A Systematic and Bibliometric Literature Review on Green Consumer with Special Reference to India

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Abstract

Purpose – The study aims to analyse the theoretical foundation of research on the green consumer in the Indian context. It proposes to analyse the current studies in the domain and the future direction of research in this field.

Design/methodology/approach – The study utilized the Scopus database to extract the available research in the field. VOS viewer programme and ATLAS Ti was used to generate visual maps based on the various keywords and bibliographic coupling related to the study. The search with keywords resulted in 474 documents.

Findings – The review suggests that most of the studies in this field have focussed on sustainability, green marketing, green products, and the consumption behaviour of consumers. The study is helpful to the practitioners and marketers who utilize the Green Image of their products to impact customer purchase intentions.

Practical implications – This research work is helpful to practitioners and researchers in the domain of green consumer behaviour.

Originality/value – The research enumerates the significance of green consumer behaviour in the Indian context. It also suggests theme-based clusters in the domain of green consumer behaviour. Five clusters based on themes have also been identified from the keywords' cooccurrences.

Social Implication - India being an emerging economy the inclusion of green consumerism has become a necessity. The research also advocates the sustainability vision of the country.

Not many researchers in the past have reviewed green consumer-based studies concerning an emerging economy like India.

Keywords: Consumer Behaviour, Environmental Management, Marketing Systems.

Paper Type- Review paper.

1. Introduction

The increased emphasis on sustainable development goals in every sphere of life has also led to the “Greening” of both products and services. Concerns regarding the conservation of the environment are increasingly becoming apparent in the conscious business environment (M. S. Khan et al., 2020; Saxena, 2021). Subsequently, consumers too have been classified as “Green” consumers. Hence businesses need to focus on the critical factors that frame the intention of the green consumers towards the purchase of products and services.

India is an emerging economy and one of the largest consumer markets in the world the necessity to focus on these contexts is even more predominant (Raj et al., 2023; Sinha & Annamdevula, 2022). Green consumerism in India pertains to the increasing inclination of customers to make environmentally sustainable choices when making purchases. With the growing awareness of environmental concerns including pollution, climate change, and resource depletion, an increasing number of Indian customers are actively looking for products and services that have a minimal adverse effect on the environment.

Multiple reasons contribute to the increase in green consumerism in India like increased environmental consciousness and consumer awareness (Tan et al., 2022a). The dissemination of knowledge about environmental concerns via education, media, and activism has resulted in an enhanced comprehension among Indian consumers regarding the significance of adopting sustainable lifestyles and consumption patterns. Besides this, numerous companies in India are embracing sustainable practices and providing environmentally friendly products and services by consumer demand and corporate social responsibility programs. This includes the utilization of recycled materials, the minimization of waste, and the adoption of energy-efficient manufacturing procedures.
With an increasing number of customers placing greater importance on environmental sustainability, there is a rising need for eco-friendly items in multiple industries, such as food, fashion, personal care, and home goods (Kim & Chakraborty, 2024; Tan et al., 2022b). This requirement stimulates firms to engage in innovation and provide a greater variety of sustainable alternatives. To enhance the adoption of environmentally friendly consumerism in India, it is imperative for many stakeholders, including governments, businesses, non-governmental organizations, and consumers themselves, to encompass actions such as allocating resources to green technologies, offering rewards for sustainable behaviour, promoting awareness through educational and promotional initiatives, and enhancing infrastructure for recycling and garbage disposal. Through collective efforts, India may further progress towards a sustainable and ecologically conscious future. The present study thus envisages the studies conducted on Green Consumers, especially in the Indian context. It analyses the bibliography available on the subject matter and the various dimensions associated with it. It also attempts to address the following questions:

1. The present placement of the topic “Green Consumer” in the Indian context in the literature?
2. What are the prominent areas being emphasized by researchers?
3. What is the relative position of India in the Green consumerism domain?
4. Which keywords are prominently being used by authors in the green consumer domain in the Indian context?

Hence, the present study envisages the contribution made by various authors to developing this field of study, focusing on its further development.

2. Literature Review

The literature on green consumers in the context of the Indian consumer has been in relevance since 1976. Many trends have been witnessed in this domain of study. Various studies in the domain of Green Consumer Behaviour in India have emphasized the relationship between pro-environmental behaviours and their impact on egoistic, altruistic, and biospheric values. The results reveal that marketers should promote responsible consumption along with an emphasis on the policy framework of the country (Majumdar & Sinha, 2018; Majumder et al., 2023). A similarly extensive overview of the literature suggests that sensible consumerism has mostly been linked with sustainability (Koh & Lee, 2012). Both notions work hand in hand with consumers who are inclined to purchase eco-friendly products (Saxena, 2021). However, when it comes to trade-offs between pricing and sustainability consumer decision-making is found to be skewed towards the pricing end (Granato et al., 2022).

