

## Sustainable Tourism Marketing: A Systematic Analysis of Green Marketing Strategies and Their Impact on Tourist Behavior

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### ABSTRACT

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#### Keywords:

Sustainable;  
Tourism Marketing;  
Green Marketing;  
Tourist Behavior.

**Abstract:** This study is important because understanding tourist behavior and the effectiveness of sustainable marketing strategies are key to supporting an environmentally friendly tourism industry. This study aims to develop an integrated conceptual synthesis as a foundation for a more holistic sustainable tourism marketing model, while also providing theoretical contributions and practical implications for the development of marketing strategies within the context of a sustainability-oriented tourism industry. The method used is a Systematic Literature Review with literature sources from Scopus, DOAJ, and Google Scholar, selecting publications from 2016–2025. The synthesis results indicate that the frameworks of consumer behavior and intention, as well as application and process-based implementation, operate simultaneously to form an integrative conceptual system. This framework explains how consumer decisions are formed through the interaction of cognitive-affective, social-contextual, and behavioral intention dimensions, as well as how these decisions can be realized in practice through behavioral activation mechanisms, system integration, and process optimization. These findings offer a strong theoretical foundation and practical guidelines for stakeholders in designing adaptive, applicable, and sustainable tourism marketing strategies.

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#### Kata Kunci:

Berkelanjutan;  
Pemasaran Pariwisata;  
Pemasaran Ramah  
Lingkungan;  
Perilaku Wisatawan.

**Abstrak:** Penelitian ini penting karena pemahaman mengenai perilaku wisatawan dan efektivitas strategi pemasaran berkelanjutan menjadi kunci dalam mendukung industri pariwisata yang ramah lingkungan. Penelitian ini bertujuan mengembangkan sintesis konseptual terpadu sebagai landasan bagi model pemasaran pariwisata berkelanjutan yang lebih holistik, sekaligus memberikan kontribusi teoretis dan implikasi praktis bagi pengembangan strategi pemasaran dalam konteks industri pariwisata berorientasi keberlanjutan. Metode yang digunakan adalah Systematic Literature Review dengan sumber literatur dari Scopus, DOAJ, dan Google Scholar, dipilih terbitan tahun 2016–2025. Hasil sintesis menunjukkan bahwa kerangka consumer behavior and intention serta application and process-based implementation bekerja secara simultan membentuk sistem konseptual integratif. Kerangka ini menjelaskan bagaimana keputusan konsumen terbentuk melalui interaksi dimensi kognitif-afektif, sosial-kontekstual, dan niat perilaku, sekaligus bagaimana keputusan tersebut dapat direalisasikan dalam praktik melalui mekanisme aktivasi perilaku, integrasi sistem, dan optimalisasi proses. Temuan ini menawarkan dasar teoritis yang kuat dan pedoman praktis bagi pemangku kepentingan dalam merancang strategi pemasaran pariwisata yang adaptif, aplikatif, dan berkelanjutan.

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#### Article History:

Received : 01-03-2026

Accepted : 30-04-2026



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## A. LATAR BELAKANG

The rapid growth of the global tourism industry has generated substantial economic benefits (Kumar (2019) however, it has simultaneously produced significant environmental degradation, social disruption, and economic imbalances across destinations. Increasing tourist arrivals have contributed to issues such as resource depletion, waste generation, and the phenomenon of over-tourism, which threatens the ecological integrity and socio-cultural sustainability of host communities (Baloch et al., 2023). In response to these challenges, the concept of sustainable tourism has emerged as a critical framework aimed at balancing economic development with environmental preservation and social equity (Mezentseva & Fayzullaev, 2024). This shift reflects a broader transformation in the tourism paradigm, moving away from conventional mass tourism models toward more responsible and sustainability-oriented practices that emphasize long-term value creation, stakeholder engagement, and the preservation of natural and cultural resources.

