

BRIDGING GREEN AMBIDEXTROUS LEADERSHIP AND GREEN MARKETING PERFORMANCE THROUGH GREEN INNOVATION: A LITERATURE REVIEW

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ABSTRACT

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Studi ini bertujuan untuk mengembangkan model konseptual yang menjelaskan hubungan integratif antara kepemimpinan ambidextrous hijau, inovasi hijau, dan kinerja pemasaran hijau melalui tinjauan literatur sistematis. Metode penelitian menggunakan desain tinjauan pustaka dengan pendekatan deskriptif kualitatif yang menganalisis 28 artikel jurnal ilmiah yang diterbitkan dalam periode 2011-2025 dari berbagai konteks geografis dan industri. Analisis tematik digunakan untuk mengidentifikasi pola hubungan antar variabel, konsistensi temuan, serta kekurangan teoretis dalam literatur. Hasil studi menunjukkan bahwa kepemimpinan ambidextrous hijau sebagai kemampuan pemimpin untuk menyeimbangkan eksplorasi dan eksploitasi dalam konteks keberlanjutan memiliki pengaruh signifikan terhadap pembentukan inovasi hijau melalui transformasi budaya organisasi, penguatan struktur tata kelola, dan pengelolaan dinamika psikologis karyawan. Inovasi hijau terbukti secara konsisten berfungsi sebagai mekanisme mediasi utama yang menjembatani pengaruh kepemimpinan terhadap kinerja pemasaran hijau melalui mekanisme tingkat multi yang meliputi



transformasi struktural, psikologis, dan perilaku. Studi ini juga mengidentifikasi ketidaksesuaian teoretis yang signifikan dalam literatur, di mana ketiga variabel tersebut belum pernah diintegrasikan ke dalam satu kerangka konseptual lengkap. Kontribusi teoretis dari penelitian ini meliputi pengenalan konsep kepemimpinan ambidextrous hijau sebagai konstruk baru, integrasi tiga domain literatur yang terpisah, dan identifikasi kondisi batas yang mempengaruhi hubungan antar variabel. Penelitian empiris kuantitatif dan kualitatif di masa depan diperlukan untuk memvalidasi model konseptual yang diusulkan dalam berbagai konteks organisasi.

ABSTRACT

This study aims to develop a conceptual model that explains the integrative relationship among green ambidextrous Leadership, green innovation, and green marketing performance, based on a systematic literature review. The research employs a literature review design with a qualitative descriptive approach, analyzing 28 scientific journal articles published between 2011 and 2025 across diverse geographic and industry contexts. Thematic analysis is employed to identify patterns of relationships among variables, consistency of findings, and theoretical gaps in the literature. The results indicate that green ambidextrous Leadership, defined as a leader's ability to balance exploration and exploitation within the sustainability context, significantly influences the formation of green innovation through organizational culture transformation, strengthened governance structures, and the management of employees' psychological dynamics. Green innovation consistently functions as a key mediating mechanism linking Leadership influence to green marketing performance through multilevel processes involving structural, psychological, and behavioral transformations. This study also

Keywords:

Green Ambidextrous Leadership, Green Innovation, Green Marketing Performance, Organizational Sustainability, Literature Review

identifies a significant theoretical disconnect in the literature, where these three variables have never been integrated into a comprehensive conceptual framework. Theoretical contributions of this research include introducing the concept of green ambidextrous Leadership as a new construct, integrating three separate literature domains, and identifying boundary conditions that affect the relationships among variables. Future empirical research, both quantitative and qualitative, is needed to validate the proposed conceptual model across various organizational contexts.

Introduction

The article "Corporate sustainability" has become one of the most critical issues in the increasingly complex dynamics of the global economy, particularly in the context of external and internal pressures that demand that organizations adopt sustainable business practices to ensure long-term survival. (Widjanarko et al., 2025). In recent years, manufacturing companies in emerging markets have faced enormous demands from internal and external stakeholders to adopt the concept of green marketing in response to the increasingly intensive global environmental demands, which come not only from government regulations but also from consumers who are increasingly aware of sustainability issues and from investors who want companies to have a responsible long-term strategy (Akude et al., 2025).

The increasing societal environmental awareness in response to environmental degradation and global warming has led various industries to pay greater attention to environmental issues, prompting companies to prioritize financial performance and invest in environmentally focused

initiatives (Gürlek & Tuna, 2017). However, there is a conflict between environmental protection activities and financial performance, as investments in environmental practices may negatively affect the organization's financial performance. Therefore, companies have researched green innovation, which mediates the relationship between environmental management practices and company performance. However, the study does not examine the influence of Leadership on green innovation. However, such innovations are highly dependent on the leader's cultural dynamics (Khalifa, 2024).

