment into a driver of increased durability of the behavior change.

Accordingly, we propose the following hypotheses:

H3: Brand Commitment has a positive impact on Normative Sustainable Behaviour.

2.4.3 Brand commitment and self-enhancing behaviors

Brand commitment is logically based on values consistent with self-focused values and a positive self-identity (Zhao & Huang, 2024). Social cognition theory argues that people form their self-concept through interactions with social stimuli, including brands (Bandura, 1986). When consumers are committed to a brand that reinforces self-enhancement goals, they perceive their self-identity as intertwined with the brand values, stimulating behaviors that both promote personal and psychological flourishing as well as benefit society (Escalas & Bettman, 2003)

When consumers go deeper into a brand journey, they assimilate the brand values inside the mind, which is the most liberating thing. For example, when a brand communicates the values of behavior change or empowerment, these values can be internalized by the consumer and weave into the consumer's self-concept, ultimately affecting individual goals and action on opportunities for change (Yang et al., 2023). This eventual internalization translates into self-affirmatory tendencies, where consumers engage in behaviors that depict their narrative toward self-improvement. These behaviors may include adopting sustainable practices, prioritizing well-being, or positively contributing to their communities (Park et al., 2010; Bhattacharya & Sen, 2003; Bagozzi, 2000).

Additionally, commitment to the brand increases self-esteem by promoting consumer identification with personal values aligned with the brand mission, strengthening their self-enhancement behaviors, and positively impacting personal well-being (Escalas & Bettman, 2003; Fournier, 1998). By making choices that cohere with their values regarding these brands, consumers are reinforcing their loyalty to the brand and an identity they identify with — one centered around growth and the betterment of oneself. For instance, if a consumer is committed to a brand that advocates the value of sustainability, they may engage in environmentally friendly behaviors since their new actions are consistent with their value-driven lifestyle, resulting in self-enhancement and social contribution (White et al., 2019).

Accordingly, we propose the following hypotheses:

H4: Brand Commitment has a positive impact on self-enhancing behavior.

2.5 The moderating role of transparency perception

Transparency perception (TP) plays a significant role in moderating various relationships within organizational and consumer contexts. The transparency perception of consumers, as they discern the openness, honesty, and clarity of information provided by companies or organizations (Hustvedt & Kang, 2013; Lin et al., 2017), is not just an essential driver of ESG development but also a testament to their integral role in the process. It involves the degree to which consumers believe they can access accurate and comprehensive information about a product, service, or company's practices (Y. Liu et al., 2023; Zhong, 2018), making them the driving force behind the push for transparency and accountability.

In this sense, transparency perception, or the firm's ability to consistently adapt behaviors over time, sharing and talking about successes, failures, and lessons learned, is a crucial aspect of understanding the relationship between companies and their customers (Fernandez-Feijoo et al., 2014; Y. Liu et al., 2023; Yang & Battocchio, 2021). Transparency perception lays out a specific context or boundaries within which the company acts (Y. Liu et al., 2023). Therefore, the efforts put into ESG may be boosted by a context of environmentally engaged consumers (Y. Liu et al., 2023; Yang & Battocchio, 2021; Zhong, 2018). Consequently, this study highlights how transparency perception may trigger ESG, adding to the moderating effects of transparency perception.

2.6 The mediation role of brand commitment

Our investigation suggests that brand commitment may mediate the relationship between perceived ESG and personal transformation in sustainable behavior, mainly through the lenses of signaling theory and self-enhancement theory. Brand commitment is a consumer's psychological attachment to a brand. It mediates by translating perceived ESG values into a consumer's motivation to change behavior (Fatma et al., 2022). High engagement with a brand that embodies strong ESG can amplify the alignment between the brand's values and the consumer's self-concept, making sustainable actions more personally meaningful (Bandura, 1986; Escalas & Bettman, 2003). Perceived ESG refers to how consumers view a brand's commitment to sustainability, social responsibility, and ethical governance (Amanullah et al., 2024).

When a brand has vital ESG attributes, it signals values that can influence consumers' personal beliefs and actions, leading to sustainable behaviors (Wan et al. (2023). These behaviors can be normative (aligned with societal expectations) or self-enhancing (focused on personal identity and self-esteem). When a brand is seen as embodying ESG values, engaging with it allows consumers to signal them socially, enhancing their reputation and the customers' potential brand commitment. This motivation aligns with normative sustainable behavior, as consumers seek to signal their alignment with social expectations around sustainability (Prakash et al., 2024). At the same time, socio-cognition theory posits that people are motivated to enhance their self-concept and self-worth based on social learning.