Green marketing in the context of tourism refers to the strategic integration of environmental considerations into marketing practices aimed at promoting sustainable products, services, and destinations (Damiasih, 2025). It encompasses a broad scope, including the development and communication of environmentally responsible tourism offerings that minimize negative ecological impacts while enhancing long-term destination value (Birinci & Obeng, 2025). Key elements of green marketing in tourism include eco-labeling, which provides standardized environmental certifications to signal sustainability performance, green branding, which positions destinations as environmentally responsible and attractive to eco-conscious travelers, sustainable communication, which transparently conveys environmental initiatives and environmental claims that highlight eco-friendly attributes of tourism products and services. Collectively, these elements play a crucial role in shaping tourists' perceptions and building a positive image of destinations as environmentally friendly, thereby influencing decision-making processes and fostering sustainable tourist behavior (Yuan, 2023).

The behavior of tourists toward environmental sustainability is shaped by a range of psychological and social factors, including attitudes, perceived value, social norms, and environmental concern. A positive attitude toward green tourism has been identified as a strong predictor of behavioral intention, as individuals who demonstrate environmental mindfulness and perceive their actions as contributing to environmental protection are more likely to engage in sustainable tourism practices (Thuy & Thu, 2025). In addition, perceived value plays a critical role, with tourists increasingly showing a willingness to pay premium prices for eco-friendly products and services, reflecting their evaluation of both functional and ethical benefits (Seo et al., 2024). Social norms also influence behavior, particularly injunctive norms, which relate to perceived social approval, whereas descriptive norms tend to exert a weaker effect (Nguyen-van et al., 2025). Furthermore, higher levels of environmental concern are associated with stronger intentions to participate in sustainable tourism, especially among younger cohorts such as Generation Z (Pan et al., 2022). In this context, green marketing serves as a key mechanism in shaping tourist behavior by aligning promotional strategies with environmental values. It has been shown to significantly enhance visit intention toward eco-friendly destinations and green hotels, as well as increase tourists' willingness to pay for sustainable options (Trần, 2025). Moreover, effective green marketing strategies can foster customer loyalty by creating positive experiences that encourage repeat visits and word-of-mouth recommendations.

Although research on green marketing in tourism continues to evolve, most previous studies remain limited in scope, tending to focus on only one aspect—either tourist behavior or marketing strategies in isolation. As a result, the insights gained have not yet been able to provide a comprehensive understanding of the relationship between green marketing strategies and their impact on tourist behavior as a whole (Karina et al., 2025). Furthermore, existing studies indicate that various green marketing strategies, such as sustainable communication, green branding, and digital promotion, exhibit varying degrees of effectiveness; however, there is currently no systematic synthesis capable of integrating these findings into a comprehensive conceptual framework (Mutiarasari et al., 2025). On the other hand, the literature also reveals considerable variation in empirical findings regarding the impact of sustainable marketing on changes in tourist behavior, which is influenced by context, methodological approaches, and different destination characteristics,

thereby necessitating a more systematic integration and evaluation across studies (Font & McCabe, 2017).

A synthesis of previous research indicates that tourists' behavior toward sustainable tourism is influenced by psychological and social factors such as attitudes, perceived value, social norms, and environmental concern, which contribute to the intention to engage in environmentally friendly behavior as well as tourist loyalty. Green marketing plays a strategic role in strengthening these relationships through destination branding and enhancing perceived value. However, the existing literature remains fragmented and incomplete, and has not provided a comprehensive synthesis regarding the effectiveness of various green marketing strategies, indicating a significant research gap. Therefore, this study aims to conduct a systematic analysis using a Systematic Literature Review (SLR) approach to identify and classify various green marketing strategies in tourism, evaluate their effectiveness, and comprehensively analyze their impact on tourist behavior. Furthermore, this study is also aimed at developing an integrated conceptual synthesis as a foundation for the development of a more holistic sustainable tourism marketing model, while providing theoretical contributions and practical implications for the development of marketing strategies within the context of a sustainability-oriented tourism industry.

## B. METODE PENELITIAN

This study employs a qualitative approach using the Systematic Literature Review (SLR) method to analyze and formulate conceptual constructs related to sustainable tourism marketing, with a particular focus on green marketing strategies and their impact on tourist behavior. The research procedure was conducted systematically through several stages, including the formulation of research questions, the establishment of inclusion and exclusion criteria, literature search, data selection and extraction, as well as synthesis and conclusion drawing. The initial stage emphasized identifying key issues related to the implementation of green marketing strategies in tourism, the dimensions of sustainability communication, and how these strategies influence tourist behavior. The research questions were designed to guide the analysis toward understanding the characteristics of green marketing approaches, the types of strategies employed (such as eco-labeling, sustainable branding, environmental campaigns, and responsible tourism promotion), and the dimensions of tourist behavior, including attitudes, intentions, willingness to pay, and loyalty. The stages of the research process are shown in Figure 1.



