Integrating sustainability into brand valuation models: an integrative literature review

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Abstract

Purpose – Given the mixed findings in the literature regarding the impact of sustainability on brand value, this study aims to clarify the debate by analyzing and synthesizing existing research. We focus on the metrics used to assess both sustainability and brand value, as well as the mediators and moderators that shape this relationship.

Design/methodology/approach – This study employs both a systematic literature review and a bibliometric analysis, drawing on publications indexed in the Web of Science Core Collection[TM] (WoS), Scopus and ScienceDirect. The search process adheres to the SPAR-4-SLR protocol and PRISMA guidelines. A total of 39 articles were retrieved and analyzed using the VOSviewer software for bibliometric analysis.

Findings – Sustainability efforts impact brand value through two primary pathways: consumer and corporate. In studying the consumer path, most academics have overlooked the role of consumer perceptions in brand value creation. We emphasize the need to integrate both consumer and corporate metrics into brand valuation models to fully capture the effects of sustainability efforts on brand value.

Originality/value – This is the first study to adopt a systematic literature review and bibliometric analysis to explore the impact of sustainability on brand value. It offers a critical overview of the different measurement approaches used in the literature and provides important managerial implications, such as the need to reflect both corporate and consumer metrics to fully capture the effects of sustainability on brand value. The study also proposes a comprehensive agenda for future research.

Keywords Brand valuation, Brand value, Financial-based brand equity, Sustainability, Interbrand, Brand Finance

Paper type Literature review

1. Introduction

A growing body of academic literature highlights the increasing relevance of intangible assets in value creation, signaling a shift in the sources of competitiveness from tangible to intangible assets, such as brands (Intara and Suwansin, 2024; Masulis *et al.*, 2023). Globally, intangible assets now account for 50% of Enterprise Value (Brand Finance, 2023). Among these intangible assets, brand value—defined as the financial (monetary) worth of a brand and estimated as the present value of expected brand cash flows (Salinas, 2009)—can represent up to 40% of total Enterprise Value (Leite, 2022). This highlights the crucial role brands play in generating business value in today's economy. Given their significant contribution to shareholder value, safeguarding and optimizing brand value has become a strategic priority for marketers.

At the same time, sustainability—defined as the integration of environmental, social, and governance (ESG) practices into business operations to meet present needs without compromising future generations (Brundland, 1987)—has emerged as a key driver of consumer demand (Eitelwein and Paquet, 2021). Consumers increasingly expect companies to act sustainably and contribute positively to society (Rathee and Milfeld, 2023). As a result, sustainability has become a critical consideration for marketing executives in brand management decisions, particularly for new product development and innovation (Kemper and Ballantine, 2019; Lin *et al.*, 2021; Rahman, 2023).

At the intersection of these two challenges—preserving brand value and fostering sustainable growth—marketers are increasingly tasked with integrating sustainability into brand strategies and tactics while demonstrating the tangible impact of such efforts. This is where brand valuation—the process of estimating a brand's financial value based on consumer perceptions, competitive position and projected revenues (Salinas, 2009)—becomes vital. It helps marketers build a business case for sustainability investments by quantifying their impact on value creation in financial terms (Brand Finance, 2024; Calder, 2020).

To achieve this, managers must understand how sustainability efforts influence two fundamental variables in brand valuation: profitability and risk. These factors are key drivers of the economic value of any asset, including brands (Damodaran, 1996).

This need to measure the financial impact of sustainability efforts may explain the exponential growth of the literature exploring the association between brand valuation and sustainability, with 67% of the studies in this review published in the last five years.

However, despite the growing body of research on the subject, the impact of sustainability on brand value remains unclear, with studies showing contradictory results (see Table 1).

1.1 Theoretical framework

Given the ambivalent results in this field, understanding the underlying mechanisms through which sustainability shapes brand value has been identified as a critical issue in the literature (Zou *et al.*, 2024).

One reason for this disparity may lie in the different sustainability metrics used by researchers in this field. Most studies rely on Environmental, Social and Governance (ESG) indices as proxies for sustainability efforts undertaken by firms (Alcaide González *et al.*, 2020; Melo and Galan, 2011; Pope and Kim, 2021). ESG practices are generally viewed as long-term corporate investments (Qi *et al.*, 2021; Wang *et al.*, 2024; Zou *et al.*, 2024), and therefore, these indices measure performance of such investments at the corporate level, with higher and more effective investments in ESG activities leading to better scores (Berg *et al.*, 2022).

However, focusing solely on ESG scores disregards the significant influence that customers perceptions of sustainability have on brand value creation, depriving managers of key insights into when and why sustainability efforts impact brand value and how marketing programs can be optimized to increase brand value.

According to the Brand Value Chain Theory (Keller and Lehmann, 2003), brand value is created through a series of stages where brand-building investments—such as sustainability initiatives—influence customer perceptions, and ultimately, financial brand value. This framework is particularly useful for understanding that for sustainability investments to translate into brand value creation, they must be effectively communicated to customers, fostering their awareness and positive perceptions of these efforts (Acuti *et al.*, 2022).

