



MAPPING THE LANDSCAPE OF GREEN MARKETING: A BIBLIOMETRIC ANALYSIS

Muhammed Rafi K.K¹, Vishnu K², Mohammed Rashid MP³

¹Research Scholar, Department of Commerce, Government Arts and Science College, Kozhikode, Kerala, India,

²Research Scholar, Department of Commerce, Government Arts and Science College, Kozhikode, Kerala, India, Mob:

³Assistant Professor, MAMO College, Manassery,.

Article DOI: <https://doi.org/10.36713/epra22728>

DOI No: 10.36713/epra22728

ABSTRACT

The article delves into the rising importance of green marketing amidst growing environmental concerns and societal shifts towards sustainability. It highlights businesses' need to align their practices with environmental and social sustainability to meet consumer expectations and enhance consumer welfare. Despite the increasing popularity of green marketing, there remains a gap in comprehensive exploration within the marketing field, especially in bibliometric analysis. To address this gap, the study employs bibliometric analysis using Scopus data to examine trends, key contributors, influential authors, organizations, countries, and popular research topics in green marketing. The analysis reveals a significant increase in research publications over the years, with prominent keywords such as green marketing, sustainability, and sustainable development. Influential authors like Chen Yu-Shan and Joseph Sarkis have made substantial contributions, with high citation counts reflecting their work's impact. Prominent organizations include Tamkang University and Clark University, emphasizing the role of specific institutions in advancing this field. Additionally, the study identifies The United States leads in both publications and citations in this field. Overall, the research offers insights into the current landscape of green marketing research, providing valuable information for future studies and industry practitioners.

KEYWORDS: Green Marketing, Sustainable Marketing, Bibliometric, Citation Analysis

INTRODUCTION

Human wants are infinite, but resources are finite (Nekmahmud, 2020) therefore green marketing recommends using eco-friendly products, by protecting the environment and society, we can satisfy the customers' needs, wants, and demands. (Szabo, 2021). Green marketing's pledge to enhance consumer welfare and the environment (Polonsky, 2011) In response to the growing importance of environmental sustainability, green marketing has become increasingly popular (Mishra, 2010) (Dangelico, 2017) (Chamorro, 2009) With society's growing interest in the natural world, businesses have begun to adapt their practices to meet society's new demands. (Choudhary, 2013) While the value of green marketing has been widely recognized within the marketing discipline, it has also gained traction with consumers and numerous nongovernmental organizations (NGOs) in recent years (Saleem, 2021). The sustainable development goals set by the United Nations include initiatives aimed at increasing resource efficiency, promoting sustainable lifestyles, and transitioning towards an environmentally conscious, low-carbon economy. (Geng, 2022) (United Nations Department of Economic and Social Affairs, n.d.)

Presently, consumers worldwide are significantly more aware of environmental issues. (Mahmoud, 2018) manage your business concerning environmental and social sustainability, our business will be sustained (Ottman, 2008), (Laheri, 2014) adding that green marketing provides a fresh competitive edge for companies aiming to attract environmentally-conscious consumers. (Rahbar, 2011) reveal that Customer trust in eco-labels and brands, along with their perception of these brands, strongly affects their actual purchasing behaviour. Green marketing has a direct influence on both social responsibility and product image. More specifically, the aspect of social responsibility plays a critical role as an intermediary in how green marketing affects the reputation of products or corporations. (Ko, 2013)

Green marketing is significant but lacks sufficient exploration in the field of marketing. It's vital to stay updated on developments using varied keywords and trusted databases such as Scopus. (Saleem, 2021) Additionally,



there's a need to examine areas overlooked in prior research, such as citations, author affiliations, and global collaborations. Notably, there is limited research available on bibliometric analysis in green marketing, as the majority of studies conducted on the topic have only focused on systematic reviews of the literature. (Purnomo, 2021) Only a few bibliometric studies were found, and they only focused on greenwashing, a subarea of green marketing. (Saleem, 2021) (Wang, 2023) (Kar, 2022) (Bhardwaj, 2023) Other studies conducted to date, have focused on reviews, content analysis, systematic literature reviews, and/or citation analyses.

