

Green Marketing and Consumer Environmental Awareness: A Bibliometric Review of Social Education and Campaigns

Loso Judijanto¹, Ni Nyoman Suarniki², Muhamad Ammar Muhtadi³

¹ IPOSS Jakarta, Indonesia

² Sekolah Tinggi Ilmu Ekonomi Nasional (STIENAS) Banjarmasin

³ Nusa Putra University

Article Info

Article history:

Received June, 2024

Revised June, 2024

Accepted June, 2024

Keywords:

Green Marketing
Consumer Environmental
Awareness
Social Education
Campaigns
Bibliometric Analysis
VOSviewer

ABSTRACT

This study employs bibliometric analysis to explore the expansive landscape of green marketing and consumer environmental awareness research. Utilizing data from VOSviewer, we analyzed thematic clusters, research trends, emerging topics, and author collaboration networks from a comprehensive dataset spanning several decades. Our findings reveal distinct thematic areas, including core marketing strategies, consumer behavior, corporate responsibility, and the critical evaluation of greenwashing practices. A temporal analysis indicates a shift in focus from traditional marketing tactics to nuanced understandings of consumer attitudes and the authenticity of environmental claims. Additionally, we identified potential research opportunities in underexplored areas such as green hotels and green markets, which could provide new insights into sector-specific sustainability practices. The author collaboration network analysis highlights a somewhat segmented academic community with opportunities for more interdisciplinary and integrative research efforts. This study not only charts the evolution and current state of green marketing research but also points to future directions that could bridge existing gaps and foster broader collaborative networks.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author:

Name: Loso Judijanto

Institution: IPOSS Jakarta, Indonesia

Email: losojudijantobumn@gmail.com

1. INTRODUCTION

Green marketing has emerged as a pivotal strategy for companies aiming to appeal to environmentally conscious consumers [1]. This approach not only promotes products that are purportedly environmentally friendly but also integrates eco-conscious practices throughout the product's lifecycle, from production to packaging [2]. In recent years, the

proliferation of environmental awareness among consumers has led to a notable shift in market dynamics, compelling companies to adopt sustainable practices[3]. Social education and targeted campaigns play a crucial role in this shift, educating the public on environmental issues and influencing consumer behaviors toward more sustainable choices [4], [5].

The effectiveness of green marketing is heavily dependent on the level of environmental awareness among consumers [6]. As awareness increases, consumers are more likely to seek out and choose products with lower environmental impacts, demonstrating a willingness to pay a premium for sustainability [7], [8]. Educational initiatives and campaigns that highlight the importance of ecological balance and the impact of consumer choices thus become vital tools in shaping market trends [9]. These initiatives not only inform consumers but also build a societal push towards environmental sustainability [10].

However, despite the growing trend, there remains a disparity in consumer knowledge and behavior across different regions and demographic groups [11], [12]. This uneven distribution of environmental consciousness and the varying effectiveness of green marketing campaigns underscore the complexity of achieving widespread environmental awareness [13]. It is essential to understand the mechanisms through which social education and green marketing influence consumer behavior and to identify the factors that enhance or impede their effectiveness [14], [15].

While there is consensus on the importance of green marketing and social education in enhancing consumer environmental awareness, less is understood about the bibliometric dimensions of how these strategies have been implemented and studied globally. There is a need to analyze the existing literature to map out the trends, gaps, and focal points of research on green marketing within the context of social education and campaigns. Such an analysis could reveal the extent to which different educational approaches and marketing strategies have succeeded in altering consumer behaviors and attitudes toward sustainability.

The primary objective of this research is to conduct a comprehensive bibliometric review of the literature on green marketing and consumer environmental awareness as influenced by social education and

campaigns. This review aims to synthesize existing research findings, identify predominant themes, and ascertain the impact of these strategies on consumer attitudes and behaviors. The study will also explore the evolution of research trends over time, providing insights into how the academic focus on green marketing and environmental education has shifted and expanded.

This research is significant as it will provide a detailed overview of the academic landscape surrounding green marketing and its effectiveness in raising environmental awareness through social education. By identifying successful strategies and notable gaps in the literature, this study will offer valuable insights for policymakers, educators, and marketers aiming to enhance the impact of their environmental campaigns. Furthermore, the findings could serve as a foundation for future research, guiding more targeted studies that could address unresolved issues and refine green marketing strategies to better meet the needs of diverse consumer bases.