Despite this, research has largely neglected the mediating influence of customer sustainability perceptions, prompting scholars to call for further investigation into this crucial mechanism (Kinnunen *et al.*, 2022; Nguyen *et al.*, 2015).

This paper addresses these concerns by developing a framework, grounded in the Brand Value Chain Theory, that synthesizes the effects of sustainability efforts on brand value, identifying appropriate metrics to assess the relationship and contributing to the development of the field proposing new research avenues.

Table 1. Contradicting results in selected empiric articles studying the link sustainability-brand value

Type of relationship	Author and year	Theoretical framework	Methodology	Sample details	Period	Mechanisms, moderators or mediators	Brand value source	How the study measured sustainability		
								Perceptions	Investment	Source
Positive	Melo and Galan (2011)	Instrumental stakeholder theory	Panel regression	US, cross-industry	2001–2003	Not explored	Interbrand		X	KLD
	Torres et al. (2012)	Stakeholder and signaling theory	Panel regression	57 brands, US, EU, Asia	2002–2008	Not explored	Interbrand		X	Sustainalytics
	Bouvain et al. (2013)	Not explicitly mentioned	Panel regression	84 bank brands in Asia and the US	2012	Not explored	Brand Finance		X	CSRHub
	Harjoto and Salas (2017)	Instrumental stakeholder theory	Panel regression	47 brands, manufacturing sector, US	2000–2014	Not explored	Interbrand		X	KLD
	Alcaide et al. (2020)	Not explicitly mentioned	Multivariate linear regression by OLS	13 IT brands, US, Asia	2000–2017	Not explored	Interbrand, Brand Finance, Kantar		X	Green Ranking, CSR Reptrak, Finance Yahoo Sustainability, Global 100 most sustainable corporations
	Loh and Tan (2020)	Legitimacy theory	Linear regression	90 firms, 180 observations, cross-industry, Singapore	2016–2018	Not explored	Brand Finance		X	Scored by authors based on public company reports
	El Zein et al. (2020)	Not explicitly mentioned	Panel regression	1,100 financial brands, US, EU	2013–2017	Not explored	Estimated by author based on Damodaran's model		X	Sustainalytics
	Lin et al. (2021)	Resource-based view	Generalized method of moments	164 firms, automotive, global	2011–2018	Marketing and innovation capabilities positively moderate the relationship	Goodwill estimated by authors		X	CSRHub
	Pope and Kim (2021)	Stakeholder theory, institutional theory	Panel regression	618 firms, cross-industry, global	2007–2013	Brand architecture type (impact stronger for masterbrand type of structure)	Brand Finance		X	ASSET4 (now Refinitiv), DJSI, ETHICAL, FTSE4GOOD, G100

(*continued*)

Table 1. Continued

Type of relationship		Author and year	Theoretical framework	Methodology	Sample details	Period	Mechanisms, moderators or mediators	Brand value source	How the study measured sustainability		
									Perceptions	Investment	Source
		Chiang *et al.* (2022)	Stewardship and stakeholder theory	Multivariate linear regression	6,763 observations, cross-industry, Taiwan	2014–2017	Moderated by type of ownership (stronger effect for family vs non-family owned)	Estimated by authors based on Hirose model		X	Supervisory Commission and Corporate Governance Center, Taiwan Stock Exchange
		Ma *et al.* (2023)	Signaling theory	Linear regression	1,515 observations, cross-industry, China	2010–2020	Mediating role of investor sentiment and analyst ratings	World Brand Lab		X	Annual reports and ESG reports
		Zhang and Liu (2023)	Stakeholder theory	Panel regression	810 observations, non-financial companies, China	2013–2022	Not explored	World Brand Lab		X	HEXUN, RKS
		Zou *et al.* (2024)	Not explicitly mentioned	Panel regression	282 listed non-financial companies, 1,715 observations, China	2010–2021	Mediating role of media coverage and moderating role of firm size	World Brand Lab		X	Shanghai Huazheng Index Information Service Co
Non-significant		First and Khetriwal (2010)	Not explicitly mentioned	ANOVA	18 brands in the electronics and electrical equipment sectors in the US, EU, Asia	2006	Not explored	Interbrand		X	DJSI, FTSE4Good and the World Economic Forum's Global 100
Negative		Nguyen *et al.* (2015)	Not explicitly mentioned	Linear regression	15 firms, 348 respondents. Electronics, food, clothing, financial and automobile, US, EU, Asia	2009–2011	Not explored	Interbrand	X		Survey designed by author
Non-linear	U-shaped	Wang *et al.* (2024)	Signaling theory	Linear regression	126 brands, cross-industry in China	2012–2021	Digitalization level of the firm positively moderates the relationship	World Brand Lab		X	Bloomberg
	Inverted U-shaped	Qi *et al.* (2021)	Not explicitly mentioned	Threshold regression	110 firms, 770 observations, cross-industry, China	2012–2018	Not explored	World Brand Lab		X	Estimated by authors based on annual reviews

Source(s): Authors' own work

To this end, we propose a series of research questions that we will answer throughout this paper:

RQ1. What are the key themes, factors, and measurement methods used in the literature to study the impact of sustainability investments on brand value?

