



Global research trends on green marketing mix and consumer intentions: a bibliometric review

Priya Nautiyal^{1*}  and Dr. H. C. Purohit²

¹ Research Scholar, School of Management, Doon University, Dehradun, Uttarakhand, India

² Dean, School of Management, Doon University, Dehradun, Uttarakhand, India

*Corresponding author: Priya Nautiyal

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Abstract

Purpose: The study aims to offer a comprehensive bibliometric assessment of research on the green marketing mix and green purchase intention. It seeks to identify intellectual structures, thematic trends, influential contributions, and emerging research directions within this evolving field.

Design/Methodology/Approach: A bibliometric research design was adopted using publications indexed in Scopus from 2015 to 2025. Structured keyword searches were conducted, and analytical techniques such as co-authorship analysis, co-citation mapping, keyword co-occurrence, and thematic clustering were performed using VOSviewer. Descriptive indicators including leading journals, prominent authors, productive countries, and publication trends were also examined to provide a holistic overview.

Findings: The results indicate substantial growth in green marketing research, particularly after 2020, with *Sustainability (Switzerland)* identified as the most influential journal. Thematic clusters reveal core research areas such as green trust, eco-labeling, sustainable packaging, environmental knowledge, consumer attitudes, and green advertising. Co-citation networks highlight foundational contributions by Jaiswal (2018), Goh (2016), and Nguyen (2019). The findings further show that psychological, cultural, and regulatory factors significantly influence green purchase intention, and that components of the green marketing mix—especially green product, promotion, and packaging—play a crucial role. Country-level analysis positions Asia, particularly India and China, as central hubs of scholarly productivity.

Limitations: The study is limited by its reliance solely on Scopus-indexed and English-language publications, which may omit relevant research available in other databases or languages. Additionally, restricting the analysis to the 2015–2025 period may exclude earlier foundational works.

Social impact: The study highlights the rising importance of sustainability communication, environmental responsibility, and supportive policy frameworks in encouraging eco-friendly consumer behavior. The insights generated can assist businesses in designing effective green marketing strategies, guide policymakers in strengthening sustainability initiatives, and help researchers identify future research opportunities in the domain of green consumer behavior.

Keywords: Green Marketing Mix, Green Purchase Intention, Sustainability, Green Consumer Behavior

1. Introduction

In recent decades, environmental sustainability has moved from being a peripheral concern to a central issue in both academic research and business practice. Climate change, resource depletion, and rising ecological consciousness have shifted the way consumers and organizations view consumption and production. Against this backdrop, the concept of green marketing has emerged as an important approach that combines environmental responsibility with strategic marketing practices Menon, A., & Menon, A. (1997). Green marketing involves designing, promoting, and delivering products and services that not only satisfy consumer needs but also minimize harm to the environment. It is no longer seen as a niche approach but rather a necessity for businesses striving to remain competitive in a world where ecological and social concerns strongly influence consumer choices.

One of the earliest contributions to this field comes from

Polonsky (2008) ^[35], who presented green marketing as the combination of environmental concerns into marketing strategies. His work emphasized both the opportunities and challenges that businesses face when adopting eco-friendly practices. While green marketing can help companies differentiate themselves and appeal to environmentally conscious consumers, it also presents difficulties such as higher costs, consumer skepticism, and the risk of "greenwashing." Later, Wymer and Polonsky (2015) ^[53] extended this discussion by critically examining the strengths and limitations of green marketing. They stressed that solving environmental problems requires not just business efforts but collaboration between companies, consumers, and governments. Their perspective highlights that green marketing cannot work in isolation; it needs to be part of a larger societal effort toward sustainability. The broader concept of sustainability was first formally introduced in the Brundtland Report (WCED, 1987) ^[51], which defined sustainable development as meeting present needs

without compromising the ability of future generations to meet theirs. This definition continues to guide discussions on sustainability, providing the foundation on which green marketing practices are built. It reinforces the idea that businesses should look beyond immediate profit and consider the lasting effect of activities on society and the environment. Research in this area has increasingly focused on understanding consumer behavior and the factors that influence green purchase decisions. For instance, Ansu-Mensah and Bein (2019) ^[7] showed that psychological and social factors such as attitudes, norms, and perceived behavioral control are critical in predicting energy conservation intentions. Similarly, Kalafatis *et al.* (1999) ^[22] utilized Ajzen's Theory of Planned Behavior to green marketing and found that attitudes, social influence, and personal control significantly shape green buying decisions. These studies underline that green consumption is not just about awareness—it is also deeply influenced by social expectations and individuals' belief in their ability to make a difference.

Consumer-related studies further reinforce this point. Pagliacci *et al.* (2019) ^[32], examining green consumption in Romania, revealed that demographic and psychological factors strongly influence green purchase decisions, particularly consumer awareness, environmental attitudes, and willingness to pay more for eco-friendly products. In a different context, Sharma (2011) found that Indian consumers are increasingly inclined toward eco-friendly products in the durables and retail sectors, though barriers such as higher costs and limited availability still persist. These findings highlight both the growing interest in green products and the challenges businesses must overcome to encourage widespread adoption.

Beyond consumer behavior, research has also stressed the role of businesses and policies. Shittu (2020) ^[41], through a systematic review of urban household consumption, highlighted issues such as overuse of resources, excessive waste, and carbon emissions. His study emphasized that addressing these problems requires effective policies, behavioral change, and sustainable practices at both household and societal levels. Similarly, Suki *et al.* (2016) ^[47] revealed that corporate social responsibility (CSR) enhances the link between green marketing awareness and consumers' purchase intentions. When companies show authentic commitment to environmental responsibility, they gain consumer trust and make their green marketing strategies more effective.

Research conducted across different countries further enriches our understanding. For example, Devi Juwaheer *et al.* (2012) ^[14] examined Mauritius, showing that eco-friendly products, responsible business practices, and green promotions significantly shape purchasing patterns. Ansar (2013) ^[5] and Bukhari (2011) ^[11] also demonstrated how increasing environmental awareness drives consumers toward eco-friendly products, while green marketing enhances brand image and loyalty. Recently, research from Vietnam (Pham *et al.*, 2025) ^[33] and the fashion industry (Moraga *et al.*, 2025) has shown that factors such as eco-labels, sustainable packaging, environmental concern, and a brand's image strongly influence how consumers decide to buy green products.

Recent studies also point out that effective communication plays a key role in making green marketing successful. Zhang *et al.* (2025) ^[55] explored how matching green advertising appeals—whether emotional or rational with product types affects purchase intention. They found that when advertising appeal aligns with the type of product, consumer trust in green claims increases, which in turn strengthens purchase intentions. This insight is particularly useful for businesses seeking to design effective promotional strategies that resonate with environmentally conscious audiences.

Taken together, these studies illustrate that green marketing is shaped by a complex interplay of factors ranging from consumer attitudes, social norms, and cultural contexts to business practices, government policies, and communication strategies. The evidence suggests that consumers are becoming more environmentally aware and willing to adopt sustainable products, but this shift is not automatic. Barriers such as cost, skepticism, and lack of availability still exist, meaning businesses need to carefully design their green marketing mix to truly influence purchasing behavior.