When consumers are committed to a brand with strong ESG, they adopt behaviors that allow them to internalize and reflect these values, boosting self-esteem (Escalas & Bettman, 2003). This leads to self-enhancing sustainable behaviors, where the drive reinforces one's self-concept as responsible and ethical (Phipps et al., 2013). Therefore, brand engagement mediates perceived ESG and sustainable behavior by facilitating both normative (signaling to others) and self-enhancing (building self-worth) motivations (Reppmann et al., 2024).

Accordingly, we propose the following hypotheses:

> **H5:** Brand commitment mediates the relationship between perceived ESG and personal transformation in terms of sustainable behavior, both normative and self-enhancing.

3. Method

The research model proposes a set of hypotheses. Given that customers have varying perceptions of the investigated variables based on their level of perception of transparency regarding companies, TP is treated as a moderating variable. Consequently, two groups were created to assess the impact of TP: one group with low TP (n = 383) and another with high TP (n = 464). The proposed hypotheses are analyzed overall and within each group to test the effects of TP on the proposed relationships. The research model below illustrates the primary hypotheses considered in this investigation (see Figure 1).

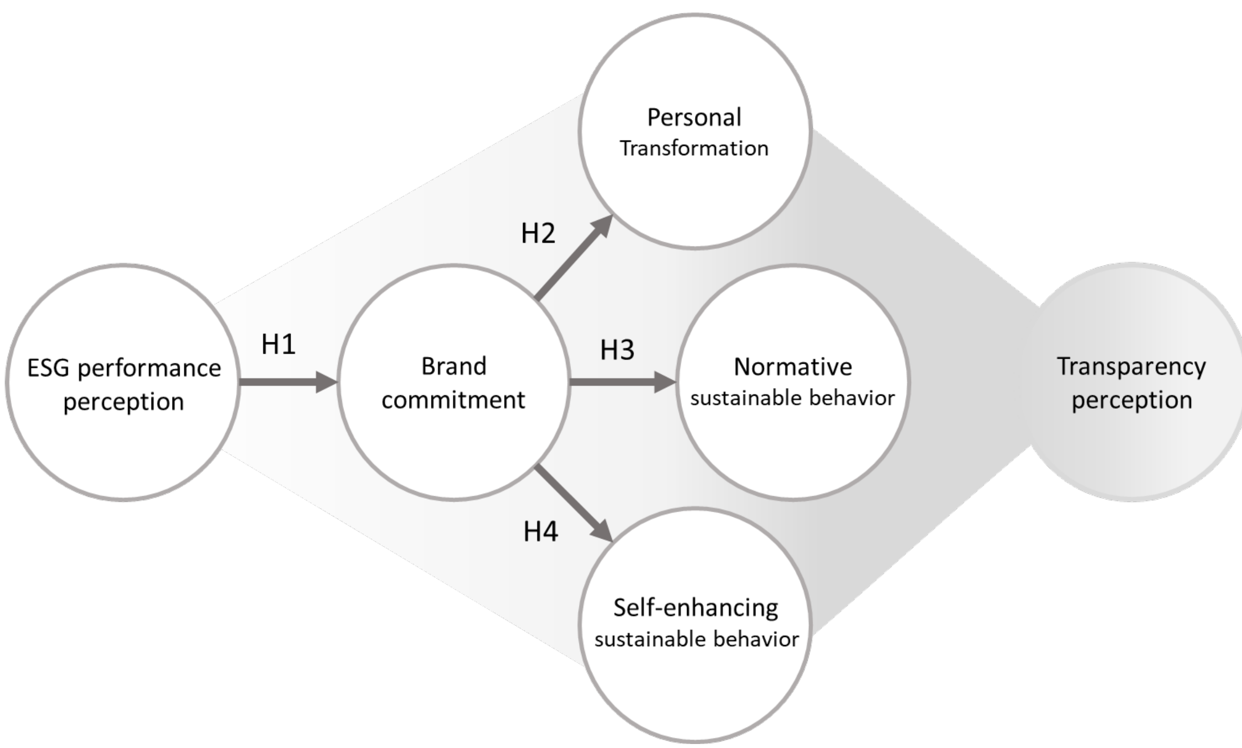

Figure 1 - Conceptual Model

EDP (Energias de Portugal) was considered as a case study in the present investigation since the company has a solid commitment to sustainability and, as a result, is a leader in the energy transition worldwide. EDP has a vertical-integrated operation and supplies 80% of its installed capacity from renewables. It plans to supply all green energy by 2030. This ambitious target highlights its commitment to lower carbon emissions and a more sustainable future. EDP´s aspirations are based on a strong Environmental, Social, and Governance (ESG) culture embedded in its day-to-day activities and strategic decisions at all levels (EDP, 2023).