RQ2. What factors moderate or mediate the relationship between sustainability efforts and brand value?

RQ3. What future research avenues emerge from this review?

To achieve these objectives, we follow four steps. First, we systematically select relevant studies employing the SPAR-4-SLR protocol (Paul *et al.*, 2021). Second, we conduct a bibliometric analysis using the VOSViewer software, adhering to established academic bibliometric protocols (Donthu *et al.*, 2021). Third, we synthesize and critically review the findings derived from these analyses. Finally, we offer recommendations and outline a comprehensive agenda for further research.

Our research contributes to the literature by offering a comprehensive synthesis of how sustainability efforts impact brand value, along with mechanisms explaining different outcomes. We offer recommendations to improve the metrics and approaches used to measure this impact. Additionally, we introduce a novel explanation of the two pathways—corporate and consumer—through which sustainability influences brand value, emphasizing the importance of considering both paths in brand valuation.

The paper is structured as follows: we begin by outlining our methodology. Next, we present and discuss the results, featuring a bibliometric analysis and a conceptual integrative framework for the studies. Finally, we provide suggestions for future research based on our findings.

2. Method

Our research methodology combines bibliometric analysis to uncover key themes and trends within the broader landscape, along with the SPAR-4-SLR protocol to ensure a systematic, transparent and comprehensive review.

The SPAR-4-SLR protocol (Paul *et al.*, 2021) involves three steps: assembling the relevant literature, organizing and tabulating the papers, and assessing trends and emerging themes.

To gather the relevant literature, we began by extracting the data from the Web of Science (WoS) Core Collection Social Sciences Citation Index (SSCI), Scopus and ScienceDirect databases.

Given the multidisciplinary nature of the field, there is a myriad of terms used to refer to brand value, encompassing legal (trademarks), financial (brand valuation) and marketing aspects (brand value, financial-based brand equity) (Egan, 1998). Similarly, sustainability is referred to in various ways in academic literature, including terms like Corporate Social Responsibility (CSR) (Bouvain *et al.*, 2013; Melo and Galan, 2011; Pope and Kim, 2021; Torres *et al.*, 2012), sustainability (Harjoto and Salas, 2017; Loh and Tan, 2020; Nguyen *et al.*, 2015), and ESG (Al-Issa *et al.*, 2022; Lee *et al.*, 2022; Lee and Suh, 2022; Zou *et al.*, 2024).

Therefore, to ensure the inclusion of all relevant studies, we used a broad set of search keywords, employing the Boolean OR to capture all possible keyword combinations. The search string used was: ("brand valuation" OR "financial brand value" OR "financial-based brand equity" OR "trademark valuation" OR "brand equity valuation" OR "Valuation of brands") AND ("sustainability" OR "CSR" OR "ESG" OR "Corporate Social Responsibility").

After identifying the keywords for the search phase, we defined two inclusion criteria: (1) document type (journal papers) and (2) language (English), with no restriction on publication year to get a long view of the evolution of the brand valuation-sustainability literature. We

included empirical and non-empirical articles, given their value in shaping theoretical insights and providing diverse perspectives. The search, conducted on August 31, 2024, returned 379 articles.

After this initial search phase, we eliminated 69 duplicates, reducing our dataset to 310 articles. We proceeded to read the 310 titles and abstracts, excluding 205 articles that did not discuss brand value in financial terms, reducing our dataset to 105 articles. Further exclusions included 11 studies where full text was unavailable, leaving us with 94 articles. A full-text review of these 94 articles led to the elimination of 61 articles that did not explore the relationship between sustainability and brand value, as well as one article that did not provide a clear definition or specify the sources of brand value. This resulted in a final corpus of 32 articles extracted from databases.

Through citation searching, a process commonly known as snowballing (Wohlin *et al.*, 2022), we identified 7 additional studies which met our inclusion criteria, bringing the final dataset to 39 articles.

Figure 1 shows the overall search strategy and refinement process.

Once we obtained the final corpus of articles, we organized them in an Excel table with fields, including authors' names, publication year, title, source, objectives, results, employed methodology, limitations and suggested further research.

This organization enabled us to proceed to the third step of the protocol, i.e. systematically assess and identify key trends and emerging themes. In this final stage, we incorporated bibliometric analysis to enhance the identification of recurring themes, and emerging areas of interest. The combined approach allowed for a more comprehensive understanding of the literature, which is discussed in detail in Sections 3 and 4.

