

# MAPPING ENVIRONMENTAL CONSCIOUSNESS IN MARKETING LITERATURE

Mediha Arnaut Smajlović, Esmeralda Marić

## Abstract

*The environmental consciousness of consumers and other stakeholders has become a crucial factor in making marketing decisions. Marketing practitioners are striving to integrate eco-friendly practices into strategies and effectively communicate these efforts. Defined as the level of concern for the environment, environmental consciousness is a driving force behind sustainable behaviors, many of which are related to consumption. However, despite its relevance, surprisingly little research effort has been invested in mapping this term in the marketing literature. This study addresses this gap through descriptive, bibliometric, and social network analyses of marketing articles on environmental consciousness, complemented by a content analysis of keyword co-occurrence clusters. It explores publishing trends, influential journals, authors, and citation networks while identifying key research themes and synthesizing their findings. Ultimately, this study identifies potential theoretical and methodological gaps in the marketing literature regarding environmental consciousness and offers valuable recommendations for guiding future research endeavors.*

**Keywords:** environmental consciousness, green marketing, sustainability, green consumers

**JEL classification code:** M31, Q50, Q56, D12

## 1. Introduction

Research has shown that CSR has become an integral part of marketing strategies as companies seek to align their business practices with societal and environmental values (Ramos et al. 2022). Among the several CSR domains, the environmental domain has received particular attention due to increasing public awareness of climate change, resource depletion, and the environmental impact of consumption. This growing concern has placed pressure on companies to adopt more sustainable practices and communicate their environmental commitments transparently, making environmental consciousness a central topic in marketing and CSR discourse. Despite the growing attention to environmental consciousness among marketing scholars over the last few decades, there is

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a lack of knowledge about publishing and research trends on the topic. Given the lack of bibliometric and review studies on environmental consciousness in marketing literature, the purpose of this research is to examine the state of environmental consciousness in this literature.

A recent bibliometric study emphasizes the need for more similar studies to identify prominent journals, authors, and emerging themes in the literature concerning different domains of corporate social responsibility, which could serve as a guideline for future research (Chu et al. 2022). Recognizing that insufficient effort has been devoted to mapping environmental consciousness as a crucial construct in the research of the environmental CSR domain in marketing literature, this study aims to fill this specific gap. More precisely, this research aims to identify the most prominent journals and authors in the field, categorize popular themes, and highlight potential future research avenues. To achieve this, we rely on descriptive, bibliometric, and social network analyses, complemented by content analysis of clusters identified through co-occurrence analysis. Our data pool comprises peer-reviewed articles that examine the concept of environmental consciousness in marketing literature over the past few decades.

The intended contribution of this work is three-fold. First, this research offers an evidence-based view of the state of the marketing literature on environmental consciousness, a highly important and widely explored phenomenon that has been overlooked in prior review and bibliometric studies, by mapping research trends, identifying key authors, influential journals, knowledge hubs, and uncovering citation links between published works and research themes. Second, it attempts to provide a more in-depth understanding of popular themes through the content analysis of these themes. Third, this research aims to inform future research endeavors by identifying theoretical and methodological avenues of interest.

## 2. Literature review

### 2.1. CSR and environmental responsibility

Environmental CSR refers to voluntary actions aimed at initiating and implementing environmentally supportive business practices, which extend beyond mandatory environmental regulations. Such activities can include initiatives such as creating eco-friendly urban spaces and implementing green innovations, including reducing waste and making responsible investments (Popkova et al. 2021). Current research suggests a shared concern for activities addressing

environmental responsibility, where legal and/or social sanctions drive corporate environmental management (Montiel 2008). Considering that CSR encompasses multiple domains, the prevailing attitudes toward business practices that fall within the range of CSR indicate that addressing environmental issues is among the topics exhibiting the greatest interest (Wahba 2008). Welford et al. (2007) suggest that the environment is the most important concern for stakeholders considering a company's CSR efforts. However, the process of developing environmental CSR practices isn't without challenges. These challenges often emerge due to conflicting interests between businesses and consumers, as well as the impact of technological advancements on product costs (Yankovskaya et al. 2022).

Executives in charge of making decisions about sustainable management practices took into account a variety of reasons for participating in environmental corporate social responsibility (CSR), but their main motivation usually seems to lie in the desire to appear ethical by caving into institutional pressures and expectations and seizing the strategic advantages these kinds of activities presented (Babiak and Trendafilova 2014). The possibility of forming strategic collaborations represents a strong motivating force for addressing environmental CSR. As these researchers highlight, by helping companies establish non-traditional partnerships, such as initiating collaborations with sponsors that have a huge interest in the environment or developing relationships with experts specialized in increasing operational efficiency through sustainable practices, companies can harness the financial benefits of embedding CSR in their everyday business. However, other factors, including heightened social pressures created by various stakeholders, must not be neglected when discussing why businesses employ sustainable practices (Babiak and Trendafilova 2014).

### 2.2. Environmental consciousness

The concept of environmental consciousness goes beyond mere awareness or familiarity with environmental issues. Consciousness about environmental issues increases when people connect with their environment, foster care, and build agencies (Nazir and Pedretti 2016). Environmental consciousness is defined as a mental state that reflects an individual's recognition of environmental issues (Zheng 2010). For example, environmentally conscious consumers are concerned about the currently prominent environmental issues imposed by society, primarily through

production and consumption activities. Most importantly, their increased concern over these issues doesn't remain at a recognition level but usually transfers into pro-environmental behaviors (Chen and Chiu 2016). Pro-environmental behavior can be exhibited in various ways, such as purchasing environmentally friendly products, recycling, reducing consumption levels, conserving energy, and utilizing green transportation alternatives. When considering available alternatives for a specific purchasing problem, consumers' perceived knowledge about the environmental impact of consumption is extremely important in encouraging environmentally conscious decisions (Chang and Fong 2010). Raising environmental consciousness requires deeply engaging experiences that offer authenticity, multidimensionality, and serendipity, potentially leading to epiphanies and empowerment (Nazir and Pedretti 2016).