Therefore, the purpose of this study is to perform a bibliometric analysis to gain insight into the number of papers published, significant contributors, significant contributing countries, most frequently used phrases, and most referenced articles. The following research questions were developed to determine the primary objective of the study:

1. What is the current trend in publishing research about green marketing?
2. Who are the most important, influential, and significant authors, organizations, and countries in the body of research on green marketing in this field?
3. What are the most influential co-authors and co-citation networks in the field of green marketing?
4. What are the current popular research topics in the area of green marketing?

DATA AND METHODS

Bibliometric analysis is a powerful and widely used method for studying patterns and trends in scholarly literature. (Subramanyam, 1983) It involves the quantitative analysis of bibliographic records, such as publications, citations, co-authorships, and keywords, to gain insights into the structure, impact, and evolution of a research field. In this study, we are conducting a bibliometric analysis with the available secondary data in the Scopus database using VOSviewer and BiblioShiny to solve the research question. (Aria, 2017)

Table 1: Selection Criteria of Data from the Scopus Database

Selection Criteria	Scopus	
	Exclude	Include
Search Date: 18/01/2024 Database: Scopus Search term: Green Marketing	-	5789
Year base: 1990 to 2023		5701
Subject Area: Business Management and Accounting, Social Sciences, Economics, Econometrics, Finance, Arts, and Humanities		3150
Document type: Articles, Review, conference proceedings		2679
Language: English	68	2612
Erroneous Record Refinement	20	2592

The Table 1 represents the results of a search conducted on the Scopus database on Jan 10, 2024, using the search terms “Green marketing” The search yielded 5789 results in total. To refine the search results, certain criteria were set to exclude or include certain records. The study in 1990 to 2023 total 5701 database found .In this case, 3150 records were included that fell under the subject area of Business Management and Accounting, Social Sciences, Economics, Econometrics, Finance, Arts, and Humanities. Additionally, only articles, reviews, and conference proceedings were included, resulting in the inclusion of 2769 records and the further removal of 471 items. Finally, the language of the records had to be English, which resulted in a further refinement to 2612 records after removing 68 articles. After these refinements, only twenty erroneous records were identified and excluded, leaving a final total of 2592 records that met all the selection criteria and were included in the study.

RESEARCH METHODOLOGY

Statistical techniques are employed in bibliometric analysis to scrutinize and detect patterns in research publications (Bui, 2020)Bibliometric analysis offers a thorough examination of a research domain, unveils relationships among research studies, highlights influential authors, explores collaborations between countries in a specific research field, and proposes potential directions for future research (Pritchard, 1969)Bibexcel, CiteSpace, Gephi, GraphPad Prism, Netdraw, Pajek, Sci2, SciMAT, SITKIS, VOSviewer, and UCInet are tools that can support bibliometric analyses. This study used VOSviewer (Deng, 2018) to perform a green marketing bibliometric analysis. Bibliometric mapping allows the visualization and identification of relationships between articles, authors, organizations, countries, citations, and keywords. (Van Eck, 2010).This research employs quantitative methods to explore the domain of green marketing, examining publications, citations, and collaborations. The goal is to uncover patterns in research, identify influential authors, and delve into fundamental research topics within the field. The primary literature source for this investigation is the dimensions database,