**Figure 1.** Research Implementation Flowchart

The inclusion criteria comprised scientific articles that explicitly discuss green marketing strategies within the context of tourism and examine their influence on tourist behavior, published between 2016 and 2025. Meanwhile, exclusion criteria included non-academic publications, studies lacking clear methodological frameworks, and articles not directly relevant to marketing strategies or behavioral outcomes in tourism. The literature search was conducted using reputable databases such as Scopus, DOAJ, and Google Scholar, employing keyword combinations including sustainable tourism marketing, green marketing, eco-tourism promotion, tourist behavior, and environmental awareness. The selection process involved title screening, abstract review, and full-text analysis. Data extraction focused on identifying types of green marketing strategies, research contexts, methodological approaches, and empirical findings related to their effectiveness. The collected data were analyzed using thematic coding and narrative synthesis techniques to generate a comprehensive mapping of research trends, strategic patterns, and conceptual gaps, which serve as the basis for developing an integrative and evidence-based framework for sustainable tourism marketing.

### C. HASIL DAN PEMBAHASAN

A comprehensive synthesis of the reviewed literature reveals that contemporary research on consumer behavior, environmental awareness, behavioral intention, and sustainability-oriented systems is characterized by a high degree of conceptual interconnectedness and thematic overlap. Despite originating from diverse disciplinary contexts, these studies converge in emphasizing the central role of psychological, social, and structural determinants in shaping individual and collective decision-making processes. To ensure methodological rigor and transparency, the literature screening process was conducted using VOSviewer software, enabling systematic mapping and refinement of relevant studies. The initial keyword-based search yielded 119,650 articles, which were subsequently filtered based on the publication period (2016–2025), resulting in 98,156 articles. Further refinement by publication type (articles only) reduced the dataset to 72,763 studies, and the application of open-access criteria produced a final corpus of 47,952 articles. To facilitate a more systematic understanding of these interrelated findings, it is necessary to classify the existing body of research into coherent thematic domains based on their primary focus, theoretical orientation, and key variables examined. Such a classification not only enables clearer analytical mapping of the literature but also highlights prevailing research trends and gaps, thereby providing a structured foundation for further discussion. Therefore, Table 1 presents a thematic classification of the selected studies, grouping them according to their core research focus along with the corresponding authors and principal insights or variables identified.

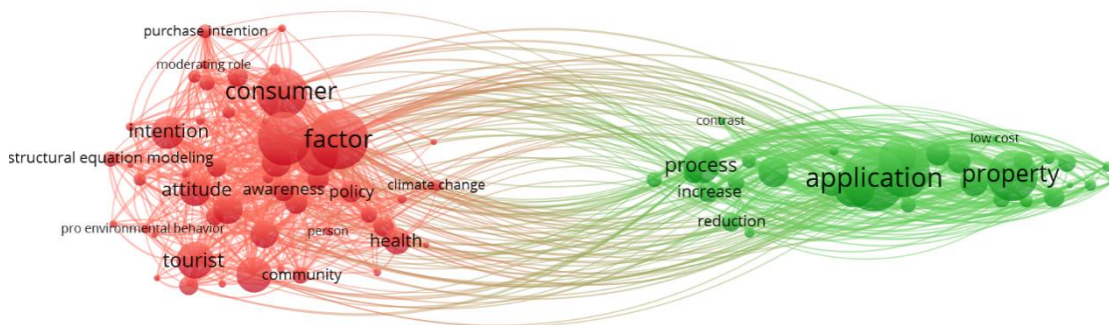
**Table 1.** Thematic Classification of Research