Furthermore, research on ambidextrous Leadership shows that this Leadership style can inhibit innovation if it induces cognitive ambivalence, particularly among employees with low-mindset paradoxes, thereby greatly influencing the effectiveness of ambidextrous Leadership (K. Zhang et al., 2025). However, there has been no research that examines explicitly how green ambidextrous Leadership, as a combination of leaders' ability to balance exploration and exploitation behaviors to produce sustainable innovation, can affect green marketing performance through green innovation mediation mechanisms. This research is also important because green marketing performance is a complex outcome that does not seek solutions to prevent this conflict without abandoning green practices and misleading the public (Gürlek & Tuna, 2017). Green innovation can be a solution to the conflict in question because it allows companies to protect the environment and improve financial performance simultaneously through investments in green innovations that increase product value and reduce costs resulting from environmental effects (Gürlek & Tuna, 2017).

In this context, the role of Leadership is crucial because sustainability-oriented Leadership can create organizational conditions that enable the simultaneous exploration and exploitation of green ideas, thereby making

green innovation a direct outcome of such Leadership (Farhan, 2024). However, research on how Leadership that can balance exploration and exploitation in the context of sustainability, which can be called green ambidextrous Leadership, influences the formation of green innovation and ultimately green marketing performance is still very limited in the literature. This research is important because there is a significant theoretical gap in the literature regarding the relationship between Leadership, green innovation, and green marketing performance. Previous research has shown that green marketing practices make a significant contribution to a company's sustainability performance, especially in environmental and social aspects. However, the research does not examine the role of Leadership in shaping green marketing strategies, even though the leader's direction and vision strongly influence these strategies (Akude et al., 2025).

On the other hand, it is only determined by the marketing strategy, but by the quality of the innovations that the company carries out, so understanding how Leadership can facilitate green innovation, which in turn improves the performance of green marketing, becomes very relevant to managerial practice and theory Development (Tjahjadi et al., 2020). Thus, this study seeks to fill the existing theoretical gap by integrating three domains of the literature that have been separate (ambidextrous & green Leadership), green innovation, and green marketing into one complete and comprehensive conceptual framework.

Although previous studies have established the importance of ambidextrous leadership in supporting innovation and sustainability outcomes (Awan et al., 2018; Q. Zhang & Jiang, 2025), as well as the strategic role of green innovation in translating environmental orientations into organizational performance (Khalifa, 2024; Tjahjadi et al., 2020), these

relationships have generally been examined in isolation. Likewise, research on green marketing performance has primarily focused on marketing-related dimensions such as green communication, green products, and green strategies, with limited attention to the leadership and innovation mechanisms that drive such outcomes (Akude et al., 2025). Consequently, the literature still lacks a comprehensive explanation of how green ambidextrous leadership fosters green innovation and how this innovation subsequently contributes to green marketing performance, resulting in a theoretical disconnect among these three streams of research (Ramadani et al., 2024).

To address this gap, this study develops an integrative conceptual model through a systematic literature review. Specifically, the study seeks to examine how green ambidextrous leadership influences the development of green innovation, explore the mediating role of green innovation in linking leadership capabilities to green marketing performance, and identify unresolved theoretical issues within the existing literature (Éstrin et al., 2025; Farhan, 2024). By synthesizing prior findings, this study proposes a set of theoretical propositions that advance understanding of the relationships among green ambidextrous leadership, green innovation, and green marketing performance. In doing so, the study contributes to the literature by bridging three previously fragmented domains and providing a more comprehensive framework for explaining how sustainability-oriented leadership can generate superior green marketing outcomes through innovation (Lytvynov & Hruzin, 2025; Ramadani et al., 2024). Furthermore, the proposed framework offers practical insights for managers and organizational leaders in designing leadership and innovation strategies that support long-term environmental sustainability and competitive advantage.

Research Methods

This study employs a literature review design with a qualitative descriptive approach to synthesize and analyze findings from prior research on the relationships among green ambidextrous Leadership, green innovation, and green marketing performance (Widjanarko et al., 2025). The literature review method was chosen because this research is conceptual and aims to integrate the three separate domains of literature, green Leadership, green innovation, and green marketing into one complete theoretical framework, as suggested by (Ramadani et al., 2024) That conceptual contributions can emerge through the synthesis of previously fragmented theories. The research sample consists of scientific journal articles that have been published from 2011 to 2025 that discuss topics related to ambidextrous Leadership, green Leadership, green innovation, green marketing performance, and organizational sustainability, with a total of 28 articles that were analyzed in depth covering research from various geographical contexts such as Indonesia, China, Pakistan, Turkey, Egypt, and Europe (Awan et al., 2018; Elshaer & Kooli, 2025; Gürlek & Tuna, 2017; Jabbour et al., 2025; Tjahjadi et al., 2020; K. Zhang et al., 2025).

