



Exploring the Evolution of Green Marketing and Consumer Awareness: A Bibliometric Analysis

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ABSTRACT:

This study traces the trends and trajectory of the development of green marketing and consumer awareness using an extensive bibliometric analysis. Through a methodical examination of an extensive range of academic literature, the objective of this study is to identify the principal themes, significant writers, and critical research domains in the field of sustainable marketing practices. The study maps the intellectual landscape using bibliometric approaches, demonstrating the evolution of new ideas over time and the connections between different notions. The data for the study have been collected from the Dimensions data base for the period from 2001 to 2024 (February). The analysis has been conducted with the help of Biblioshiny software (R studio).The study will be helpful for researcher and academicians of the concerned field .

Key words : Green, marketing , customer, bibliometric analysis .

Introduction:

Environmental issues have become increasingly prominent in today's global context, leading to a paradigm shift in consumer behavior and business tactics. As a result of this change, the discipline of green marketing is rapidly expanding. This multifaceted approach seeks to meet the demands of a growing number of environmentally conscious customers while aligning company operations with ecologically friendly practices. As the globe struggles with the effects of resource depletion, ecological imbalances, and climate change, green marketing plays an ever-more-important role in determining the direction of a sustainable future. The strategic integration of environmental factors into different marketing operations, such as product development, promotion, pricing, and distribution, is known as "green marketing." This paradigm acknowledges that sustainable and ethical behaviors are not only morally right but also necessary for long-term corporate success, and it aims to promote a positive interaction between enterprises and the environment. Green marketing is a complex and diverse field that involves interconnected phenomena such as developing sustainable products, adopting eco-friendly production techniques, and communicating environmentally conscious messages to consumers. On the other side, consumer knowledge is crucial in propelling the market for eco-friendly products and persuading businesses to follow eco-friendly policies. In recent years, there has been a notable surge in consumer awareness regarding environmental issues, leading to an increased demand for sustainable products and services. Against this backdrop, conducting a bibliometric analysis provides a comprehensive and structured overview of the existing scholarly landscape surrounding green marketing and consumer awareness. The goal of this methodical review of the literature is to pinpoint important developments, foundational pieces, and new themes within the discipline. Through the use of bibliometric approaches, researchers are able to map the discipline's intellectual structure, identify significant authors, find patterns of collaboration, and monitor the evolution of research over time. The current study intends to contribute to the growing body of knowledge in green marketing and consumer awareness by carrying out a comprehensive bibliometric analysis. This research intends to provide insights into the development of green marketing as a scholarly field by summarizing and critically assessing the available literature and emphasizing significant milestones, research gaps, and future directions. Furthermore, the analysis will explore the interdependent relationship between consumer awareness and green marketing tactics, providing insight into the variables influencing consumer decisions within the sustainability context. Businesses can acquire a competitive edge and a devoted customer base by using green marketing strategies to meet consumer wants and ease their concerns about the environment (naik at el, 2023).

Prior literature:

Khan et al. (2020) He discovered in his studies that in order to save the Earth. It is our social responsibility to contribute to the planet's pollution-free state. There is an urgent demand for green marketing. The younger generation is prepared to spend more money protecting the environment. Customers have disseminated information about green items on the market and social media has been crucial in raising consumer awareness. Mohan et al. (2021) The adoption of green marketing in the Kottayam region has increased resource use and environmental protection by favorably influencing customer

