

Green Brand Equity: A Systematic Literature Review

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Abstract

This paper presents a systematic literature review on Green Brand Equity (GBE), an emerging concept integrating sustainability and environmental responsibility within brand equity frameworks. The review synthesizes findings from 41 academic articles sourced from Web of Science and Scopus, employing a rigorous selection and filtering process. Through descriptive and qualitative analyses, this study explores the dimensions, antecedents, and impacts of GBE, including green trust, satisfaction, and brand image. Results highlight the growing academic interest in GBE since 2010, with significant increases post-2021. The study underscores GBE's role in fostering competitive advantages, enhancing customer loyalty, and supporting sustainability goals. Additionally, it identifies the negative effects of greenwashing on consumer trust and GBE. While significant advancements are noted, the review calls for more cross-cultural and sector-specific studies to broaden GBE frameworks. These insights provide strategic guidance for businesses aiming to align environmental responsibility with market success.

Keywords: Green Brand Equity, Systematic Literature Review, Green Trust, Green Satisfaction, Brand Image

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1. Introduction

Due to the increasing focus on environmental sustainability, brands worldwide are increasingly turning to conspicuous sustainability as a development strategy and are attempting to act in more environmentally friendly ways to gain competitive advantage (Li et al., 2019). The task for companies is to identify opportunities to augment their products' environmental credentials to strengthen their brand equity (Chen, 2010). In this context, companies must actively recalibrate their brand management strategies toward the concentrated construction and development of green brand equity (GBE) (Hue, 2024).

This study conducts a systematic literature review of academic articles focusing on green brand equity, aiming to synthesize existing research and identify key trends, challenges and opportunities. A systematic literature review is a methodology that allows identifying, evaluating and interpreting available research relevant to a particular research question, or topic area, or phenomenon of interest (Kitchenham, 2004). According to Kitchenham (2004), performing systematic reviews is a key to summarize the existing evidence concerning a specific topic, to identify any gaps in current research to suggest areas for further investigation, and to provide a background to appropriately position new research activities.

By analyzing published studies, this review provides a retrospective evaluation of the evolution of the GBE concept while also highlighting emerging patterns that could inform future research. It draws on scientific articles indexed in Web of Science and Scopus, covering studies on GBE, obtained through rigorous search and filtering protocols. An initial sample of 163 academic papers was identified and, after validation, a final sample of 41 papers was used.

The paper is organized as follows. First, we describe the methodology adopted for the systematic literature review, detailing the search protocol and filtering criteria. Second, we present the results of the review, including descriptive statistics and a qualitative analysis of the core themes and contributions to the literature.

2. Methodology

Based on the suggestions made by Tranfield et al. (2003) and Saur-Amaral (2012), a systematic literature review was carried out.

The bibliographic research was directed to the theme “green brand equity” and was conducted in Web of Science Core Collection and Scopus, selected for their recognized quality. The choice of two databases aimed to guarantee a higher number of results. The keywords defined for the search were “green brand equity”, “green” and “brand equity”.

Specific search equations were established for each database: (TOPIC (green AND “brand equity”)) OR (TOPIC (“green brand equity”)) for Web of Science and (TITLE-ABS-KEY (green AND “brand equity”)) OR (TITLE-ABS-KEY (“green brand equity”)) for Scopus.

