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Research Article

Analysis of the Effect of Green Financing, Green Investment, Green Marketing on Green Financing Sustainbility With Top Management Support as a Mediation Variable

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Abstract. The accelerating global climate crisis has forced the banking sector to transform conventional business models into more sustainable entities. This research aims to analyze the influence of Green Financing, Green Investment, and Green Marketing on Green Financing Sustainability, with Top Management Support serving as a mediating variable. Utilizing a Systematic Literature Review (SLR) approach, this study synthesizes 25 reputable international journals published between 2021 and 2026 to map the dynamics of green strategies within the financial sector. The analysis reveals that Green Financing and Green Investment contribute significantly to mitigating systemic risks and enhancing operational efficiency through capital allocation in low-carbon sectors. Meanwhile, Green Marketing plays a crucial role in building legitimacy and consumer trust, which are key to the stability of third-party funds. A central finding of this research confirms the vital role of Top Management Support as a mediator that transforms strategic vision into measurable operational actions. Without executive-level commitment, green initiatives tend to become mere administrative costs without a tangible impact on sustainability. This study recommends stricter emission reporting standardization from regulators and the internalisation of ESG values by banking practitioners to ensure institutional resilience in the future.

Keywords: Green Financing, Green Investment, Green Marketing, Top Management Support, Green Financing Sustainability.

INTRODUCTION

The urgency of green financing to mitigate systemic risks in the global economy is a key foundation for future financial stability. In reality, climate change is no longer simply an ecological issue, but a real threat to price stability that could trigger stagflation through productivity disruptions and spikes in food prices (Nocoń 2026) Data shows that financial instruments such as*green bonds*effective in reducing CO emissions$_2$significantly in countries with strong economic support (Rasoulinezhad 2022) However, the reality on the ground shows an imbalance in adoption; the banking sector is often caught in a dilemma between short-term profitability and the demands of long-term investment in high-risk renewable energy projects. This situation demonstrates that financial sustainability can only be achieved if institutions are able to align risk management with global decarbonization targets (Ozili n.d.)

The effectiveness of green investment as a driver of industrial structural transformation is highly dependent on the level of financial literacy and information transparency for stakeholders. Although investment in low-carbon technologies has been proven to increase employment and economic growth, a "green investment paradigm" has emerged that is often reductionist and ignores the root causes of sociopolitical crises (Magalh 2021); (Mi 2023) Empirical reality in several countries shows that there is*financial disengagement*, where households with pro-environmental values actually fail to have a green investment portfolio due to information barriers and low financial literacy (Anderson and Robinson 2021) Therefore, management's disclosure of green investments is a crucial tool for triggering a positive market reaction and ensuring that capital is allocated to sectors that truly contribute to a circular economy (Kumar et al. 2023) The integration of green marketing strategies goes beyond mere promotional functions; it acts as a mechanism for building corporate legitimacy to secure long-term sustainability. This thesis is driven by the fact that consumer loyalty in emerging markets is strongly influenced by perceptions of corporate social responsibility (CSR) and environmentally friendly product quality (Amoako et al. 2018) ; (Adnan and Widowati 2023) Honest green marketing practices help companies avoid accusations*greenwashing*, which in the long term could actually damage the credibility of green financing itself (Febrianti 2024). In the manufacturing sector, the use of strategy*green internal marketing*proven to be able to strengthen the identity of a green organization, which then has an impact on improving environmental and social performance simultaneously(Akude et al. 2025); (Zhang and Berhe 2022).

The gap in previous research lies in the neglect of the role of top management support as an internal factor that determines the success of mediation between green strategy and sustainable performance. Most literature studies still focus on macro factors such as government regulations and technology without looking at how managerial commitment transforms these policies into concrete actions (Pitaloka et al. 2024); (Wahyudi, Triansyah, and Acheampong 2023). There are differences in results (*research gap*) regarding whether green innovation always provides financial benefits, or actually becomes an additional cost burden if not managed with appropriate managerial competencies (Agrawal et al. 2024). Utilization of technology such as*blockchain* And *fintech*for financing transparency often fails to be implemented optimally due to a lack of internal capacity and support from the leadership level (Sachs et al. 2019); (Affini et al. 2026).