Research on environmental consciousness encompasses any study that has conceptually or empirically addressed problems pertaining to various features of pro-environmental behavior. While some studies explore environmental consciousness at the recognition or attitude levels, others are more concerned over how this environmental concern translates into actual green behavior (Diamantopoulos et al. 2003). Environmental consciousness appears to be a complex state influenced by both internal and external determinants, and it is built around elements such as environmental knowledge, values, attitudes, and emotional engagement (Kollmuss and Agyeman 2002). Several dimensions of environmental consciousness have been identified in the literature, including affective, cognitive, dispositional, and behavioral (Sanchez and Lafuente 2010). As this complex construct, environmental consciousness depends on many individual factors, among which knowledge, awareness, personality traits, and social norms represent only a small proportion of recognized factors (Ahn et al. 2012). While most researchers consider environmental consciousness to be an attitudinal dimension, pro-environmental behavior, as a commonly explored consequence of this state (e.g., Mishal et al. 2017), is often referred to as a desirable action; however, it is often unattainable (Hassan, Shiu, and Show 2016). Numerous studies have confirmed the significant correlation between behavioral intentions and environmental consciousness (Ahn et al. 2012; Mishal et al. 2017), representing a promising sign in the translation of attitude to behavior. However, intentions often don't translate into actual behavior, which is probably the biggest concern in the environmental literature (Grimmer and Miles 2017).

### 3. Methodology

With the increase in academic publishing, conducting an unbiased and thorough literature review has become a strenuous endeavor. Systematic literature reviews (SLRs) enable researchers to maintain high rigor because the precise protocol increases objectivity in material selection and facilitates the reproducibility of results (Tranfield et al. 2003). Various types of SLRs can be found in the literature, including meta-analysis (Palmatier, Dant, Grewal and Evan 2006), bibliometric analysis (Ghorbani et al. 2021), and widely conducted structured reviews (Pandey, Nayal, and Rathmore 2020). Bibliometric analysis has become a popular method for conducting literature reviews because it provides a protocol that minimizes biases in the process. By making the protocol available, other researchers can try to replicate the study. The aim of bibliometric analysis is to aid researchers in identifying best-suited journals, articles, and authors for their field of interest. Although bibliometric analysis is considered a quantitative method, it is often employed as the initial step in a systematic literature review (SLR) procedure, often accompanied by social network analysis and, at its core, qualitative content analysis (e.g., Prashar 2020). Consisting predominantly of cluster analysis, content analysis aids in identifying prominent themes and provides direction for future research efforts.

The objective of this study is limited to performing descriptive, bibliometric, and social network analyses of publications that explicitly address the term environmental consciousness in the context of marketing, followed by clustering of key terms and content analysis of these clusters, without the intention of conducting a comprehensive systematic literature review that would delve deeper into the published studies on this topic. This objective enables us to map the representation of environmental consciousness in marketing literature and identify emerging research themes and trends.

#### 3.1. Protocol

Initially, we defined a research protocol (Dabić et al. 2020). The protocol is presented in Figure 1. The first step is the data collection process, followed by descriptive analysis, bibliometric analysis, and social network analysis. The final step in our protocol is the content analysis of clusters identified through the keyword co-occurrence analysis, followed by the identification of future research areas. This protocol is an adapted version of the commonly used protocols in

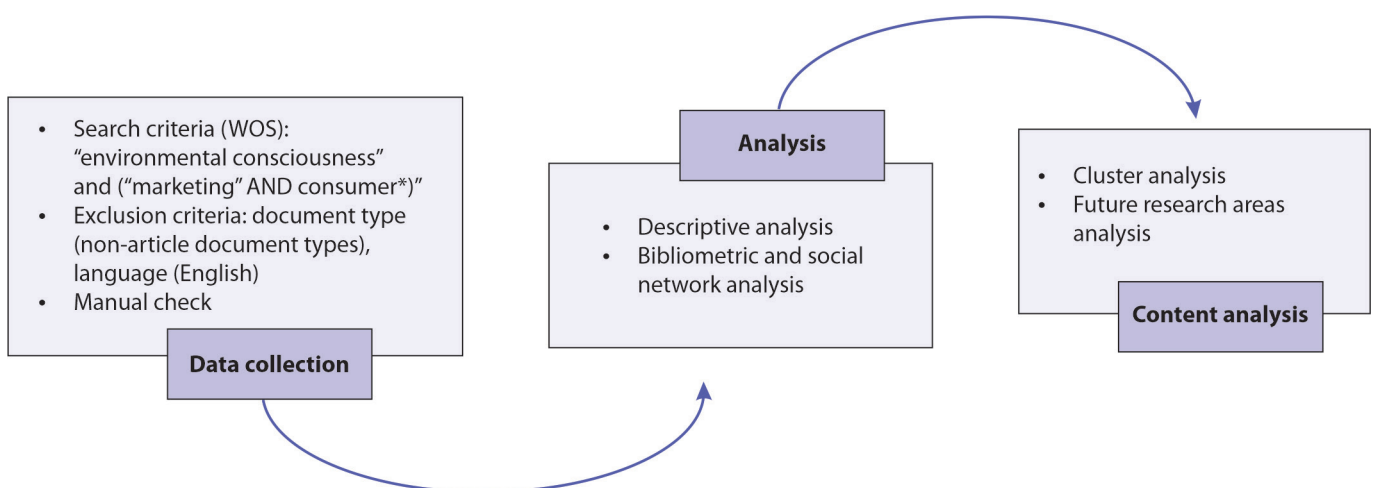
literature review studies, which are limited to bibliometric and cluster analyses or rely on these analyses as integral parts of SLRs (Lages et al. 2023).

Our research started with data collection. As recommended, to ensure the accuracy and consistency of data being exported and later included in the analysis, we followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) by Moher and colleagues (2009). The PRISMA framework consists of four steps: identification of records through database searching, screening to remove irrelevant documents, eligibility assessment by reviewing abstracts and full texts, and inclusion of the final set of publications for analysis. Bibliometric analysis of topics in marketing literature is often conducted using a pool of articles found in the Web of Science (WOS) and Scopus, as these two databases represent the scientific databases with the highest quality of registered journals and published articles (Zhu and Liu 2020). Searches of these two databases often result in many duplicates and are, therefore, complemented in a high percentage. Due to the high quality of WOS and the database being considered the one with the greatest number of relevant social sciences studies (Lopes and Farinha 2019), we limited our search to this database. We created a search string “*environmental consciousness*” and (“*marketing*” or “*consumer\**”) and identified 384 documents from the WOS database. As recommended by the PRISMA framework, we further proceeded with document screening by clearly defining the exclusion criteria. We excluded non-article

document types such as PhD dissertations, books, and book chapters (Fitz-Koch et al. 2018). Additionally, we limited our search to articles published in the English language. After applying the exclusion criteria, the search yielded 362 articles, which were subsequently manually reviewed in the eligibility stage for relevance and inconsistencies. Finally, 362 documents were included in the analysis. The so-called “data cleaning” procedure based on the PRISMA guideline is presented in Figure 2.