No	Focus	Authors	Key Insights / Research Variables
1	Consumer Behavior and Purchase Intention Modeling	Wimardian et al. (2025); Parveen (2022); Pan (2025); Kartika (2025)	Consumer intention is strongly influenced by psychological determinants, including <i>perceived benefits</i> , <i>health consciousness</i> , <i>attitudes</i> , and <i>social norms</i> . Attitude serves as a mediating variable between perceived value and purchase intention. Studies frequently employ PLS-SEM to model complex relationships.
2	Environmental Awareness and Pro-environmental Behavior	Rojas Hernández et al. (2025); Nash et al. (2019); Citrawijaya & Jannah (2025); Rajeh et al. (2025); Rajapaksa & Managi (2018)	Environmental behavior is shaped by environmental awareness, <i>education</i> , <i>community engagement</i> , and <i>social influence</i> . There exists a gap between local environmental concern vs. global climate awareness. Social media and peer influence enhance behavioral adoption. Younger and educated populations show stronger pro-environmental actions.
3	Behavioral Intention in Policy, Health,	Chen (2023); Balogun & Omotade (2022); Dewies et al.	Behavioral intention is driven by trust, <i>perceived risk</i> , <i>attitudes</i> , and <i>social norms</i> . Applications include contactless banking,

	and Technology Adoption	(2022); Brosch et al. (2016)	<i>vaccination behavior</i> , and <i>energy transition</i> . Institutional approaches such as Behavioral Insights Teams (BITs) are used to translate behavioral theory into policy interventions.
4	Sustainability, Efficiency, and Process Optimization Systems	Sundaramoorthy et al. (2023); Fajar & Anisah Andika (2024); Mohsen et al. (2023); Kamal & Koc (2019)	Focus on process optimization, <i>energy efficiency</i> , and <i>sustainability metrics</i> . Key variables include <i>resource utilization</i> , <i>carbon emissions</i> , and <i>life-cycle cost reduction</i> . Technologies such as NZEB (Near-Zero Energy Buildings) improve both environmental and economic outcomes. Emphasis on integrated sustainability indicators for performance evaluation.

The synthesized table illustrates a structured classification of prior studies into four principal research domains, each reflecting a distinct yet interrelated analytical focus. The first domain, consumer behavior and purchase intention modeling, emphasizes the centrality of psychological determinants such as perceived benefits, health consciousness, attitudes, and social norms in shaping consumer decision-making processes. Within this cluster, attitudes consistently emerge as a mediating variable that translates cognitive evaluations into behavioral intentions, with Partial Least Squares Structural Equation Modeling (PLS-SEM) frequently employed to examine these complex relationships. The second domain, environmental awareness and pro-environmental behavior, highlights the role of environmental education, community engagement, and social influence in fostering sustainable actions. Notably, this body of research reveals a divergence between local environmental concerns and broader climate change awareness, while also underscoring the increasing influence of social media and demographic factors particularly among younger and more educated populations in promoting environmentally responsible behavior.

The third domain focuses on the application of behavioral intention within policy, public health, and technology adoption contexts, where variables such as trust, perceived risk, attitudes, and social norms significantly influence individual acceptance of innovations, including contactless financial systems and vaccination programs. This domain also reflects a growing trend toward institutionalizing behavioral insights through frameworks such as Behavioral Insights Teams (BITs), which aim to bridge the gap between theoretical constructs and policy implementation. Meanwhile, the fourth domain addresses sustainability, efficiency, and process optimization systems, emphasizing the integration of energy efficiency strategies, advanced technologies, and sustainability metrics to enhance operational performance and reduce environmental impact. Across these domains, a unifying pattern emerges in which behavioral, social, and technological factors interact dynamically, reinforcing the importance of adopting a multidimensional and integrative analytical approach to better understand and influence human behavior in diverse applied contexts. To further explore the structural relationships among the identified research variables, Figure 2 presents a network visualization of keywords, illustrating the interconnected clusters and thematic patterns within the literature.



