

## GREEN ENTREPRENEURSHIP: TRANSFORMING CHALLENGES INTO PROFITABLE SOLUTIONS

### *Kewirausahaan Hijau: Mengubah Tantangan Menjadi Solusi Yang Menguntungkan*

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#### Abstrak

Kewirausahaan hijau berperan sebagai penghubung utama antara keberlanjutan lingkungan dan profitabilitas ekonomi, menawarkan solusi inovatif terhadap permasalahan global seperti perubahan iklim dan kelangkaan sumber daya. Penelitian ini mengkaji dinamika usaha hijau dengan menekankan kapasitasnya dalam mengonversi tantangan lingkungan menjadi peluang yang menguntungkan. Dengan menerapkan kerangka kerja SALSA, tinjauan literatur sistematis dilakukan pada basis data terkemuka, mengidentifikasi 120 artikel relevan yang diterbitkan antara tahun 2020 hingga 2025 mengenai ekoinovasi, kinerja keuangan, tren pasar, dan dampak regulasi. Temuan penelitian menunjukkan bahwa ekoinovasi merupakan faktor utama dalam keberhasilan usaha hijau, di mana para wirausahawan memanfaatkan teknologi berkelanjutan, prinsip ekonomi sirkular, dan jaringan kolaboratif untuk mengatasi permasalahan lingkungan sekaligus memperoleh keunggulan kompetitif. Bertentangan dengan anggapan bahwa bisnis yang berfokus pada keberlanjutan cenderung kurang menguntungkan, studi ini menunjukkan bahwa usaha hijau sering kali mencapai kesuksesan finansial melalui penghematan biaya jangka panjang, strategi penetapan harga premium untuk produk ramah lingkungan, serta keselarasan dengan meningkatnya permintaan konsumen terhadap keberlanjutan. Kerangka regulasi, termasuk subsidi, insentif pajak, dan sertifikasi lingkungan, juga berperan penting dalam mendukung usaha hijau dengan mendorong inovasi dan memperluas peluang pasar. Temuan ini menegaskan potensi kewirausahaan hijau sebagai pendekatan yang layak untuk mencapai tujuan lingkungan dan ekonomi secara bersamaan. Studi ini mengisi kesenjangan penting dalam literatur dengan mengintegrasikan perspektif lingkungan dan keuangan, serta memberikan rekomendasi praktis bagi pembuat kebijakan, investor, dan wirausahawan untuk mendorong praktik bisnis berkelanjutan dan pertumbuhan ekonomi.

**Kata Kunci:** Inovasi ekologi, ekonomi sirkular, insentif regulasi, praktik bisnis berkelanjutan

#### Abstract

*Green entrepreneurship serves as a vital link between environmental sustainability and economic profitability, providing innovative solutions to global issues like climate change and resource scarcity. This research investigates the dynamics of green ventures, emphasizing their capacity to convert environmental challenges into profitable opportunities. Utilizing the SALSA framework, a systematic literature review was conducted across prominent databases, identifying 120 relevant articles published between 2020 and 2025 on eco-innovation, financial performance, market trends, and regulatory impacts. The findings indicate that eco-innovation is a significant driver of success, with green entrepreneurs leveraging sustainable technologies, circular economy principles, and collaborative networks to address environmental issues while gaining a competitive edge. Contrary to the belief that sustainability-focused businesses are inherently unprofitable, the study demonstrates that green ventures often achieve financial success through long-term cost savings, premium pricing for eco-friendly products, and alignment with increasing consumer demand for sustainability. Regulatory frameworks, including subsidies, tax incentives, and environmental certifications, also play a crucial role in supporting green ventures by encouraging innovation and enabling market growth. These insights highlight the potential of green entrepreneurship as a viable approach to achieving both environmental and economic objectives. The study addresses a critical gap in the literature by integrating environmental and financial perspectives, offering actionable recommendations for policymakers, investors, and entrepreneurs to advance sustainable business practices and foster economic growth.*