3. Results from the bibliometric analysis

The bibliometric analysis reveals the key themes and patterns within the literature, explored through two methods: co-occurrence of keywords and bibliographic coupling. Together, these
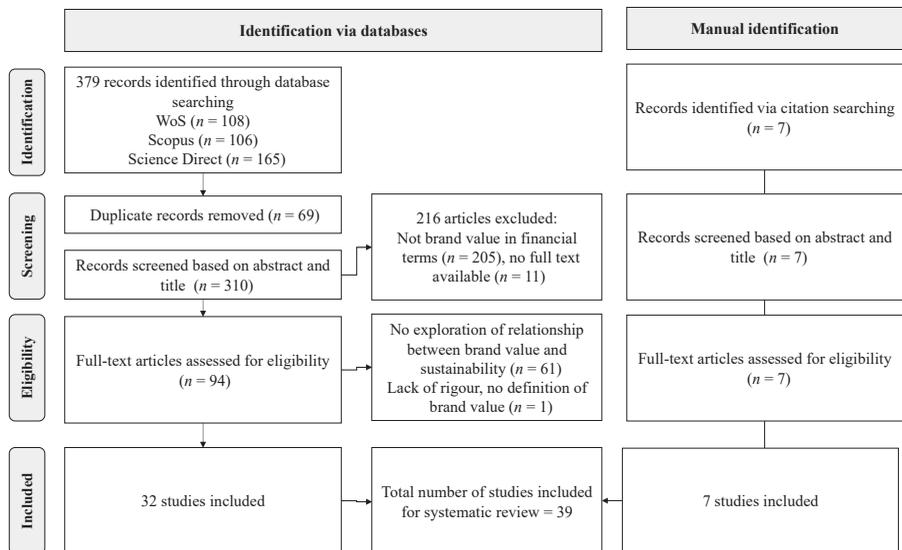
Source(s): Authors' own work

**Figure 1.** Search process depicted through a PRISMA flow diagram

analyses provide insights into how sustainability and brand value are interrelated across different research streams and highlight gaps in the current understanding.

3.1 Co-occurrence analysis
Using VOSviewer, we conducted a co-occurrence analysis of keywords to identify the core themes in the literature, grouping 22 frequently appearing keywords into three distinct clusters, as shown in Figure 2.

These clusters provide a thematic overview of how sustainability interacts with brand value:

(1) *Cluster 1* focuses on two primary pathways through which sustainability affects brand value: the consumer pathway, where sustainability influences brand value by shaping consumer perceptions (Cowan and Guzman, 2020; Nguyen *et al.*, 2015), and the corporate pathway, which connects sustainability to financial performance and shareholder value, key concerns for corporate stakeholders such as investors (Kim *et al.*, 2021; Pope and Kim, 2021). This dual focus aligns with stakeholder theory and reflects the need to integrate both, corporate and consumer sustainability metrics into brand valuation models.

(2) *Cluster 2* emphasizes the strategic role of sustainability in creating long-term brand value and contributing to societal sustainable development (Wang *et al.*, 2024; Zhang and Liu, 2023). This cluster suggests that sustainability-driven strategies can create brand value not just through direct economic benefits, but by aligning brands with global sustainability objectives, which can bolster brand reputation and market positioning.
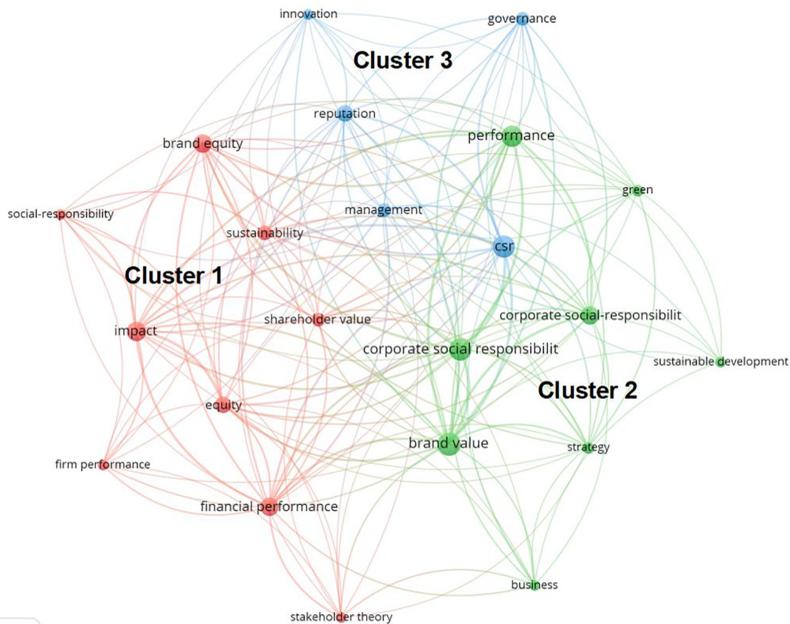
Source(s): Authors' own work

Figure 2. Co-occurrence of keywords

(3) *Cluster 3* highlights the importance of *corporate governance and risk management in* leveraging sustainability to protect brand value. This cluster stresses internal functions, such as compliance, that contribute to minimizing reputational risks through sustainable practices (Ke *et al.*, 2023; Lin *et al.*, 2021).