The purpose of this study is to fill this literature gap by testing an integrative model that links the influence*green financing*, *green investment*, And *green marketing*on financing sustainability with top management support as a mediating variable. Through an analysis of 25 cross-national scientific journals, this paper seeks to demonstrate that financial sustainability cannot be achieved solely through external pressure, but rather requires synergy between market strategies and strengthening the organization's internal capabilities. The results of this study are expected to provide practical recommendations for financial institutions in formulating sustainable banking governance and for regulators in creating a more transparent and inclusive green financial ecosystem.

LITERATURE REVIEW

Green Financing

*Green financing*is a new paradigm in the financial sector that synergizes environmental protection with economic benefits through capital allocation in low-carbon projects (Wang and Zhi 2016). Operationally, instruments such as*green bonds*has been empirically proven to be able to reduce CO emissions$_2$significantly in countries with strong green economy policies (Rasoulinezhad 2022) However, the literature notes systemic challenges in the form of definitional ambiguity and regulatory inconsistencies between regions, which often hinder cross-border capital flows (Ozili n.d.) On the other hand, the emergence of digital technologies such as*Blockchain* And *FinTech*offers a new mechanism to increase transparency and efficiency in green finance law enforcement, thereby minimizing the risk of misuse of (Sachs et al. 2019) ; (Wahyudi et al. 2023).

Green Investment

Green investments serve as a key catalyst for the transition towards a circular economy and resource efficiency (Kumar et al. 2023) Investing in renewable energy infrastructure not only reduces greenhouse gas emissions but also drives economic growth by creating new jobs in the green sector (Mi 2023). However, green investment faces challenges at the micro level; a Swedish study showed a phenomenon of "financial disengagement," where households with high environmental awareness often fail to have green portfolios due to low financial literacy and information barriers (Anderson and Robinson 2021). Therefore, disclosure of the costs and impacts of green investments by companies is crucial as a positive signal to the market to reduce information asymmetry and attract the interest of long-term investors (Martin et al. 2014). (Doval and Negulescu 2014).

Green Marketing

Green marketing is now seen as a comprehensive strategy that involves the entire value chain, from eco-friendly product design to transparent brand communications (Febrianti 2024) Effective green marketing can build consumer loyalty, especially when companies successfully demonstrate substantive social responsibility (CSR) and avoid harmful practices.*greenwashing* (Amoako et al. 2018); (Adnan and Widowati 2023). Furthermore, the literature emphasizes the importance of*green internal marketing*namely, efforts to internalize environmental values among employees. This internalization has been proven to be able to shape green service behavior and a strong organizational identity, which ultimately improves the company's environmental and social performance simultaneously (Akude et al. 2025) ; (Zhang and Berhe 2022).

Green Financing Sustainability

The sustainability of green finance reflects the resilience of green financial mechanisms in the face of market dynamics and long-term systemic risks. This sustainability is highly dependent on the integration of factors.*Environmental, Social, and Governance*(ESG) into core banking governance and integrated reporting (Fu, Lu, and Pirabi 2023); (Febrianti 2024). At the macro level, this sustainability is influenced by monetary policy that can mitigate the risk of stagflation due to the climate crisis (Nocoń 2026). At the industry level, green financing is considered sustainable if it can spur sustainable industrial structural improvements, thus creating a balance between financial profitability and ecological sustainability (Gao and Ding 2026).

Top Management Support

Top management support has been identified as a key determinant of the success of green transformations in organizations. Top management acts as a facilitator, translating external pressures (regulatory and market) into applicable internal strategies (Affini et al. 2026). Without commitment from the leadership level, green initiatives tend to be merely ceremonial and fail to receive adequate resource allocation (Musa et al. 2025) Strong managerial support enables the creation of green capabilities and sustainable innovation, while also acting as a mediating variable that ensures that green investments and marketing strategies actually impact the company's overall sustainability performance (Febrianti 2024); (Sachs et al. 2019).