EDP not only sets environmental targets but also prioritizes the involvement of stakeholders such as customers, employees, investors, and communities in its sustainability goals (EDP, 2024a). The 2023 annual integrated report reinforces the idea that the company appreciates the feedback and engagement of these stakeholders, recognizing that they are important to its sustainability initiatives. EDP promotes responsible usage, from flexible rates and renewable energy to innovative technologies that measure real-time energy consumption. With these tools, customers can save energy costs and become less environmentally harmful (EDP, 2023). EDP also invests in educational and awareness actions that demonstrate the advantages of opting for sustainable choices, as the company understands that opportunity and experience combine for business success in daily life and has identified a relationship between the balance between quality of life in the customers and well-being, and the adoption of environmentally friendly practices (EDP, 2024b). EDP wants to use its position as an energy provider to direct its customers toward sustainable transformation while initiating an internal process of sustainable cultural evolution with a focus on innovation and change in its own sustainable goals (EDP, 2023).

3.1 Sample and Data Collection

An instrument for conducting empirical research was constructed with the help of the online Qualtrics tool to measure the structural research model and hypotheses. In the case of EDP, the sample of people reached by email requesting to answer the questionnaire was between February and March 2022 and was composed of 51,000 customers. It was extracted from a universe of 2,997,140 residential customers in Portugal. Of 51,000 customers contacted, just 1,777 opted to fill in the survey. This brought us to a total of 5,600 respondents, of which 917 responses were rejected because they were incomplete, and 860 valid responses were used for analysis, which makes up a response rate of 1.7%. This also highlights the intricate nature of survey research, as it is often challenging to attain high response rates. However, it also gives a specific dataset to test the posited hypotheses.

3.2 Measures

Measurement was based on scales developed and tested in previous investigations, respecting the original structure and formulating the necessary adjustments. This meant translating the questionnaire from English into Portuguese, using back-translation procedures, making it easier for respondents to understand. Scale items are shown in Table 1. A seven-point

Likert scale was used, and participants were instructed to score each item based on the frequency of the actions they observed, ranging from “Not at all” (1) to “Frequently” (7).

CONSTRUCT		ITEM	SRW
ESG perceived performance (ESG) *Herrera et al. 2023*	Environmental performance	*In my opinion, regarding the environment, EDP is really…*	
		‣ trying to sponsor pro-environmental programs	0.802
		‣ trying to allocate resources to offer services compatible with the environment	0.845
		‣ trying to carry out programs to reduce pollution	0.863
		‣ trying to protect the environment	0.809
		‣ trying to recycle its waste materials properly	0.814
	Social performance	*In my opinion, regarding society, EDP is really…*	
		‣ trying to sponsor educational programs	0.797
		‣ trying to sponsor public health programs	0.783
		‣ trying to be highly committed to well-defined ethical principles	0.815
		‣ trying to sponsor cultural programs	0.876
		‣ trying to make financial donations to social causes	0.889
		‣ trying to help to improve the quality of life in the local community	0.777
	Governance performance	*In my opinion, regarding governance, EDP is really…*	
		‣ trying to maximize profits to guarantee its continuity	0.789
		‣ trying to build solid relations with its customers to ensure its long-term economic success	0.751
		‣ trying to continuously improve the quality of the services that they offer	0.820
		‣ trying to have a competitive pricing policy	0.807
		‣ trying to always improve its financial performance	0.742
		‣ trying to do its best to be more productive	0.696
Brand commitment (BC) *Beatty et al. 1988*		*Considering EDP*	
		‣ if is not available, it would make a big difference to me if I had to choose another brand	0.929
		‣ I consider myself to be highly loyal to the brand	0.928
		‣ I will generally prefer this brand, even when another brand is on sale	0.854
Personal transformation (PT) *Minton et al. 2018*		*Considering my individual beliefs…*	
		‣ sustainability is very important to me	0.936
		‣ I seek to reduce the overall number of purchases I make to help the environment	0.945
		‣ Buying more than I need hurts the environment	0.866
Normative sustainable behaviour (NSB) *Minton et al. 2018*		*Considering my behaviors…*	
		‣ I regularly recycle newspapers	0.736
		‣ I regularly recycle plastic bottles and cans	0.837
		‣ When purchasing a large appliance, I seek to purchase an energy-efficient appliance	0.875
Self-enhancing sustainable behaviour (SESB) *Minton et al. 2018*		*Considering my behaviours…*	
		‣ I regularly purchase organic fruits	0.910
		‣ I regularly purchase organic vegetables	0.786
		‣ I volunteer time to organizations and causes that support sustainability	0.805
		‣ I donate money to organizations and causes that support sustainability	0.696