The inclusion criteria used in the selection of articles include the relevance of the topic to the research variables, the methodological quality of the research, as well as the theoretical contribution made to the understanding of green Leadership, green innovation, and green marketing performance, thus ensuring that the articles analyzed have high academic credibility and can provide a strong theoretical foundation to answer the research questions. Data collection is conducted through a systematic search of relevant articles, identifying the main findings, theories used, research methodology, research results, and limitations of each study. Information is then extracted in a

structured manner to facilitate analysis and synthesis (Akude et al., 2025; Khalifa, 2024). The analysis method used is a thematic analysis that identifies patterns of relationships between variables, consistency of findings, and theoretical gaps that still exist in the literature, by categorizing research findings into three main themes, namely the influence of green ambidextrous Leadership on green innovation, the role of green innovation mediation in connecting Leadership with green marketing performance, and the integrative relationship and theoretical disconnect between The three variables (Widjanarko et al., 2025; Yao et al., 2024). The synthesis process is carried out by integrating findings from various studies to identify the state of the art in the literature, uncover significant research gaps, and develop theoretical propositions that can be the basis for future empirical research, so that this research can make a substantial theoretical contribution in enriching the understanding of how green leaders can facilitate green innovation that is aligned with green marketing strategies Company (Farhan, 2024; Lytvynov & Hruzin, 2025).

Results

Green ambidextrous Leadership is the leader's ability to balance exploration and exploitation behaviors to produce sustainable innovation, and the literature shows that this Leadership style strongly influences the formation of green innovation across various organizational contexts (Farhan, 2024). According to research (Farhan, 2024), visionary leaders who can manage the exploration of new ideas while maintaining operational stability have been proven to create an organizational environment conducive to sustainability innovation, so that ambidextrous leaders are not only the drivers of creativity but also the architects of the innovation culture necessary to produce consistent green innovation within the organization. Research

(Éstrin et al., 2025) indicates that leaders must be able to shift between opening and closing behaviors to meet the demands of nonlinear innovation. However, ambidexterity also poses challenges, including cognitive ambivalence among employees, if not properly managed; thus, the leader's capacity to navigate these psychological dynamics is the primary determinant of the effectiveness of green innovation formation-research (Awan et al., 2018).

Expanding this understanding by explaining that ambidextrous Leadership strengthens governance mechanisms through a combination of transactional Leadership and transformational Leadership, showing that ambidextrous leaders have the structural and inspirational capabilities to support sustainability, including green innovation, as part of the organization's strategic agenda. Research (Jabbour et al., 2025) affirms that transformational Leadership can increase organizations' capacity to simultaneously explore and exploit, thereby strengthening the argument that green ambidextrous Leadership is an important prerequisite for producing high-quality, sustainable green innovation. Research (Khalifa, 2024) shows that green innovation emerges when organizations have internal structures, environmental management practices (EMPs), and a culture of sustainability that are capable of being converted into innovative activities, thus emphasizing that ambidextrous Leadership is an important factor in strengthening an organization's capacity to implement EMPs to drive innovation effectively. Research (Widjanarko et al., 2025) emphasizes that green Leadership is the foundation for the formation of a green organizational culture that includes environmental standards, employee involvement, and green innovation, so that green-oriented leaders create a work environment that encourages green innovation through internalization

of values, employee involvement, and more structured environmental practice standards. Research (Yao et al., 2024) highlights that substantive green innovation and strategic green innovation have different impacts on organizational performance, so ambidextrous leaders must be able to decide when organizations need to explore innovative and when they need to focus on efficiency for long-term sustainability, reinforcing the relevance of ambidexterity in the context of green innovation.