1.1 Significance of the study

The growing emphasis on sustainability has transformed consumer markets, making green marketing a central area of study. Understanding how the green marketing mix influences consumer purchase intentions is essential not only for businesses but also for policymakers and academics seeking to promote sustainable consumption. This study is significant because it goes beyond individual case analyses and applies a bibliometric approach to provide a comprehensive overview of the field. By mapping research trends, identifying influential contributions, and visualizing thematic clusters, it highlights how knowledge on green marketing and purchase intention has evolved over time.

The significance also lies in the practical implications of the findings. As businesses navigate the challenges of shifting consumer expectations, insights from this study can guide them in designing effective green marketing strategies that build trust, strengthen brand image, and encourage sustainable buying behavior. For academics, the study points to existing research strengths while uncovering gaps that can shape future investigations. For policymakers, it underlines the global relevance of sustainable consumption research, offering evidence that supports the development of regulations and initiatives that encourage eco-friendly practices.

1.2 Objectives of the study

The primary aim of this study is to systematically analyze the existing literature on the green marketing mix and green purchase intention through bibliometric methods. By analyzing publications indexed in Scopus, the study aims to assess the growth trajectory of research outputs, citation patterns, and overall scholarly impact in this domain.

Another objective is to identify the leading authors, institutions, journals, and countries that have contributed significantly to this field. Recognizing these intellectual leaders and geographic hubs helps illustrate how green marketing

research has developed on a global scale. Furthermore, the study seeks to uncover thematic clusters by analyzing keyword co-occurrence. This allows for a better understanding of how concepts such as consumer attitudes, sustainable practices, and purchase intention modeling intersect within the broader research landscape.

2. Literature review

The increasing global emphasis on sustainability has significantly influenced marketing practices, giving rise to green marketing—a purposeful marketing method that highlights eco-friendly products and sustainable practices. The green marketing mix includes product, price, place, and promotion strategies, has emerged a major factor in shaping consumers' green purchase intentions (Kumar & Ghodeswar, 2015; Kumar, 2016) [24, 23]. Across industries and geographic contexts, studies consistently demonstrate that green marketing strategies not only enhance environmental awareness but also directly influence purchasing behavior.

Several empirical studies have investigated the interplay between green marketing practices and consumer purchase intentions. Zhang *et al.* (2025) [55] investigated how matching green advertising appeals (emotional versus rational) with product types (experience versus search goods) affects purchase intention. Their findings revealed that congruence between advertising strategy and product type strengthens green trust, subsequently enhancing consumers' willingness to purchase. Similarly, Saleh *et al.* (2024) [38] emphasized that each component of the green marketing mix product, price, promotion, and place has a positive impact on customers' purchase intentions, while green perceived value serves as an important mediating factor in their decision-making process. Su and Li (2024) [45] also emphasize that environmental knowledge moderates the effect of green marketing strategies on purchase intentions, suggesting that informed consumers are more responsive to sustainable marketing practices.

Consumer attitudes and cultural contexts play a vital role in adopting green products. Alharbi (2025) [4] explored how social and cultural factors, including norms, religious principles, and environmental consciousness, influence the adoption of innovative green products in the GCC region. The study revealed that while product quality and environmental awareness are primary drivers, cultural and social influences shape consumer behavior, emphasizing the need for context-specific green marketing strategies. Moraga *et al.* (2025) similarly found that brand image, environmental concern, and perceived value are critical in shaping purchase intentions for green fashion products, illustrating that strong brand associations with sustainability significantly boost eco-friendly consumer behavior.

The influence of green marketing extends across sectors and regions. Darwish *et al.* (2025) [13] studied green purchase behavior in Lebanese eco-friendly restaurants, showing that environmental concern and willingness to pay higher prices positively affect consumers' intention to purchase sustainably. In the FMCG sector, Vuong *et al.* (2024) [49] highlighted that competitive intensity moderates the relationship between green

marketing and consumer behavior, indicating that sustainability initiatives become more effective under higher market competition. Rehman *et al.* (2025) [37] showed that within the home appliances sector, green marketing orientation strengthens consumers' green purchase intentions through mediators like brand image, customer loyalty, and satisfaction, highlighting the strategic importance of green marketing in shaping consumer decisions.

Green marketing also intersects with policy and organizational strategies. Feng *et al.* (2025) [15] found that government environmental regulations, combined with Green Consumer Orientation, significantly boost green purchase intentions, suggesting that supportive policies and consumer eco-consciousness jointly enhance sustainable consumption. Similarly, Wu *et al.* (2025) [52] explored green banking initiatives, revealing that CSR-driven eco-friendly practices influence customers' sustainable financial decisions, thereby aligning business strategies with the Sustainable Development Goals (SDGs).

Packaging and labeling are additional components of the green marketing mix that directly affect consumer perception and purchase intention. Ollitervo *et al.* (2025) [31] showed that eco-labeling and sustainable packaging materials significantly increase perceived product quality and sustainability, driving purchase intentions. Pham *et al.* (2025) [33] extended these findings to the Vietnamese market, demonstrating that green advertising, eco-labels, and sustainable packaging positively affect environmental attitudes and perceived effectiveness of consumers, which in turn mediate green purchase intention.

From a research standpoint, bibliometric studies reveal an increasing academic focus on sustainable marketing practices and how they influence consumer behaviour. Wang *et al.* (2023) [50] mapped global research trends over three decades, identifying key authors, thematic clusters, and emerging topics in sustainable marketing. Sumarsono *et al.* (2025) [46] and Nomalisa and Widowati (2024) [30] emphasized the importance of repurchase intentions and the evolving role of the green marketing mix in fostering long-term sustainable consumer behavior, noting gaps in research related to cross-cultural studies and longitudinal impacts.

Finally, awareness and education emerge as critical factors in promoting green purchase intentions. Ansu-Mensah (2021) [6] found that higher awareness of green products among university students in emerging markets significantly increases their willingness to purchase sustainably. This underscores the role of targeted campaigns and educational initiatives in shaping eco-conscious consumer behavior, complementing marketing efforts to enhance adoption of green products.

The studies highlights that the green marketing mix through product innovation, eco-labeling, pricing strategies, sustainable packaging, and targeted promotions substantially influences consumers' environmental attitudes and purchase intentions. Factors such as consumer knowledge, cultural and social norms, government policies, and corporate sustainability initiatives further moderate this relationship. Despite significant progress, bibliometric studies reveal research gaps, particularly in linking green marketing to repurchase behavior

and long-term sustainability outcomes, suggesting directions for future research to develop integrated frameworks for understanding consumer adoption of green products.