Table 1 - Measurement scales

Table 3 shows the results of the estimation of the structural model. Composite reliability (CR) and the average variance extracted (AVE) were computed. All the scales showed values above 0.7 for CR and above 0.5 for AVE, which aligns with the recommendations (Hair et al., 1998). All the values are significantly below the threshold of 0,9, according to Franke and

Sarstedt (2019), which gives additional support to discriminant validity. The squared correlations calculated for each pair of constructs are always smaller than the variance extracted for corresponding constructs (Shiu et al., 2011).

Construct	ESG	BC	PT	NSB	SESB	CR	AVE
ESG Performance Perception	**0.966**					0.97	0.65
Brand Commitment	0.618	**0.930**				0.93	0.82
Personal Transformation	0.441	0.480	**0.939**			0.94	0.84
Normative Sustainable Behavior	0.299	0.371	0.412	**0.878**		0.86	0.67
Self-enhancing sustainable Behavior	0.278	0.345	0.386	0.606	**0.896**	0.88	0.64

HTMT values at the top of the array; Diagonal in bold - Cronbach's Alpha; CR - Composite Reliability; AVE - Average Variance Extracted.

Table 2 - Square Correlations, Cronbach´s Alpha, Composite reliability, and Average Variance Extracted

3.3 Common Method Variance

To reduce the risk of standard method variance, we used some procedural methods suggested by Podsakoff et al. (2003)and Brewerton & Millward (2011): (i) all respondents were guaranteed anonymity and the confidentiality of the information collected and were assured that there were no right or wrong answers; (ii) items were put in random order; (iii) there was no use of scales with bipolar numerical values or verbal designations for the mid-points of the scales; (iv) Bipolar numerical value scales or designations for the intermediate points of the scale were not used, and the questionnaire was divided into several sections with a brief explanation, reducing the risk of standard method bias (Brammer & Millington, 2008). A critical component analysis (unrotated solution) of all the items revealed five factors with eigenvalues above one, and none explained more than 45% of the variance. Structural equation modeling was performed through AMOS 28. AMOS is a robust data analysis tool due to its capabilities in structural equation modeling, enhancing traditional multivariate analysis techniques like correlation, regression, and factor analysis. This software excels in constructing attitudinal and behavioral models, accurately incorporating intricate relationships like mediation and moderation (Appiah-Kubi, 2024). The structural model revealed a good fit with indices such as IFI (0.954), TLI (0.947), CFI (0.953), RMSEA (0.056), and CMIN/DF (3.666) (Hair et al., 2010; Hooper et al., 2008).

4. Findings

The results of this investigation are presented in Table 3. A multi-group analysis was performed to test the moderation effects of transparency perception, considering two groups: the lower transparency perception group, with 383 respondents, and the higher transparency perception group, with 464 respondents. A chi-square test was performed to compare the two groups, and the results showed a significant difference. The differences between the unconstrained model (chi-square = 1506.801; D.F. = 411) and the fully constrained model (chi-square = 2036.430 D.F. = 822) indicated that the models were different (chi-square = 529.629; D.F. = 411; P ≤ 0.01; CV = 38.582) and that the moderation effects were significant.