**Figure 2.** Network Visualization Keywords

The red cluster represents the domain of consumer behavior, emphasizing the psychological and social factors that influence individuals' intentions in decision-making processes, particularly within the context of pro-environmental behavior and sustainable tourism. Key terms such as consumer, factor, intention, attitude, awareness, tourist, and pro-environmental behavior indicate a strong theoretical grounding in frameworks such as the Theory of Planned Behavior (TPB) and Structural Equation Modeling (SEM), which are commonly used to examine the relationships among attitudes, awareness, social norms, and behavioral intentions. Conceptually, this cluster reflects an integrated framework in which internal variables, such as attitudes and awareness, interact with external factors, including policy, community influence, health concerns, and climate change, in shaping consumer intentions and actions. From an interpretative perspective, the dominance of this cluster suggests that existing research is largely oriented toward predictive models of behavior, where psychological determinants play a central role in influencing purchase intention and pro-environmental actions. Moreover, the presence of keywords related to global issues, such as climate change, health, and community, highlights an increasing alignment between individual decision-making and broader collective awareness, reinforcing the role of this cluster as a strong theoretical foundation for understanding pre-behavioral processes.

In contrast, the green cluster represents the implementation-oriented dimension, focusing on the processes and practical applications derived from the conceptual models identified in the red cluster. Keywords such as application, property, process, increase, reduction, low cost, and contrast suggest an emphasis on technical, operational, and evaluative aspects of interventions or innovations. This cluster can be defined as the stage at which theoretical constructs are translated into real-world practices through measurable processes, including efficiency enhancement, cost reduction, and system optimization. Interpretatively, the green cluster reflects a shift in research focus from understanding behavioral determinants to assessing the effectiveness and impact of practical implementations. The prominence of terms like application and process indicates that studies within this cluster aim to evaluate how theoretical models can be operationalized to produce tangible outcomes. Additionally, the inclusion of terms such as low cost and reduction underscores a growing concern for efficiency and sustainability, which are critical indicators in the implementation of policy and technology-based innovations. Overall, this cluster represents a more solution-oriented and impact-driven phase of research, highlighting the transition from conceptual exploration to practical application.

### **1. How does the consumer behavior and intention framework explain decision-making processes?**

Consumer intention and attitudes toward purchasing decisions are substantially shaped by a range of psychological determinants, as demonstrated in studies employing structural modeling approaches. Key factors such as perceived benefits, social influences, and individual attitudes interact to form a comprehensive framework that guides consumer decision-making processes. Empirical evidence indicates that health consciousness exerts a positive influence on purchase intention, particularly in the context of products such as low-sugar beverages and plant-based alternatives, where consumers increasingly prioritize health-related attributes (Wimardian et al., 2025). In addition, the perception of functional and environmental benefits, including product quality and sustainability, strengthens consumer attitudes and subsequently enhances their intention to purchase, especially in emerging sectors such as energy-efficient products and new energy vehicles (Parveen, 2022). Social norms further contribute to this dynamic, as subjective influences from family and peers significantly shape both attitudes and behavioral intentions toward environmentally friendly and health-oriented consumption (Pan, 2025). From a methodological perspective, numerous studies adopt Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the complex interrelationships among variables, particularly in identifying how attitudes mediate the influence of external and internal factors on purchase intention (Kartika, 2025). These findings consistently highlight the mediating role of consumer attitudes in translating perceived benefits into actual behavioral intentions, underscoring the importance of cultivating favorable perceptions to influence consumer behavior effectively. Nevertheless, while psychological constructs remain central, it is equally important to acknowledge the role of external market dynamics and broader economic conditions, suggesting that consumer decision-making should be understood through a multidimensional and integrative analytical lens.

The interaction between environmental awareness, community dynamics, and environmental issues constitutes a critical determinant in shaping perceptions and behaviors related to climate change. Existing research demonstrates that environmental awareness plays a significant role in influencing how communities respond to climate-related challenges, thereby underscoring the importance of context-specific understanding and localized action. Environmental education, in particular, serves as a key mechanism for fostering ecological consciousness, enhancing both community resilience and the adoption of sustainable behaviors (Rojas Hernández et al., 2025). However, in certain contexts, such as Nepal, community perceptions tend to prioritize immediate local environmental concerns over broader climate change issues, revealing a gap that must be addressed to strengthen climate awareness and engagement (Nash et al., 2019). Moreover, social influence emerges as a crucial factor in shaping community-based environmental behavior. The role of social media influencers, for instance, has become increasingly prominent in translating complex climate science into more accessible and relatable content, particularly for younger audiences (Citrawijaya & Jannah, 2025). In addition, higher levels of community engagement are often associated with more positive environmental perceptions, which in turn foster proactive behaviors such as recycling and the adoption of sustainable practices. This relationship is especially evident among younger and more educated populations, where environmental awareness tends to translate more effectively into concrete actions (Rajeh et al., 2025). Collectively, these findings highlight the importance of integrating awareness, social influence, and community engagement in promoting more effective and sustainable environmental behavior (Rajapaksa & Managi, 2018).