Concerning product purchase behaviour studies by (R. Kumar et al., 2023) have investigated consumer behaviour towards eco-friendly products. The study suggests that there stands a significant influence of green self-identity and ethical obligations in crafting consumer purchase intentions for such products. A study by (Thakur et al., 2023) has revealed that product quality, perceived value, and trust have a significant impact on green product consumption. Another comparative study (Lavuri, 2022; Rusyani et al., 2021) on Indian and Indonesian consumers revealed that perceived behavioural control had no significant impact on sustainable purchase intention and trust reflected a significant moderating relation between sustainable attitudes and perceived behavioural control and purchase intentions. Various external motivation factors also have a significant impact on the consumer attitude, price being an exception in this case (Sankar & Aruna, 2023). Evaluating the demographics of the consumer's age and gender has been shown to have no impact on the green consumer behaviour of Indians (Mehraj & Qureshi, 2022).

A similar study (Mishra & Kulshreshtha, 2023) has reported that supporting environmental protection, sharing environmental responsibility, green product experience, environmental friendliness of companies, social appeal, and green product purchase motives significantly influence the green product purchase decision.

Besides provoking the pro-environmental behaviour of consumers, marketers have also focused on certain green marketing initiatives which impact consumer buying decisions. Studies (Chitrao et al., 2023) done to investigate the impact of green marketing on consumer procurement have revealed that though consumers relate to the concept of ecological sensitivity yet when it comes to quality and price, they choose the latter over the former. Marketers can also create their target customers by identifying people who are already part of a sustainability initiative in society (Gandhi & Sheorey, 2019). Profiling of such environmentally sensitive people can significantly help marketers choose their target customers (A. Mehta & Sharma, 2019; P. Mehta & Chahal, 2021).

Similar studies emphasizing green manufacturing have revealed that institutional regulatory pressures have a significant impact on Eco-innovation in the industry (Lazarou Tarraco et al., 2023). Recently many AI (Artificial Intelligence) based environmental sustainability products have also caught the attention of the consumers (Frank, 2021).
Thus, green consumer behaviour can be effectively utilized by organizations to increase their brand equity and influence consumer intentions to purchase green products (Adams et al., 2022; Hesse et al., 2022; S. A. R. Khan et al., 2022; Lemke & Luzio, 2014).

3. Research Methodology

The study incorporates bibliometric analysis to explore the current practices in the field. The search was restricted to the Scopus database which utilized the data from 1976 onwards to 2023. The search with the keywords “Green Consumer” and “India” resulted in 474 documents. This was further filtered to incorporate articles from the English language only and resulted in 457 documents to be analysed for the study. The selection criteria for inclusion in the study were based on the PRISMA statement (Figure 1). However, articles focussing only on the Indian context have been included in the study. Abstracts of all these articles were included in the study and were reviewed thoroughly to exclude any duplications. In the data extraction phase, 457 documents were selected and the following characteristics were retained as the inclusion criteria:

Articles must be original papers, review papers, or an editorial. Conference papers and case studies were also included. The language used in the article must be English and it should relate to any of the fields including computer science, engineering, mathematics etc. The extracted articles must be published during the period 1976-2023. R software, VOS viewer and Atlas Ti have been utilized to generate the visual maps for the study. The research incorporates the Network visualization technique for creating maps.

The final data extracted was for 457 articles and the various characteristics which were specifically considered are:

1. Articles must be original papers, review papers, or editorials. Conference papers and case studies were also included.
2. The extracted articles must be from India only.
3. The language of the article must be English and the paper can be in the final stage of publishing or published articles only.
4. Extracted articles must be published during the period 1976-2023.

Thus, considering the above-mentioned criteria, the final review was done for the 457 research articles. The data has been extracted using the Scopus database. This database was primarily used since it incorporates quality studies in various novel fields of study (Harzing & Alakangas, 2016; Moed et al., 2018). Various items like the author, documents, bibliographic coupling, citations, and countries have been used and the inks between these have been analysed. As per Singh and Arora (2022), the quality and impact of research can be effectively analysed through the number of citations of research.

![Figure 1: PRISMA method for Screening Articles for Systematic Literature Review](http://jier.org)
4. Classification and Categorization of Conducted Research

Many documents related to the field were published as early as 1976 (Figure 2). The total number of documents on the green behaviour of Indian Consumers has been 474. The majority of these have been published during the 2010-2020 decade (Table 1).