behavior, according to the paper's conclusion. Customers are showing a clear departure from conventional marketing strategies as they show a rising preference for green products and are even willing to pay extra for them. All things considered, green marketing not only protects the environment but also works well as a regional economic and promotional tactic. Jain & Gupta (2019) By encouraging the creation, marketing, and selling of environmentally friendly products and highlighting the connection between human well-being and the natural world, green marketing helps to pave the way for a bright future. Reevaluating our lives is necessary to address environmental challenges, and companies can improve their green products by honoring and coordinating consumer preferences. Selvam (2023) Green marketing uses eco-friendly materials, sustainable production methods, and green packaging to showcase a company's dedication to sustainability while promoting eco-friendly products and services. The study emphasizes how uncommon it is to use marketing cues to encourage environmentally conscious purchasing practices in the Indian setting, underscoring the important role that marketing plays in tackling today's environmental issues. Altaf (2013) The report emphasizes how urgently green marketing and a change in corporate practices are needed to address the unsustainable levels of consumption that exist today. Customers have more concerns than ever regarding green marketing ideas, and they know that businesses may increase productivity by implementing eco-friendly procedures. Gupta et al. (2014) in his study concluded that the economic factors should be incorporated into green marketing, and marketers should acknowledge the need to refute the myth that customers won't pay more for environmentally friendly goods. In order to fully realize the potential of green marketing and match consumer awareness with businesses' increased productivity through eco-friendly methods, further study is necessary as the concept develops. Pandey (2021). In his article, he came to the conclusion that India's fast GDP growth and environmental issues present a chance for consumer demand to propel the country's environmental movement in the right direction. The study shows that there is a sustainable interest gap, which is the difference between market values and environmentally friendly actions. Marketers can take advantage of consumers' inclination towards environmental values by highlighting the vital role that reliable brands have in promoting eco-friendly products and raising awareness of sustainability issues in the Indian market. Yesmin & Akter (2018) has discovered in his work According to a study on consumer attitudes and awareness regarding green products in Bangladesh, consumers are generally aware of the features of these items, although their understanding is limited. The two main sources of information are advertisements and word-of-mouth, although there are perceptual variations among customers according to age and educational level. The study highlights the necessity for marketers to communicate more effectively about the advantages, accessibility, and cost of green products in order to better educate consumers and encourage sustainable buying practices. Mohan & Joseph (2022) The study highlights the importance of green marketing for sustainable development and finds that customers value and believe that green products are safer. It emphasizes how crucial it is to provide clear information about the provenance of products and price eco-friendly goods according to quality in order to create a cleaner environment, and it calls for consumer education to transform indifference into proactive awareness. Naik et al. (2023) In order to guarantee the seamless availability of green FMCG items, companies should concentrate on their distribution channel, as the study indicates that availability is a positive predictor of buying behavior. The age group should be prioritized while developing tactics, but the economic level can be disregarded. The respondents' general perception of green FMCG products is favorable.

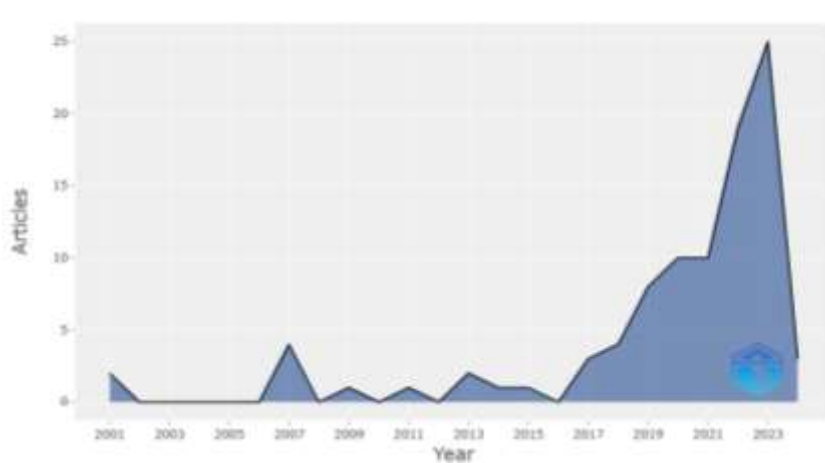
Methodology:

The study's data were obtained using the Dimension data base. Green marketing and customer awareness are the search terms entered into the software, yielding 114 results. The first search was narrowed down to publications, which were determined to be book chapters and articles, totaling 104. Once more, the application of the commerce and management fields of study filters it to 95 documents. Bibliometrics, initially presented by Pritchard, is a quantitative and qualitative method of analyzing published academic literature to follow the evolution of a particular subject of study over an extended period of time. Massimo Aria at the University of Naples Federico created the Java programme Biblioshiny for bibliometrics. Biblioshiny leverages the Shiny package environment to combine the convenience of use of web apps with the capability of the bibliometric package. (Huang et al., 2021). Using quantitative analysis techniques, we examine a set of articles in bibliometric analysis. Bibliometric (Maharana & Panda, 2023).