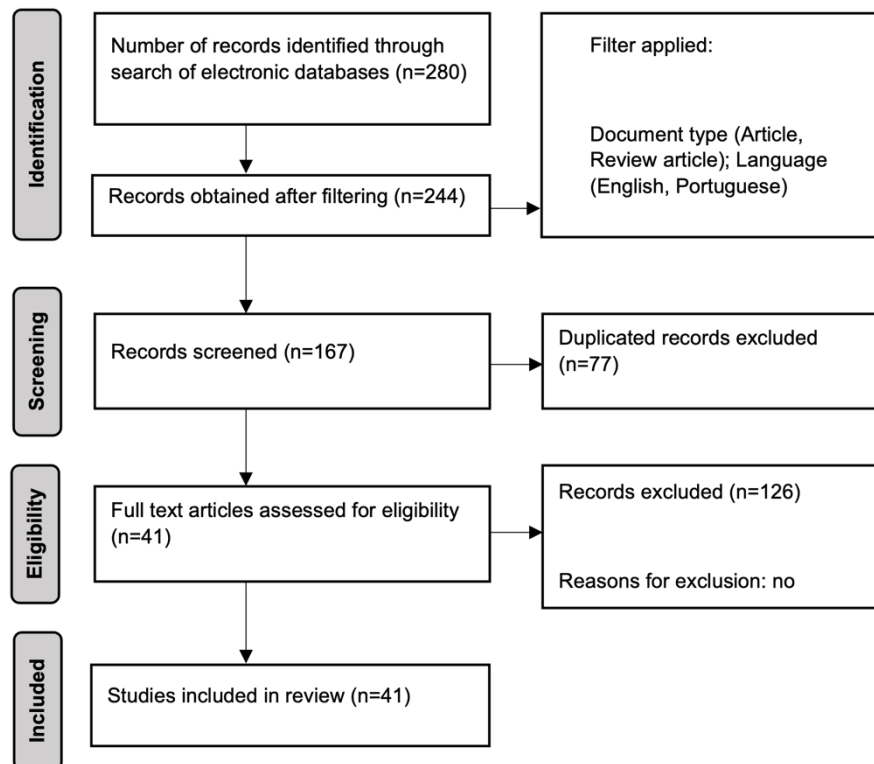


Figure 1 – Representation of the methodological approach

Source: Own elaboration

Filters were applied to refine the search results – a filter was applied regarding the type of document, making the results only Article or Review Article and a filter related to the language, keeping only documents in English and Portuguese.

A total of 141 scientific articles were obtained from Web of Science and another 103 from Scopus. A comparative analysis of the results from both databases was then carried out to eliminate possible duplicate articles, which resulted in the exclusion of 77 articles. This left 167 articles for analysis. Each article was carefully reviewed to ensure its relevance to the research topic. After this analysis, 123 articles that did not meet the study objective were excluded, leaving 44 final articles. Subsequently, three scientific articles were excluded because their access was blocked, leaving 41 articles for analysis.

An overview of the search and selection process is summarized in Figure 1.

3. Results

3.1. Descriptive Statistics

As illustrated in Figure 2, the first paper publications related to green brand equity appeared in 2014. Between 2014 and 2020, the publication frequency was rather low. After 2021, there was an increase in the number of publications, reaching the peak of publications in 2023, with 10 paper publications. In 2024, the number of publications was slightly lower than the year before, but the search was made in October, which indicates that, by the end of the year, the number of publications may reach a new peak. Although the number of publications related to green brand equity is low, these results indicate an increasing interest in this topic.

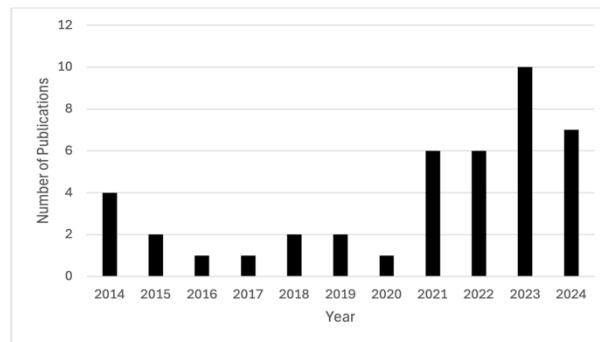


Figure 2 – Paper distribution per year

Source: Own elaboration

Most journals listed in Figure 3 have only one publication on this topic. The journals with the highest number of publications are Environment Development and Sustainability (n=3) and Sustainability (n=3), followed by Cogent Business and Management, Corporate Social Responsibility and Environmental Management, Journal of Business Ethics, Journal of Promotion Management and Quality and Quantity, with two publication each. The journals where the publications related to Green Brand Equity were made cover various areas, including environmental science, business, marketing, and management, revealing that green brand equity is being studied from different perspectives.