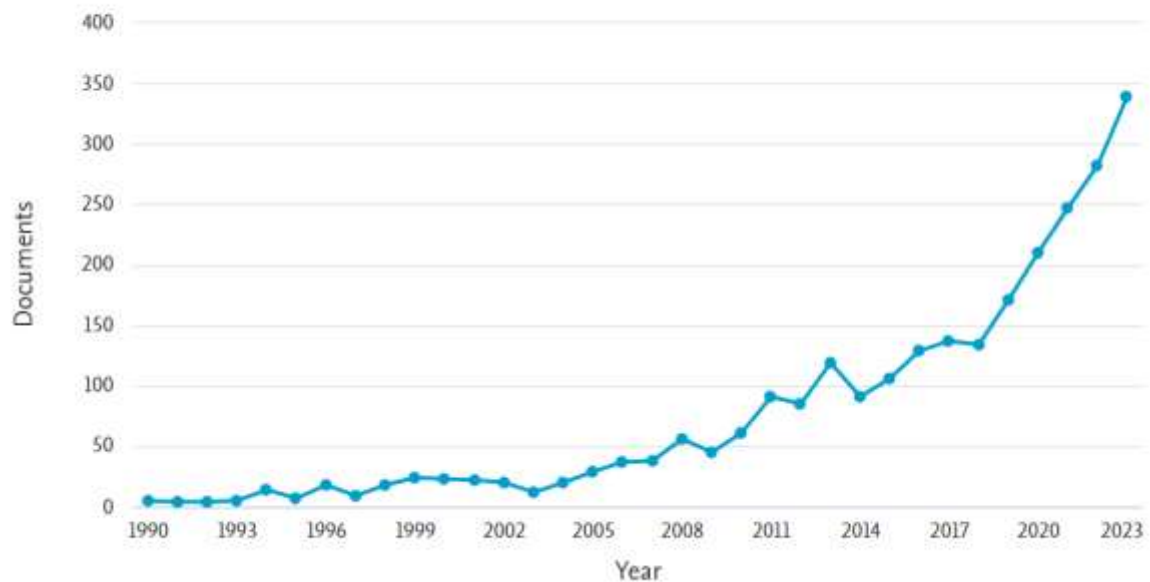


encompassing a diverse array of disciplines related to green marketing.

RESULTS AND DISCUSSIONS

1. The current trend in the publication of research on green marketing

Documents by year



The table provides information on the number of articles published in each year from 1990 to 2023. The table shows that there were less than 10 articles published from 1990 to 1993. The first significant increase in the number of articles published was in 2013, with 134 articles published. From 2011, there was a significant increase in the number of articles published per year. The number of articles increased from 61 in 2010 to 91 in 2011, and then to 106 in 2015. From 2013 onwards more than 100 articles were published till 2023 except 2014. From 1990 to around 2014, there was a gradual increase, with the number of documents remaining below 100 for several years before starting to rise more steeply. However, post-2014, there is an exponential increase, reaching close to 350 by 2023. This could indicate a surge in data generation or collection, increased publication rates, or any other context-specific explanation related to the nature of these documents. Overall, the trend shows a significant increase in the number of articles published in recent years, with fluctuations in the number of articles published per year.