Data analysis and results:

The following table and figure illustrate the yearly scientific production of articles connected to consumer awareness and green marketing. From January 2001 to February 2024, it illustrates the quantity of papers released annually about environmentally friendly marketing and consumer knowledge of it. As the table illustrates, the researcher first published very few papers, but as time went on, the number of articles published annually increased. The number of papers published year has increased with significant growth starting in 2020, suggesting that this has been a golden age. This leads one to the conclusion that green marketing was not given much thought in the beginning, as time has gone on, people have come to appreciate its benefits, and its recognition in the marketplace and in terms of emerging trends is growing daily.

Figure 1: Annual scientific production



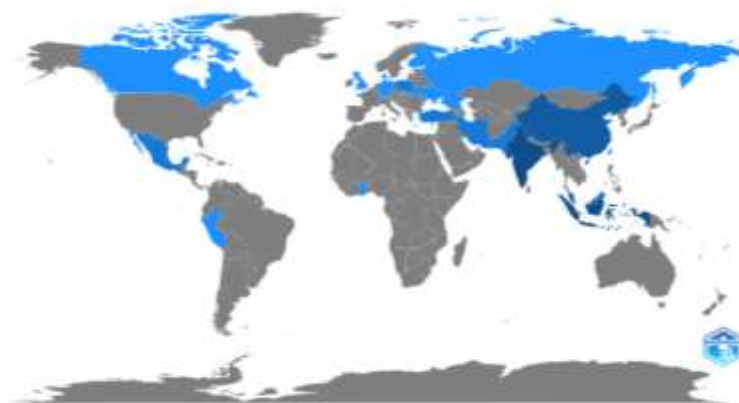
Source: Compiled from biblioshiny

The following table and graph show the publications for the topics of consumer awareness and green marketing, broken down by country. In the graph below, low to high publication counts are represented by the hues grey to dark blue, respectively. The grey portion of the map has no publications, whereas the dark blue section has the most. From the map it can be conclude that the India has the highest number of publications regarding the topic which is shaded with dark blue color in the map.

Table 1 2: Country scientific production

region	Freq
INDIA	8
INDONESIA	8
CHINA	5
MALAYSIA	3
TAIWAN	3

Figure 1: Annual scientific production



Source: Compiled from Biblioshiny

The figure below showing most cited document that has been cited while conducting research on eco friendly marketing and consumer awareness. MATHIYAZHAGAN K,2023 has been cited mostly which is based pressure analysis for green supply chain management implementation in Indian industries using analytic hierarchy process. The second most cited document is MEYER A, 2001 , which is published in business strategy and environment journal , the paper challenges conventional green marketing views, urging an incorporation of economic theory to understand consumer behavior, emphasizing the need to highlight perceived cost and benefits for green products, and proposing a strategic focus on product advantages over barrier overcoming, exemplified in

green clothes marketing. The third most cited document is GOU R, 2018, it is published in industrial marketing management journal and the paper is This study investigates strategies for repairing trust in green brands following instances of greenwashing among Chinese companies. Findings suggest that adopting a "timely-considered-timely" or "timely-considered-considered" brand strategy in three stages is optimal for effective green brand trust repair, highlighting the crucial mediating role of green brand legitimacy in the process.