2. LITERATURE REVIEW

2.1 *Overview of Green Marketing*

Green marketing, also known as eco-marketing or sustainable marketing, involves developing and promoting products with environmental benefits. Its history can be traced back to the early 1970s when ecological products were marketed primarily to niche markets. Over the decades, as environmental awareness has grown, green marketing has evolved into a broader strategy adopted by companies across various industries. [16] provide a detailed examination of the evolution of green marketing and argue that its success is largely dependent on mainstream consumer adoption rather than remaining within niche groups. They also stress the importance of authenticity in

green marketing efforts, noting that consumers are increasingly skeptical of superficial or misleading claims.

2.2 Consumer Environmental Awareness

The rise in consumer environmental awareness is a key driver for the success of green marketing. This awareness influences consumer decisions and behaviors, prompting individuals to opt for products that are perceived as environmentally friendly. According to a study by [17], environmental knowledge, values, and attitudes are significant predictors of environmentally responsible behaviors. However, they also identify a gap between awareness and action, often referred to as the "attitude-behavior gap," where consumers profess concern for the environment but frequently fail to make sustainable choices due to factors like lack of convenience, higher costs, or limited availability.

2.3 Impact of Social Education and Campaigns

Educational campaigns play a critical role in bridging the attitude-behavior gap. These campaigns are designed to inform consumers about the environmental impacts of their choices and to motivate changes in behavior. The effectiveness of such campaigns has been widely studied, with findings indicating that well-designed educational initiatives can lead to significant changes in consumer behavior. For instance, [18] found that consumers who are exposed to consistent and clear environmental messages are more likely to alter their purchasing behaviors in favor of greener alternatives. The role of social norms in these campaigns is also pivotal, as highlighted by [19], who demonstrate that social influence can greatly

enhance the impact of environmental campaigns.

2.4 Bibliometric Analysis in Green Marketing Research

Bibliometric methods have been increasingly applied to the field of green marketing to map the existing research landscape and to identify trends and gaps in the literature. For example, a bibliometric study by [20] on the literature related to green marketing from 2005 to 2022 revealed a growing interest in topics related to consumer perception and behavior towards green products. Their analysis also showed a significant increase in studies focusing on the effectiveness of marketing communications in influencing environmentally friendly behaviors. Bibliometric reviews thus provide a quantitative approach to understanding the development and focus areas within the field of green marketing.

3. METHODS

This study employs a bibliometric analysis to systematically review and evaluate the literature on green marketing and consumer environmental awareness influenced by social education and campaigns. The data for this analysis were sourced from Google Scholar, covering publications from the year 1971 to 2023. Key search terms used included "green marketing," "consumer environmental awareness," "social education," "environmental campaigns," and combinations thereof. The inclusion criteria were set to select studies that explicitly discuss the interaction between green marketing strategies and consumer awareness as influenced by educational efforts. Relevant data extracted from the selected publications included the year of publication, authorship, journal, and citation count. The bibliometric data were analyzed using VOSviewer software, which facilitated

the visualization of trends, clusters, and relationships within the corpus. This approach allowed for a comprehensive understanding of the research landscape,

highlighting the evolution of themes over time and identifying influential works and gaps in the literature.

4. RESULTS AND DISCUSSION

4.1 Research Data Metrics

Table 1. Data Citation Metrics

Publication years	1971-2024
Citation years	53 (1971-2024)
Paper	980
Citations	220206
Cites/year	4154.83
Cites/paper	224.70
Cites/author	117917.98
Papers/author	500.03
Author/paper	2.53
h-index	234
g-index	455
hI,norm	173
hI,annual	3.26
hA-index	70
Papers with ACC	: 1,2,5,10,20:877,825,660,517,330

Source: Publish or Perish Output, 2024

Table 1, derived from "Publish or Perish" output, presents a comprehensive bibliometric analysis of publications spanning from 1971 to 2024, encapsulating a 53-year citation period. During this time, 980 papers were published, amassing a total of 220,206 citations. This reflects an average of 4154.83 citations per year and 224.70 citations per paper, indicating a significant impact in the field. Furthermore, the data reveals a high level of collaboration, with an average of 2.53 authors per paper and a substantial contribution by each author, as evidenced by 117,917.98 citations per author and about 500 papers per author. The productivity and influence of the authors are further underscored by a robust h-index of 234, a g-

index of 455, and a normalized h-index (hI,norm) of 173, indicating that a large number of papers have received substantial citation counts. Additionally, the annualized individual h-index (hI,annual) is 3.26, while the hA-index stands at 70. The data also details the distribution of papers that have reached specific citation count milestones (ACC), with 877 papers receiving at least one citation, and progressively fewer papers achieving higher citation thresholds, culminating in 330 papers receiving 20 or more citations each. This comprehensive metric analysis highlights the enduring relevance and influence of the research within this academic field over more than five decades.