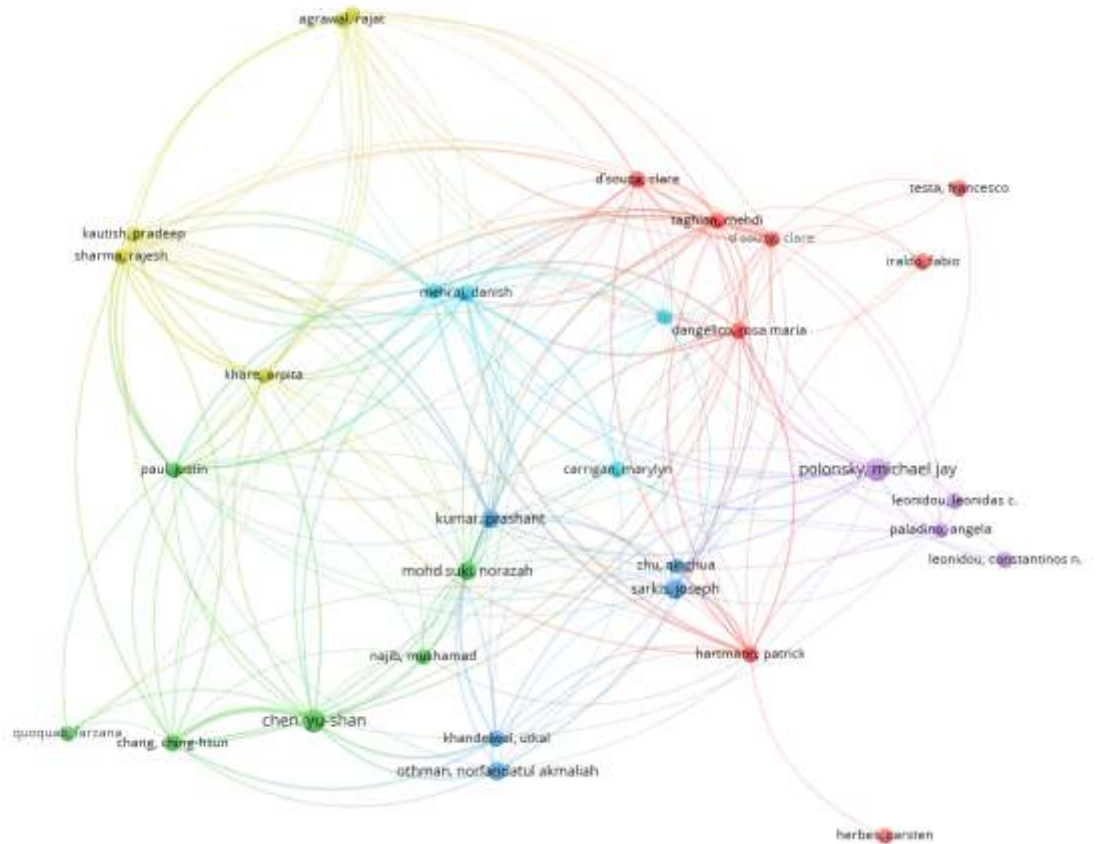


			and technology of china,hefei, china					
Dangelico, rosa maria	6	1349	Business division, institute of textile and clothing, the hong kong polytechnic university	3	463	Australia	124	6118
Sarkis,joseph	8	1135	Beedie school of business, simon fraster university, canada	3	358	Taiwan	108	5321
Polonsky,micheal jay	11	1140	Faculty of marketing, thuongmai university, Hanoi. vietnam	3	308	Hong kong	47	3819
Hartmann, patrick	6	1135	School of hotel and tourism management, the hong kong polytechnic university hum hom, hong kong	3	281	Malesia	133	3711
Leonidou, constantions n.	6	1004	Leeds university business school, university leeds, United kingdom.	3	209	Spain	72	3662

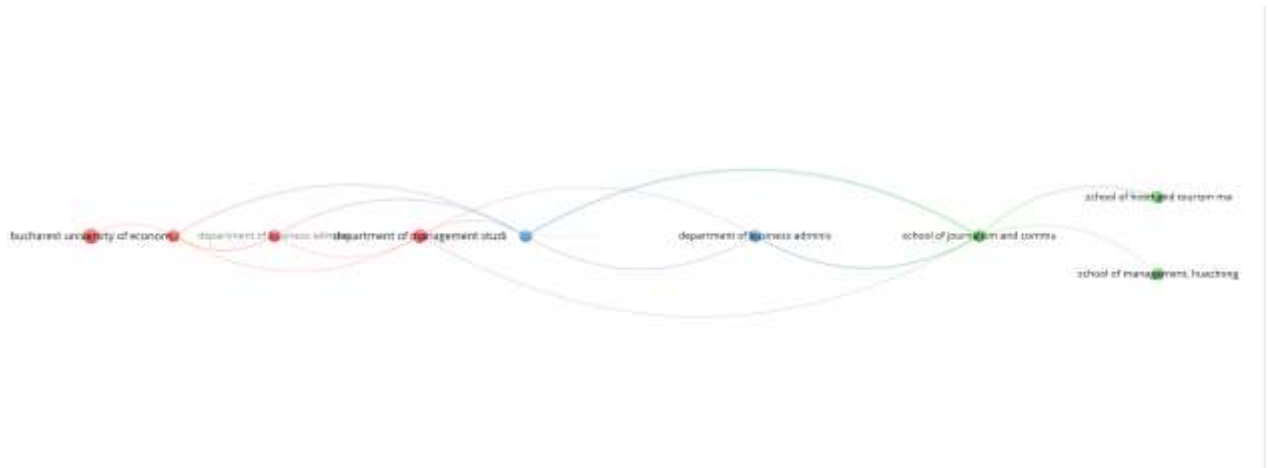
The table shows the publication and citation records of several authors in a particular field of study. The TP (total publication) column indicates the number of articles or publications each author has produced, while the TC (total citation) column indicates the total number of times those publications have been cited by other researchers. The first authors listed Chen, yu-shan - have each published 11 articles and have been cited a total of 2613 times. This suggests that they are highly respected and influential researchers in their field, as their work has been widely referenced and cited by other researchers. The Paul, justin have published four articles and have been published five articles and have been cited 1960 times. While their citation count is slightly lower than the previous group, it still suggests that their work has had a significant impact in the field. Finally, the Zhu, qighua - has published five article and has been cited a total of 1928 times. While this citation count is lower than the others, it still suggests that her work has been well-received and has made a valuable contribution to the field. Overall, the table provides insight into the impact and influence of these researchers in their field, as measured by their publication and citation records. It suggests that some researchers are more prolific or influential than others, but all have made valuable contributions to the field.