These clusters reveal the multifaceted ways sustainability intersects with brand value, from consumer perceptions to corporate governance. These findings underscore the importance a holistic approach to measuring the impact of sustainability on brand value, suggesting that both consumer and corporate metrics should be integrated into brand valuation models to capture its full influence.
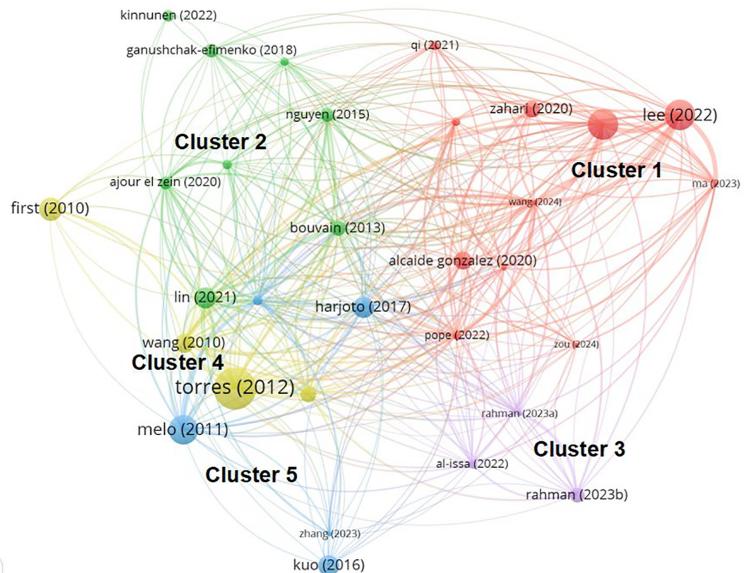
3.2 Bibliographic coupling

To further identify key research areas and gaps, we conducted the bibliographic coupling analysis, shown in Figure 3, which revealed five clusters.

Cluster 1, which is the largest, explores the mechanisms underlying the sustainability-brand value relationship, focusing on factors like brand architecture (Pope and Kim, 2021), media coverage and size of the firm (Zou *et al.*, 2024), analyst ratings (Ma *et al.*, 2023) and digitalization level of the firm (Wang *et al.*, 2024). This cluster underscores the role of sustainability as a signal that enhances brand value through reputation (Cowan and Guzman, 2020; Lee *et al.*, 2022).

Cluster 2 narrows the focus to industry- and region-specific studies, particularly in sectors like finance (Bouvain *et al.*, 2013; El Zein *et al.*, 2020) and specific countries (Chiang *et al.*, 2022; Loh and Tan, 2020), revealing the contextual nuances of how sustainability impacts brand value across different environments.

The remaining clusters provide broader perspectives on the overall relationship between sustainability efforts and brand value (Harjoto and Salas, 2017; Kim *et al.*, 2021; Melo and

Source(s): Authors' own work

Figure 3. Bibliographic coupling

Galan, 2011; Zhang and Liu, 2023). These studies explore the general mechanisms by which sustainability influences brand value but often focus on isolated factors, suggesting a need for more integrative frameworks. Most rely on ESG indices like KLD as proxies for sustainability and Interbrand's ranking for brand value.

The clusters also reveal distinct chronological trends, with Cluster 1 reflecting a shift in focus towards mechanisms and firm-level dynamics as sustainability gains prominence approaching 2030.

3.3 Integrated analysis of co-occurrence and bibliographic coupling
The co-occurrence and bibliometric coupling analyses converge on the need for a comprehensive understanding of how sustainability impacts brand value from both consumer and corporate perspectives, with measurement tools requiring particular attention.

The integration of both analyses reveals several overarching patterns. First, consumer perceptions and corporate-level factors emerge as central to understanding the sustainability-brand value relationship, as reflected in Cluster 1 of both analyses.

Second, sustainability's strategic role in shaping brand value, particularly through the lens of reputation, is emphasized in co-occurrence Cluster 2 and bibliographic coupling Cluster 1.

Third, governance and risk management emerge as crucial factors, highlighted in co-occurrence Cluster 3 and bibliographic Cluster 3, underscoring the importance of corporate metrics in mitigating risks and protecting brand value.

Finally, the analyses collectively suggest that while the literature has extensively explored corporate- and consumer-level sustainability metrics to understanding its impact brand value, there is a need to bridge these perspectives through a holistic framework that integrates both. Existing studies often treat these dimensions separately, highlighting a critical gap in the literature: the absence of comprehensive models that capture the full range of sustainability's effects on brand value across different stakeholder groups and operational levels.