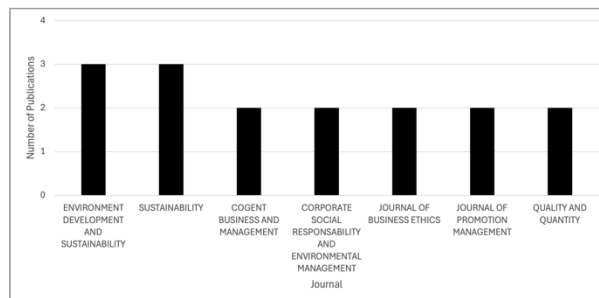


Figure 3 – Number of papers per journals (minimum 2 papers)

Source: Own elaboration

Figure 4 depicts the authors with more than one publication. The author with the most publications on green brand equity is Ha, T., with a total of four publications in the analyzed period.

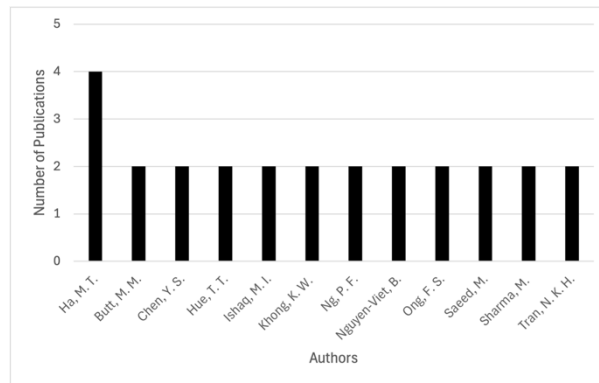


Figure 4 – Number of papers per author (authors with at least 2 publications)

Source: Own elaboration

3.2. Qualitative Analysis

After the descriptive analysis was completed, the selected papers were imported into NVivo 15, where a comprehensive content analysis was conducted to identify key themes and patterns. Regular coding was used to systematically organize the data (see Figure 5), while specific coding focused on identifying key themes to provide deeper insights into the research topic.