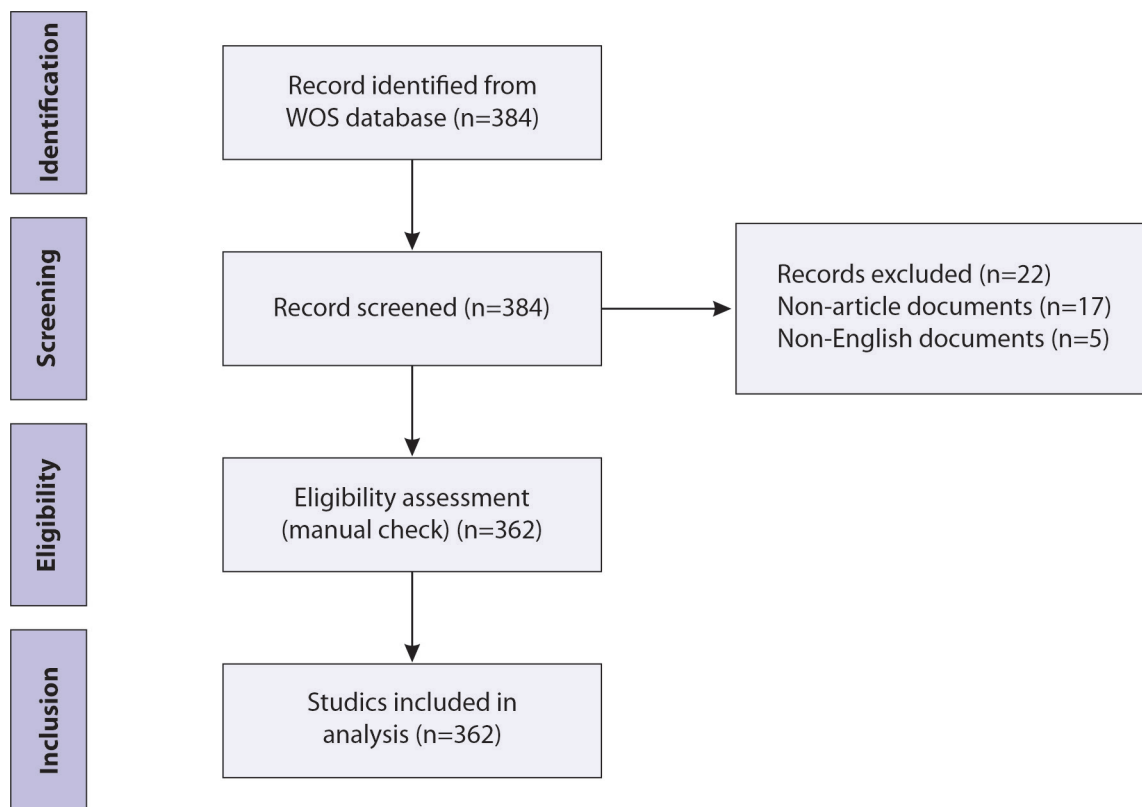
Since the aim of this research extends beyond mapping the concept of environmental consciousness in consumer behavior and psychology literature to its integration into the broader marketing literature, including areas such as branding, advertising, and marketing strategies, as well as other related domains, the choice of search string requires additional clarification. Of course, even in these distinct marketing domains, consumers are focal stakeholders, and most studies focus on them. For that reason, to capture more studies than limiting the search to the “marketing” keyword allowed, our search string contained the “consumer\*” keyword too. However, the “marketing” keyword was important because of the study’s focus on marketing literature and because although marketing recognizes consumers as focal stakeholders, the overall fit of environmental consciousness — i.e., the fit of environmental consciousness among other important stakeholders — should not be neglected. Therefore, keeping in mind that consumers are focal stakeholders in marketing literature on environmental

**Figure 1- Research protocol**



Source: Authors’ research

**Figure 2. Data cleaning based on PRISMA guideline.**



Source: Authors' research

consciousness, but being aware that the interest of this study isn't limited to consumers' environmental consciousness and extends to mapping the term in the overall marketing literature, in the process of manual checking, we decided to keep in our dataset the marketing-focused articles revolving around the phenomenon but not directly exploring its position in consumer behavior and psychology literature. This enabled us to provide more comprehensive coverage of the concept in the marketing literature.

### 3.2. Descriptive analysis

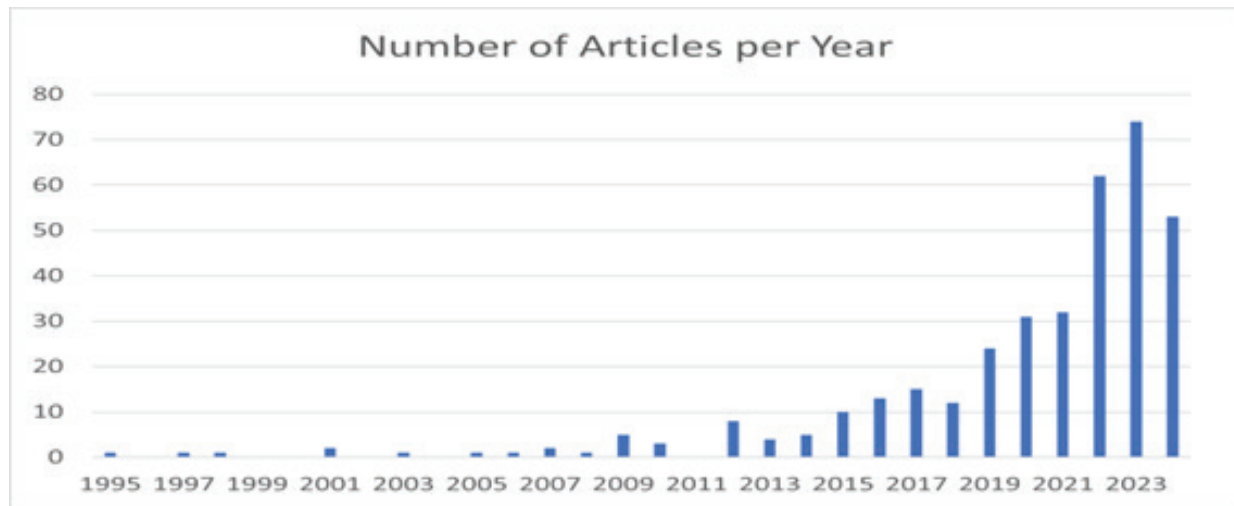
As we have already mentioned, the first part of our analysis represents a descriptive analysis with the purpose of exploring the publishing trend on the topic of environmental consciousness in marketing, as well as identifying the top publishing authors and journals in which the highest number of articles has been published. Figure 3 shows the number of articles published on environmental consciousness in marketing between 1995 and 2024. Unsurprisingly, the number gets higher as time passes. The field experienced generally steady growth between 2013 and 2021, with the exception of 2018 when a decline was registered compared to the previous year. However, the field