Table 2. Top Cited Research

Citations	Authors and year	Title
11249	[17]	Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?
4589	[21]	Targeting consumers who are willing to pay more for environmentally friendly products

Citations	Authors and year	Title
3383	[22]	Do green supply chains lead to competitiveness and economic performance?
2686	[23]	Environmental segmentation alternatives: a look at green consumer behavior in the new millennium
2598	[24]	Green consumers in the 1990s: Profile and implications for advertising
2450	[25]	Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation
2438	[26]	Predicting green product consumption using theory of planned behavior and reasoned action
2384	[27]	Environmental communication and the public sphere
1844	[28]	Harnessing green IT: Principles and practices
1821	[29]	Corporate social responsibility and shareholder reaction: The environmental awareness of investors

Source: *Publish or Perish Output, 2024*

Table 2, sourced from a "Publish or Perish" output in 2024, lists the top-cited research in the realm of environmental studies, highlighting significant contributions to the field. The table is led by the seminal work of Kollmuss and Agyeman, "Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?" with a remarkable 11,249 citations, reflecting its pivotal role in examining the discrepancies between environmental attitudes and actions. Following this, Laroche, Bergeron, and colleagues' research on consumer willingness to pay more for environmentally friendly products has garnered 4,589 citations, indicating substantial interest in consumer behavior

towards green products. The list also includes studies on green supply chains, consumer segmentation, and corporate social responsibility (CSR), each receiving thousands of citations, which signifies their influential impact on both academic research and practical applications. These studies vary in focus from practical strategies for enhancing environmental competitiveness to theoretical analyses of consumer behavior and the effectiveness of environmental communication. The broad range of topics and high citation counts demonstrate the diverse interest and ongoing relevance of research in environmental consciousness and green marketing.

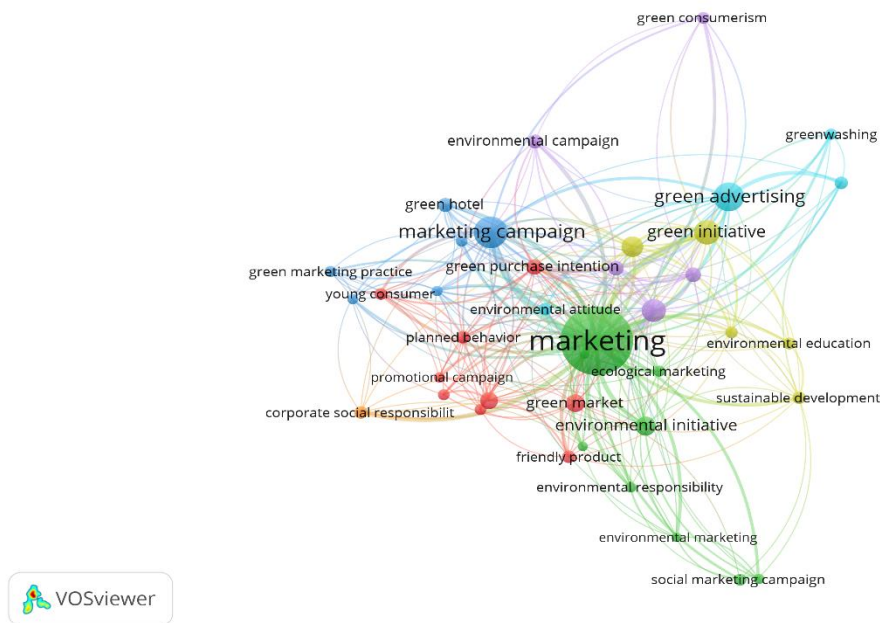


Figure 1. Network Visualization

Source: Data Analysis Result, 2024

The first figure is a visualization from VOSviewer. In this specific visualization, the nodes represent different keywords or terms associated with research on green marketing and environmental awareness, and the lines (or edges) represent the co-occurrence or relationship between these terms in the literature. The following list identify the thematical clusters from the image.