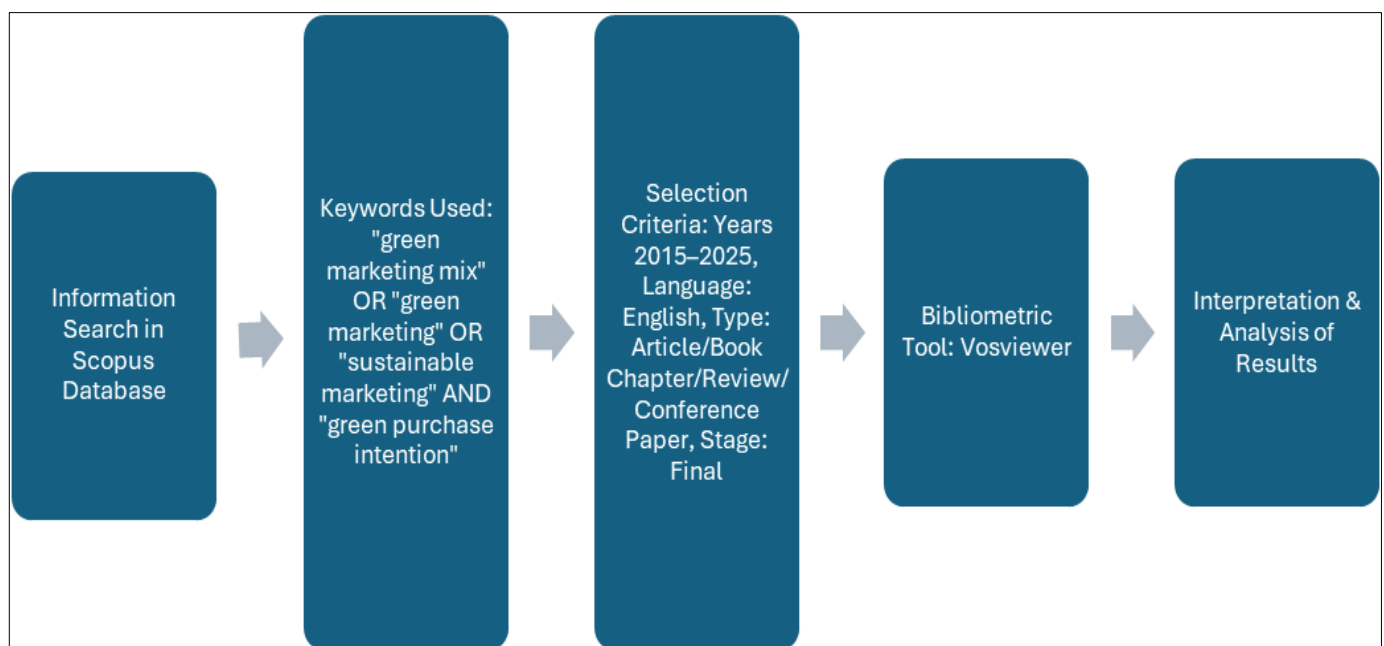
3. Research Methodology

This study uses a bibliometric approach to explore how research has developed around the green marketing mix and consumer purchase intention. Bibliometric analysis is an effective approach for evaluating scientific output because it enables researchers to identify current trends, assess publication growth, uncover thematic patterns, and trace the intellectual development of a field (Guo *et al.*, 2019) ^[18]. By systematically analyzing published literature, this study aims to outline the existing knowledge structure and offer ideas for what future studies can explore within sustainable marketing. The bibliometric data were collected from the Scopus database, which was selected for its extensive coverage of peer-reviewed publications and reliable metadata on authors, institutions, and citations. Scopus is widely regarded as a high-quality source for bibliometric studies, ensuring consistency and credibility in the dataset (Baas *et al.*, 2020) ^[8]. A structured keyword search was conducted using the terms: “green marketing mix” OR “green marketing” OR “sustainable marketing” AND “green purchase intention.” The search was designed to capture relevant publications within the sustainability and marketing domains. To ensure focus and quality, the dataset was limited to the period from 2015 to 2025, reflecting the adoption of the Paris Agreement in 2015, which marked a global emphasis on sustainability. Only documents written in English were included to maintain consistency of interpretation. In addition, the scope was restricted to journal articles, book chapters, reviews, and conference papers, with only final published versions selected. These filters allowed for the construction of a dataset that is both comprehensive and aligned with the objectives of the study.

The analysis of the dataset was carried out using VOSviewer, a specialized software for constructing and visualizing bibliometric networks. As Van Eck *et al.* (2014) ^[48] explain, VOSviewer enables researchers to map relationships such as co-authorship, co-citation, and keyword co-occurrence, thereby revealing conceptual and intellectual structures within the field. This tool is particularly suited for identifying scholarly collaborations, thematic clusters, and citation patterns that define the intellectual impact of research.

The analytical approach followed in this study consists of two main dimensions. The first is descriptive analysis, which examines publication growth, influential journals, prolific authors, highly cited works, and trending topics, providing a general overview of the development of the research area. The second involves the analysis of conceptual and intellectual structures, focusing on keyword networks and co-citation patterns. The conceptual structure highlights thematic connections among studies, while the intellectual structure identifies influential works and theoretical foundations shaping the domain. Through this dual approach, the study integrates both quantitative indicators and network visualization to provide a holistic picture of the field.

The chosen methodology enables a systematic exploration of the green marketing mix and consumer purchase intention. Similar to the work of Quintero *et al.* (2021) ^[36], who used bibliometric analysis to map intellectual capital research, this study highlights publication trends, key contributors, and thematic developments while also identifying research gaps that can guide future investigations. By combining descriptive metrics with conceptual and intellectual mapping, the methodology provides both breadth and depth in understanding how research in sustainable marketing and consumer behavior has evolved.