Influential Authors

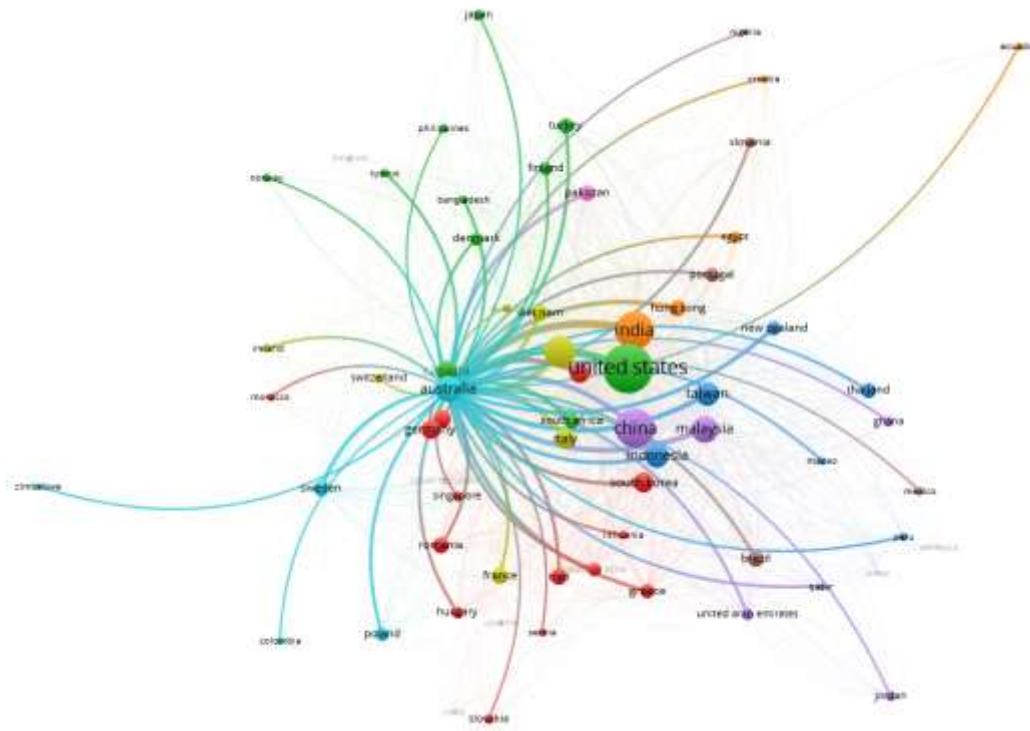


Influential institution



This table shows the organizations that have published research articles and the corresponding total number of publications and citations for each organization. The first, Dept of business administration, tamkang university, new Taipei city, Taiwan has highest publication (4) in this field with 1342 citations. The next Graduate school of management,clark university, Worcester, ma, united states have also published three article and 1310 of citations. The third organization School of journalism and communication, Chinese university of hong kong, shatin, hong kong listed has published three article with 1132 citations. These three organisation contributing a lot in the field of green marketing.