1. Green Marketing Core Practices and Concepts

Central and prominent nodes like "marketing," "green marketing practice," and "ecological marketing" are closely linked, forming a dense cluster. This cluster suggests a strong focus on the strategies and practices of green marketing as a discipline. The terms "promotional campaign" and "marketing campaign" indicate a strong emphasis on how green marketing is implemented in practical terms.

2. Consumer Behavior and Attitudes

This cluster includes terms like "young consumer," "green consumerism," "environmental attitude," and "green purchase intention." It focuses on consumer demographics and their attitudes towards environmentally friendly products. The presence of "planned behavior" hints at studies exploring the theoretical frameworks such as the Theory of Planned Behavior in understanding consumer decision-making in green marketing contexts.

3. Corporate Social Responsibility and Ethical Considerations

Nodes like "corporate social responsibility" (CSR) and "environmental responsibility" are connected, indicating a cluster that discusses the role of businesses in promoting environmental ethics and sustainable practices beyond marketing. This cluster likely explores how CSR initiatives can

influence public perception and consumer behavior.

4. Educational and Campaign Efforts

With nodes such as "environmental education," "environmental campaign," and "social marketing campaign," this cluster emphasizes the importance of educational initiatives and public campaigns in raising environmental awareness and shaping consumer choices.

5. Challenges and Criticisms in Green Marketing

The presence of terms like "greenwashing" in proximity to

"green advertising" suggests a cluster dealing with the critical aspects of green marketing, where companies might mislead consumers regarding the environmental benefits of their products. This cluster likely addresses the skepticism and challenges faced by green marketing in proving its genuine intent and effectiveness.

Each cluster represents a thematic area within the broader field of green marketing and environmental awareness. The relationships and proximity of these terms not only help in understanding the current research focus but also in identifying gaps and emerging trends in the literature.

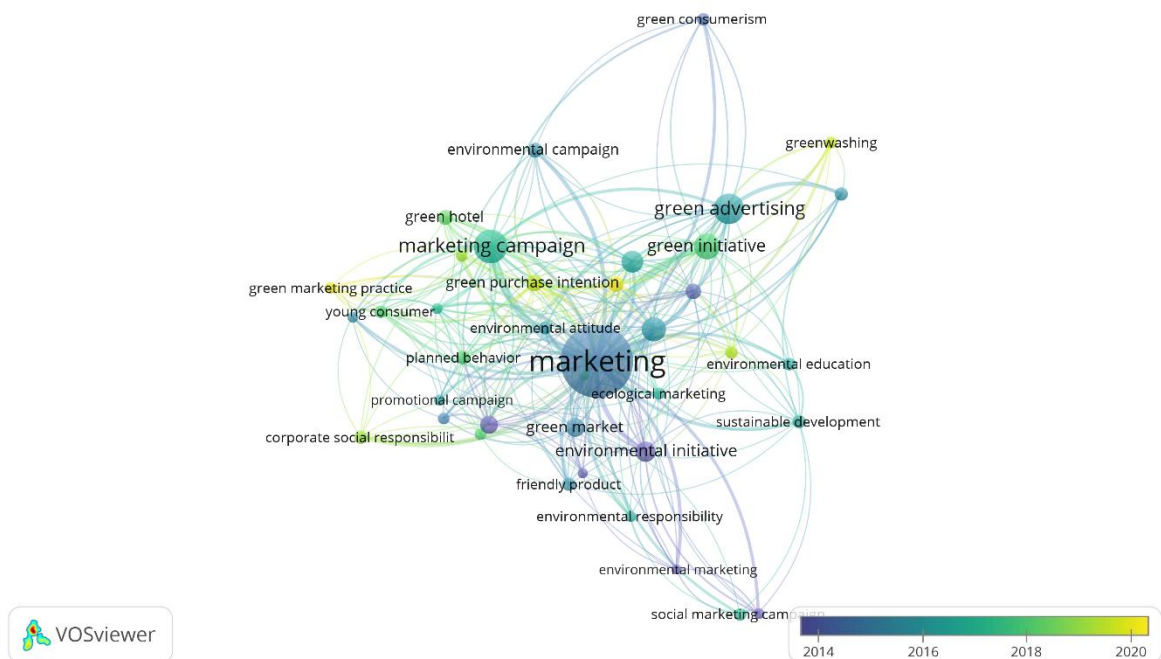


Figure 2. Overlay Visualization
Source: Data Analysis Result, 2024

The second visualization from VOSviewer shown in the figure indicates a time-evolving analysis of keywords related to green marketing and environmental awareness from 2014 to 2020. The nodes represent various keywords while their colors change from blue to yellow, representing the progression of research interest over time.