HYPOTHESIS				GLOBAL				LOW TRA				HIGH TRA			
				r	C.R.	P	CHECK	r	C.R.	P	CHECK	r	C.R.	P	CHECK
H1	ESG	**w**	BC	0.625	17.017	***	ü	0.437	6.901	***	ü	0.448	6.003	***	ü
H2	BC	**w**	PT	0.488	19.872	***	ü	0.323	6.141	***	ü	0.460	9.647	***	ü
H3	BC	**w**	NSB	0.375	9.645	***	ü	0.202	3.545	***	ü	0.454	7.822	***	ü
H4	BC	**w**	SESB	0.349	9.647	***	ü	0.220	4.013	***	ü	0.408	8.338	***	ü

ü: *Hypothesis supported* |**V**: *Hypothesis not supported* | **r**: *Standardized Estimate* | **CR**: *Critical Ratio*| **p**: *Significance*

Note: ESG – Environmental, Social and Governance; BC – Brand Commitment; PT – Personal Transformation; NSB – Normative Sustainable Behavior; SESB – Self-enhancing Sustainable Behavior; TP – Transparency perception

Table 3 - Standardized Regression Summary

ESG performance perception is positively related to brand commitment (β = 0.625, p < 0.001); therefore, hypothesis 1 is supported. The path association between brand commitment and personal transformation, normative sustainable behavior, and self-enhancing sustainable behavior are significant (β = 0.488, β = 0.375, and β = 0.349, p < 0.001, respectively), supporting hypotheses 2, 3, and 4.

We used bootstrapping, a non-parametric resampling procedure, to examine the effects of mediation. The procedure employed for testing the mediation hypotheses or indirect effects followed the approach used by Cepeda-Carrion et al. (2016). Once again, the bootstrapping procedure generated t-statistics, significance levels, p-values, and 95% confidence intervals (percentile) for the mediators (Preacher & Hayes, 2008). The mediation effects of brand commitment on the relationship between ESG performance perception and personal transformation, normative sustainable behavior, or self-enhancing sustainable behavior were supported with a 95% bias-corrected bootstrap confidence interval. The results of the mediation analyses are presented in Table 4.

Hypotheses paths	Standardized Indirect effects	95% confidence interval	*P*	Supported/Not supported
ESG to BC to PT	0.366	[0.294;0.444]	***	Supported
ESG to BC to NSB	0.193	[0.128;0.257]	***	Supported
ESG to BC to SESB	0.204	[0.143;0.259]	***	

*** = p<0.01; ** = p<0.05; * = p<0.1; NS: non-significant
Note: ESG – Environmental, Social and Governance; BC – Brand Commitment; PT – Personal Transformation; NSB – Normative Sustainable Behavior; SESB – Self-enhancing Sustainable Behavior

Table 4 - Indirect effects

5. Discussion

5.1 ESG performance perception and brand commitment

The ESG performance of a company, particularly in the context of an energy supplier, can significantly influence customer brand commitment when viewed through the lenses of Signalling and Social Cognition Theory. Signaling Theory suggests that companies use observable actions (signals) to communicate unobservable qualities to stakeholders (Lee et al., 2022). At the same time, social cognition theory focuses on how individuals process, store, and apply information about others and social situations (Rabaya & Saleh, 2022). Customers' perceptions of a company's ESG performance are shaped by their cognitive evaluations, social interactions, and cultural values.

Our results show a relationship between perceived ESG performance and brand commitment, supporting H1 (r=0.625***). A company's ESG performance signals customers about its commitment to sustainability, ethics, and social responsibility (Santos et al., 2024). An energy supplier's strong ESG performance signals to customers that the company is committed to sustainable energy production, responsible governance, and ethical business practices. This can build trust, making customers more likely to commit to the brand (Maaloul et al., 2023). Choosing a supplier with a strong ESG track record reduces perceived risks, such as environmental harm or unethical practices (Wan et al., 2023). This risk reduction contributes to greater customer satisfaction and long-term commitment. At the same time, when customers perceive that an energy supplier's ESG performance aligns with their values (e.g., environmental sustainability), they are more likely to form positive attitudes toward the brand (Xu et al., 2024). Therefore, customers tend to select companies that reduce carbon emissions, use renewable energy, and adopt ethical governance practices. This shows how ESG performance significantly predicts brand commitment and trust (Khan et al., 2022; Khan et al., 2023). This dynamic fosters trust and value alignment, ultimately leading to more substantial brand commitment.