Influential country



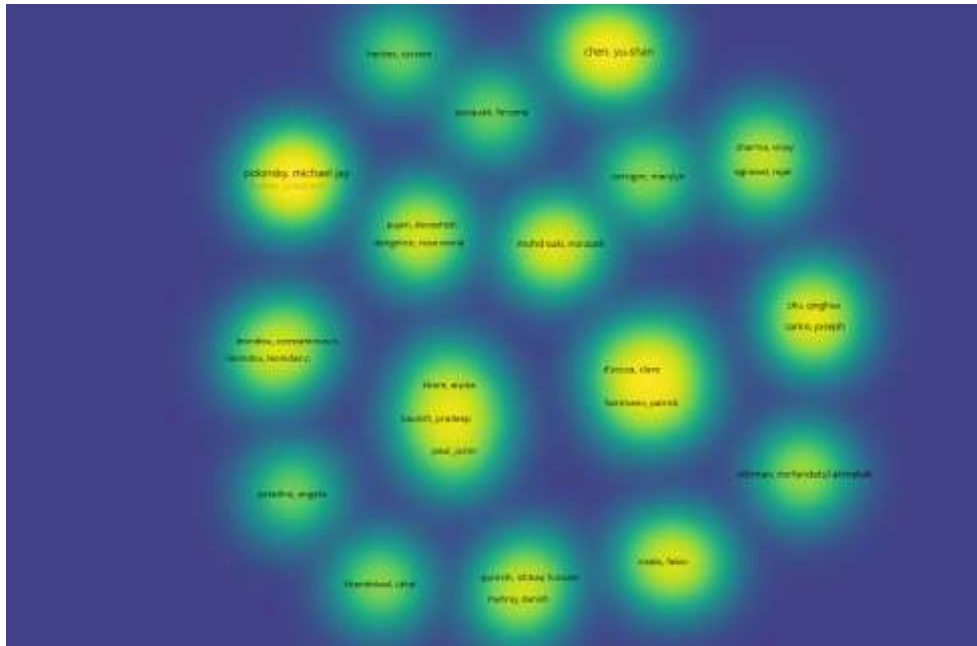
This table shows the total number of publications and citations for each country in the dataset. The data indicates that the United States has the highest number of publications and citations, with 488 publications and 29492 citations. The United Kingdom comes in second, with 189 publications and 13466 citations. China has the third-highest number of citations with 9816, followed by India with 8566. Australia have 124 publications with 6118, while Taiwan has 108 publications and 5321 citations.

3. The most influential co-authors and co-citation networks in the field of green marketing among social media users

Author	TP	TC
Chen, yu-shan	11	2613
Sarkis, joseph	8	2162
Paul, justin	5	1960
Zhu, qinghua	5	1928
Chang, ching-hsun	6	1523
Pujari, devashish	5	1369
Dangelico, rosa maria	6	1349
Polonsky, micheal jay	11	1140
Hartmann, patrick	6	1135
Leonidou, constantions n.	6	1004



Influential Co Authors



The information focuses on the productivity and influence of the most prominent writers in the field of green marketing among social media users. With 11 publications and 2613 citations, Chen, Yu-Shan stands out as the most influential, demonstrating notable accomplishments and broad recognition. Joseph Sarkis has a high impact as well, with 8 publications and 2162 citations. Despite having fewer publications—Paul, Justin and Zhu, Qinghua each have five—they nevertheless have a significant impact—1960 and 1928 citations, respectively. Other noteworthy writers who balance output and effect are Chang, Ching-Hsun, and Dangelico, Rosa Maria. Each has six publications and more than 1300 citations. These metrics imply that these writers are important figures and well-liked within the academic field of green marketing.

4. The current popular research topics in the area of green marketing?

Item	Frequency
Green marketing	716
marketing	654
sustainability	368
Sustainable development	264
Commerce	181
Consumption behaviour	153
Green products	124
Consumer behaviour	100
Sales	94
Environmental management	93

The frequency data illustrates the main areas of green marketing research. With 716 mentions, "green marketing" is the most discussed topic, demonstrating its importance in the industry. "Marketing" comes in close second with 654 mentions, highlighting its wide range of applications. The terms "sustainable development" (264 instances) and "sustainability" (368 mentions) are noteworthy because they highlight the need of long-term environmental policies. Interest in how green marketing affects consumer choices and business activities is seen in the 181 citations of "commerce" and the 153 mentions of "consumption behaviour." There is a suggestion that the terms "green products" (124 mentions) and "consumer behaviour" (100 mentions) centre on the way in which customers use eco-friendly products. In addition, research on the impact of green marketing tactics on sales and environmental practices is indicated by the 94 mentions of "Sales" and the 93 mentions of "Environmental management". Overall, the information highlights a thorough



CONCLUSION

This study analyses the studies on Influence of emotional marketing and brand loyalty of cosmetics products. This analysis indicates a significant rise in research on the influence of emotional marketing and brand loyalty in cosmetics from 1990 to 2023, particularly post-2014. This surge may be attributed to increased data availability and publication rates. A keyword analysis revealed 684 different terms, with "green marketing," "sustainability," and "sustainable development" being the most prevalent, indicating a strong focus on these areas. Influential authors like Chen Yu-Shan and Joseph Sarkis have made substantial contributions, with high citation counts reflecting their work's impact. Prominent organizations include Tamkang University and Clark University, emphasizing the role of specific institutions in advancing this field. The United States leads in both publications and citations, followed by the United Kingdom and China. The frequency data underscores the importance of topics like consumer behavior and environmental management, showcasing a comprehensive approach to understanding green marketing's impact on business and consumer practices.