The literature presents a strong case that green innovation serves as a mediating mechanism linking Leadership to green marketing performance, as evidenced by studies that emphasize its role in translating sustainability strategies into visible market outcomes (Khalifa, 2024). Research (Khalifa, 2024) provides empirical evidence that environmental management practices (EMPs) do not automatically result in good environmental or financial performance, because the impact of EMPs only appears significantly when companies can convert them into green innovations such as green product innovation, green process innovation, green managerial innovation, and green organizational innovation, which then increase organizational competitiveness and deliver real value that is acceptable to the market and consumers. Research (Tjahjadi et al., 2020) It shows that green innovation acts as a mediator between green market orientation and business performance with a partial mediation value of 25.64%, confirming that green orientation is only practical when transformed into innovations that are relevant to market needs and rapidly changing environmental conditions, thereby strengthening the theoretical position of green innovation as a mediating variable in various strategic organizational relationships. Research (Akude et al., 2025) emphasizes that green marketing performance is the outcome of internal processes such as internal green marketing,

communication, green product, and green strategy, where innovation plays a role in providing a content base, process, and products that can be marketed as part of the company's green strategy. Research (Gürlek & Tuna, 2017) showed that green organizational culture increases competitive advantage through complete mediation of green innovation with an R^2 value of 0.61, where green organizational culture has a positive effect on green innovation ($\beta=0.63$, $p<0.01$). Green innovation has a positive effect on competitive advantage ($\beta = 0.78$, $p < 0.01$), thereby strengthening its position as a full mediator in the relationship. Research (Wenjing et al., 2020), showed that green transformational leadership increased green creativity through green intrinsic motivation mediation with an R^2 value of 0.493, where green transformational leadership had an effect on green creativity ($\beta=0.395$, $p<0.000$) and green intrinsic motivation mediated the relationship partially with a variance accounted for of 21%, thus showing that green Leadership works through psychological mechanisms to produce innovative outcomes. Research (Elshaer & Kooli, 2025), showing that internal green marketing does not directly affect innovative performance but through complete mediation pro-environmental behavior and internal green values with an R^2 value of 0.545 and GoF of 0.574, where internal green marketing affects pro-environmental behavior ($\beta=0.610$, $p<0.001$) and internal green values ($\beta=0.765$, $p<0.001$), both of which then affect innovative performance ($\beta=0.364$ and $\beta=0.370$, $p<0.001$). Research (Al-ghazali & Gelaidan, 2022), showed that green transformational Leadership had a significant positive effect on green innovation ($\beta=0.53$, $p=0.001$), green organizational identity ($\beta=0.58$, $p=0.002$), and green thinking ($\beta=0.77$, $p=0.004$), which then green organizational identity and green thinking had a significant positive effect on green creativity ($\beta=0.58$ and $\beta=0.56$, $p<0.002$ and $p<0.006$), thus confirming

that the mediation mechanism works through changes in organizational values and mindsets.

Previous literature has described the relationship among green ambidextrous Leadership, green innovation, and green marketing performance through robust empirical studies. However, it has never integrated these variables into a single comprehensive theoretical framework. Research (Akude et al., 2025), shows that green marketing performance is influenced by four main dimensions of green marketing, namely green internal marketing, green communication, green product, and green strategy, which can produce diverse impacts on sustainability performance, especially on the environmental and social dimensions, but this study does not mention the role of Leadership in shaping these strategies, so that a disconnect point arises where the role of Leadership antecedent has not been at all considered in the green marketing model. Research (Khalifa, 2024), shows that environmental management practices produce a significant impact on company performance through green innovation as a key mediation mechanism. However, this study only examines the influence of EMPs and does not attribute them to Leadership as an internal driver; consequently, the relationship between Leadership and green innovation has not been empirically mapped in the context of green marketing. Research (Farhan, 2024) shows that visionary and ambidextrous Leadership can encourage the simultaneous exploration and exploitation of innovation; however, the study does not link the resulting innovations to green marketing outcomes, leaving the relationship of Leadership to green innovation and marketing performance as an incomplete causal chain. Research (L. Zhang et al., 2025) examines the impact of ambidexterity on cognitive ambivalence and innovative behavior, showing that overbalanced ambidextrous Leadership

suppresses innovation through cognitive ambivalence, with substantial adverse effects on employees with a low paradox mindset. However, this study does not examine green innovation or green marketing performance specifically. Research (Widjanarko et al., 2025) shows that green Leadership influences green culture and innovation through environmental vision mechanisms, pro-environmental role modeling, and green motivation, but has not explained how these innovations translate into green marketing performance as an organization's external outcome. Research (Liu et al., 2024), emphasizing the importance of understanding the differentiation of green innovation types by distinguishing substantive green innovation and strategic green innovation which have different impacts on financial performance and environmental performance, but the study did not include the Leadership role or green marketing outcomes in its analytical framework, thus further emphasizing that theoretical integration has not been realized in previous research. Research by Nuryakin & Maryati (2022) found that green marketing orientation did not directly affect green marketing performance. However, through the mediation of green innovation ($\beta=0.525$, $p<0.001$) and green competitive advantage ($\beta=0.313$, $p<0.001$), where green marketing orientation had a significant positive effect on green innovation ($\beta=0.542$, $p<0.001$) and green competitive advantage ($\beta=0.369$, $p<0.001$), but this study did not include Leadership variables as an antecedent of green marketing orientation. Thus, the theoretical disconnect lies in the absence of an integrative framework that unites green ambidextrous Leadership as an antecedent, green innovation as a mediation mechanism, and green marketing performance as a strategic outcome, even though the literature has given strong indications that this relationship is logical, relevant, and has a high scientific contribution when brought together in one comprehensive

conceptual model.