In the earlier years, marked by bluer nodes, there is a strong focus on foundational concepts like "green marketing," "ecological marketing," and "environmental education." These terms are central in the network, indicating that they were key areas of research at the start of this period. The prominence of "corporate social responsibility" and

"environmental responsibility" during these years suggests a significant interest in how businesses can integrate sustainability into their core strategies. Additionally, "green advertising" and "promotional campaign" appear as significant topics, reflecting an initial emphasis on how products are marketed as environmentally friendly.

As the timeline progresses towards the green and light yellow nodes around 2016 to 2018, there's an observed shift towards more consumer-oriented research. Keywords such as "green consumerism," "green purchase intention," and "environmental attitude" gain prominence, indicating a growing academic interest in understanding how consumer behavior and attitudes are influenced by green marketing efforts. The focus on "young consumer" highlights a particular interest in how younger demographics respond to environmental campaigns and products.

Towards the most recent years, marked by yellow nodes, the research appears to have evolved towards more specific and emergent themes such as "greenwashing." This indicates a critical exploration of the potentially misleading use of green marketing by companies that claim to be

environmentally conscious without substantial evidence. The continuing presence of "sustainable development" and the emergence of terms like "environmental initiative" suggest a broadening of focus to include more comprehensive discussions on sustainability beyond mere marketing tactics. The node "social marketing campaign" hints at the integration of social science techniques to enhance the effectiveness and reach of environmental campaigns.

This visualization showcases the dynamic nature of research in green marketing and environmental awareness, reflecting shifts from foundational marketing strategies to a deeper understanding of consumer behavior and critical analysis of marketing practices. The move towards analyzing the impact of greenwashing and the integration of broader sustainability goals illustrates the field's response to evolving consumer awareness and regulatory environments. This trend analysis not only helps in identifying how the academic dialogue has shifted but also points to potential future directions in research, such as increased focus on authenticity, transparency, and the real impact of green marketing initiatives.