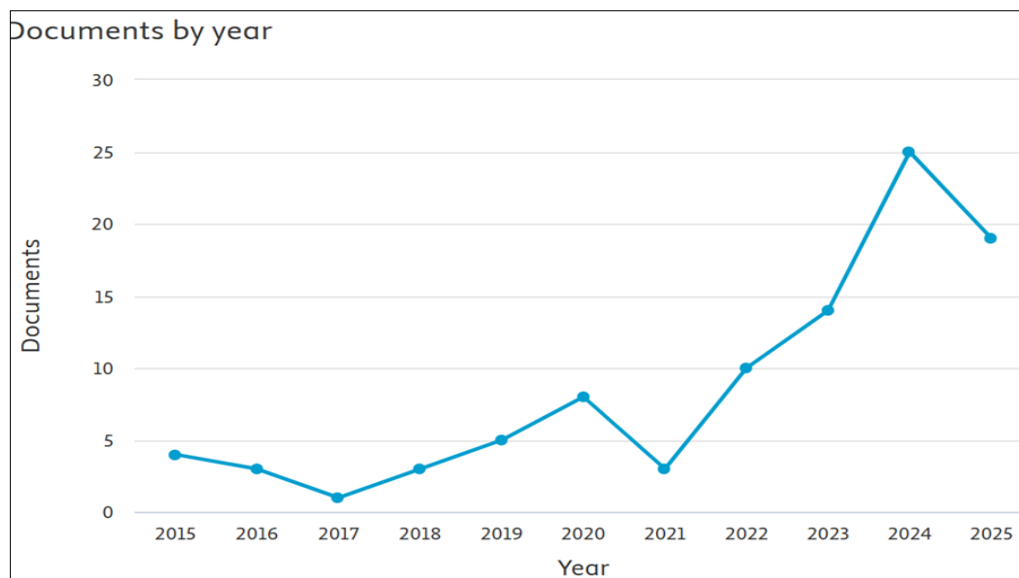


Source: Authors' own elaboration

Fig 1: Execution process

4. Data analysis

4.1 Documents by year



Source: Authors' own elaboration derived from Scopus database

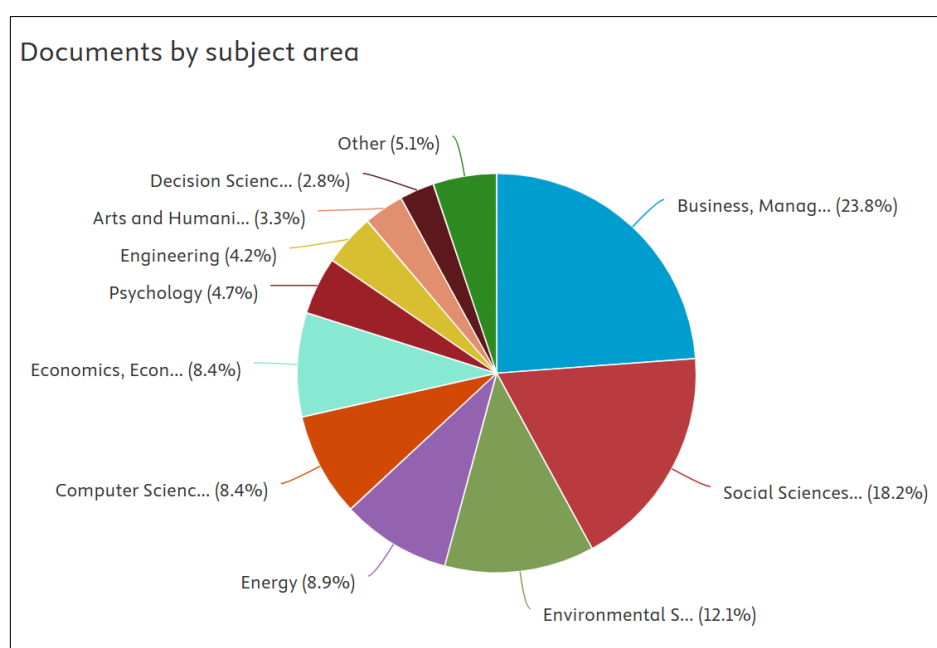
Fig 2: Year-wise growth in research output

The graph illustrates the trend of published documents between 2015 and 2025. Overall, the data shows a steady increase in research work over the decade, with a few fluctuations.

In the initial years (2015–2017), publication activity was relatively low, ranging between 1 and 4 documents per year. This indicates that research in the studied area was still emerging or had limited engagement from scholars. From 2018 onwards, there is a gradual rise, with publications reaching 5 in 2019 and peaking at 8 in 2020. However, a temporary decline occurred in 2021, dropping to only 3 documents, which may reflect external factors such as disruptions in research activities or shifts in academic priorities.

From 2022 onwards, the trend shows a significant upward trajectory. Publications doubled to 10 in 2022 and continued growing to 14 in 2023. The most remarkable growth is seen in 2024, with 25 documents, marking the highest output of the entire period. This surge suggests heightened scholarly interest, possibly driven by global developments, funding opportunities, or recognition of the topic's importance. In 2025, output slightly declined to 19 but remained far above earlier levels. The data demonstrates accelerating research momentum, with 2024 standing out as a peak year for scholarly contributions.

4.2 Documents by subject area



Source: Authors' own elaboration derived from Scopus database

Fig 3: Subject-area distribution of publications

The pie chart demonstrates the distribution of documents by subject area, highlighting the multidisciplinary nature of research output. The largest share belongs to Business, Management, and Accounting (23.8%), showing the centrality of organizational, managerial, and economic considerations in the studied domain. This indicates a strong focus on practical applications, strategy, and market-oriented research.

The second major contributor is Social Sciences (18.2%), which reflects the importance of human, cultural, and societal dimensions in research. This suggests that scholars are actively investigating the social implications and behavioral aspects of contemporary challenges. Environmental Science follows with 12.1%, signaling the growing attention to sustainability and ecological concerns, aligning with global priorities such as climate change and green innovation.

Other notable fields include Energy (8.9%), Computer Science (8.4%), and Economics (8.4%), highlighting the technological, economic, and sustainability-driven aspects of research. The presence of Psychology (4.7%), Engineering (4.2%), and Arts and Humanities (3.3%) reflects a balance of technical, cognitive, and cultural perspectives. Smaller contributions from Decision Sciences (2.8%) and other disciplines (5.1%) demonstrate additional diversity.

Overall, the distribution emphasizes an interdisciplinary approach, where business and social sciences dominate, but environmental, technological, and economic dimensions also play critical roles in shaping the research landscape.

4.3. Leading sources of scholarly contributions

Table 1: Top contributing journals

Sources	Articles
Sustainability (Switzerland)	11
Business Strategy and Development	4
Journal of Cleaner Production	3
Journal of Retailing and Consumer Services	3
Acta Psychologica	2
Business Strategy and the Environment	2
Cogent Business and Management	2
International Journal of Business Innovation and Research	2
Management Science Letters	2
Young Consumers	2

Source: Authors' own elaboration derived from Scopus database

The distribution of sources demonstrates the scholarly outlets that contribute most significantly to the research domain of green marketing and green purchase intention. Among the identified journals, *Sustainability (Switzerland)* emerges as the dominant source with 11 articles, highlighting its central role as a multidisciplinary platform for sustainability-related research. Its prominence indicates the journal's openness to cross-disciplinary approaches that integrate environmental, social, and business perspectives.