experienced a substantial surge in publications during 2022, and the rise continued in 2023, with the potential to extend into this year as well. This is no surprise considering the increased pressure on the incorporation of sustainable practices in business strategies (Fatima and Elbanna 2023), as well as heightened interest in understanding the complexity of factors that determine product disposition management among consumers as a focal stakeholder in this stage of the circular economy processes (Ertz et al. 2023) during recent years.

As Table 1 shows, the most cited author in the field is Prakash, G., who published four articles, was cited 462 times, and has the highest number of normalized citations. His most cited work focuses on the importance of environmental purchases for consumers, demonstrating that environmental consciousness is positively related to environmental purchases (Kumar, Prakash, and Kumar 2021). Interestingly, his work is primarily based on samples of Indian consumers, which supports the interest of top-ranking journals in environmental studies conducted in developing countries. The topic is popular all over the world, with studies published by authors affiliated with institutions in India, Australia, Puerto Rico, the UK, the Netherlands, the United States, and Brazil, which



**Figure 3. Publishing trend**



Source: Authors' research

**Table 1. Most cited authors who research environmental consciousness in marketing.**

Author	Total publications	Citations	Normalized citations	Institution	Country of affiliation
Prakash, G.	4	462	10.90	National Institute of Technology, Jalandhar	India
Chen, YS.	1	404	1	Eindhoven University of Technology	Netherlands
Kumar, A.	3	397	9.94	London Metropolitan University	UK
Justin, P.	2	287	8.61	University of Porto Rico	Puerto Rico
Kautish, P.	3	277	6.43	Institute of Management, Nirma University	India
Govindan, K.	2	276	4.52	University of Adelaide	Australia
Bouzon, M.	2	265	5.57	Federal University of Santa Catarina	Brazil
Chang, CA.	1	263	3.88	D'Amore- McKim School of Business at Northeastern University D'Amore	United States
Lin, YC.	1	261	3.88	National Chengchi University College and Communication	Taiwan
Campos, LMS.	1	256	2.82	Federal University of Santa Catarina	Brazil

Source: Authors' research

comes as no surprise considering the universality of environmental issues.

Finally, the articles tackling environmental consciousness are published in a diverse range of journals (Table 2). Although most of them are management

and business journals at their core, some are more environmental, such as *Environment Development and Sustainability* and *Resources, Conservation and Recycling*, while others are highly specific to a product category, such as *Food Quality and Preference* or

**Table 2. Journals in which articles on environmental consciousness in marketing are published.**

Journal	JIF quartile rating	Records	Frequency
Sustainability	Q3	41	11.33 %
Journal of Cleaner Production	Q1	31	8.56 %
Journal of Retailing and Consumer Services	Q1	12	3.31 %
Business Strategy and the Environment	Q1	7	1.93 %
Environmental Development and Sustainability	Q2	5	1.38 %
Journal of Business Ethics	Q2	5	1.38 %
Journal of Environmental Planning and Management	Q2	5	1.38 %
Resources Conservation and recycling	NA	5	1.38 %
British Food Journal	Q2	4	1.10 %
Food Quality and Preference	Q1	4	1.10 %
Journal of Business Research	Q1	4	1.10 %
Foods	Q1	4	1.10 %
Technology Forecasting and Social Change	Q1	3	0.83 %
Marketing Intelligence & Planning		3	0.83 %
International Journal of Consumer Studies	Q1	3	0.83 %
Heliyon	Q2	3	0.83 %
Young Consumers	Q2	3	0.83 %