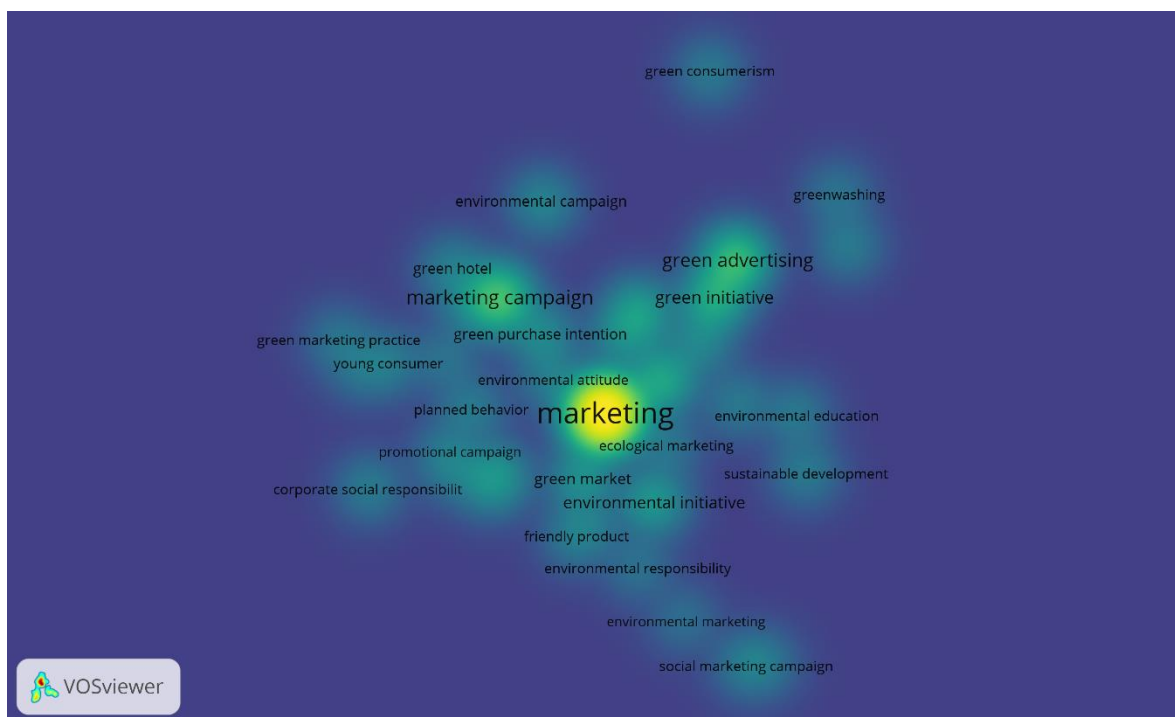


Figure 3. Density Visualization

Source: *Data Analysis, 2024*

The latest VOSviewer visualization uses color intensity to possibly indicate the frequency or intensity of research activity associated with each term in the context of green marketing and environmental awareness. Brighter areas typically represent more frequently discussed topics, while less bright areas might point to lesser-studied or emerging topics within the field.

In this visualization, areas with less brightness suggest potential research topics that have not been as extensively explored in the literature compared to the central and more brightly colored topics. Here are a few insights into possible under-researched or emerging topics:

1. Green hotels, this term appears in a less bright area, suggesting limited research focused specifically on sustainable practices within the hospitality industry. Potential research could explore the effectiveness of green marketing strategies in hotels, consumer perceptions of green hotels, and the economic impacts of adopting sustainable practices in this sector.
2. Environmental initiative, while closely related to more prominent terms like "sustainable development" and "environmental responsibility," the term "environmental initiative" seems less explored. Research could focus on specific case studies of successful environmental initiatives, comparing their impact across different industries or geographic regions.
3. Friendly product, this term appears to be less emphasized and could be a niche within the broader discussion of eco-friendly products. Research topics here might include consumer trust in labelling products as "friendly," the regulatory challenges associated with such labels, and the market performance of products advertised as environmentally friendly.
4. Green market, the concept of "green market" could be explored further, particularly in terms of its development, challenges, and the role of digital platforms in promoting green markets. Studies could also look into consumer behaviour within green markets and the effectiveness of various marketing strategies used in these contexts.
5. Social marketing campaign, while social marketing campaigns are a common strategy, their specific application to environmental causes appears less highlighted. Potential research could investigate the components of successful environmental social marketing campaigns, the integration of digital media in these campaigns, and their long-term impacts on public behaviour and attitudes.

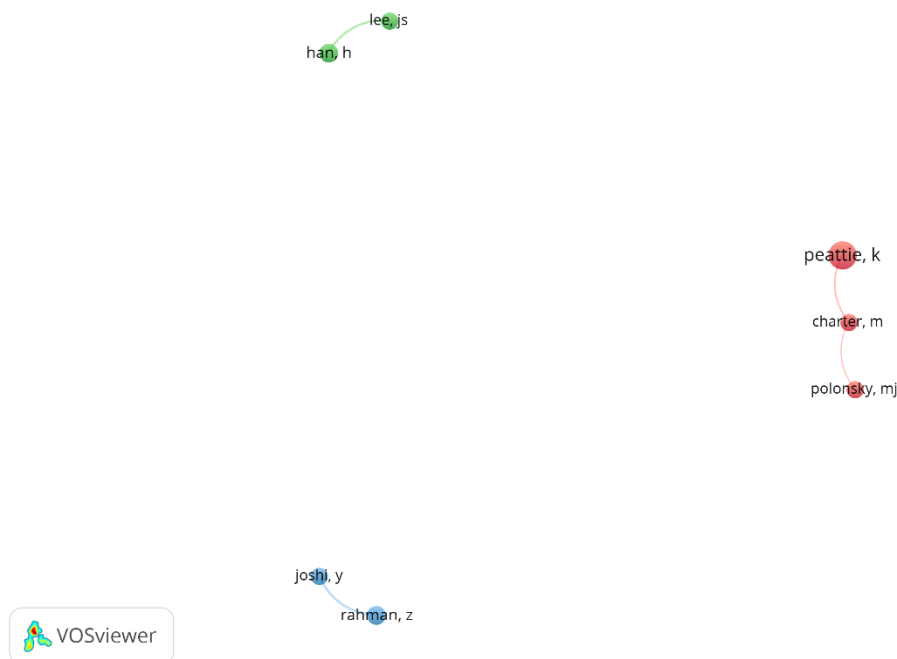


Figure 4. Author Collaboration Visualization

Source: Data Analysis, 2024

This figure depicting an author collaboration network within a specific research field, possibly green marketing or a related area, given the context of previous visualizations. In this network, there are two main clusters shown, each represented by a different colour. The red cluster includes authors such as Peattie, K., Charter, M., and Polonsky, M.J., indicating a closely knit group of scholars who frequently collaborate or whose work is closely related in terms of content or citation. The green cluster, on the other hand, includes Lee, J.S., Han, H., and others, suggesting another distinct group of collaborators or thematic similarity within their works.