In Section 4, we build on these findings to propose an integrative review that synthesizes these insights into a more cohesive understanding of the sustainability-brand value relationship.

## 4. Integrative review and critical analysis
We first synthesize recurring themes and key topics from the selected literature, addressing the fragmented and varied findings from scholars studying the link between brand value and sustainability (Section 4.1). This is followed by an examination and critical analysis of factors that may explain the variation in results, such as the different metrics used to measure both, sustainability and brand value (Section 4.2). We then explore the mechanisms underlying this relationship, focusing on mediators (Section 4.3) and moderators (Section 4.4).

Figure 4 presents an integrated framework that summarizes our analysis and highlights the mechanisms through which sustainability efforts impact brand value. This framework draws on the Brand Value Chain model developed by Keller and Lehmann (2003), but expands it to include not only the consumer path but also a corporate path to brand value creation.

4.1 Overall brand value-sustainability association: analysis of contradicting outcomes
We identified four groups of authors researching the sustainability-brand value link (see Table 1). The first group used existing ESG and brand value rankings as proxies for both variables, consistently finding a positive correlation between them (Alcaide González *et al.*, 2020; Chiang *et al.*, 2022; Harjoto and Salas, 2017; Loh and Tan, 2020; Melo and Galan, 2011; Pope and Kim, 2021; Torres *et al.*, 2012; Wang, 2010; El Zein *et al.*, 2020).

The second group found that the impact of sustainability on brand value was not a simple linear relationship but exhibited other patterns. Qi *et al.* (2021) discovered an inverted U-type relationship, where initial investments in sustainability boost reputation and brand value.
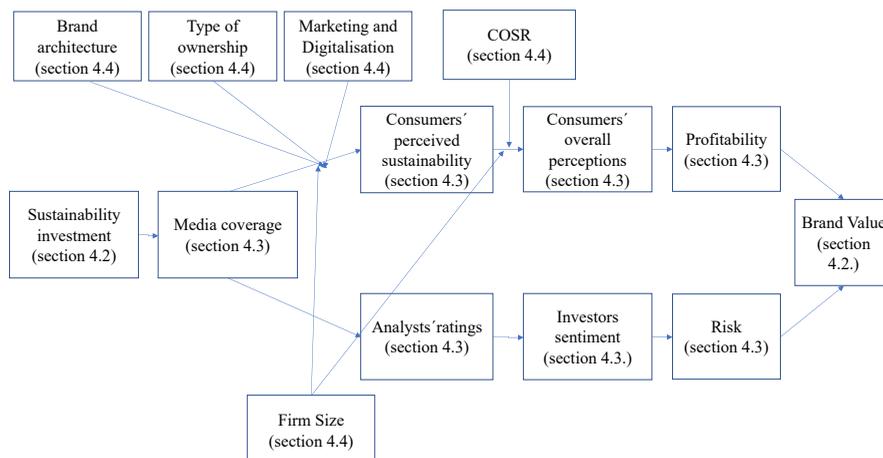
Source(s): Authors' own work

Figure 4. An integrated framework of the mechanisms by which sustainability investment impacts brand value

However, further investment in sustainability implies a suboptimal allocation of budget in which other promotional activities will not be supported with enough investment, and therefore, brand value will decrease. Conversely, Wang *et al.* (2024) found a U-shaped relationship. The authors explain that although investments in sustainability are a reputation signal to consumers that has long-term positive effects on brand value, at the beginning this requires investments which detracts from other value-adding activities such as R&D or advertising, initially destroying brand value. After a while, the accumulated and continued investment starts to compound, and the reputation signal becomes stronger, bringing in benefits that exceed the investment, and therefore, building brand value.

The third group found no significant relationship between sustainability efforts and brand value, attributing this to ineffective communication of sustainability efforts to consumers (First and Khetriwal, 2010).

The fourth group found a negative relationship between perceived sustainability and brand value (Nguyen *et al.*, 2015). This finding may stem from two factors: first, this is the first study exploring on the role consumers perceptions of sustainability play in brand value creation, and second, most brands in their sample (67%) belonged to utilitarian categories. Research suggests that in such categories, where functionality is key, sustainability may be seen as a liability, with consumers viewing sustainable products as potentially lower in quality compared with their non-sustainable counterparts (Luchs *et al.*, 2010). This is due to a consumer compensatory inference process by which they assume that company resources are being diverted from quality.

4.2 Metrics used to measure brand value and sustainability
In Section 4.1, we presented the differing findings from the studies included in our literature review. In this section, we explore whether measurement approaches to sustainability and brand value contribute to these discrepancies.

Most studies used well-known rankings, such as Interbrand, Brand Finance, Kantar or World Brand Lab, as sources for brand value. Notably, the two studies that found non-linear relationships both relied on World Brand Lab, focused on the Chinese market, suggesting a potential influence of its brand valuation methodology in the results.