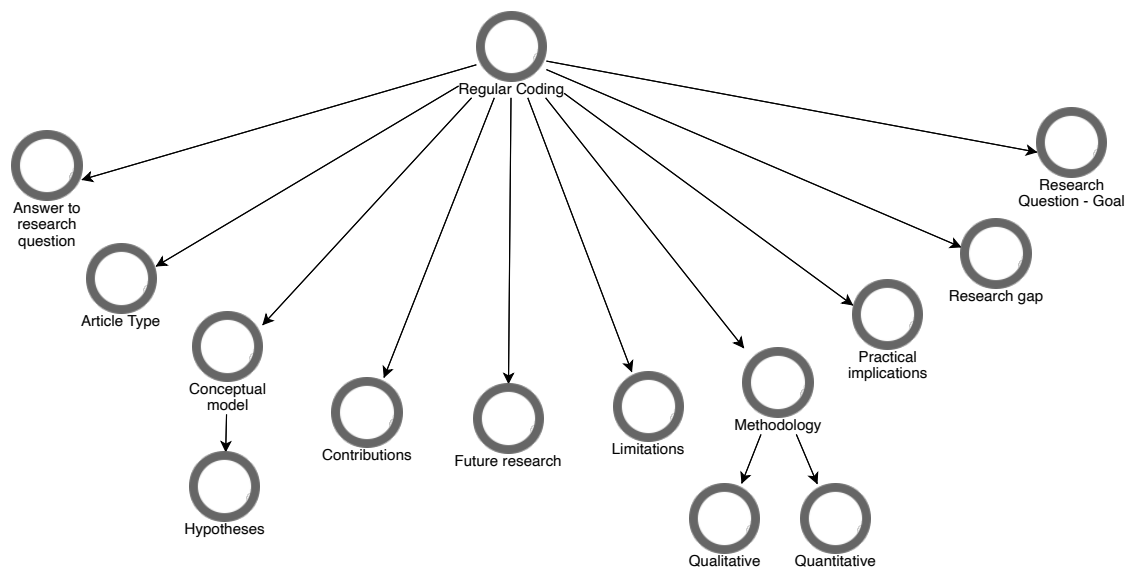


Figure 5 – Coding structure used for content analysis

Source: Own elaboration

3.2.1. Article Type

An extensive review of 41 articles was conducted, where the article type of each one was analyzed (see Figure 6), revealing a strong emphasis on quantitative research methods, especially through questionnaire-based surveys (e.g., Chen, 2010, Chang and Chen, 2014, Butt et al., 2017, Saeed et al., 2023). In addition to these studies, the review noted a smaller quantity of conceptual and qualitative works that provides theoretical insights using approaches like focus groups and group discussions to explore their subjects thoroughly (e.g., Bulsara et al., 2014, Chahal et al., 2014, Hue and Oanh, 2023). This combination of methodologies highlights the variety of research approaches within the examined literature.

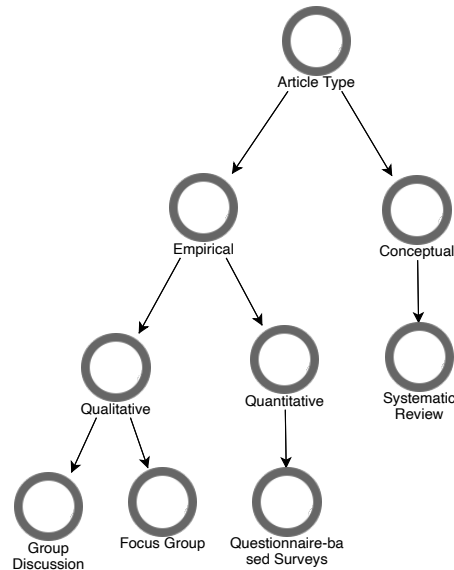


Figure 6 – Coding structure for Article Type

Source: Own elaboration

3.2.2. Research Goals

Research goals are diverse. Some examples are presented in Table 1.

Table 1 – Example of research goals for the quantitative papers included in the sample

Research Goal	Author
<i>“develop a process for Green brand management by categorizing the existing literature on the basis of Green business functions, Green business issues and Green brand equity”</i>	(Bulsara et al., 2014)
<i>“examine and analyze the antecedents of SGMO and also to examine the moderating role of education and role of income between antecedents and SGMO”</i>	(Chahal et al., 2014)
<i>“explore the relationships among green perceived quality, green brand awareness, green perceived risk, and green brand equity”</i>	(Chang and Chen, 2014)
<i>“examine the relationships between brand concepts (perceived brand quality and brand credibility) and the concepts of green brand (green brand image (GBI), green brand-perceived value (GBPV), and green brand equity (GBE))”</i>	(Delafruez and Goli, 2015)
<i>“investigate the direct impact of promotion tools (attitude toward green advertising and attitude toward green sponsorship) on green CBBE components, as well as green purchase intention” and “examine the interrelationships between these green CBBE components..”</i>	(Dinh et al., 2023)
<i>“examine (1) the outcome of green trust, green satisfaction and green brand image on green brand equity, (2) whether the association between green brand equity and green brand image is mediated by green trust, and green satisfaction, and (3) whether green trust operates as a mediator for the relationship between green brand equity and green satisfaction”</i>	(Ha, 2020)

The sample was uploaded to VOS Viewer, which was utilized to identify the most frequently cited words in the abstracts, providing a visual representation of the central concepts and themes emerging from the literature on green brand equity.