Methodological Characteristics of Previous Research

Previous studies have shown substantial methodological variation in examining the relationships among Leadership, green innovation, and organizational performance (Maassen, 2018). Research (Akude et al., 2025) employed a quantitative survey method among manufacturing companies. It used PLS-SEM to test the structural relationships among variables, providing empirical evidence on the influence of green marketing practices on sustainability performance. Research (Khalifa, 2024) used survey-based empirical studies with quantitative analysis of SEM probabilities or multivariate regression to test the mediating role of green innovation in the relationship between environmental management practices and firm performance. Research (L. Zhang et al., 2025), using a 3-wave survey of 347 respondents in a time-lagged design as well as polynomial regression and response surface analysis to test the effects of ambidextrous Leadership on employee innovation through cognitive ambivalence moderated by a paradox mindset. Research (Awan et al., 2018), using a survey with SEM (AMOS) on data of 540 exporters in Pakistan's manufacturing sector, to examine the role of ambidextrous Leadership moderation in the relationship between governance mechanisms and social sustainability. Research (Tjahjadi et al., 2020), using a survey of 175 MSMEs with PLS-SEM and a sampling quota of 38 cities in East Java, to test the role of partial mediation of green innovation of 25.64% in the relationship between green market orientation and business performance. Research (Gürlek & Tuna, 2017), using a quantitative method with Structural Equation Modeling (SEM) on a sample of 485 respondents consisting of 293 employees and 192 hotel managers in Turkey, to test complete mediation of green innovation in relation to green organizational

culture and competitive advantage, with an R^2 value of 0.61. Research (Widjanarko et al., 2025), using the descriptive qualitative literature review method by analyzing secondary data from various previous studies to develop seven hypotheses regarding the relationship between green Leadership, green organizational culture, employee performance, and corporate sustainability without empirical testing. Conceptual research, such as that of Maassen (2018), uses the literature review and framework Development approaches to propose new theoretical frameworks without empirical validation, thus providing methodological guidance for conceptual research that can make a substantial theoretical contribution through synthesis, identification of new relationships, and the determination of clear boundary conditions.

Discussion

Mechanism of Influence of Green Ambidextrous Leadership on Green Innovation

The findings of the literature synthesis indicate that green ambidextrous Leadership significantly influences the formation and Development of green innovation through complex, interrelated mechanisms. Research (Farhan, 2024), provides evidence that visionary leaders who are able to balance exploration and exploitation create an organizational environment conducive to sustainability innovation, thus confirming that ambidextrous Leadership characteristics are highly relevant in the context of green innovation. These findings are important because they show that green Leadership is not only inspirational but also operational, requiring leaders to manage two often contradictory orientations simultaneously. Research (L. Zhang et al., 2025) expands on this understanding, explaining that while ambidextrous leadership can encourage

innovation, it can also inhibit innovation if it induces cognitive ambivalence among employees, particularly those with low paradox mindsets. These findings are particularly significant because they provide a new perspective: the effectiveness of green ambidextrous Leadership depends not only on the leader's behavior but also on employees' psychological capacity to navigate the complex demands of exploration and exploitation. Research (Awan et al., 2018) adds a structural dimension by showing that ambidextrous Leadership strengthens the governance mechanism for achieving social sustainability, thereby demonstrating that ambidextrous Leadership operates not only at the individual level but also at the level of organizational systems. The integration of these findings shows that green ambidextrous Leadership works through three main pathways: first, through the creation of a culture of innovation that supports the exploration of new green ideas; second, through strengthening organizational structures that facilitate the consistent implementation of green practices; and third, through the management of employees' psychological dynamics so that they can integrate seemingly contradictory demands.