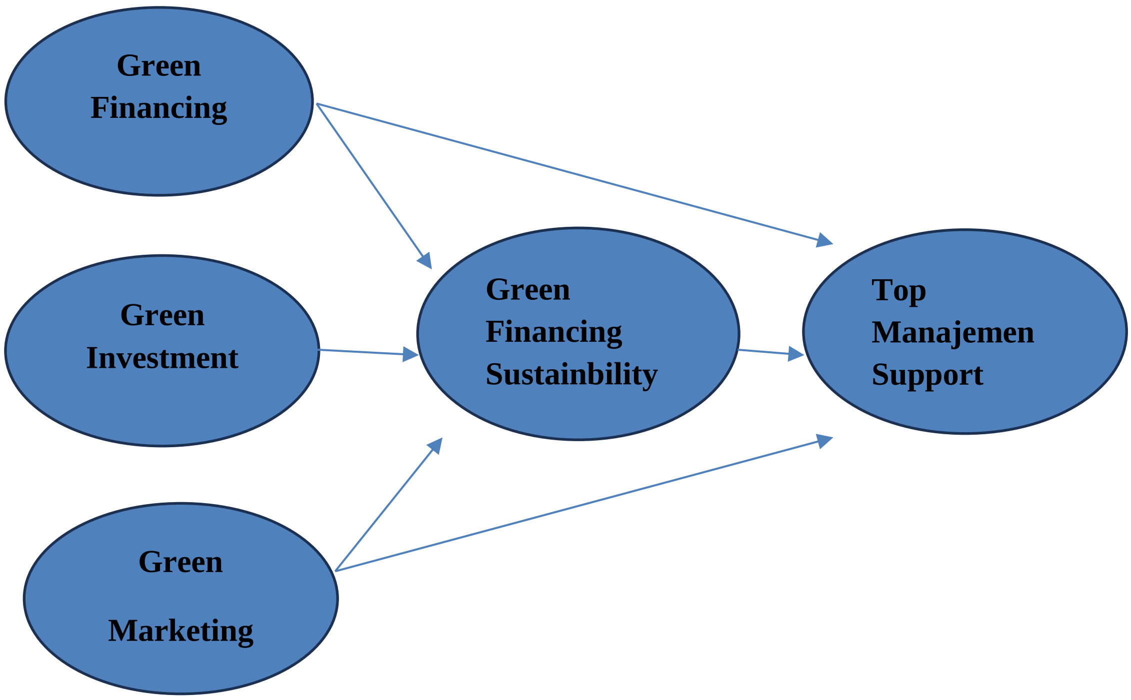
RESEARCH METHODS

This research uses an approach*Systematic Literature Review* (SLR) with strict protocols to ensure the authenticity and validity of the data. The literature search strategy focused on reputable academic databases such as Scopus, ScienceDirect, Emerald Insight, and MDPI using a combination of keywords.*"Green Financing"*, *"Green Investment"*, *"Green Marketing"*, *"Sustainability"*, And *"Top Management Support"*The selection process is carried out through the following stages:

1. **Initial Identification:** An initial search of various academic databases yielded 145 documents related to key keywords within the scope of green economics and management.
2. **Year Filtering:** A filter was applied to publications between 2021 and 2026 to ensure data relevance and capture post-COVID-19 pandemic research trends. This resulted in 38 articles meeting the time recency criteria.
3. **Inclusion Criteria:** Articles must be published in international English language journals, of a peer-reviewed nature.*peer-reviewed*, and testing the empirical or theoretical relationships between green finance, investment, and green marketing variables and sustainability performance. Articles that only discussed general environmental issues without a financial management context were excluded from the list.
4. **Data Extraction:** A total of 25 final articles were selected based on their highest relevance to the research conceptual framework. Of these, the majority were recent empirical studies (2022-2026) supplemented by several fundamental literature sources as a theoretical foundation for further analysis using qualitative synthesis techniques.

DISCUSSION

Based on an analysis of 25 international journals, several significant common threads emerge regarding how environmental issues impact market valuation, internal governance, and long-term financial sustainability. The data synthesis demonstrates that integrating green strategies is no longer simply an ethical choice, but rather a mechanical necessity for maintaining institutional stability. The following is an in-depth analysis of the relationships between the research variables:



The Influence of Green Financing on Green Financing Sustainability

The results of the literature data processing indicate that the distribution of green financing has a significant positive impact on long-term financial sustainability. Referring to the thinking of (Wang and Zhi 2016) This instrument is a mechanism that combines ecological protection with profit generation. Logically, by prioritizing low-carbon sectors, banks proactively protect their portfolios from the threat of non-performing assets (*stranded assets*) due to changes in climate regulations. This is in line with the view of (Ozili n.d.) dan (Fu et al. 2023) which emphasizes that without a "green" financing policy, banks will find it difficult to maintain their liquidity amidst the increasingly stringent demands of a low-carbon economy.