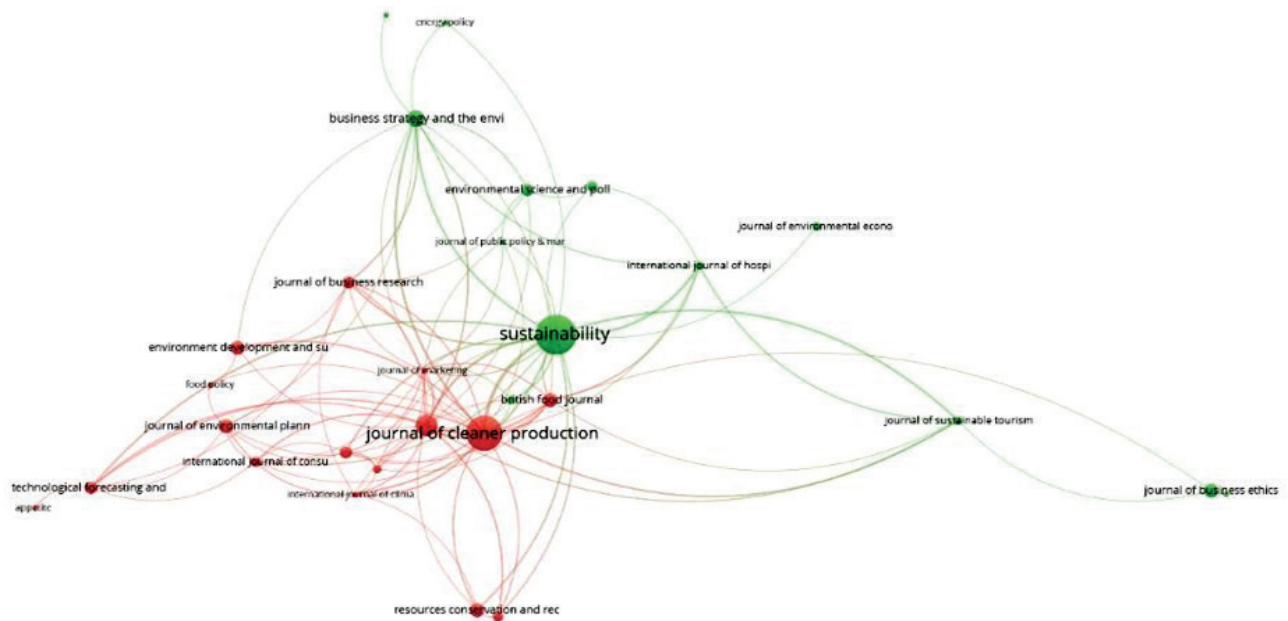
Source: Authors' research

*Foods*. The highest number of articles is published in *Sustainability* (41), followed by *Journal of Cleaner Production* (31), *Journal of Retailing and Consumer Services* (12), and *Business Strategy and the Environment* (7). Further, most of these journals have a high ranking (Q1, Q2, Q3), according to the *Journal Impact Factor* (JIF), a widely referenced ranking criterion.

### 3.3. Bibliometric and social network analysis

After completing the descriptive analysis, which provided insight into publishing in the field, we proceeded with the citation analysis. The first step in the analysis was journal mapping, which was performed to explore the journal landscape and identify knowledge hubs. The primary dataset of 362 articles was uploaded into the VOSviewer software. Under the available options, we chose citation analysis of sources, limited the analysis to journals having at least 50

citations, and demanded a cluster size of at least ten journals. The result is presented in Figure 4. The size of the circle represents the number of documents published in the journal. Two hubs are identified. The focal connecting journal in the red knowledge hub is the *Journal of Cleaner Production*. The hub includes business journals that publish numerous marketing articles, such as the *Journal of Marketing*, *Journal of Business Research*, *International Journal of Consumer Research*, and *Technological Forecasting and Social Change*, a journal focused on technology and innovation. Additionally, this hub includes environmentally oriented journals such as *Environment, Development and Sustainability*, and *Resources, Conservation and Recycling*. Finally, some of the more nutrition- and agriculture-oriented journals, such as *Appetite* and *Food Policy*, found their place in this knowledge hub. The green knowledge hub is centered around the *Sustainability* journal, and, apart from some journals on economics and environmental science, it includes

**Figure 4. Journal network for the area of environmental consciousness in marketing**


Source: Authors' research

journals that publish articles on environmental issues in tourism, such as *the Journal of Sustainable Tourism* and the *International Journal of Hospitality Management*.

Next, we proceeded with the citation analysis of articles. The aim of this step was to examine citations and links between articles by performing social network analysis. The last name of the first author and the publication year serves as the identifiers of all included documents. It is worth noting that we limited our analysis to articles with a minimum of 30 citations (Lages et al. 2023). Figure 5 shows the output of citation analysis with the circle size portraying the total number of normalized citations for a document. By dividing the number of citations of an article by the number of citations of all articles published within the same year from the dataset uploaded on VOSviewer, normalized citations account for the time advantage of older articles (Van Eck and Waltman 2010). Table 3 shows the total and normalized number of citations for the 15 most cited documents. The most cited document is the article from Chen (2008), published in the *Journal of Business Ethics* (404). The article explores the capacity of green intellectual capital to not only facilitate compliance with green regulations but also support the fulfillment of expectations from environmentally conscious consumers, ultimately yielding a competitive advantage for medium- and small-sized

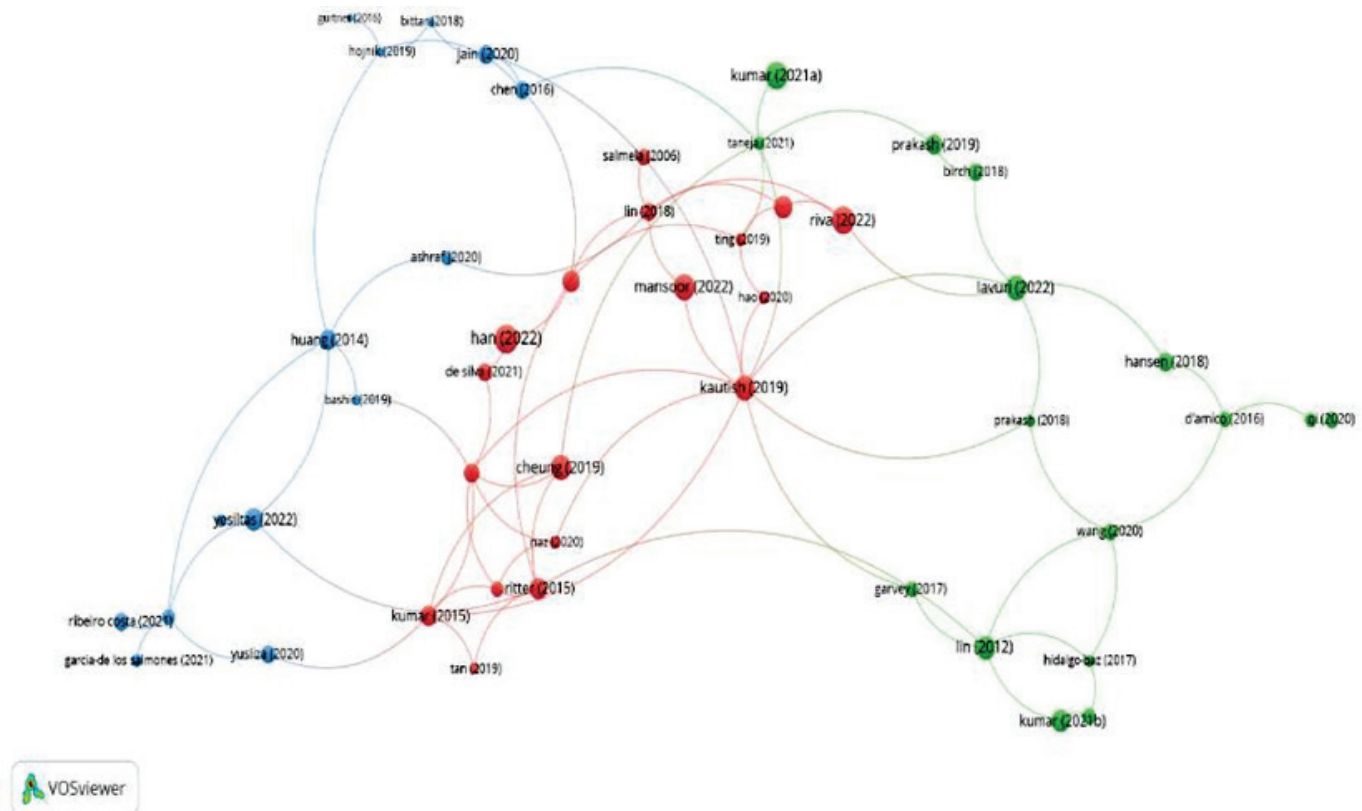
**Table 3. Topmost influential papers on the environmental consciousness in marketing**