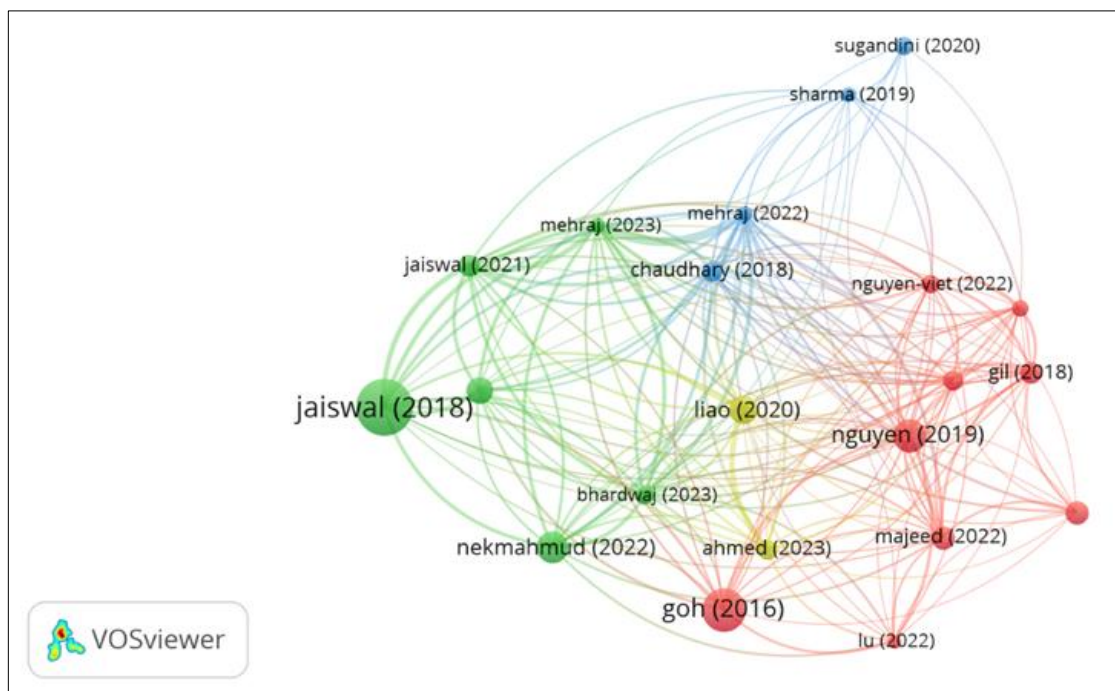
Other key outlets include *Business Strategy and Development* (4 articles), *Journal of Cleaner Production* (3 articles), and *Journal of Retailing and Consumer Services* (3 articles). These journals reflect the intersection between environmental sustainability, strategic business practices, and consumer behavior, underscoring the applied orientation of research in this field. The inclusion of *Business Strategy and the Environment* further reinforce the strategic management perspective that aligns environmental concerns with corporate performance.

Interestingly, journals such as *Acta Psychologica* (2 articles) and *Young Consumers* (2 articles) emphasize the psychological and generational dimensions of sustainable consumption, suggesting that researchers are also exploring cognitive, attitudinal, and demographic influences on green purchase intention. The presence of outlets like *Cogent Business and Management* and *Management Science Letters* indicates that this field is attracting contributions from a diverse range of management and applied sciences journals.

Overall, the data reveals a strong concentration in sustainability-focused journals, complemented by contributions from psychology, consumer studies, and management-oriented outlets, representing the interdisciplinary nature of this research domain.

4.4. Co-citation network of influential authors

The co-citation network map created through VOSviewer reveals the intellectual framework underlying research on green marketing and green purchase intention. The visualization identifies clusters of highly cited authors who form distinct but interconnected research communities. Larger nodes, such as *Jaiswal (2018)*, *Nguyen (2019)* ^[28], and *Goh (2016)* ^[17], indicate authors with high citation frequency, signifying their influential contributions to the development of this research domain.



Source: Authors' own elaboration derived from scopus

Fig 4: Network visualization of influential authors based on co-citation analysis. database

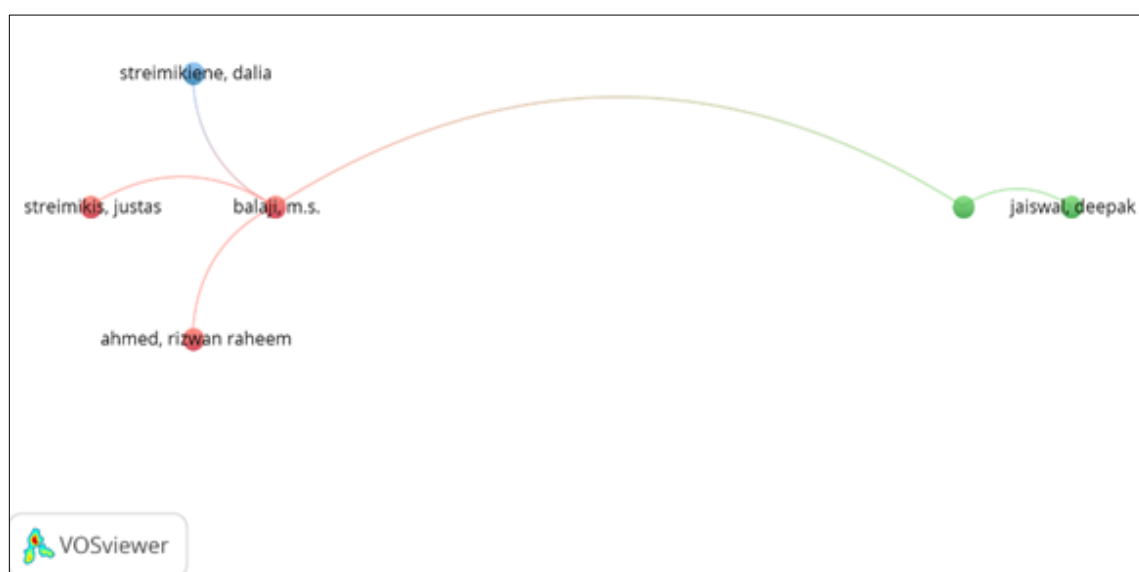
The green cluster, led by *Jaiswal (2018)*, reflects a body of work focusing on consumer attitudes, environmental concern, and their impact on green purchase behavior. Similarly, the red cluster, with *Nguyen (2019)* [28] and *Goh (2016)* [17] as central figures, highlights research addressing cross-cultural perspectives, sustainability practices, and consumer trust in green products. The blue cluster, including authors such as *Sugandini (2020)* and *Sharma (2019)* [39], points toward regional studies emphasizing behavioral drivers of sustainable consumption.

The interlinkage of these clusters demonstrates the interdisciplinary nature of the field, integrating insights from marketing, psychology, and sustainability studies. Overall, the

co-citation analysis reveals a cohesive but diverse research landscape, with a few seminal works providing the theoretical and empirical foundations upon which subsequent studies are built.

4.5. Author citation network analysis

The citation network visualization generated through VOSviewer provides insights into the intellectual linkages among influential authors in the field of green marketing and sustainable consumption research. The map reveals a relatively small but distinct set of interconnected authors, indicating emerging yet focused collaboration and citation patterns in this domain.