From an interpretative perspective, this framework suggests that consumer decision-making processes are inherently multidimensional and non-linear, emerging from the dynamic interaction between cognitive evaluations, affective responses, and social contexts. Attitude functions as a central mediating variable that bridges perception, such as the perceived benefits of a product and behavioral outcomes, particularly purchase intention. This implies that even when consumers recognize the advantages of a product, their final decision is largely determined by the extent to which these perceived benefits are internalized into a favorable attitude. Furthermore, the integration of individual and social factors indicates that consumer decision-making is not purely rational but is also shaped by collective norms and social pressures. In this regard, communities and social media act as amplifying mechanisms that reinforce or even construct individual preferences. Consequently, purchasing decisions can be understood as the result of internal psychological evaluations that are continuously influenced and validated by external social and environmental forces.

Despite its explanatory strength, this framework presents several critical limitations. First, there is a tendency to overemphasize psychological variables, with many studies focusing predominantly on internal constructs such as attitudes and perceptions while overlooking external determinants, including pricing, accessibility, and broader macroeconomic conditions that substantially influence purchasing behavior. Second, the reliance on structural modeling approaches, particularly those employing cross-sectional designs, limits the ability to capture the temporal dynamics and evolving nature of consumer behavior. Third, a notable gap persists between behavioral intention and actual behavior, as strong purchase intentions do not always translate into realized actions. Finally, variations in cultural and local contexts may constrain the generalizability of the framework, as differing socio-environmental priorities can significantly reshape consumer perceptions and decision-making patterns.

## **2. How are application and process-based implementations realized in practice?**

Translating behavioral intention into practical application requires a comprehensive understanding of the determinants underlying individual decision-making and the effective integration of these insights into real-world systems. This process is essential for encouraging behaviors that align with broader societal objectives, including the adoption of contactless financial services, sustainable energy practices, and public health interventions. Empirical evidence highlights that trust and perceived risk are key factors influencing behavioral intention, particularly in the banking sector, where they significantly determine individuals' willingness to adopt contactless financial technologies (Chen, 2023). In addition, social influence, manifested through prevailing norms and peer behaviors, plays an important role in shaping the acceptance of new technologies. Attitudinal components are equally critical, as demonstrated in public health contexts where parental