REFERENCES

1. Agarwal, N. D. (2021). *Three decades of green advertising—a review of literature and bibliometric analysis. Benchmarking: An International Journal, 1934-1958.*
2. Babamiri, M. (2011). *Psychological and sociological factors influencing cosmetics use by female university students. Journal of Dermatology and Cosmetic, 2(4), 193-203.*
3. Bhardwaj, S. N. (2023). *The State of Research in Green Marketing: A Bibliometric Review from 2005 to 2022. Sustainability, .*
4. Bui, T. D. (2020). *Challenges and trends in sustainable corporate finance: A bibliometric systematic review. Journal of Risk and Financial Management.*
5. Chamorro, A. R. (2009). *Characteristics of research on green marketing. Business strategy and the environment,, 223-239.*
6. Choudhary, A. &. (2013). *Green marketing: A means for sustainable development. Journal of Arts, Science & Commerce.*
7. Dangelico, R. M. (2017). *Green Marketing: An analysis of definitions, strategy steps, and tools through a systematic review of the literature. Journal of Cleaner production,, 1263-1279.*
8. Deng, S. G. (2018). *Financing multiple heterogeneous suppliers in assembly systems: Buyer finance vs. bank finance. Manufacturing & service operations management, 53-69.*
9. Geng, Y. &. (2022). *Research progress of green marketing in sustainable consumption based on CiteSpace analysis. Sage Open.*
10. <https://sdgs.un.org/goals>. (2024).
11. Kar, S. K. (2022). *Green marketing innovation and sustainable consumption: A bibliometric analysis. Journal of Cleaner Production.*
12. Ko, E. H. (2013). *Green marketing' functions in building corporate image in the retail setting. Journal of Business Research, 1709-1715.*
13. Laheri, V. K. (2014). *Green marketing: development of construct and its evolution. Asia-Pacific Journal of Management Research and Innovation, 147-155.*
14. Mahmoud, T. O. (2018). *Impact of green marketing mix on purchase intention. International Journal of Advanced and applied sciences, 127-135.*
15. Mishra, P. &. (2010). *Green marketing in India: Emerging opportunities and challenges. Journal of Engineering, Science and Management Education, 9-14.*
16. Nekmahmud, M. &.-F. (2020). *Why not green marketing? Determinates of consumers' intention to green purchase decision in a new developing nation. Sustainability.*
17. Ottman, J. A. (2008). *The five simple rules of green marketing. Design management review, 65-69.*
18. Polonsky, M. J. (2011). *Transformative green marketing: Impediments and opportunities. Journal of business research, 1311-1319.*
19. Pritchard, A. (1969). *Statistical bibliography or bibliometrics. Journal of documentation, , 348-349.*
20. Purnomo, A. H. (2021). *Green marketing publication: bibliometric perspective mapping. In Proceedings of the International Conference on Industrial Engineering and Operations Management. International Conference on Industrial Engineering and Operations Management, (pp. 1772-1781).*
21. Rahbar, E. &. (2011). *Investigation of green marketing tools' effect on consumers' purchase behavior. Business strategy series,, 73-83.*
22. Saleem, F. K. (2021). *Bibliometric analysis of green marketing research from 1977 to 2020. .*
23. Szabo, S. &. (2021). *Perceived greenwashing: the effects of green marketing on environmental and product perceptions. Journal of business ethics, 719-739.*
24. *united nations Department of Economic and Social Affairs. (n.d.). Retrieved from sustainable development : <https://sdgs.un.org/goals>*



25. Van Eck, N. J. (2010). *A comparison of two techniques for bibliometric mapping: Multidimensional scaling and VOS*. *Journal of the American Society for Information Science and Technology*, 2405-2416.
26. Wang, S. L. (2023). *A bibliometric analysis of green marketing in marketing and related fields: From 1991 to 2021*. *Asia Pacific Journal of Marketing and Logistics*, 1857-1882.