The Role of Green Organizational Culture as a Connecting Mechanism

Research by Widjanarko et al. (2025) is important because it explains that green Leadership operates through the formation of a green organizational culture that encompasses environmental standards, employee involvement, and green innovation, thereby emphasizing that green Leadership does not operate in a vacuum but rather transforms organizational values and norms. These findings are particularly relevant because they show that green ambidextrous Leadership requires strong organizational culture support for the exploration and exploitation of green innovation to run effectively. Research by Gürlek & Tuna (2017) reinforces

this argument, showing that green organizational culture has a significant positive influence on green innovation ($\beta = 0.63$, $p < 0.01$), thereby demonstrating that organizational culture is a key mediator in the relationship between leadership and green innovation. These findings suggest that green ambidextrous leaders must not only balance exploratory and exploitative behaviors but also build value systems and norms that support both orientations simultaneously. Research (Al-ghazali & Gelaidan, 2022), adding that green transformational Leadership has a positive effect on green organizational identity ($\beta=0.58$, $p=0.002$) and green thinking ($\beta=0.77$, $p=0.004$), both of which then affect green creativity, thus showing that cognitive mechanisms and organizational identity are important pathways through which green Leadership influences innovation. The integration of these findings shows that green ambidextrous Leadership works through a comprehensive transformation that includes structural aspects (culture, standards, systems), psychological aspects (identity, mindset, motivation), and behavioral aspects (engagement, practice, innovation), thus providing a more holistic understanding of how green Leadership drives green innovation in organizations.

Differentiation of Green Innovation Types and Implications

Research by Liu et al. (2024) makes an important contribution by distinguishing substantive green innovation from strategic green innovation, demonstrating that these two types of innovation have distinct effects on organizational performance. Substantive green innovation has been shown to improve financial performance, whereas strategic green innovation has a greater impact on environmental performance but can weaken short-term financial performance. These findings are significant because they

demonstrate that green ambidextrous Leadership must manage a green innovation portfolio by understanding the trade-offs between the exploration of strategic innovation and the exploitation of substantive innovation. Research by Khalifa (2024) reinforces this argument by demonstrating that green innovation encompasses green product, process, managerial, and organizational innovation, thereby confirming that green innovation is a multidimensional concept that requires a complex and flexible Leadership approach. Research by Tjahjadi et al. (2020) indicates that green innovation mediates the relationship between green market orientation and business performance, with partial mediation of 25.64%, suggesting that green innovation is a transformative mechanism that converts strategic orientation into real performance outcomes. These findings suggest that green ambidextrous leadership must be able to identify the types of green innovation that best fit the organizational context, allocate resources appropriately between exploration and exploitation, and manage stakeholder expectations regarding short- and long-term trade-offs in green innovation investments. Thus, this study confirms that green ambidextrous Leadership is not only about balancing the two Leadership behaviors, but also about managing strategic complexities in an organization's green innovation portfolio.

Empirical Evidence of the Mediating Role of Green Innovation

The findings of the literature synthesis provide consistent and strong evidence that green innovation mediates the influence of Leadership on green marketing performance. Research (Khalifa, 2024) provides empirical evidence that environmental management practices (EMPs) do not directly affect company performance; instead, they must first be translated into concrete green innovations, such as green product innovation, green process

innovation, green managerial innovation, and green organizational innovation. These findings are particularly significant because they demonstrate that green innovation is a transformative mechanism that transforms strategic inputs into measurable, market-perceptible performance outputs. Research by Tjahjadi et al. (2020) reinforces this argument by showing that green innovation mediates the relationship between green market orientation and business performance, with partial mediation of 25.64%, providing quantitative evidence that green innovation accounts for most of the variance in this relationship. Research by Gürlek & Tuna (2017) provides more substantial evidence, showing that green innovation is a full mediator between green organizational culture and competitive advantage: green organizational culture has no direct effect on competitive advantage; instead, it operates through green innovation ($\beta = 0.78, p < 0.01$). These findings are significant because they show that in specific contexts, green innovation is the only pathway through which organizational factors can affect a company's competitive advantage. Research (Nuryakin & Maryati, 2022) He added that green marketing orientation does not directly affect green marketing performance but through the mediation of green innovation ($\beta=0.525, p<0.001$) and green competitive advantage ($\beta=0.313, p<0.001$), thus providing evidence that in the context of green marketing, green innovation is a key mechanism that connects strategic orientation with marketing performance results. The integration of these findings indicates that green innovation consistently plays a mediating role across organizational, industrial, and geographical contexts, thereby providing a strong theoretical foundation for positioning green innovation as a mediator between green ambidextrous leadership and green marketing performance.