For sustainability, most scholars relied on ESG indices (such as KLD, Sustainalytics, CSRHub or Hexun). While these indices assess sustainability efforts at corporate level, brand

value is estimated at product level. This methodological mismatch poses challenges, especially when the corporate name differs from the product name (Pope and Kim, 2021). For instance, a corporation may excel in sustainability at the corporate level but positioning individual products as sustainable can sometimes negatively affect brand value, particularly in utilitarian categories (Luchs *et al.*, 2010). In fact, while most studies using ESG indices found a positive relationship between sustainability and brand value, the only study measuring the impact of sustainability perceptions on brand value (Nguyen *et al.*, 2015) found a negative association. This suggests that, in the consumer path, consumer perceptions of sustainability may matter more than actual efforts to increase brand value (Cowan and Guzman, 2020). But this mechanism has been overlooked in the literature.

4.3 Mediators: what factors explain the impact of sustainability efforts on brand value?

The literature identifies seven key mediating factors in the relationship between sustainability investments and brand value: media coverage, consumers' perceived sustainability, overall consumer perceptions, profitability, analyst ratings, investor sentiment and risk. These factors mediate two distinct paths in the sustainability-brand value relationship: the consumer path, which focuses on how sustainability influences consumers and drives profitability, and the corporate path, which primarily affects analysts and investors, thereby influencing risk.

Media coverage plays a central role in both pathways by amplifying a firm's sustainability efforts and extending the effects of sustainability beyond corporate reporting to external audiences, influencing both financial and consumer markets (Zou *et al.*, 2024). After this point, both paths diverge, each following a unique trajectory.

In the *consumer path*, media coverage raises visibility and recognition of the company's sustainability actions, which positively influences overall consumer perceptions (Cowan and Guzman, 2020; Ma *et al.*, 2023). However, the extent of this impact may vary depending on the product category: it tends to be more favorable for hedonic categories (e.g. designer handbags) but can be negative for utilitarian categories (e.g. cleaning products) (Luchs *et al.*, 2010). These shifts in consumer perceptions, whether positive or negative, affect profitability (Zou *et al.*, 2024), ultimately influencing brand value.

In the *corporate path*, media coverage enhances brand value through better analysts' ratings, which subsequently boost investor sentiment (Ma *et al.*, 2023). Positive analyst ratings enhance investors' confidence in the firm's long-term prospects, particularly in how well the firm integrates ESG practices. This favorable investor sentiment serves as a risk-mitigation mechanism, reducing the firm's exposure to stock volatility and protecting the brand from negative market reactions (Zou *et al.*, 2024).

In summary, the *consumer path* connects sustainability efforts to profitability by shaping consumer perceptions, while the *corporate path* links sustainability with risk mitigation, as integrating ESG practices can enhance analyst ratings and investor sentiment. These two pathways reflect the fundamental drivers of brand valuation—profitability and risk—highlighting how sustainability can either enhance brand value through greater profitability or protect it by reducing financial risk.

For marketing managers, these findings provide two distinct yet complementary ways to justify sustainability initiatives: (1) through improved consumer perceptions and increased profitability in product markets, or (2) through enhanced investor perceptions and risk mitigation in financial markets. Even if consumers do not immediately embrace a sustainable innovation—potentially impacting short-term profitability negatively—these efforts can still positively influence investors and analysts by reducing perceived risks.

4.4 Moderators: what factors either mitigate or strengthen the relationship between sustainability efforts and brand value?

The literature identifies five key moderators that shape the impact of sustainability investments on brand value. These factors either strengthen or weaken the relationship,

providing marketers with insights into when and why sustainability efforts succeed or fall short:

(1) *Firm size* plays a critical role in moderating the relationship between sustainability efforts and brand value. For larger firms, the mediating effect of media coverage is stronger, as they naturally attract more public attention (Zou *et al.*, 2024). Consumers also tend to assume that larger firms possess the resources to invest in sustainability without compromising product quality (Kim *et al.*, 2021), which weakens the "sustainability liability" effect.

(2) *Ownership type:* Family-owned businesses tend to benefit more from sustainability efforts than non-family businesses, likely due to their stronger ties to stakeholders and local communities (Chiang *et al.*, 2022).

(3) *Brand architecture* moderates the association between sustainability investment and brand value, such that it is stronger for branded house architectures (where the corporate and product brands share the same name, e.g. Deloitte), and weaker for house of brands architectures (where the corporate and product brands have different names, e.g. P&G and Unilever) (Pope and Kim, 2021). This is explained by the spillover effect of the corporate sustainability perceptions (built through corporate investment) on product brand perceptions.

(4) *Country of origin's sustainability reputation (COSR)* shapes the effectiveness of sustainability efforts, with brands from countries with weaker sustainability reputations, experiencing stronger brand value benefits (Cowan and Guzman, 2020). As sustainability practices become more widely adopted within a country, their effectiveness in differentiating the brand diminishes, thus reducing their impact on brand value. This finding aligns with the crowding-out thesis proposed by Pope and Kim (2021).