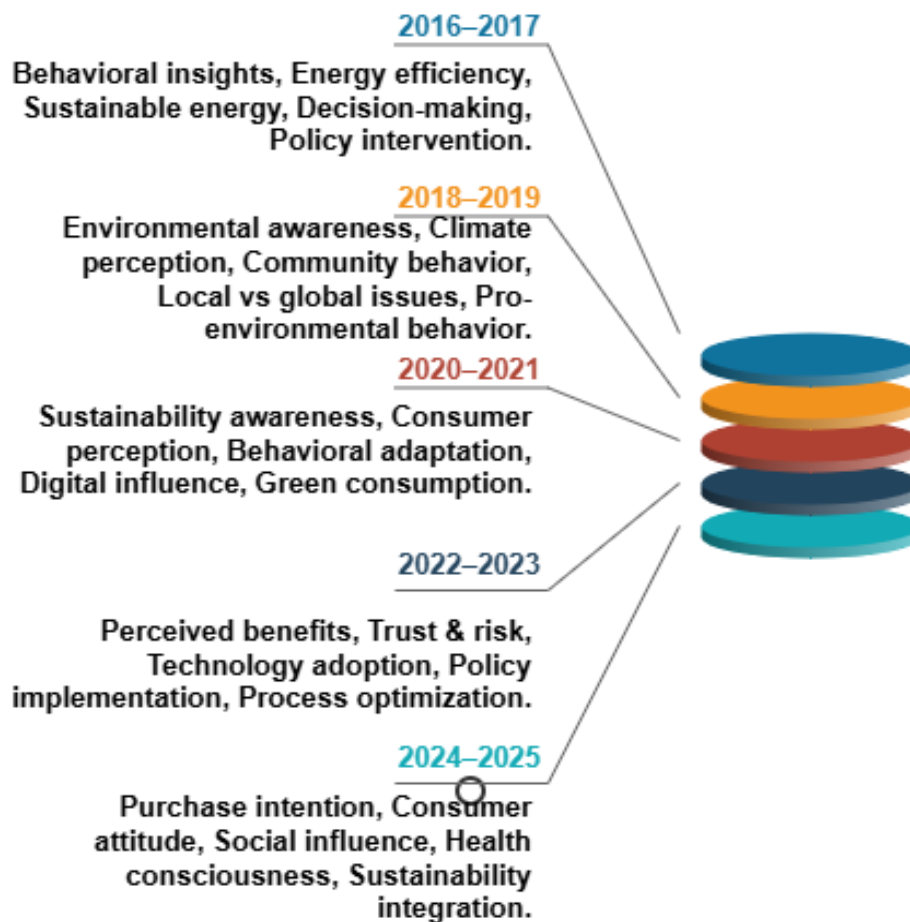
attitudes, both experiential and instrumental, strongly influence the intention to vaccinate adolescents (Balogun & Omotade, 2022). At the implementation level, the integration of behavioral insights into policy and institutional systems has gained increasing attention. Behavioral Insights Teams (BITs), for example, apply structured frameworks to incorporate behavioral evidence into public policy design, addressing challenges such as contextual relevance and scientific rigor (Dewies et al., 2022). Similarly, in the context of sustainable energy transitions, behavioral insights are instrumental in designing interventions that promote energy-efficient choices and support the achievement of climate-related goals (Brosch et al., 2016). Despite these advancements, several challenges persist, particularly in ensuring that interventions are appropriately tailored to specific contexts and effectively communicated to target populations, which are critical factors for achieving successful and sustained behavioral change.

Efficiency, cost reduction, and sustainability outcomes are critical dimensions in evaluating the effectiveness of process-based implementations across various sectors, particularly in technology-driven and environmentally oriented systems. Process optimization plays a central role in enhancing operational performance by minimizing resource waste, streamlining workflows, and improving overall system efficiency. Empirical evidence from recent studies demonstrates that the integration of energy efficiency strategies and advanced technologies can significantly reduce both energy consumption and environmental impact, with some industrial sectors achieving substantial emissions reductions through efficiency-driven interventions (Sundaramoorthy et al., 2023). Furthermore, the implementation of near-zero energy building (NZEB) designs has been shown to reduce life-cycle costs by approximately 10.8% compared to conventional building models, indicating that sustainability-oriented innovations can simultaneously deliver economic benefits (Fajar, Anisah Andika, 2024). In addition, process optimization supported by energy efficiency measures and digital technologies enhances resource utilization and operational transparency, contributing to long-term sustainability performance (Mohsen et al., 2023). The measurement of impact through sustainability indicators, such as carbon emissions, energy efficiency, and resource productivity, provides a systematic framework for evaluating performance and guiding continuous improvement. Moreover, integrating sustainability metrics into organizational processes enables firms to achieve more comprehensive benefits, encompassing not only economic gains but also environmental and social value (Kamal & Koc, 2019). Despite these advancements, challenges remain in standardizing sustainability indicators and ensuring consistent measurement across different sectors and contexts, highlighting the need for more robust and integrated evaluation frameworks.

Application- and process-based implementation can be conceptualized as a translational mechanism that bridges conceptual models and real-world practice through two primary pathways: the behavioral pathway and the operational pathway. Within the behavioral pathway, implementation occurs when previously formed individual intentions shaped by attitudes, social norms, and perceptions are converted into concrete actions through appropriate interventions, such as policy design, public communication strategies, or user-friendly technologies. In this context, trust and contextual relevance emerge as critical factors in ensuring that intentions are effectively actualized. Conversely, the operational pathway emphasizes the realization of implementation through system and process optimization, where technological innovation and managerial improvements are employed to enhance efficiency, reduce costs, and achieve sustainability objectives. This perspective highlights that successful implementation is not solely dependent on individual behavioral change but also on the structural readiness of systems to accommodate and reinforce such changes. Accordingly, practical implementation can be understood as the outcome of a dynamic interaction between individual behavioral adoption and systemic capacity, both of which mutually reinforce one another.