Psychological and Behavioural Mechanisms in Mediation

Research (Elshaer & Kooli, 2025) makes an important contribution by explaining that internal green marketing does not directly affect innovative performance but through complete mediation of pro-environmental behavior ($\beta=0.364$, $p<0.001$) and internal green values ($\beta=0.370$, $p<0.001$), thus showing that the mediation mechanism is not only structural but also psychological and behavioral. These findings are particularly significant because they explain that green innovation arises not only from organizational systems and structures, but from changes in employee values and behaviors influenced by internal Leadership and management practices. Research (Wenjing et al., 2020) Reinforcing this argument by showing that green transformational Leadership increases green creativity through the mediation of green intrinsic motivation, with a variance accounted for of 21%, where green leadership affects green creativity ($\beta=0.395$, $p<0.000$) and green intrinsic motivation mediates the relationship partially. These findings suggest that mediation mechanisms operate through changes in employees' intrinsic motivation, which, in turn, encourage green creative behavior. Research (Al-ghazali & Gelaidan, 2022) adds that green transformational Leadership affects green creativity through the mediation of green thinking ($\beta=0.56$, $p<0.006$) and green organizational identity ($\beta=0.58$, $p<0.002$), indicating that cognitive mechanisms and identity are important pathways in the mediation process. The integration of these findings shows that green innovation as a mediator works through a multilevel mechanism that includes: (1) the structural level through the transformation of organizational systems, processes, and products; (2) psychological level through changes in employee values, identities, and mindsets; and (3) behavioral levels through pro-environmental behavior change, intrinsic motivation, and green

creativity. Understanding this multilevel mechanism is important because it indicates that green ambidextrous Leadership must operate across multiple organizational levels simultaneously to generate green innovations that, in turn, affect green marketing performance.

The relationship between Green Innovation and Green Marketing Performance

Research (Akude et al., 2025) makes an important contribution by showing that green marketing practices that include green internal marketing, green communication, green product, and green strategy have a positive effect on sustainability performance, especially in the environmental and social dimensions, thus confirming that green marketing performance is a complex and multidimensional outcome. These findings suggest that green innovation must be translated across multiple dimensions of green marketing to achieve optimal performance. Research by Tjahjadi et al. (2020) shows that green innovation has a positive effect on business performance, providing evidence that it not only improves environmental performance but also overall business performance, including marketing aspects. Research (Gürlek & Tuna, 2017) shows that green innovation has a strong effect on competitive advantage ($\beta = 0.78, p < 0.01$), indicating that green innovation is a source of sustainable competitive advantage for organizations. Research (Nuryakin & Maryati, 2022) shows that green innovation has a significant effect on green marketing performance ($\beta=0.525, p<0.001$) among Batik MSMEs in Yogyakarta, providing empirical evidence that this relationship holds even in the context of small and medium enterprises in developing countries. The integration of these findings shows that green innovation is a strong predictor of green marketing performance through various mechanisms: (1)

improvement of quality and differentiation of green products that can be marketed at a premium price; (2) process efficiency that reduces operational costs and increases profit margins; (3) strengthening the reputation and image of a green brand that increases customer loyalty; and (4) sustainable value creation that meets the demands of external stakeholders. Thus, green innovation is not only a passive mediator but also an active mechanism that transforms organizational capabilities into superior marketing performance.

Identification of Theoretical Disconnects in the Literature

The findings of the literature synthesis indicate a significant theoretical disconnect regarding the relationship among green ambidextrous Leadership, green innovation, and green marketing performance. Research (Akude et al., 2025) shows that various dimensions of green marketing influence green marketing performance, but does not include the role of Leadership as an antecedent, thus showing the first disconnect, namely the absence of leadership factors in the green marketing model. Research (Khalifa, 2024) shows that green innovation mediates the relationship between EMPs and firm performance but does not attribute this relationship to leadership as a driver of EMPs, suggesting a second disconnect: the relationship between leadership and green innovation has not been mapped in the context of green marketing. Research (Farhan, 2024) shows that visionary leadership drives sustainability innovation but does not link it to green marketing outcomes, suggesting a third disconnect: the relationship between leadership-innovation and marketing performance has not been tested as a single causal chain. Research by L. Zhang et al. (2025) discusses ambidextrous leadership and its impact on cognitive ambivalence and innovation, but not in the context of green or green marketing, thereby highlighting a fourth disconnect: the concept of ambidexterity has not been applied to green leadership and green

marketing. Research (Widjanarko et al., 2025), shows that green leadership affects corporate sustainability through employee performance but does not explain how this relates to green marketing performance, thus showing a fifth disconnect, namely the mechanism of linking sustainability outcomes and marketing outcomes. These findings suggest that the literature offers a variety of powerful but never integrated pieces of the puzzle within a single integrative framework that explains how green ambidextrous leadership influences green marketing performance through green innovation as a mediator.