First author	TC	NC
Chen (2008)	404	1.00
Lin (2012)	263	3.88
Kautish (2019)	235	4.20
Cheung (2019)	235	4.20
Ritter (2015)	198	2.90
Kumar (2015)	171	2.51
Hansen (2018)	167	2.47
Kumar (2021)	166	4.90
Namkung (2013)	165	2.61
Lin (2018)	164	2.43
Chen (2016)	163	1.80
Prakash (2019)	153	2.73
Birch (2018)	150	2.22
D'amico (2016)	135	1.49
Du (2016)	132	1.46
Rustam (2020)	127	3.93
Martinez Garcia de Leaniz (2018)	121	1.79

Source: Authors' research



**Figure 5. Citation network as per normalized citations**



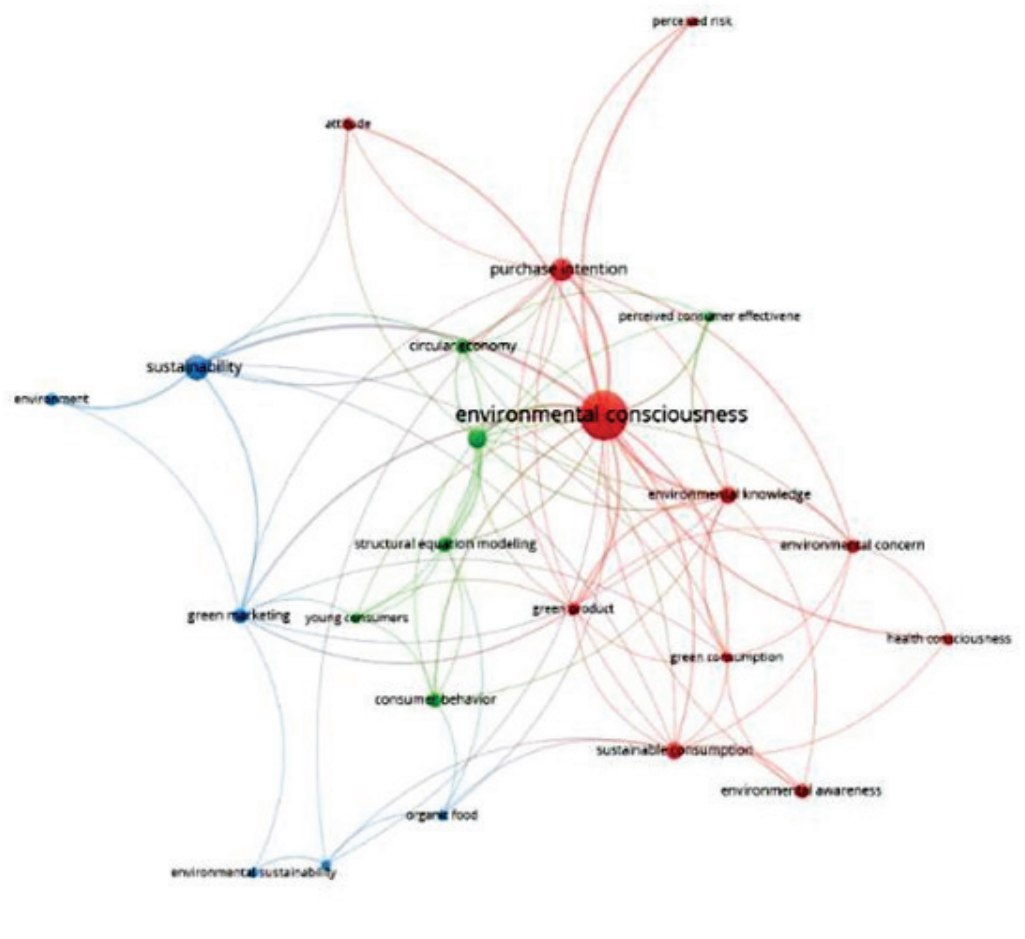
Source: Authors' research

enterprises (SMEs). In this sense, the article views consumer environmental consciousness as one of the driving forces behind the development of green intellectual capital. However, leading per the number of normalized citations, an article from Kumar, Prakash, and Kumar (2021) explores the impact of factors such as willingness to pay, attitudes, subjective norms, perceived behavioral control, and environmental consciousness on environmentally responsible purchase intentions and proves the positive effect of environmental consciousness on these intentions.

The final step in the bibliometric and social network analysis was the examination of the prevailing themes in the environmental consciousness in marketing. For that purpose, we conducted a co-occurrence analysis of keywords, limiting the choice of keywords to authors' keywords, relying on the notion that these keywords adequately illustrate the article's topic (Christofi et al. 2021) and complying with the practice in the literature (Lages et al. 2023). We limited the analysis to words with five or more occurrences, ensuring the map was created with the most relevant and prevailing keywords. Cluster size was constrained to five or more keywords per cluster. We decided to exclude some words that we concluded represent duplicates because they are written in British English

vs. American English, are in plural form vs. singular, or convey the same meaning as another keyword. The output of the co-occurrence analysis is presented in Figure 6. The size of the dot denotes the frequency of the keyword occurrence, or in other words, how commonly specific words emerge as the most relevant in the articles published in the field. Three distinct clusters can be identified based on the output. Concentrating around our focal term, *environmental consciousness*, the **red cluster** primarily comprises related terms, including environmental knowledge, environmental concern, and environmental awareness. The **green cluster** identifies the predominant theory in the field – the *theory of planned behavior*, which represents a central keyword in the cluster. Other keywords include circular economy, young consumers, and terms commonly encountered in studies that rely on the theory of planned behavior, such as perceived consumer effectiveness, consumer behavior, and structural equation modeling, which reveal the most common analytical approach in these studies. Finally, the blue cluster focuses on the keyword “sustainability” and comprises additional terms, such as “green marketing,” “environmental sustainability,” and “organic food.”