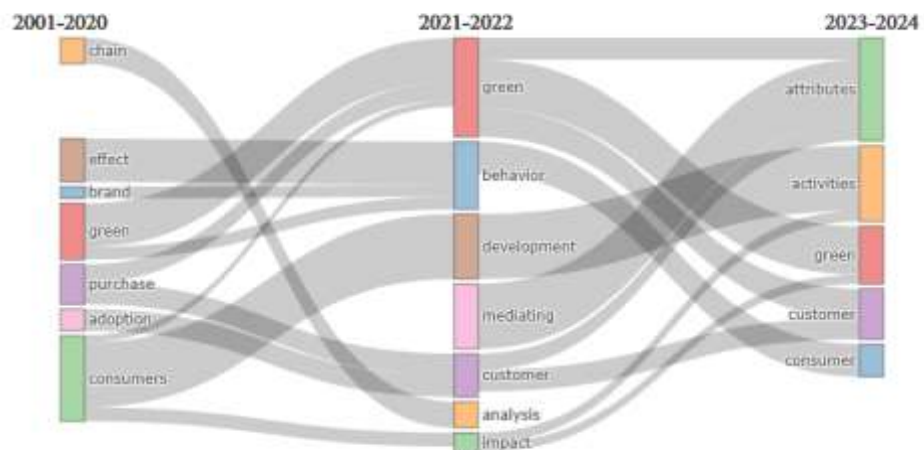
Figure 3: Global cited documents



Source: Compiled from Biblioshiny

The below figure representing thematic evolutions of words that has been using by the researchers while writing the articles and journals. The below figure has mainly divided in three phase the initial phase which is concerned with the period from 2001 to 2020, such period was considering the term such as chain, effect, brand, green, purchase, adoption, consumer. The middle phase which covers the period from 2023 to 2022, in this phase green, behavior, development mediating, customer and impact are the term used mostly and has evolved with time. The current has evolved the previous terms and now using the terms like attributes, activities, green, customer, consumer.

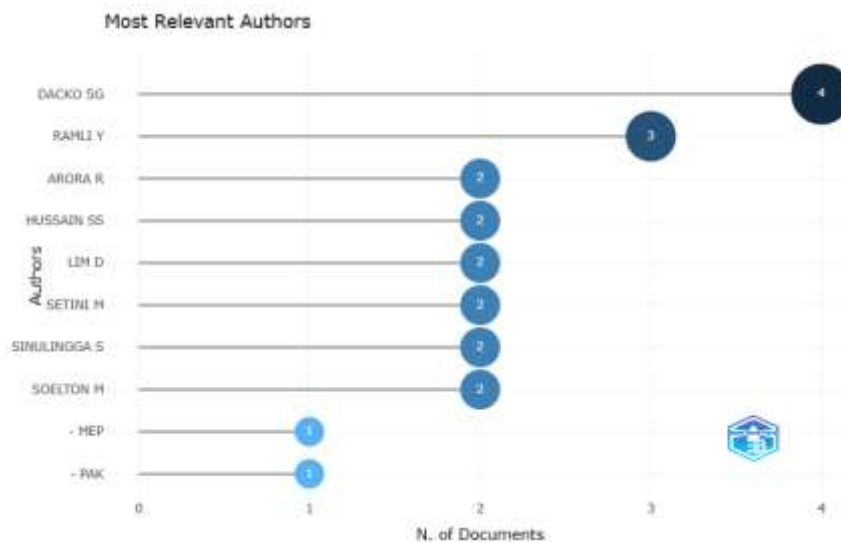
Figure 4: Thematic evolution map



Source: Compiled from Biblioshiny

The most pertinent writers in relation to green marketing and consumer awareness are shown in the figure below. The most pertinent authors are DACKO SG, RAMLI Y, ARORA R, and HUSSAIN SS, each of whom has published 4, 3, 2, and 2 publications.

Figure 5: Most relevant authors



Source: Compiled from Biblioshiny

The below picture representing word cloud, which shows the words which are used largely by authors while conducting research and publishing research work. The larger the size of the words represents the most frequently used words. As the figure is showing the term green in wide manner which means that the term green has been used by the researcher mostly, then the term comes marketing which is second largest term and then comes consumer.

Figure 6: word cloud



Source: Compiled from Biblioshiny

Conclusion:

Based on an examination spanning from February 2024 to the year 2001, it can be inferred that while the researcher was first disinterested in the field, over time they came to recognize its necessity and ultimately chose it as a field of study. The study also demonstrates the evolution of the terms the researcher was employing. Based on the literature review, it can be deduced that consumers were not well-informed about green marketing, and those who were did not place much emphasis on it. However, in the present day, the majority of consumers are aware of green marketing, including its benefits and drawbacks, but they still need to give it more attention.

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