The absence of links between the two clusters implies that there is little to no direct collaboration or citation relationships between the authors in the red cluster and those in the green cluster. This separation might indicate different thematic focuses, methodologies, or geographical focuses within the broader research area.

Authors like Rahman, Z., and Joshi, Y., appearing in the blue, seem to be less connected or isolated from the main clusters.

This could suggest that their work is either newer or diverges from the core research themes represented by the other two clusters. These authors might be exploring niche areas within the field or employing methodologies that differ from the mainstream approaches of the other clusters.

5. CONCLUSION

The series of VOSviewer visualizations analyzed provides a comprehensive overview of the green marketing and environmental awareness research landscape, revealing significant insights into thematic clusters, research trends, emerging topics, and author collaborations. Thematic cluster analysis uncovered dominant areas such as core green marketing practices, consumer behavior, corporate responsibility, educational efforts, and the critique of greenwashing, highlighting the field's multifaceted nature. Research trends over time indicated a shift from basic green marketing strategies to a deeper focus on consumer attitudes and the critical analysis of marketing practices, with recent concerns notably centering around

greenwashing and the authenticity of environmental claims. Emerging research opportunities were identified in less saturated areas like green hotels, environmental initiatives, and the specifics of green markets, which are ripe for detailed exploration to enhance understanding and practical applications in less-explored niches. Lastly, the author collaboration network showed distinct clusters and isolated authors,

suggesting a well-defined but possibly siloed academic community with potential for greater interdisciplinary collaboration and integration of newer researchers into established domains. Overall, this body of analyses underscores the evolving complexity of green marketing research and the continuous need for innovative approaches to foster sustainable consumer behaviors and effective environmental strategies.