**Figure 6. Keyword co-occurrence analysis**



Source: Authors' research

### 3.4. Content analysis

Next, we proceeded with the content analysis, trying to understand what makes identified clusters internally similar and externally different.

#### Cluster 1- Related environmental constructs and consumer outcomes (red cluster)

The first cluster identified in our analysis centers on key concepts that represent fundamental pillars of sustainable consumer behavior and environmental responsibility. This cluster included keywords such as environmental consciousness, environmental knowledge, sustainable consumption, environmental awareness, health consciousness, and green consumption. The keywords provided reflect the growing interest in how individuals perceive and respond to their environmental responsibility. Environmental knowledge, for example, is defined as the information an individual has regarding the reciprocal relationship between humans and the environment (Lin

and Niu 2018). When compared to this similar construct, environmental consciousness, on the other hand, extends beyond mere knowledge of the reciprocal relationship between humans and the environment, encompassing individual beliefs that motivate environmentally beneficial behavior (Abd'Razack et al. 2017). Green consumption refers to consumption patterns that are considered sustainable and environmentally friendly, including avoiding harm to living organisms and switching to renewable energy sources (Nekmahmud and Fekete-Farkas 2020). Health-conscious individuals are those concerned about their physical and mental well-being and individuals that are motivated to engage in healthy actions, obtain health information, and prefer healthy products (Hao and Chenyue 2022). Most importantly, in terms of environmental consciousness, these consumers tend to purchase eco-friendly green products, which are described as healthy options (Hao and Chenyue 2022). Environmental awareness implies that individuals recognize the impact of their consumption on public

welfare, motivating them to leverage their purchasing power to foster social change (Srisathan et al. 2024). This cluster reveals that although many scholars differentiate between environmental consciousness and related terms (e.g., awareness, concern), others use them as synonyms (e.g., Kumar, Prakash, and Kumar 2021), potentially creating confusion in the literature. In conclusion, this cluster emphasizes the interconnectedness of various theoretical constructs in shaping sustainable, mostly consumption-related behaviors. It highlights the importance of educating and raising awareness to foster a more environmentally responsible society.

### **Cluster 2 – Theory of planned environmental behavior (green cluster)**

Articles from this cluster focus on the application of the rationale behind the theory of planned behavior to understand intentions toward environmentally sustainable behaviors, primarily related to consumption. This cluster emphasizes the roles of attitude, perceived behavioral control, and environmental consciousness in shaping these intentions. The theory of planned behavior (TPB) recognizes the intention to perform a certain behavior as the predominant antecedent of actual behavior. According to this theory, three distinct determinants – attitude, subjective norms, and perceived behavioral control – play essential roles in the formation of behavioral intentions (Ajzen 1985, 1991). In terms of consumer sustainable behaviors, the research utilizing TPB proved that intention toward construction and demolition waste recycling is mainly driven by personal motives (perceived benefits, perceived costs), attitude towards this practice, perceived behavioral control, regulatory pressures, and general environmental consciousness (Jain et al. 2020). Additionally, physical health concerns and past experience proved to be significant predictors of intention to purchase green products (Xu et al. 2020). While these and similar studies focus on antecedents of sustainable behavior and explore the potential of environmental consciousness to act as one of these antecedents, a minority of studies leveraging TBP focus on understanding external and internal factors, such as media, culture, and family influences, demographics, psychological and personal economic conditions in shaping environmental consciousness (Sharma and Bansal 2013). Furthermore, it is worth mentioning that environmental consciousness can exert an indirect effect on purchase intention through perceived behavioral control. Studies that build on the Theory of Planned Behavior (TPB) in various fields rely on Structural Equation Modeling (SEM) as an

analytical procedure, arguing that this method provides a robust analytical framework for understanding the complex interactions within TPB. Therefore, it is no surprise that, in identifying the predominant theory in research on environmental consciousness, this cluster also revealed the predominant analytical approach. In conclusion, TPB is not only used to explain the role of environmental consciousness in shaping sustainable behaviors but also to explore the potential antecedents of the environmental consciousness construct itself. However, studies focused on exploring the antecedents of environmental consciousness are in the minority compared to those examining how this concept influences consumers' sustainable behaviors.

### **Cluster 3 – The role of environmental consciousness in marketing processes (blue cluster)**

Unlike the other two clusters, the third cluster is more focused on incorporating environmental consciousness into marketing practice and related processes. The study on the role of leadership in achieving business-level environmental consciousness that brings a competitive advantage (Alzghoul, Aboalganam, and Al-Kasasbeh 2024) exemplifies the processes-oriented and holistic focus of this cluster. The focus on marketing processes is once again highlighted in the discussion of the role of pro-environmental product types and features in subsequent reinforcement for more environmentally conscious consumers, as well as the identification of consumers who are more goal-driven in terms of satisfaction (Garvey and Bolton 2017). Additionally, this cluster focuses on exploring how green marketing influences decisions in comparison to price (Kisieliauskas and Jancaitis 2024). This cluster also identifies studies that explore the role of eco-labels and sustainable advertising (Ferreira and Fernandes 2022). These examples, along with the role of people (leadership), products, prices, and promotion, are all reflective of traditional marketing processes and capture the essence of the process-oriented nature of the cluster. This process-oriented nature is further highlighted in studies exploring product-sharing systems as a practice of green marketing (Akbar and Hoffman 2018) and consumer responses to environmentally sustainable supply chains (Abbasi et al. 2022). In conclusion, this cluster represents a research avenue exploring how changes in various marketing processes can promote sustainable behaviors among consumer stakeholders, from a marketing perspective, who are considered the most important stakeholders. Additionally, this research area focuses on enhancing the sustainability of various marketing processes. In other words, this cluster comprises articles that focus

on facilitating an understanding of the role of marketing processes in shaping sustainable behaviors, as well as those that explore the role sustainable trends play in informing various marketing processes.

### 3.5. Future research avenues

In this section, based on our bibliometric, social network, and content analysis, we offer theoretical and methodological recommendations for future research on environmental consciousness.