This research makes a significant theoretical contribution by integrating three domains of the literature into a single, comprehensive conceptual framework. First, this study introduces the concept of green ambidextrous leadership as an extension of ambidextrous leadership in the context of sustainability, defined as leaders' ability to balance simultaneous exploration and exploitation of green innovations. This concept is supported by Farhan's (2024) findings on visionary leadership, L. Zhang et al.'s (2025) findings on ambidextrous leadership, Awan et al.'s (2018) findings on the moderating role of ambidextrous leadership in sustainability, and Widjanarko et al.'s (2025) findings on green leadership. Second, this study positions green innovation as a key mediator linking green ambidextrous leadership with green marketing performance, supported by empirical evidence from (Gürlek & Tuna, 2017; Khalifa, 2024; Nuryakin & Maryati, 2022; Tjahjadi et al., 2020), which consistently shows the mediating role of green innovation in various contexts. Third, this study identifies green marketing performance as a strategic outcome influenced by green leadership and innovation, supported by findings (Akude et al., 2025) on the impact of green marketing practices on sustainability performance. Fourth, this study explains the multilevel

mechanism by which green ambidextrous leadership works through structural transformations (culture, systems, processes), psychological (values, identity, motivation), and behavioral (pro-environmental behavior, creativity) to produce green innovation, which is then translated into green marketing performance. Fifth, this study adapts the framework (Maassen, 2018) to show that conceptual contributions can emerge from reconfiguring and reconciling previously fragmented theories, thereby providing methodological legitimacy for the integrative approach used in this study. Thus, this research not only identifies theoretical gaps but also offers integrative solutions that can serve as the basis for future empirical research.

Boundary Conditions and Contextual Factors

This study also identifies boundary conditions and contextual factors that affect the relationship between green ambidextrous leadership, green innovation, and green marketing performance. Research (Liu et al., 2024) Shows that the influence of green innovation can be moderated by factors such as company ownership, environmental regulations, and the intensity of industry competition, suggesting that the relationship between green innovation and performance is nonlinear and shaped by external conditions. Research (L. Zhang et al., 2025) Shows that the effectiveness of ambidextrous leadership is moderated by the employee mindset paradox, in which the adverse effects of ambidextrous Leadership on innovation are significant only among employees with a low paradox mindset, indicating that employees' psychological characteristics are an important boundary condition. Research by Awan et al. (2018) shows that ambidextrous leadership moderates the relationship between governance mechanisms and social sustainability, indicating that the effectiveness of ambidextrous leadership depends on the quality of the organization's governance system. Research by Tjahjadi et al.

(2020) shows that the relationship between green market orientation and business performance was mediated by green innovation, with partial mediation of 25.64%, suggesting that other factors still explain the relationship. These findings suggest that the conceptual model proposed in this study should consider boundary conditions such as: (1) organizational characteristics (size, industry, ownership, culture); (2) external factors (regulations, stakeholder pressure, competition intensity); (3) employee characteristics (paradox mindset, intrinsic motivation, green values); and (4) governance mechanisms (contractual, relational, structural). By identifying these boundary conditions, this study provides a more specific guide to the conditions under which the relationship between green ambidextrous leadership, green innovation, and green marketing performance will be strongest or weakest, thus making a more nuanced and applicable theoretical contribution.

Conclusion

This study successfully identified and integrated the relationship among green ambidextrous leadership, green innovation, and green marketing performance through a comprehensive systematic literature review of 28 studies published between 2011 and 2025. The main findings of this study show that green ambidextrous leadership, as a leader's ability to balance exploration and exploitation behaviors in the context of sustainability, has a significant influence on the formation and development of green innovation through various mechanisms that include organizational culture transformation, strengthening governance structures, and managing employee psychological dynamics.

The study also found consistent evidence from various studies that

green innovation serves as a key mediation mechanism that bridges the influence of leadership on green marketing performance, where green innovation works through multilevel mechanisms that include structural (systems, processes, products), psychological (values, identity, motivation), and behavioral (pro-environmental behavior, green creativity) transformations to produce superior green marketing performance.

Furthermore, this study identifies a significant theoretical disconnect in the literature, in which previous studies have examined only pairwise relationships but have not integrated green ambidextrous leadership, green innovation, and green marketing performance into a comprehensive conceptual framework. This research makes an important theoretical contribution by introducing the concept of green ambidextrous leadership as a new construct, integrating three previously separate domains of the literature, identifying green innovation as a key mediator, elucidating the multilevel mechanism of green leadership, and identifying boundary conditions that affect the relationship among variables. Thus, this research not only addresses existing theoretical gaps but also offers a conceptual framework that can inform future empirical research and provide practical guidance for managers and organizational leaders in designing integrated and effective green leadership, innovation, and marketing strategies.

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