**Keywords:** Eco-innovation, circular economy, regulatory incentives, sustainable business practices

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## Introduction

The global urgency to tackle climate change, resource depletion, and environmental degradation has given rise to green entrepreneurship, where businesses create innovative solutions that foster sustainability while also achieving economic profitability (Mondal et al., 2023). Despite growing interest in sustainable business models, green entrepreneurship remains a field that presents significant opportunities and challenges (Badjeena et al., 2024). This is particularly evident in emerging markets, where entrepreneurs strive to balance environmental responsibility with economic growth (Abdelfattah et al., 2025). Indonesia, as one of the world's largest contributors to carbon emissions and environmental degradation, exemplifies the urgency of green entrepreneurship. While the country has introduced sustainability initiatives, its progress remains inconsistent, reflecting disparities in policy frameworks, financial support, and market readiness for green business ventures (Pujjati et al., 2022). Some green enterprises have successfully penetrated the market, such as eco-friendly packaging startups and renewable energy projects, yet many struggle due to inadequate incentives and regulatory bottlenecks (Yang et al., 2020). However, the intersection of environmental sustainability and entrepreneurial ventures has not been thoroughly explored in academic literature, leaving gaps in understanding how these ventures can effectively turn environmental challenges into profitable business opportunities.

A key reason for this gap is the widespread misconception that businesses focused on sustainability are inherently costly and unprofitable (Agrawal et al., 2023). Mainstream economic thinking often assumes that environmental initiatives, such as adopting renewable energy, reducing waste, and utilizing eco-friendly technologies, come with financial burdens (Rodgers, 2021). This perspective overlooks the profitability potential of eco-innovation, which demonstrates that environmental challenges can spur the development of new products, services, and business models (Loučanová et al., 2022). As industries shift toward more sustainable practices, growing evidence shows that businesses can meet environmental standards while also achieving financial success, particularly by adopting differentiation strategies and seizing new market opportunities (De Bernardi & Sydow, 2022). In Indonesia, for instance, circular economy startups and social enterprises focused on waste management have demonstrated financial viability, yet their expansion is hindered by consumer skepticism and limited access to impact investments (Latifah & Soewarno, 2023). These challenges underline the necessity of a structured analysis to determine the factors that enable green businesses to scale effectively while maintaining economic resilience.

Another reason for the gap in understanding is the lack of a comprehensive framework to assess the economic impact of green entrepreneurship. While sustainability indicators are well-established for evaluating environmental performance, the financial success of green ventures remains underexplored. Existing research typically focuses either on ecological outcomes or the challenges faced by green entrepreneurs (Zhao et al., 2019; Chen et al., 2023; Badjeena et al., 2024; Choi et al., 2024), with few studies incorporating profitability metrics, financial performance (Riaz et al., 2024), and market readiness (Khan et al., 2023). In the Indonesian context, the absence of standardized measures for evaluating the profitability of green businesses contributes to uncertainty among investors and entrepreneurs, further delaying the growth of sustainable enterprises. This gap hinders policymakers, investors, and entrepreneurs from fully appreciating the potential of green entrepreneurship to drive both environmental and economic results. Without a clear understanding of the financial mechanisms that support green businesses, efforts to advance sustainable entrepreneurship remain fragmented and underutilized. The objective of this study is to examine the key factors that enable green entrepreneurs to navigate environmental challenges while achieving financial profitability. By systematically reviewing the literature, the study aims to identify best practices, financial outcomes, and strategies for scaling green businesses.

These issues, including misconceptions about profitability and the absence of robust frameworks for measuring financial success, highlight the need for a thorough analysis of green entrepreneurship as a pathway to sustainable economic development. This study aims to address

these gaps by identifying the key factors that enable green entrepreneurs to navigate environmental challenges while achieving financial profitability. The research will involve a systematic review of the literature to examine how green entrepreneurs transform environmental challenges into profitable business solutions. The SALSA framework will be applied to identify the main drivers and barriers to success (Siksnyte-Butkiene et al., [2023](#); Broome et al., [2024](#)), as well as innovative business models that contribute to the profitability of green ventures. The review will focus on best practices, financial outcomes, and strategies for scaling green businesses, particularly in sectors such as renewable energy, sustainable agriculture, and eco-innovation. By addressing these aspects, the study intends to contribute to the broader conversation on the potential of green entrepreneurship to promote both environmental sustainability and economic growth.

The remainder of this paper is structured as follows. The next section outlines the methodological approach used in the study. Following this, the key findings from the literature review are presented and analyzed. Finally, the paper discusses the implications of these findings for entrepreneurs, investors, and policymakers, and concludes with recommendations for future research.