Despite its considerable potential, application- and process-based implementation is subject to several notable limitations. A significant challenge lies in the design–implementation gap, wherein theoretically robust behavioral interventions often fail to achieve effectiveness in practice due to insufficient consideration of local contexts and user characteristics. Additionally, the success of technological and policy interventions is highly contingent upon public trust and effective communication, both of which can be difficult to establish, particularly in environments characterized by low levels of digital literacy. Another critical issue is the fragmentation of sustainability indicators, as the absence of standardized measurement frameworks complicates cross-sectoral and cross-regional comparisons. Furthermore, limited cross-sectoral integration constrains the generation of

broader systemic impacts, as implementations are frequently confined within specific domains such as energy or public health. Finally, challenges related to scalability and long-term sustainability persist, as many initiatives that demonstrate success at a smallscale encounter substantial barriers when expanded to national or global levels.



**Figure 3.** Mind Map Keywords Based on Research Variable Development (2016–2025)

Figure 3 shows that the evolution of the research variables over the 2016–2025 period reveals a clear and progressive shift in scientific focus, reflecting increasing complexity and the integration of behavioral, environmental, and technological dimensions. In the 2016–2017 period, research primarily emphasized foundational constructs such as behavioral insights, energy efficiency, sustainable energy, decision-making processes, and policy intervention, highlighting the role of behavioral science in supporting energy-related policies. This focus expanded in the 2018–2019 period toward environmental awareness, climate perception, community behavior, the distinction between local and global environmental issues, and pro-environmental behavior, indicating a growing concern for community-based environmental engagement. During the 2020–2021 transitional phase, emerging themes such as sustainability awareness, consumer perception, behavioral adaptation, digital influence, and green consumption began to surface, marking a shift toward the integration of sustainability within consumer contexts. Subsequently, in the 2022–2023 period, research increasingly concentrated on applied and system-oriented variables, including perceived benefits, trust and risk, technology adoption, policy implementation, and process optimization, reflecting the alignment of behavioral insights with technological and institutional systems. Finally, in the 2024–2025 period, the literature reached a more advanced and integrative stage, characterized by the prominence of purchase intention, consumer attitude, social influence, health consciousness, and sustainability integration, underscoring the development of comprehensive models that combine psychological, social, and sustainability-driven factors in explaining contemporary consumer and societal behavior.

#### D. SIMPULAN DAN SARAN

Based on the results of the evaluation and synthesis, it can be concluded that the frameworks of consumer behavior and intention, as well as application and process-based implementation, simultaneously form an integrative conceptual system that explains the decision-making process through to its implementation in real-world practice. At the conceptual level, consumer decisions arise from the dynamic interaction between cognitive-affective, social-contextual, and behavioral intention dimensions, whereas at the implementation level, their realization is determined by the synergy between behavioral activation, system integration, and process optimization. The integration of these two frameworks demonstrates that consumer preferences and intentions are not merely theoretical but can be operationalized into effective and sustainability-oriented marketing strategies, thereby aligning with the objective of developing a holistic model for sustainable tourism marketing. Nevertheless, several research gaps remain, including the limited availability of empirical models that comprehensively integrate behavioral and implementation dimensions, the existence of an intention–behavior gap, the lack of longitudinal and contextual approaches, the absence of standardized sustainability indicators, and the limited exploration of the role of digital technology in bridging tourists' intentions and actual behavior.

Based on the identified gaps, the primary recommendation for future research is the development of an integrated empirical model that combines a consumer behavior framework and an implementation framework within the context of sustainable tourism marketing. This model is crucial for bridging the gap between tourists' intentions and actual behavior by integrating psychological and social factors, as well as system- and technology-based implementation mechanisms, thereby enabling a more holistic, practical, and relevant approach to support sustainability-oriented tourism marketing strategies.

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