Table 1: Primary Information about Scopus data

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<table>
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<tr>
<td>Timespan</td>
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DOCUMENT CONTENTS

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AUTHORS

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<td>Authors of single-authored docs</td>
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AUTHORS COLLABORATION

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<td>Single-authored docs</td>
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<tr>
<td>Co-Authors per Doc</td>
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</tr>
<tr>
<td>International co-authorships %</td>
<td>12.25</td>
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Since the study primarily analyses the Indian consumer hence majority of the studies incorporated are from India (Figure 3). Besides Indian authors have been working with authors from USA, UK, Australia, Netherlands, etc.
Figure 3: Scopus Documents by Country

The network of the various collaborations among authors in various countries is depicted in Figure 4. It primarily entails the work on Green consumers being carried out in India, the USA, the UK, the Netherlands and Australia etc.

Figure 4: Network Collaboration Strength by Country

Most of the articles published are from the Journal of Environmental Science and Pollution Research followed by the Indian Journal of Marketing, International journal of Green Economics, Journal of Cleaner Production and Marketing Intelligence and Planning (Figure 5).
The main authors who have contributed to the field are Khare, A., Yadav, R. Jaiswal, D., and Pathak, G.S. (Figure 6).

As per the type, most of the documents have been research articles (352) followed by conference papers and book chapters (Figure 7).
The research uses the network visualization technique whereby the items are represented by the label they carry and by a circle. Both the label and circle represent the total weight of the item. The higher the weight the larger the circle. The colour reflects the cluster to which the item belongs. The distance between the circles indicates the relatedness of the items. The analysis based on citations of the documents resulted in Figure (8). The minimum number of citations for the document is 1 and the number of studies qualifying this criterion was 340. The maximum number of citations have been for Hoekstra, A.Y. and Mekonnen, M.M. followed by Panda, A.K., Mishra, A.K. and Yadav, R., Pathak, G.S.

Figure 7: Scopus Documents by Type

Figure 8: Scopus Documents by Author Citations

Figure 9: Most Global Cited Documents
The most cited document has been by Arjen Y. Hoekstra and Mesfin M. Mekonnen (2012) with 1459 citations followed by the document by Justin Paul, Ashwin Modi, and Jayesh Patel (Figure 9). The bibliographic coupling of the documents resulted in major clusters (Figure 10). The analysis was done using a full document count with a minimum of one citation for the document.

![Figure 10: Scopus Documents by Bibliographic Coupling of Documents](image)

The average citations per year has witnessed a rise and fall with the maximum number of citations from 2011 to 2013 (Figure 11).

![Figure 11: Average Citations Per Year](image)
The trend topics in the domain have been related to waste management, green economy, public attitude, and consumption behaviours (Figure 12).

Figure 12: Trend Topics

Figure 13 represents thematic mapping in the domain of green consumer behaviour. It entails the visualization of the thematic arrangement of a collection of literature. This is typically done by creating networks of keywords, themes, or concepts that appear together or are cited together in scientific publications. These maps facilitate the identification of patterns, groupings, and connections within a certain area of study, allowing academics to comprehend the conceptual framework and changes within the body of literature. The map represents consumption behaviour as a motor and basic theme with high relevance degree. The research themes in this area might see a significant rise soon. Emerging fields like climate change and sustainable development have also been reported in the mapping.

Figure 13: Thematic Mapping
The conceptual structure map (Figure 14) reflects that using Multiple Correspondence Analysis (MCA) entails examining categorical data to uncover hidden links and structures among variables. MCA, or Multiple Correspondence Analysis, is a bibliometric method that allows for the visualization of the conceptual structure of scientific literature. This is done by analysing category metadata, such as keywords, authors, or journals. The map reflects climate change, sustainable development, and consumption behaviour as part of major clusters.

Figure 14: Conceptual Structure Map through Multiple correspondence Analysis

A historiograph in bibliometrics refers to the application of bibliometric analysis to examine the historical progression and advancement of a specific field of study or research subject. The process entails analysing the academic literature chronologically to comprehend the emergence, evolution, and mutual effect of ideas, themes, and research trends within the specific discipline. The historiograph (Figure 15) reflects the markedly differential evolution of the field from 2004 to 2020.

Figure 15: Historiograph
In case of the binary counting, the occurrences attribute indicates the number of documents in which a term occurs at least once. The fields from where the keywords were selected were Title and Abstract. The copyright statements and the structural abstract labels were ignored during the counting. The colours reflect the clusters to which the keyword belongs (Figure 16).