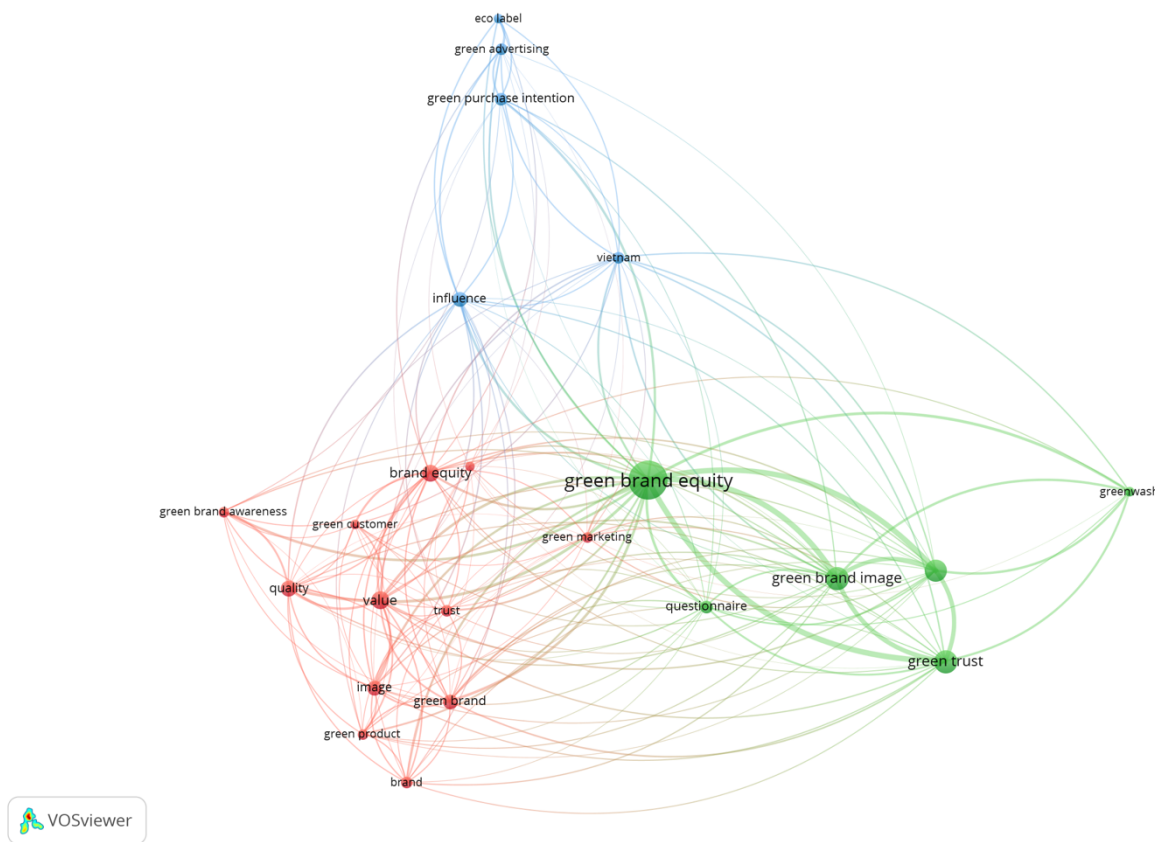


Figure 8 – VOS Viewer map: central concepts

Source: Own elaboration

As shown in Figure 8, “green brand equity” occupies a central position in the network, highlighting its pivotal role as the focal concept of this research. When analyzing the abstracts, three clusters can be identified: (1) green cluster including terms such as “green brand image” and “green trust”; (2) red cluster including terms such as “brand equity” and “green brand”; (3) blue cluster including terms such as “green purchase intention” and “green advertising”.

3.2.4. Thematic Analysis

The qualitative analysis was performed in NVivo 15 and the full texts of the 41 papers were screened and coded.

3.2.4.1. Green Brand Equity and related concepts

Green Brand Equity (GBE) is an evolving concept that integrates the principles of sustainability and environmental responsibility into the traditional framework of brand equity. It is defined as the collection of brand-related assets and liabilities linked to a brand's commitment to environmental concerns, which add to or subtract from the value provided by a product or service (Chen, 2010, Ishaq, 2021). As consumer preferences increasingly favor eco-friendly brands, GBE has become a critical strategy for firms seeking competitive advantage, differentiation, and compliance with international environmental regulations (Chang and Chen, 2014, Ha, 2021).