Source: Authors' own elaboration derived from Scopus database

Fig 5: Author citation network analysis

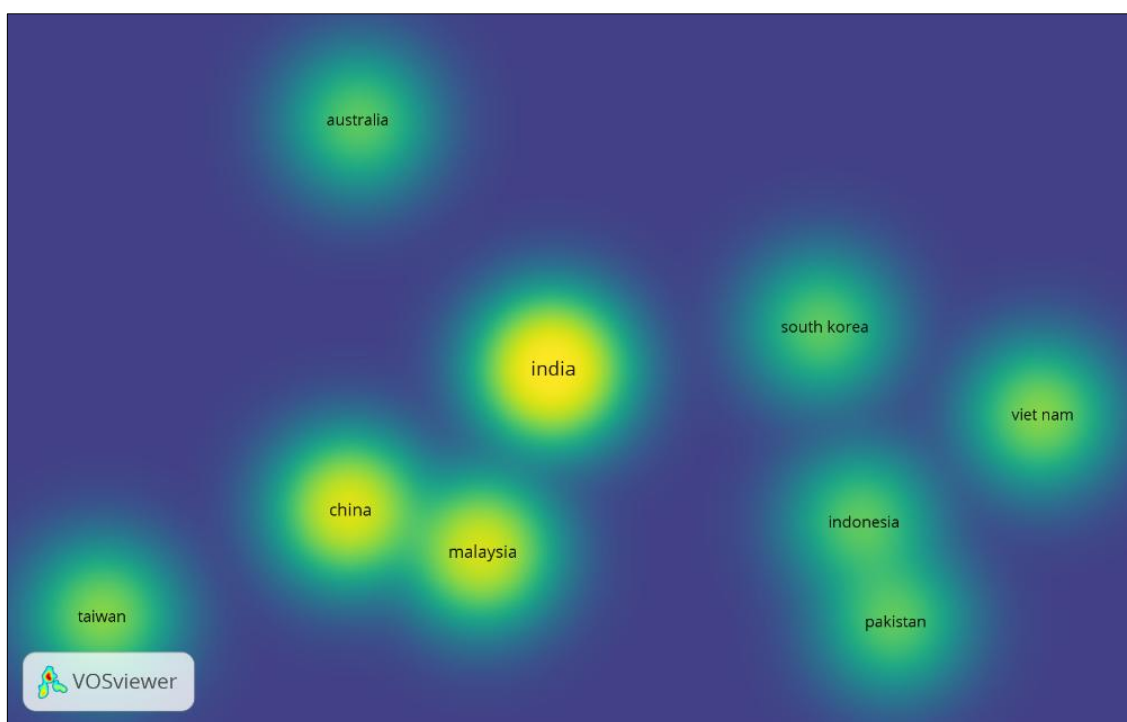
The network highlights *Jaiswal, Deepak* as a central author whose work has been frequently cited, suggesting a significant influence on subsequent research. His contributions are strongly connected to the themes of green purchase intention and consumer behavior in sustainability contexts. The linkage between *Jaiswal* and other authors demonstrates his integration into broader scholarly conversations.

On the other side of the network, authors such as *Balaji, M.S.*, *Ahmed, Rizwan Raheem*, and *Streimikis, Justas* form a separate but connected cluster. Their research appears to focus on consumer trust, sustainable marketing strategies, and regional applications of green consumption studies. The presence of *Streimikiene, Dalia* further strengthens the multidisciplinary orientation, bridging environmental economics with consumer research.

Although the network is relatively sparse, it reflects the developmental stage of this research field, where a few key scholars are laying the groundwork for a growing body of interconnected studies on green marketing and sustainability-driven consumer behavior.

4.6. Citation density by country in green marketing research

The country citation density map highlights the geographical distribution and impact of scholarly contributions to research on green marketing and green purchase intention. The visualization indicates that *India* and *China* occupy dominant positions, as shown by their higher citation density. This finding suggests that both countries have become leading contributors to the discourse, reflecting their growing academic output and increasing emphasis on sustainable consumption in rapidly developing economies.



Source: Authors' own elaboration derived from Scopus database

Fig 6: Citation density across countries

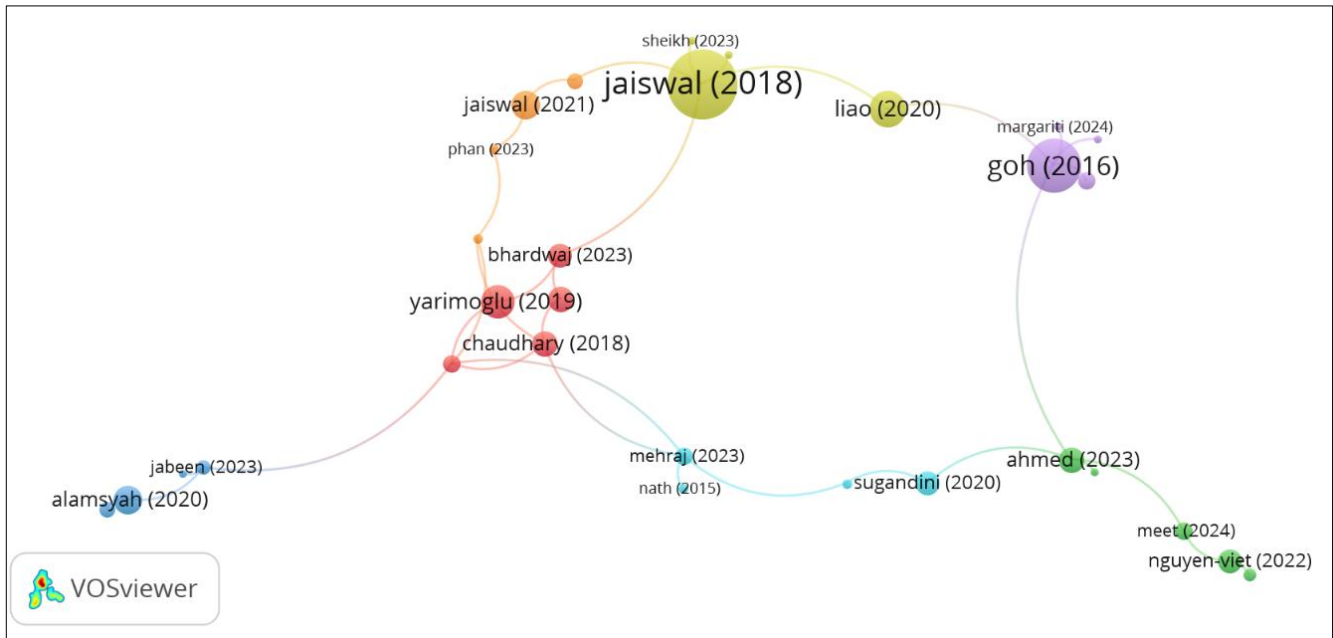
Other Asian nations, including *Malaysia*, *South Korea*, *Vietnam*, *Indonesia*, and *Pakistan*, also demonstrate notable contributions, albeit at a comparatively lower density. Their presence in the network underscores the regional significance of sustainability issues, particularly in developing markets where green consumer behavior is gaining importance. *Taiwan* and *Australia* further add to the geographical diversity, with Australia's contributions reflecting engagement from a developed economy perspective, balancing the emphasis between developing and advanced contexts.

The clustering of Asian countries indicates a strong regional focus in the literature, likely driven by shared socio-economic challenges and policy agendas related to sustainability. Overall, the map illustrates that research on green marketing is highly internationalized, with Asia serving as a major hub of scholarly

activity while also fostering cross-country collaborations and knowledge exchange.