REFERENCES

- [1] S. Chauhan and N. Naznin, "Green Marketing: An Ethical and Anti-Environmental Resilient Approach for Sustainable Business," *Probl. Ekorozwoju*, vol. 18, no. 2, pp. 141–147, 2023.
- [2] H. Sharadhi *et al.*, "A Study on the Consumer Perception towards Green Marketing Practices in FMCG Products," *Int. J. Res. Appl. Sci. Eng. Technol.*, vol. 11, pp. 2455–2467, Apr. 2023, doi: 10.22214/ijraset.2023.50665.
- [3] P. Mishra and P. Sharma, "Green marketing: Challenges and opportunities for business.," *BVIMR Manag. Edge*, vol. 7, no. 1, 2014.
- [4] W. T. K. Manunggal, "Green marketing for eco-friendly vegetable products at Wanita Tani Karya Manunggal Group," *J. Pengabd. Masy. Univ. Merdeka Malang*, vol. 7, no. 4, pp. 814–823, 2022.
- [5] P. Deshmukh and H. Tare, "The effects of green marketing practices on consumer behavior in India: A case study of consumer durable goods," *Int. J. Health Sci. (Qassim)*, vol. 6, no. S8, pp. 3292–3310, 2022.
- [6] O. R. Sitorus, S. Sinulingga, and B. K. F. Sembiring, "Green Marketing Strategy Effect on Consumer Awareness Through Marketing Mix Approach," in *19th International Symposium on Management (INSYMA 2022)*, Atlantis Press, 2022, pp. 976–981.
- [7] H. Hamoudi and C. Avilés-Palacios, "Awareness Campaigns in a Horizontally Differentiated Market with Environmentally Conscious Consumers, Private Versus Public Duopoly," *Int. J. Environ. Res. Public Health*, vol. 19, no. 19, p. 12891, 2022.
- [8] R. U. Sabilla and R. Hendayani, "Pengaruh Eco-Label terhadap Green Purchase," *Fair Value J. Ilm. Akunt. dan Keuang.*, vol. 5, no. 3, pp. 1487–1498, 2022.
- [9] J. Józwiak-Pruska, P. Bobowicz, C. Hernández, and M. Szalczyńska, "Consumer Awareness of the Eco-Labeling of Packaging," *Fibres Text. East. Eur.*, vol. 30, no. 5, pp. 39–46, 2022.
- [10] F. Tao, Y. Zhou, J. Bian, and K. K. Lai, "Agency selling or reselling? Channel selection of green products with consumer environmental awareness," *Int. J. Logist. Res. Appl.*, vol. 27, no. 2, pp. 326–345, 2024.
- [11] N. Kutama and A. Deliwe, "Creating consumer awareness of green products through the 6Ps of societal marketing.," *J. Manag. Mark. Rev.*, vol. 7, no. 4, 2022.
- [12] M. Ali, "A social practice theory perspective on green marketing initiatives and green purchase behavior," *Cross Cult. Strateg. Manag.*, vol. 28, no. 4, pp. 815–838, 2021.
- [13] P. . Tarikar and D. A. . Tamragundi, "CONSUMERS AWARENESS TOWARDS GREEN MARKETING PRACTICES WITH REFERENCE TO CONSUMER ELECTRONICS AND HOME APPLIANCES SECTOR," *YMER Digit.*, vol. 21, pp. 622–637, Jan. 2022, doi: 10.37896/YMER21.01/55.
- [14] W. Kuźniar, T. Surmacz, and B. Wierziński, "The impact of ecological knowledge on young consumers' attitudes and behaviours towards the food market," *Sustainability*, vol. 13, no. 4, p. 1984, 2021.
- [15] Y. Ramli, D. Permana, M. Soelton, S. Hariani, and T. Y. R. Syah, "The implication of green marketing that influence the customer awareness towards their purchase decision," *Mix J. Ilm. Manaj.*, vol. 10, no. 3, p. 327356, 2020.
- [16] K. Peattie and A. Crane, "Green marketing: legend, myth, farce or prophesy?," *Qual. Mark. Res. an Int. J.*, vol. 8, no. 4, pp. 357–370, 2005.
- [17] A. Kollmuss and J. Agyeman, "Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?," *Environ. Educ. Res.*, vol. 8, no. 3, pp. 239–260, 2002.
- [18] E. Fraj and E. Martinez, "Environmental values and lifestyles as determining factors of ecological consumer behaviour: an empirical analysis," *J. Consum. Mark.*, vol. 23, no. 3, pp. 133–144, 2006.
- [19] V. Griskevicius, R. B. Cialdini, and N. J. Goldstein, "Applying (and resisting) peer influence," *MIT Sloan Manag. Rev.*, vol. 49, no. 2, p. 84, 2008.
- [20] S. Bhardwaj, K. Nair, M. U. Tariq, A. Ahmad, and A. Chitnis, "The state of research in green marketing: a bibliometric review from 2005 to 2022," *Sustainability*, vol. 15, no. 4, p. 2988, 2023.
- [21] M. Laroche, J. Bergeron, and G. Barbaro-Forleo, "Targeting consumers who are willing to pay more for environmentally friendly products," *J. Consum. Mark.*, vol. 18, no. 6, pp. 503–520, 2001.
- [22] P. Rao and D. Holt, "Do green supply chains lead to competitiveness and economic performance?," *Int. J. Oper. Prod.*

- Manag.*, vol. 25, no. 9, pp. 898–916, 2005.
- [23] R. D. Straughan and J. A. Roberts, "Environmental segmentation alternatives: a look at green consumer behavior in the new millennium," *J. Consum. Mark.*, vol. 16, no. 6, pp. 558–575, 1999.
- [24] J. A. Roberts, "Green consumers in the 1990s: Profile and implications for advertising," *J. Bus. Res.*, vol. 36, no. 3, pp. 217–231, 1996.
- [25] A. Diamantopoulos, B. B. Schlegelmilch, R. R. Sinkovics, and G. M. Bohlen, "Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation," *J. Bus. Res.*, vol. 56, no. 6, pp. 465–480, 2003.
- [26] J. Paul, A. Modi, and J. Patel, "Predicting green product consumption using theory of planned behavior and reasoned action," *J. Retail. Consum. Serv.*, vol. 29, pp. 123–134, 2016.
- [27] R. Cox, *Environmental communication and the public sphere*. Sage, 2013.
- [28] S. Murugesan, "Harnessing green IT: Principles and practices," *IT Prof.*, vol. 10, no. 1, pp. 24–33, 2008.
- [29] C. Flammer, "Corporate social responsibility and shareholder reaction: The environmental awareness of investors," *Acad. Manag. J.*, vol. 56, no. 3, pp. 758–781, 2013.