From a theoretical perspective, the term 'environmental consciousness' requires a clearer and more precise conceptualization. Although the term gained interest decades ago (e.g., Schlegelmilch, Bohlen, and Diamantopoulos 1996), its contemporary understanding in the marketing literature is, in some sense, confusing. There are many similar yet distinct terms, such as environmental awareness, environmental attitude, environmental concern, and environmental awareness, that some scholars approach as synonyms (Kumar, Prakash, and Kumar 2021), while others make distinctions between them (Khan, 2024). More effort is needed to distinguish between these environmental constructs, which all play important roles in shaping the behaviors of consumers and others who are of interest to marketing literature. Furthermore, the theory of planned behavior emerged as the dominant theory in the field, which comes as no surprise. However, the predominant focus on this theory leads to less attention being directed at other theories that might offer fresh insights into the understanding of environmental behaviors of interest to marketing. For example, research on cause-related marketing proves that social identity theory can explain the behavior of young consumers (Arslanagić-Kalajdžić et al. 2022). Additionally, the theories of uncertainty and social proof proved useful in explaining consumer behaviors during uncertain times (Naeem 2021). Since individuals may be uncertain about their positive impact on the environment, the theory of social proof can help explain why certain communication strategies are more effective in encouraging their pro-environmental behavior than others. Furthermore, many studies focus on the consequences of consumer environmental consciousness, devoting way less attention to exploring factors that might increase environmental consciousness. For example, it would be beneficial to explore how heroic appeals in advertising affect consumer environmental consciousness (Ulkinaku, Sarial-Abi, and Kinessa 2020) or how they could impact managerial environmental consciousness and, subsequently, managerial marketing decisions when used in the creation

of internal communication content. It is essential to note that most marketing-focused studies examine the role of consumer environmental consciousness. Consequently, future research targeting marketing journals and focusing on business decisions specific to marketing may benefit from shifting its focus to other stakeholders. For example, future research could investigate the role of environmental consciousness at the manager's or employee's level in generating competitive advantage based on the theory of market orientation (Narver and Slater 1990). The application of various theories can help in understanding the phenomenon of environmental consciousness, its antecedents, and its consequences in marketing.

From a **methodological perspective**, our research indicates that structural equation modeling (SEM) is the most widely used analytical approach in studies on environmental consciousness. This comes as no surprise, considering the predominant reliance on the theory of planned behavior in explaining attitudes and behavioral intentions. However, the field might benefit from the application of other quantitative techniques, such as experiments. Experiments especially widely favored field experiments (Viglia, Zaefarian, and Ulqinaku 2021), may be highly beneficial in overcoming the primary limitation of the current methodological approach, which we believe is the reliance on measuring intentions rather than actual behavior. The gap between attitudes and behaviors, as well as expressed behavioral intentions (Juvan and Dolnicar 2014), appears to be significantly pronounced in the field of sustainable consumer behavior. More methodological effort is required to fill this gap. Apart from classic field experiments, lab experiments with more realistic measurements of behaviors might be beneficial (e.g., Brune de Bruin and Ulqinaku 2021), as well as the application of neuromarketing techniques. More in-depth, qualitative studies, as well as mixed method studies, would also provide some refreshment to the field.

## 4. Discussion and limitations

Despite the rise in popularity of SLR and bibliometric studies, even in the area of business sustainability (e.g., Bhat, Ghuman, and Dhir 2020), to the best of our knowledge, no prior research effort has been invested in mapping environmental consciousness in the marketing literature. The purpose of this research was to fill this gap by applying a rigorous approach to literature analysis (a combination of descriptive, bibliometric, social network, and content analysis). Specifically, we aimed to map the field in terms of journals,



authors, and articles, identify popular themes and research areas within the field, and, importantly, pinpoint future research avenues. As such, this research has a threefold theoretical contribution. The first contribution lies in mapping the field through descriptive, bibliometric, and social-network analysis. We explored the publishing trend, identified top-publishing journals, and discovered the most cited authors and influential articles. By applying social network analysis, we identified knowledge hubs and showed the linkage between published articles. Additionally, by using the keyword co-occurrence analysis, we identified predominant themes in the field. The second contribution of this research lies in identifying popular themes through content analysis of clusters identified through co-occurrence analysis. Three streams of themes emerged from the cluster analysis and were further explained in the content analysis. We applied content analysis to understand what makes clusters internally similar and externally different. The first cluster focuses on understanding the interconnectedness between environmental consciousness and related terms. The second cluster's content focuses on the predominant theory in the field of planned behavior. It explores how environmental consciousness affects consumers' behavioral intentions and identifies the factors that serve as antecedents of environmental consciousness. Additionally, this cluster brought forth the leading analytical approach in the field – SEM. Finally, the third cluster focuses on incorporating environmental consciousness into marketing processes. Ultimately, the third contribution of this research lies in directing future research endeavors by identifying potential avenues for future investigation from both theoretical and methodological perspectives.

Our study does not come without limitations. First, we searched for just one database. Future research might combine articles available at both WOS and Scopus. Additionally, we are aware that some scholars may have chosen the search string differently, which could result in the omission of some relevant terms and, consequently, articles. Advanced techniques, such as machine learning (ML), may facilitate literature reviews based on semantic similarity between articles; however, the technique requires algorithm development that often exceeds the capabilities of marketing scholars (Lages et al. 2023).

Furthermore, it is worth noting that our focus on the broader mapping of the term in marketing literature has shifted some attention away from specific fields, such as consumer behavior and psychology. Although consistent with the general publishing trend in most marketing domains, most studies in our data pool investigated consumers, focusing solely on

articles that explored how environmental consciousness fits into consumer behavior and psychology. These studies might have offered a more concrete review. We suggest that future researchers interested in the scientific mapping of environmental consciousness narrow their focus even further if they aim to explore how the term fits into a specific marketing topic. On the contrary, if they want to have a more comprehensive picture, mapping the phenomenon with another environmental phenomenon in the marketing literature under an umbrella term could be helpful. We focused on “environmental consciousness” as one of the most frequently researched phenomena within the environmental domain of Corporate Social Responsibility (CSR), while other important concepts explored under the broader CSR umbrella have largely remained underrepresented in bibliometric and review studies. Future bibliometric and review efforts might be directed toward concepts that are prominent in other CSR domains, such as community engagement and corporate philanthropy.

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