![Figure 16: Scopus Documents by Occurrence: Binary Counting](image)

The text analytics of the keywords in both title and abstract using occurrences which indicates the number of documents in which a keyword has occurred resulted in Figure (17). We utilized both the binary and full counting methods for the study. In full counting, the occurrence attribute indicates the total number of occurrences of the term in all documents.

![Figure 17: Scopus Documents by Occurrence: Full Counting](image)

The co-occurrence-based study on the keywords using binary counting resulted in Figure (18). The weight was primarily on the occurrences of the keywords in the documents.
The clustering process provides grouping to documents based on certain attributes of interest. The present study provides clustering to the available research studies based on the incorporated dimension of analysis. Hence the present study figured three clusters with the help of VOS viewer which have been mentioned below (Table 2):

<table>
<thead>
<tr>
<th>Cluster 1 (Green)</th>
<th>Cluster 2 (Yellow)</th>
<th>Cluster 3 (Purple)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable development</td>
<td>Consumption Behaviours</td>
<td>Ecolabels</td>
</tr>
<tr>
<td>Green marketing</td>
<td>Perceived Consumer Effectiveness</td>
<td>Cadmium</td>
</tr>
<tr>
<td>Climate Change</td>
<td>Risk Assessment</td>
<td>Chromium</td>
</tr>
<tr>
<td>Environmental Protection</td>
<td></td>
<td>Biomass</td>
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<td>Energy Policy</td>
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**Cluster 1: Green Consumer and Sustainability (Green)**
Several studies have incorporated the dimension of sustainability in consumer behaviour (Dutta et al., 2022; Panda et al., 2020; Shiel et al., 2020; Turunen & Halme, 2021). Certain studies have been product specific like EVs (Dash, 2021) or the organic food market (Goyal et al., 2017) product innovation (Loya and Rawani, 2017), or store attributes (Bhatti & Negi, 2018). Most of the studies about this cluster focus on sustainable consumption and purchase intentions (Nath et al., 2017; U. S. Singh et al., 2022). Studies have also focused on antecedents like Altruism, generativity, and Pro-environmental behaviour along with analysing the socio-demographics as antecedents of green purchase intentions (Akhtar & Suki, 2022; Nath et al., 2015).

**Cluster 2: Green Consumer and Agriculture (Purple)**
This cluster includes studies like the effect of agricultural practices on consumers (Chitrao et al., 2023) and the relationship between agriculture and behavioural intentions (Baksi & Parida, 2013; T. P. Singh & Khandelwal, 2021). Specific studies based on Ecolabels have also been (Sharma & Kushwaha, 2019) incorporated in this cluster. Various studies have focused on green agricultural marketing practices in Indian companies (Ghodeswar & Kumar, 2014; A. Mehta, 2013) and on building the corporate image (Yadav et al., 2016).
Cluster 3: Green Consumer and Green Products (Yellow)

This cluster primarily refers to green consumer attitudes towards green products and the factors influencing green product purchases (P. Kumar & Ghodeswar, 2015; Megavannan & Chappalalli, 2015; P. Mehta & Chahal, 2021). This includes studies like willingness to pay a premium (Kirmani & Khan, 2018) to examine the motivational drivers in green consumerism like green marketing stimuli (Chekima et al., 2016; Jaiswal et al., 2022) and perceived environmental knowledge. It also incorporates the use of various theories like the theory of planned behaviour (Taufique & Vaithianathan, 2018) to identify the behaviour of young Indian consumers. Studies have also focused on durables (Ghose & Chandra, 2018) and green apparel (Khare, 2023).

5. Conclusion

The examination of Indian green consumer behaviour uncovers a multifaceted terrain influenced by a range of elements, such as personal consumption values, environmental consciousness, and governmental efforts. India is experiencing a noticeable shift towards environmentally conscious consumer choices, despite obstacles including restricted availability of eco-friendly items and greater pricing compared to conventional options. Based on available literature, the study concludes that many studies have been conducted in the domain in the Indian context. The studies have identified different research papers from 1976 - 2023. The three key areas of sustainability, green marketing, and green products have been the focus of most of the studies done in the past. A lot of emphasis has been placed on studies incorporating the concept of sustainability along with green consumerism. In the literature, the authors have explored different theories to explain the concept of green consumers and green marketing. The analysis reveals that consumer inclination towards sustainability is bound to increase shortly and offers a green area for marketers to explore further and enhance their brand image. In the future, the role of sustainable development goals needs to be placed in future research. Research in this area can further assist marketers in developing appropriate strategies to translate the green consumer purchase intention into actual purchase.

References