4.7. Citation analysis of influential documents

The citation document network reveals the intellectual structure of research in green marketing and green purchase intention. Among the cited works, *Jaiswal (2018)* emerges as the most central and influential document, indicated by its larger node size and multiple linkages to subsequent studies such as *Sheikh (2023)* ^[40], *Phan (2023)* ^[34], and *Bhardwaj (2023)* ^[10]. This demonstrates its foundational role in shaping later research, establishing it as a pivotal reference within the domain. Similarly, *Goh (2016)* ^[17] also shows substantial citation strength, connecting with recent works including *Margariti (2024)* ^[25] and *Ahmed (2023)* ^[1], thereby reflecting its sustained academic relevance.



Source: Authors' own elaboration derived from Scopus database

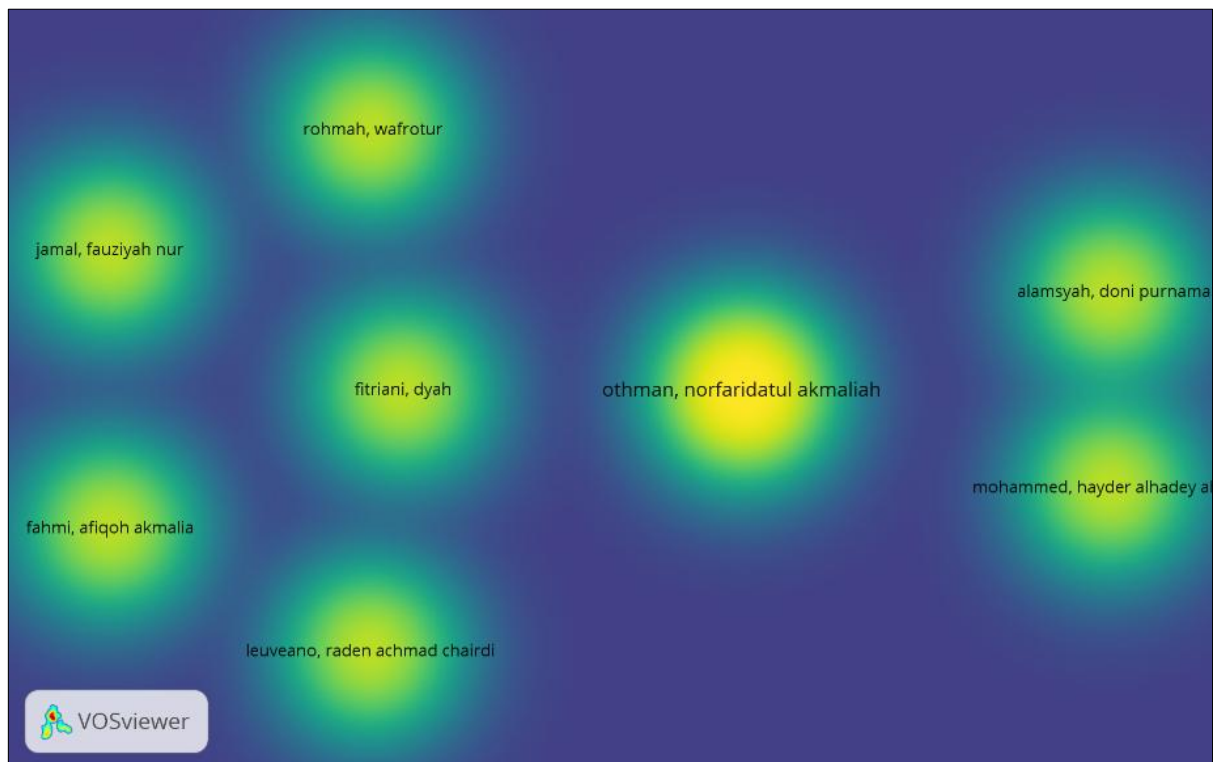
Fig 7: Citation network of influential documents

Other notable contributions include Yarimoglu (2019) ^[54] and Chaudhary (2018) ^[12], which form part of a strong citation cluster and indicate their importance in developing the conceptual framework for green consumer behavior. The presence of more recent publications, such as Nguyen-Viet (2022) and Meet (2024) ^[26], highlights the continuity of scholarly attention and the dynamic evolution of the field. Overall, the network underscores a blend of foundational and contemporary research, where early influential works continue to anchor and guide newer studies. This co-citation mapping

demonstrates both intellectual roots and emerging directions, reflecting the progressive growth of the literature.

4.8. Co-authorship network of authors

The co-authorship visualization highlights the collaborative structure among scholars contributing to the field of green marketing and sustainable consumer behavior. The heatmap representation emphasizes the relative intensity of author contributions, where larger and brighter nodes indicate higher research productivity and stronger citation impact.



Source: Authors' own elaboration derived from Scopus database

Fig 8: Co-author relationship network

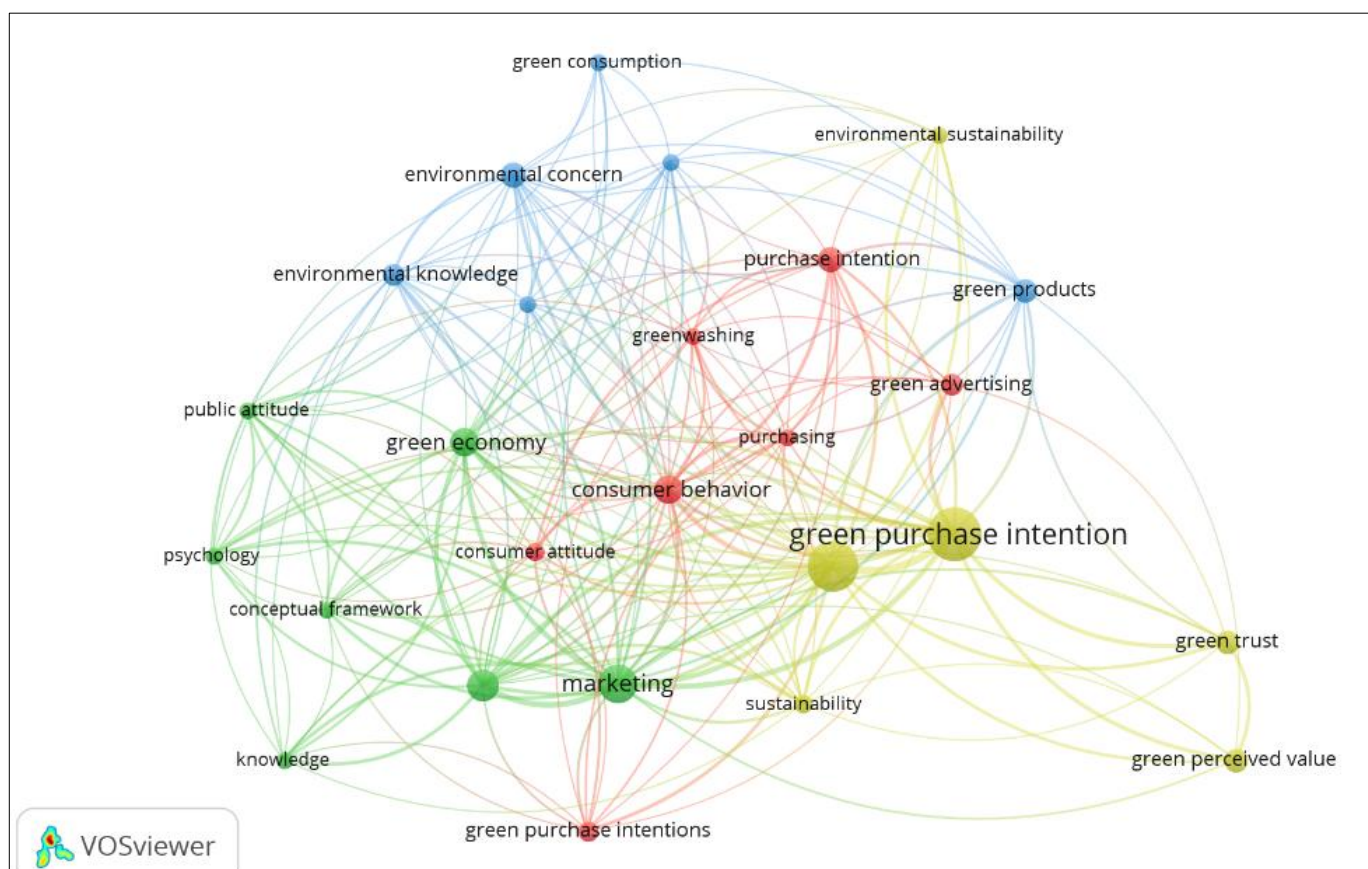
At the center of the network, Othman, Norfaridatul Akmaliah emerges as the most influential and highly productive author. The prominence of Othman's node suggests a central role in driving research discussions, indicating frequent publications and substantial collaborations. This influence positions Othman as a leading scholar in shaping theoretical and empirical frameworks within the field.