(5) *Marketing capabilities*, including the level of digitalization, strengthen sustainability signals to consumers, enhancing brand perceptions and positively influencing brand value (Lin *et al.*, 2021; Wang *et al.*, 2024). This highlights the importance of aligning sustainability initiatives with strong marketing efforts to ensure their full potential is realized.

5. Conclusions

This research synthesizes different approaches to measuring the impact of sustainability on brand value. By conducting a comprehensive literature review and bibliometric analysis, we shed light on the current landscape of the discipline and propose an integrative framework to explore the mechanisms by which sustainability impact brand value. Additionally, we address existing controversies in the brand value-sustainability literature and delve into the causes of contradicting findings by analyzing the approaches and measures adopted by different scholars.

We identified two main approaches to assessing the impact of sustainability on brand value: the customer perceptions of sustainability and the company's sustainability performance. We also discuss the limitations and implications of these approaches and suggest new avenues for further research.

Our study provides several theoretical contributions to the brand value-sustainability literature.

First, sustainability efforts impact brand value via two key pathways, consumer and corporate. To fully capture the effects of sustainability on brand value, both must be considered in tandem.

Second, we find mixed results regarding the effect of sustainability on brand value. Studies focused on corporate sustainability, often measured through ESG activities, generally find a positive association with brand value. However, these studies are limited to the corporate path where ESG compliance mitigates risks. To assess the impact of sustainability on consumers, alternative approaches are necessary as ESG reports are disclosed at the corporate level. To address this gap, we recommend the inclusion of sustainability perception metrics in brand valuation models to clarify whether sustainability acts as an asset or liability, depending on product category (Luchs *et al.*, 2010) and country context (Cowan and Guzman, 2020). These first two contributions answer our RQ1 providing important insights to understand the context and results of current studies.

Third, and answering our RQ2, we identify key mechanisms through which sustainability investments affect brand value. In the consumer pathway, consumer perceptions—which have been underexplored in the literature—are crucial to brand value creation, directly influencing profitability. In the corporate pathway, factors such as analyst ratings and investor sentiment help mitigate risks, thus protecting brand value.

This study offers relevant managerial implications. It suggests that managers should integrate sustainability perceptions into brand valuation models to justify the financial impact of sustainability investments. Understanding how sustainability influences consumer perceptions and brand value across different categories and markets can guide managers in effectively communicating sustainability initiatives to create value. For instance, in the laundry detergent category, where performance is paramount, sustainability perceptions should be assessed alongside perceived quality to identify potential trade-offs and estimate their overall impact on brand value (Luchs *et al.*, 2010). Following the sustainability liability and COSR theories, sustainability communications should be emphasized in hedonic categories and in countries with lower sustainability reputations to maximize impact on brand value. However, as categories and countries develop—and the effects of sustainability may vary over time (Pope and Kim, 2021; Qi *et al.*, 2021)—managers must dynamically monitor sustainability perceptions to assess their role in value creation.

Finally, managers should balance both consumer and corporate pathways when assessing sustainability's role in brand value creation. Even if in a utilitarian category, the consumer path shows that sustainability efforts will not have a positive impact on brand value in the short-term, still such initiatives may play a role in the corporate path mitigating corporate risks and protecting brand value in the long-term.

6. Further research

Through this critical literature review and bibliometric analysis, and addressing our RQ3, we have identified important themes that require further research.

Considering the divergent findings on how sustainability affects brand value, there is a need for a deeper understanding of the role sustainability plays in creating brand value. The mixed results in the literature may be partially attributed to the use of different sustainability metrics by the scholars exploring the sustainability-brand value link. While some authors resort to sustainability rankings that gauge investment performance, others employ metrics of perceived sustainability to assess the effect of sustainability on brand value. Thus, selecting an appropriate measurement method—whether based on perceptions, investments, or a combination of both—to reflect the impact of sustainability should be further validated through empirical studies.

Additionally, our findings suggest that specific brand valuation methodologies, such as the one used by the World Brand Lab focused on the Chinese market, may affect the findings regarding the nature of the relationship between sustainability and brand value. A deeper examination of these methodologies is necessary to understand their potential influence on research outcomes.

Notably, many recent studies (2023–2024) have focused predominantly on the Chinese market, a context characterized by unique regulatory frameworks, consumer expectations, and

sustainability practices. This geographic concentration raises important questions about the generalizability of findings to other cultural and economic environments and may partially explain the divergent results in the literature. These dynamics highlight the need for a broader, more inclusive understanding of how sustainability influences brand value globally.

We also recommend exploring moderating factors that may influence the effect of sustainability on brand value, including the impact of category, which has been identified as a crucial factor affecting consumers' overall perceptions (Luchs *et al.*, 2010). Given that studies supporting the positive effect of sustainability on brand value are often based on large firms and investment performance metrics, further research should specifically examine how firm size moderates the relationship between sustainability perceptions and brand value.

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