Furthermore, this transition signifies a fundamental shift in banking risk management from reactive to proactive strategies. Green financing serves as a defensive shield against market volatility triggered by global environmental shifts. As carbon-intensive industries begin to lose economic viability—either through carbon taxes or technological obsolescence—banks that have pivoted toward green portfolios gain a competitive edge by lowering their cost of capital. This strategic alignment is vital, especially considering that climate-induced stagflation risks could destabilize asset values and weaken the repayment capacity of traditional debtors.

Moreover, the integration of digital infrastructures, such as *FinTech* and *Blockchain*, acts as a critical enabler in this process. By providing high-level transparency and real-time monitoring, these technologies ensure that green capital is utilized efficiently for its intended environmental purposes, thereby mitigating the risk of operational failure often associated with outdated industrial projects. Ultimately, banks that consistently champion green financing build a more robust reputation among international investors, who now demand strict adherence to ESG (Environmental, Social, and Governance) standards. This credibility becomes the bedrock of a financial institution's ability to remain stable and resilient in the face of future economic dynamics.

The Influence of Green Investment on Green Financing Sustainability

Investments in environmentally friendly assets have proven to be a catalyst for operational efficiency and increased company value. (Rasoulinezhad 2022) found that investing in instruments like green bonds can balance economic growth with emissions reduction. Practically, these investments send a strong signal to stakeholders that the institution is resilient to environmental risks. (Nocoń 2026) even highlighting that green investments act as a hedge against the risk of stagflation, as the resulting resource efficiencies can significantly reduce production costs (Agrawal et al. 2024).

This strategic positioning is increasingly vital as global markets begin to penalize carbon-intensive operations through higher insurance premiums and stricter credit conditions. By reallocating capital toward sustainable infrastructure and renewable energy projects, financial institutions are not merely following a trend, but are fundamentally de-risking their long-term growth trajectories. The efficiency gains mentioned by (Agrawal et al. 2024) extend beyond simple energy savings; they encompass a comprehensive optimization of the supply chain that protects the firm from the volatility of fossil fuel prices and the rising costs of traditional waste management.

Furthermore, the "strong signal" sent to stakeholders acts as a powerful driver for social license and regulatory goodwill. In an era where institutional investors are increasingly guided by ESG performance metrics, a robust green investment portfolio serves as tangible evidence of a company's forward-looking governance. This creates a virtuous cycle where lower perceived risk leads to a lower cost of equity and debt, providing the firm with a cheaper pool of capital compared to its less sustainable peers. Ultimately, green investment functions as a bridge between immediate financial performance and the enduring stability required to thrive in a circular economy, ensuring that the institution remains both profitable and relevant in a rapidly decarbonizing world.

The Influence of Green Marketing on Green Financing Sustainability

In the marketing dimension, environmental-based strategies play a vital role in building legitimacy and customer loyalty. (Amoako et al. 2018) explains that consumers in emerging markets are now much more appreciative of transparency regarding sustainability values. Operationally, honest marketing communications protect banks from reputational risks resulting from fraudulent practices.*greenwashing*which can instantly undermine market confidence. This built-up trust ensures a stable flow of third-party funds, which, according to (Adnan and Widowati 2023) and (Akude et al. 2025) is the main lifeblood for the operational continuity and financial sustainability of the bank.

Beyond merely securing immediate deposits, a transparent green marketing strategy serves as a long-term psychological contract between the financial institution and its depositors. In an era where information is decentralized, any discrepancy between a bank's stated environmental values and its actual investment portfolio can be easily exposed, leading to mass capital flight. Therefore, the "lifeblood" mentioned by Adnan and Widowati (2023) is not just about the volume of funds, but the quality of the relationship with a conscious customer base that prioritizes ethical alignment. By consistently communicating verified environmental impacts, banks can lower their customer acquisition costs and increase the "stickiness" of their deposits, even during periods of broader market volatility.

Furthermore, the effectiveness of this external marketing is deeply intertwined with internal organizational culture. When a bank successfully integrates sustainability into its brand identity, it attracts a workforce that is more engaged and aligned with these values, further reinforcing the authenticity of its market claims. This holistic approach prevents the marketing department from becoming an isolated silo and ensures that every customer touchpoint reflects a genuine commitment to sustainability. Ultimately, green marketing acts as a credibility bridge; it translates complex financial ESG metrics into a narrative that resonates with the public, thereby securing the social license to operate and ensuring a resilient, diversified funding base for years to come.