Other notable contributors include Jamal, Fauziyah Nur, Fitriani, Dyah, and Rohmah, Wafrotur, who form distinct clusters within the map. Their visible presence highlights an active role in advancing niche areas of research, often focusing on consumer psychology, environmental awareness, and sustainable marketing strategies. Similarly, authors such as Alamsyah, Doni Purnama and Mohammed, Hayder Alhadey Al, though less central than Othman, contribute meaningfully to expanding the geographic and thematic diversity of the literature.

The visualization also demonstrates that while individual authors have strong contributions, collaboration patterns remain relatively fragmented, with fewer interlinkages among clusters. This suggests opportunities for future research synergies through cross-collaborations between leading scholars and emerging researchers. Strengthening such networks can enhance knowledge integration, foster methodological innovation, and extend the global reach of green marketing studies.

In summary, the co-authorship map not only identifies key authors shaping the discourse but also underscores the importance of academic collaboration in accelerating progress within sustainability and marketing research. The findings highlight both the intellectual leadership of central authors and the potential to develop stronger international research alliances.

4.9. Mapping research themes in green marketing



Source: Authors' own elaboration derived from Scopus database

Fig 9: Thematic network of keywords in green marketing

The co-occurrence of keywords visualization offers a comprehensive overview of the intellectual structure and thematic orientations within the scholarly literature on green marketing and green purchase intention. The network map highlights frequently co-occurring terms, revealing the conceptual linkages and clusters that define this research domain. Larger nodes, such as "green purchase intention," "consumer behavior," "marketing," and "green economy," indicate the most influential and recurrent themes, underscoring their central role in shaping the discourse.

The cluster surrounding "green purchase intention" forms the dominant research stream, strongly linked with constructs such as "green trust," "green perceived value," "green products," and "green advertising." This indicates that much of the literature investigates consumer trust, perceptions, and product-related factors as predictors of purchase intention. The presence of "sustainability" and "environmental sustainability" in this cluster further highlights the integration of broader environmental goals with consumer-oriented studies.

A second thematic cluster, represented by “consumer behavior” and “purchase intention,” reflects the behavioral and psychological dimensions of the field. Terms such as “consumer attitude,” “psychology,” and “conceptual framework” suggest a strong reliance on behavioral theories and models to explain green purchasing patterns.

Meanwhile, the cluster centered on “green economy” and “public attitude” illustrates the socio-economic and policy-related dimensions, linking green consumption with sustainability transitions at a macro level. Additionally, keywords like “environmental concern” and “environmental knowledge” emphasize the importance of environmental awareness as a driver of responsible consumption.

Overall, the keyword co-occurrence analysis reveals a multidimensional research landscape where consumer psychology, marketing strategies, and sustainability discourses converge. The diagram underscores how green purchase intention functions as a nexus connecting behavioral, managerial, and societal perspectives, reflecting the field’s interdisciplinary nature and its alignment with global sustainability agendas.

5. Conclusion

This study brings attention to the growing significance of green marketing and its influence on consumer purchase intention in an era where sustainability has become a global priority. By applying bibliometric methods, it provides not only an overview of publication trends but also insights into the intellectual and thematic structures shaping the field. The findings show that research has expanded rapidly over the last decade, drawing contributions from diverse disciplines such as business, psychology, environmental science, and policy studies. Central themes like consumer attitudes, green trust, perceived value, and eco-labeling repeatedly emerge, underscoring the psychological and behavioral foundations of sustainable consumption.

The evidence suggests that while consumer awareness and willingness to adopt eco-friendly products are increasing, barriers such as higher costs, skepticism, and limited accessibility remain challenges. Businesses are therefore encouraged to design holistic green marketing strategies that balance authenticity, affordability, and innovation. At the same time, government regulations and educational initiatives play a vital role in shaping supportive environments for sustainable consumption.

Ultimately, green marketing is not just a corporate strategy but a collective effort requiring collaboration among businesses, consumers, and policymakers. Strengthening these connections will be crucial for aligning marketing practices with long-term environmental and societal goals.

6. Limitations and Future Research

This study provides meaningful insights into research on the green marketing mix and purchase intention, but it also carries some limitations. Acknowledging these helps place the findings in context and points toward areas where future work can improve.

The first limitation is the use of Scopus as the data source. While Scopus is one of the most reliable academic databases, it does not cover all relevant literature. Important studies indexed in Web of Science, Emerald, or Google Scholar may have been missed, especially from niche or interdisciplinary outlets. Future studies can be done by drawing data from multiple sources.

The second limitation is the focus on English-language publications. Although English dominates academic publishing, important work is also written in other languages, such as Chinese or Spanish. By excluding non-English studies, this research may overlook valuable cultural and regional perspectives. Including other languages would strengthen the global comprehensiveness.

The third limitation lies in the nature of bibliometric methods. While tools like VOSviewer map patterns of citations, keywords, and collaborations effectively, they cannot capture the depth of theories or the practical relevance of individual studies. Citation-based metrics also tend to favor older works, underestimating newer but potentially innovative contributions. Combining bibliometrics with systematic reviews or content analysis in future research would provide both breadth and depth.

Going forward, researchers could expand coverage across databases, languages, and contexts. They might also explore industry-specific or generational perspectives—for example, how Gen Z versus Millennials respond to green marketing. Finally, connecting academic insights more closely with real-world business practices and policy outcomes would enhance the practical value of this growing field.

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