Chen (2010) introduced GBE as “a set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name, and symbol that add to or subtract from the value provided by a product or service”. Later, Ishaq (2021) included economic, environmental, and social concerns, as well as a brand's eco-friendly commitments.

The primary objective of GBE is to raise environmental awareness, which firms can leverage to gain competitive advantage by targeting environmentally conscious consumers (Delafröoz and Goli, 2015).

Several studies have identified some dimensions and key components of GBE. Most of the GBE studies focused on its relationships with green-related antecedents, such as green brand image, green satisfaction and green trust (Górska-Warsewicz et al., 2021).

Chen (2010) defined **green brand images** as “a set of perceptions of a brand in a consumer’s mind linked to environmental commitments and environmental concerns”. A positive green brand image fulfills consumers’ environmental desires, enhances trust, and reduces perceived risks, thereby strengthening GBE (Jannah et al., 2024). Bekk et al. (2016) defends that green brand image adds (or subtracts) value to the brand and, thus, increases the brand’s green equity independent from the objective environmental characteristics of the economic good. It has been proved that green brand Image positively influences GBE (Chen, 2010, Kang and Hur, 2012, Ng et al., 2014, Bekk et al., 2016, Butt et al., 2017) and in green trust and green satisfaction (Chen, 2010, Ng et al., 2014, Bekk et al., 2016, Sharma, 2024).

Green trust is defined by Chen (2010) as “a willingness to depend on a product, service or brand based on the belief or expectation resulting from its credibility, benevolence and ability about its environmental performance”. Green trust implies the willingness to rely on a brand based on trust or expectations stemming from its ability to carry out environmentally friendly activities (Chen, 2010).

There is a positive relation between green trust and GBE (Chen, 2010, Kang and Hur, 2012, Konuk et al., 2015, Bekk et al., 2016, Ha et al., 2022, Górski-Warsewicz et al., 2021). It was also proved that green trust positively influences green satisfaction (Chen, 2010; Kang & Hur, 2011) and leads to stronger green purchasing intentions (Górski-Warsewicz et al., 2021, Chang and Chen, 2014, Nguyen-Viet, 2022).

Green satisfaction is defined as a pleasurable level of consumption-related fulfilment to satisfy a customer’s environmental desires, sustainable expectations and green needs (Chen, 2010). It has been demonstrated a positive influence of green satisfaction on green brand equity (Chen, 2010, Kang and Hur, 2012, Ng et al., 2014, Bekk et al., 2016). It has also a positively relationship with green brand image (Ng et al., 2014, Bekk et al., 2016) and green trust (Kang and Hur, 2012, Chang and Chen, 2014).

In addition to these, past research identified **green attitude, green loyalty, green brand perceived value, green perceived risk, green association, social influence, leadership, sustainability, brand association and green awareness** as GBE components (Chen, 2010, Kang and Hur, 2012, Bekk et al., 2016, Ng et al., 2014, Ishaq, 2021, Górski-Warsewicz et al., 2021). Conversely, **greenwashing** affects negatively GBE (Akturan, 2018, Qayyum et al., 2023).

Strong GBE positively impacts brand attitude, purchase intentions and positive word-of-mouth (Bekk et al., 2016, Butt et al., 2017). Also, high GBE reduces consumer perceived risk and provide competitive advantages for the companies, such as premium pricing, consumer loyalty and market differentiation (Chen, 2010, Butt et al., 2017, Ha, 2021).

3.2.5. Key Contributions

Some examples of the key contributions are presented in Table 3.