The Influence of Green Financing, Green Investment, and Green Marketing on Green Financing Sustainability: Top Management Support as a Mediating Variable

Integratively, achieving financial sustainability requires top management support as a bridge that transforms strategy into concrete action. While in other governance examples, GCG is often positioned as a moderator, in the context of this research, top management support is the mediator that determines the success or failure of the green initiative. Referring to the study by (Musa et al. 2025) as well as (Zhang and Berhe 2022) Without commitment from the executive level, green investment and marketing will simply end up as administrative costs. Leaders retain full control over resource allocation and mitigation of internal barriers, so that green strategies can make the maximum contribution to the institution's sustainability performance (Affini et al. 2026); (Gyan 2021).

This mediating role is pivotal because the transition to green banking often involves high initial costs and long-term payback periods, which can create internal friction with short-term profit targets. Without the visionary "buy-in" from the top, middle management may prioritize traditional high-yield, high-carbon assets over sustainable alternatives. As emphasized by Affini et al. (2026), top management support serves as the "organizational glue" that aligns various departments—from credit risk to corporate communications—toward a unified sustainability goal. It is the leadership’s capacity to absorb the risks associated with green innovation that allows the institution to move beyond superficial compliance into genuine strategic integration.

Furthermore, the influence of executive commitment extends to the creation of a corporate culture that values environmental stewardship as a core competency rather than an elective charity. When leaders actively champion green initiatives, it fosters an environment of innovation where employees are encouraged to develop new green financial products and optimize resource usage. This cultural shift is what ultimately transforms green marketing from a promotional tool into an authentic reflection of the bank’s identity, as supported by the findings of Gyan (2021). In conclusion, top management does not just support the process; they are the essential filter through which green financing, investment, and marketing must pass to be successfully converted into long-term financial sustainability.

CONCLUSION AND SUGGESTIONS

Conclusion

This study confirms that the integration between*green financing*, *green investment*, and strategy*green marketing*is no longer just a complementary instrument for social responsibility, but rather an urgent need for banking institutions to maintain stability and enhance their financial sustainability amidst global volatility. These findings demonstrate that capital allocation to low-carbon sectors and investment in environmentally friendly assets can effectively mitigate systemic risks, such as*stranded assets*and stagflation due to the climate crisis.

Top Management Support (*Top Management Support*) has been found to serve as a crucial catalyst bridging strategic vision with operational execution, ensuring that sustainability policies are not merely ceremonial but generate measurable financial impact. Overall, environmental transparency, coupled with efficient capital allocation and strong managerial commitment, are key for Islamic banking to build long-term legitimacy and win investor confidence in the global green market.

Suggestion

a. For Banking Practitioners:

Management in the Islamic banking sector, particularly large institutions like Bank Syariah Indonesia (BSI), is advised to focus not only on disbursing green financing but also on digitizing its environmental risk management system. Banks need to strengthen internal capabilities through green competency training for employees and ensure that every marketing strategy is supported by accurate environmental impact data. This is crucial to prevent reputational risks resulting from practices.*greenwashing*and to increase the attractiveness of the bank's portfolio in the eyes of international investors who are increasingly selective about ESG criteria (*Environmental, Social, and Governance*).

b. For Regulators (OJK and Bank Indonesia):

A more dynamic and specific green taxonomy for the Islamic finance sector is needed, including stricter standardization of carbon emissions reporting and the impact of green investments. Regulators are expected to provide policy incentives, such as easing minimum reserve requirements or interest subsidies for renewable energy project financing, to make comparisons of sustainability performance between companies more objective and encourage healthy competition in accelerating Indonesia's low-carbon economy.

c. For Future Researchers:

Given the limitations of this study, which focused on literature synthesis, future researchers are advised to conduct empirical analysis using panel data directly from banking sustainability reports. Furthermore, a more in-depth exploration of how macroeconomic factors, such as global interest rates and energy inflation, influence the effectiveness of green banking policies on firm value is needed. Future researchers could also consider other moderating variables, such as customers' financial literacy levels or technology adoption.*blockchain*in tracking the transparency of green fund usage.

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