5.2 Brand commitment and personal transformation

A positive relationship exists between brand commitment and customer personal transformation regarding sustainability behaviors, supporting H2 (r=0.488***). Under Social Cognition Theory, brand commitment to an energy supplier can positively impact customer personal transformation by influencing how customers process and internalize their experiences, beliefs, and values related to sustainability, energy use, and corporate responsibility (Sung et al., 2009; Laukkanen & Tura, 2022). When people strive for consistency between their attitudes, beliefs, and behaviors and are committed to an energy supplier that aligns with their values—such as sustainability, clean energy, and ethical governance—they are more likely to experience cognitive consistency (Bulmer et al., 2024). In this context, the energy supplier acts as a 'role model' in promoting sustainability and social responsibility. This means that the supplier's actions, commitments, and practices serve as a model for customers to observe and learn from, thereby influencing their behaviors and attitudes (Brozović et al., 2020).

When customers witness their energy supplier leading in environmental practices or social responsibility, they will likely mirror those behaviors in their own lives (Lin et al., 2021). For example, a supplier promoting energy efficiency or renewable energy use could inspire customers to adopt similar practices at home, such as installing solar panels or reducing energy consumption (Araújo, 2023). This observation and imitation contribute to personal transformation as customers adopt new, pro-environmental behaviors, reinforcing their commitment to the supplier and embedding these sustainable practices into their daily lives (Phips et al., 2013). Moreover, if customers experience tangible benefits from the supplier's initiatives (e.g., savings from energy efficiency programs or satisfaction from contributing to a cleaner environment), these outcomes reinforce their commitment to the brand (Parvatiyar & Sheth, 2023). This could create a feedback loop, where their ongoing positive experiences with the brand encourage further personal transformation based on social learning, embedding these values more deeply into their personal identity and lifestyle choices, thereby deepening this personal transformation, and our results strengthen this assumption (Bandura, 1986; Khandai et al., 2023).

5.2.1 Brand commitment and normative sustainable behavior

Brand commitment to an energy supplier can positively impact normative sustainable behavior, supporting H3 ($r = 0.375$) and shaping how customers internalize and enact socially accepted sustainability standards. Social Cognition Theory highlights how individuals learn, interpret, and internalize social norms through observation, interaction, and personal commitment (Fuente, 2023). When customers have a strong brand commitment to an energy supplier known for its sustainability practices, they are likelier to internalize the company's values as part of their belief system. In this context, companies play a crucial role in shaping consumer sustainable behavior. There is an emphasis on social learning, where individuals adopt behaviors based on observing others and their environment. In the case of an energy supplier, the company and other committed customers can serve as models of sustainable behavior. When an energy supplier promotes energy-saving programs, renewable energy use, or environmental education, customers observe and emulate these practices (Bagozzi, 2000; Prakash et al., 2024). Committed customers will likely conform to these practices through this social modeling process, reflecting normative sustainable behavior. Over time, they may switch to energy-efficient appliances or reduce their carbon footprint to align with the brand's sustainable values (Laukkanen & Tura, 2022). These adjustments become ingrained as normative sustainable behaviors, reinforced by the positive feedback loop of consistent brand engagement and reduced cognitive dissonance. Finally, our results support that brand commitment to a sustainability-oriented energy supplier may positively impact normative sustainable behaviors, encouraging customers to internalize sustainability norms, observe and emulate socially accepted practices, and adjust their behavior to align with ethical and environmental values (Chen & Shang, 2024).

5.2.2 Brand commitment and self-enhancement sustainable behavior

According to social cognition theory, brand commitment to an energy supplier can positively influence self-enhancing sustainable behavior (H4= 0.349***), affecting how customers perceive their role in the protection of the environment and their ability to derive personal benefit from engaging in environmentally conscious actions (Zhao & Huang, 2024). Customers committed to a sustainability-oriented energy supplier may integrate the brand's values into their identity. This association makes sustainable behavior part of their self-image, motivating them to reduce energy consumption or use renewable energy to enhance their self-perception as eco-conscious individuals (Escalas & Bettman, 2003). Such positive reinforcement customers get from aligning with a brand that is seen as socially and environmentally responsible can drive them to engage in more self-enhancing sustainable behaviors in other areas of their sustainable behavior and of their lives. These behaviors allow them to feel good about themselves and reinforce their identity as responsible citizens. Customers committed to a brand that leads to sustainability may feel a sense of social prestige by supporting a company known for environmental responsibility. This sense of status, which is a key driver of self-enhancing behaviors, can make them feel recognized and valued, as these actions are associated with being more socially responsible or enlightened than others (Escalas & Bettman, 2003; White et al., 2019).