Table 3 – Examples of key contributions

Contributions	Author
“The results showed that green brand image, green satisfaction, and green trust are positively related to green brand equity. Furthermore, the positive relationship between green brand image and green brand equity is partially mediated by green satisfaction and green trust. Hence, investing on resources to increase green brand image, green satisfaction, and green trust is helpful to enhance green brand equity.”	(Chen, 2010)
“This study demonstrates that investing resources in improving firms’ green perceived quality and green brand awareness can not only decrease their green perceived risk, but also enable them to enhance their green brand equity.”	(Chang and Chen, 2014)
“The results confirmed that a positive relationship exists between consumer concern for environmental values and general attitudes towards green products. Both these constructs influence consumers’ knowledge structure of a green brand (image and associations). Furthermore, a strong relationship exists between consumers’ knowledge structure (image and associations) and their relational preference (trust and brand equity) with green brands.”	(Butt et al., 2017)
“Green brand associations and brand credibility positively affect green brand equity, and green brand equity has a positive and strong impact on purchase intention of consumers. In addition to that greenwashing negatively affects green brand associations and brand credibility, and therefore, indirectly influence green brand equity and purchase intention.”	(Akturan, 2018)
“Green skepticism has a significant negative effect on green brand attachment, and green brand attachment has a significant positive effect on green brand equity.”	(Khan et al., 2022)
“The results suggest that green marketing mix tools positively impact green customer-based brand equity creation.”	(Nguyen et al., 2023)

Contributions	Author
“The findings of the study suggest that it is crucial to simultaneously focus on the following factors, with the preference order of brand perceived quality, green perceived value, green satisfaction, green trust, and green brand image.”	(Hue and Oanh, 2023)
“Consumers’ previous brand experience is important. The most promising indicators are brand image and green trust for GBE.”	(Tung and Vigneron, 2023)
“The research results demonstrate that key components of GBE, including green satisfaction, green trust, and green perceived value, influence consumers’ intention to engage in word-of-mouth communication about the green brand.”	(Hue, 2024)
“Green Brand Image has a significant positive effect on Green Brand Equity, Green Brand Image has a significant positive effect on Green Trust, Green Satisfaction has a significant positive effect on Green Brand Equity, Green Trust has a significant positive effect on Green Brand Equity, Green Brand Image has a significant positive effect on Green Brand Equity mediated by Green Trust, and Green Satisfaction have a significant positive effect on Green Brand Equity mediated by Green Trust”	(Jannah et al., 2024)

Source: Own elaboration

3.2.6. Future Research

The future research directions in the analyzed studies are relatively limited. Most authors suggest testing their findings with different products or across a wider range of product categories. They also recommend exploring other sectors, countries, and cultures to see if the results hold in different contexts.

4. Conclusion

Conducting systematic reviews is essential for summarizing existing evidence on a specific topic (Kitchenham, 2004). This systematic literature review offers a comprehensive exploration of Green Brand Equity (GBE), a concept at the intersection of sustainability and brand management. Through the analysis of 41 papers, this study provides valuable insights into the core dimensions of GBE, including green trust, green satisfaction, and green brand image. These elements collectively form the foundation for building strong green brands that resonate with environmentally conscious consumers.

The findings reveal that GBE is a significant driver of competitive advantage, influencing brand loyalty, purchase intention, and positive word-of-mouth. In that way, consumers' preference for brands with credible environmental commitments enhances their trust and satisfaction, reinforcing GBE. In another way, practices such as greenwashing plays a critical role in GBE, reducing consumer confidence and undermining the authenticity of green branding efforts.

The temporal analysis of publications demonstrates a growing interest in GBE over the last decade, with a notable surge in studies after 2021. This trend reflects the increasing prioritization of sustainability in both academic and industry contexts. Furthermore, the thematic analysis highlights that much progress has been made in understanding GBE's components and impacts. However, there is a need for more cross-cultural and sector-specific studies to generalize GBE frameworks and future research should focus on emerging dimensions of GBE.

This study underscores the strategic importance of GBE as a tool for differentiation and market success in an era marked by environmental awareness. By embedding authentic green values into brand equity strategies, businesses not only enhance their reputation and customer loyalty but also contribute to broader sustainability goals. Addressing the challenges and leveraging the opportunities within GBE will be instrumental for organizations aiming to align profitability with environmental responsibility.

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