They may also perceive tangible benefits (e.g., saving on energy costs) or intangible benefits (e.g., receiving praise from peers) for aligning with sustainable practices. The desire to continue reaping these rewards encourages further sustainable behaviors driven by the self-enhancing motivation to maintain or improve their social standing (White et al., 2019). Therefore, brand commitment to an energy supplier can positively impact self-enhancing sustainable behavior by reinforcing the customer's identity as environmentally conscious, boosting social status, reducing cognitive dissonance, increasing self-efficacy (the belief in one's ability to succeed in specific situations or accomplish a task), and providing positive feedback, and our results reinforce that idea (Zhao & Huang, 2024; Chen & Shang, 2024).

5.2.3 Mediation

Brand commitment mediates by strengthening the link between perceived ESG efforts and personal transformation in sustainable behavior. ESG perceptions increase brand commitment through trust and shared values (Banerjee & David, 2024), which then motivates both normative (societally driven) and self-enhancing (self-focused) sustainable behaviors (Fatma et al., 2016). Signaling theory explains how credible ESG signals foster trust and brand commitment (Lee, 2024), while social cognition theory explains the internalization of sustainable values through cognitive associations with the brand (Fuente, 2023). These theories illustrate how brand commitment catalyses sustainable behavior, leveraging external societal norms and internal self-perception (Sung et al., 2009). Therefore, our results in Table 4 support this mediation proposed in this study, showing how a company's ESG performance can significantly contribute to a society's change towards a more sustainable life and environment, underscoring the societal impact of ESG performance.

5.2.4 Moderation

Perceived transparency, as opposed to greenwashing, can play a crucial moderating role in the relationship between perceived ESG and personal transformation towards sustainable behavior, both normative and self-enhancing, as mediated by brand engagement. Transparency is fundamental for creating long-term relationships between companies and stakeholders (Li et al., 2019), as it increases their trust and brand commitment (Chen et al., 2020). Transparency refers to consumers' belief that a brand is genuinely committed to its ESG initiatives instead of engaging in greenwashing, where brands exaggerate or fabricate ESG efforts. When consumers perceive high transparency, ESG efforts' credibility increases, enhancing brand engagement. This intense engagement further amplifies the personal transformation, making sustainable behaviors more likely. However, if perceived transparency is low (suggesting greenwashing), consumers may disengage from the brand, weakening the effect of ESG perception on sustainable behavior.

The impact of perceived transparency on sustainable behaviors is significant. High perceived transparency reinforces brand engagement's signaling function, strengthening the connection between ESG perception and normative sustainable behavior. On the other hand, low transparency disrupts this connection, reducing the likelihood of normative behavior driven by signaling motives. At the same time, high transparency enhances the self-enhancing pathway, supporting the internalization of ESG values through brand engagement. In contrast, low transparency (or greenwashing) disrupts this pathway by deterring consumers from associating the brand with their self-concept.

Therefore, our results underscore the pivotal role of brand engagement in enhancing sustainable behaviors. This finding highlights the importance of your work in sustainability and marketing, as it shows how the mediation of brand engagement produces stronger results on personal transformation and sustainable behaviors, both normative and self-enhancing.

6. Contributions, Management Implications and Recommendations

6.1 Contributions

Based on signaling theory, this research could extend our understanding of how perceived ESG performance in industries with substantial environmental impact (like energy) communicates credibility, responsibility, and transparency to consumers. It acts as a strong and visible signal of ethical and sustainable practices. This signaling potentially increases brand credibility, enhancing brand commitment due to a heightened sense of trust and alignment with the customer’s values.

At the same time, under social cognition theory, the study could explore how brand commitment mediates the connection between ESG perceptions and personal transformation. Specifically, the research could contribute by demonstrating that brand commitment to a socially responsible energy supplier can shift personal values and motivate sustainable behaviors (Fatma et al., 2022). This study could expand social cognition theory by showing how consistent, positive brand engagement internalizes brand values, encouraging personal change behaviors that align with ESG principles, thereby connecting consumer psychology with sustainable behavioral outcomes (Pung et al., 2020). Furthermore, this study differentiates normative sustainable behaviors (those driven by perceived social or ethical obligation) from self-enhancing sustainable behaviors (those driven by personal growth or self-identity). Therefore, we could explore how customer perceptions of a brand's ESG performance translate into a sense of normative responsibility (e.g., following sustainable practices because they feel it is socially proper) and, conversely, how it fosters self-enhancement (e.g., aligning sustainable behaviors with self-concept and personal growth), and expand social cognition theory in the sustainability context, offering insights into how brands can foster more profound, multi-dimensional transformations in consumer behavior. This investigation on personal transformation as an outcome of brand commitment—driven by perceived ESG practices—could theoretically expand our understanding of the transformative potential of brand relationships (Calderón-Monge et al., 2020; Gulati et al., 2023). This approach can contribute to developing a more complex model where brand commitment serves as both a response to ESG signals and a catalyst for sustained personal change, positioning brand relationships as central to consumer identity and lifestyle shifts.

Given the energy sector's prominent role in climate action, this study could make a unique contribution by theorizing how commitment to a socially responsible energy brand may directly influence consumers' sustainable choices and awareness about energy consumption, conservation, and eco-friendly practices. This research could conceptualize customer commitment to an energy provider as distinct from typical consumer-brand relationships, especially in how it fosters a dual outcome: brand loyalty and lifestyle transformation towards sustainability, contributing to a more nuanced understanding of customer commitment in high-impact sectors (Joshi et al., 2021).

6.2 Implications for Management

Investigating how brand commitment mediates the relationship between perceived ESG practices, such as reducing carbon emissions, promoting diversity and inclusion, ethical sourcing, and personal transformation regarding sustainable behavior under signaling and social cognition theories, can have significant practical implications for businesses, marketers, policymakers, and consumers.

Companies can learn how to signal their ESG efforts more effectively to build trust and commitment among consumers while refining their messaging strategies to emphasize how the brand's ESG values align with those of the consumer. Clear, transparent, and credible communication about ESG initiatives helps consumers perceive these efforts as genuine, which, as the study shows, can strengthen brand commitment. At the same time, practices and campaigns focused on sustainable consumption can use these insights to educate consumers on how their brand commitments can reinforce sustainable practices in everyday life, both from a normative perspective (societal impact) and a self-enhancing perspective (personal benefits). The involvement of customer groups can use these suggestions to help consumers make more informed decisions about which brands align with their values. Advocating for brands that demonstrate genuine ESG efforts and foster brand commitment acknowledges the important role of consumers in influencing brand commitment, making them feel important and integral to the sustainability movement.

At the same time, teams developing new products or services could also leverage these insights to prioritize eco-friendly materials, recyclable packaging, or carbon-neutral processes. By building ESG values directly into products, companies make it easier for consumers to engage in sustainable behavior without sacrificing convenience or quality. Therefore, products that promote circularity, ethical sourcing, or transparency in their environmental impact could appeal to consumers looking for self-enhancing sustainable choices (e.g., boosting self-image by using green products) and those driven by societal norms (e.g., ethical consumption). This approach not only supports consumers in making sustainable choices but also encourages and motivates them to continue their sustainable journey.

6.3 Limitations and Recommendations for Future Research

This research shows corporate ESG performance can affect consumer behaviors and foster sustainability. Nevertheless, some limitations must be considered for a more accurate interpretation of the results. We cannot make causative conclusions because the research relies on cross-sectional data. Although the results indicate substantive associations, whether corporate ESG initiatives cause consumer transformation remains an open question, as do (untested) third variables that may underlie these relationships.

There are some limitations, one of which is the reliance on self-reported data. Respondents' perceptions are subjective and may be biased by social desirability, resulting in over-reporting socially desirable behaviors. Also, this is done through customers of the same company, so the range of the study does not represent most sectors or contexts, thus lacking the nuances of each industry.

Future investigations should use experimental methods to overcome these limitations. An experimental framework would isolate brand commitment and consumer behaviors directly responding to specific corporate actions, such as sustainable products, new advertising campaigns, or innovative practices. Such designs would enable greater clarity in understanding how targeted interventions influence consumer mindsets and behaviors. That makes longitudinal studies just as important because they allow us to follow the changes in these relationships over time. They would show whether the effect of ESG initiatives lasts, increases, or dissipates over time, providing better insights into the role of ESG initiatives in helping to effect longer-lasting consumer change. In addition, future research should examine other potential mediators or moderators of these relationships, including consumer engagement, brand equity, and attitudes toward sustainability. These aspects could improve the theoretical framework and offer a more complete picture of which aspects of corporate sustainability affect behavioral change.

Filling those gaps on top of the insights provided here can give future research a more straightforward pathway of how businesses can encourage consumers to behave more sustainably. A deeper methodological approach and a broader analysis will improve the results' validity and reaffirm firms as vehicles of significant societal change.

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