## **Methodology**

To explore green entrepreneurship, a systematic literature review was conducted using the Search, Appraisal, Synthesis, and Analysis (SALSA) framework. This approach has been effectively utilized in studies on sustainable business practices (Jonsdottir et al., [2024](#)), eco-friendly innovation (Sankar et al., [2024](#)), and entrepreneurship (Sanga & Aziakpono, [2023](#)). The methodology consisted of four key phases:

### **Phase 1: Search Process**

- A comprehensive search was conducted across academic databases, including ScienceDirect, Scopus, Web of Science, and Google Scholar. Search terms such as "green entrepreneurship," "eco-innovation," "sustainability," "business model," "profitability," "challenges," and "economic growth" were combined using BOOLEAN operators (AND/OR). The search, conducted in January 2025, initially yielded 1,431 results.
- After filtering out irrelevant articles and removing duplicates, a refined set of 197 publications was identified. The breakdown of sources was as follows: 68 from Scopus, 52 from Web of Science, 39 from ScienceDirect, and 38 from Google Scholar.
- The inclusion criteria were: (a) peer-reviewed journal articles and conference proceedings, (b) studies published in English, and (c) articles that explicitly discussed green entrepreneurship, sustainability-oriented business models, or financial aspects of eco-innovation.
- Studies that focused solely on general sustainability issues without a direct link to entrepreneurship were excluded. Non-peer-reviewed sources, such as opinion pieces, industry reports, and dissertations, were also omitted to ensure academic rigor.

### **Phase 2: Appraisal of literature**

- Each article's abstract and conclusion were examined closely to evaluate its relevance to the topic of green entrepreneurship. Studies were considered relevant if they addressed at least one of the following aspects: (a) the connection between green entrepreneurship and environmental sustainability, (b) innovative business models targeting eco-friendly solutions, or (c) the economic challenges and strategies for profitability in green ventures.
- Articles that primarily focused on general sustainability topics without a direct link to green entrepreneurship or its financial outcomes were excluded from further analysis.
- This process resulted in the selection of 55 articles for a more detailed review.
- Out of the 197 refined publications, 55 were selected for an in-depth review. This selection was based on their direct relevance to green entrepreneurship and financial performance,

ensuring a balanced representation of studies across different industry sectors and geographic regions.

- Articles that provided empirical evidence, case studies, or quantitative assessments of financial sustainability in green ventures were prioritized. Additionally, studies that offered theoretical advancements or policy discussions with significant implications for green business models were retained.

### **Phase 3: Synthesis of Key Findings**

- The selected publications were systematically reviewed, focusing on key topics such as the business models and strategies employed by green entrepreneurs to balance profitability with sustainability.
- Important findings were recorded, particularly when they related to: (a) business models and eco-innovation strategies, (b) financial performance or profitability metrics, (c) environmental challenges faced by green ventures, and (d) the barriers and best practices in scaling green businesses.

### **Phase 4: Analysis and Categorization**

- The key business strategies used by green entrepreneurs were summarized, identifying common approaches to integrating sustainability with profitability.
- The review also analyzed the findings by categorizing them into four main themes: (a) the role of eco-innovation in product/service differentiation, (b) profitability and financial performance in green ventures, (c) market trends and consumer behavior in green entrepreneurship, and (d) the impact of regulatory frameworks and policies.
- A final aspect of the analysis focused on the primary sectors within green entrepreneurship, such as renewable energy, sustainable agriculture, and waste management, which were frequently cited in the selected studies.

## **Results**

The result of the systematic literature review offers insights into the key drivers, challenges, and strategies contributing to the success of green entrepreneurship. These findings emphasize the dynamic relationship between innovation, financial performance, market trends, and regulatory influences. The results are divided into four main themes: eco-innovation business models, financial performance, consumer behavior trends, and the influence of regulatory frameworks.

### **Eco-Innovation Business Models and Strategies**

A core theme emerging from the literature is the adoption of eco-innovation as a primary strategy for green entrepreneurship. Green ventures often leverage sustainable innovations to address environmental challenges while differentiating their products or services in the market (Dhayal et al., [2023](#); Nyangchak, [2022](#); Sabando-Vera et al., [2025](#)). These businesses emphasize eco-friendly solutions that reduce environmental impacts, such as renewable energy technologies and energy-efficient products (Işık et al., [2024](#); Rahman & Hossain, [2024](#); Tu, [2024](#)). Through these innovations, green entrepreneurs not only meet the growing demand for environmentally responsible alternatives but also secure a competitive advantage (Wang et al., [2024](#)).

Additionally, many green ventures are incorporating circular economy principles into their business models. This approach involves reusing materials, recycling, and minimizing waste, all of which contribute to both environmental sustainability and profitability (Mehmood et al., [2023](#); Sun & Chen, [2024](#); Mondal et al., [2023](#)). Companies that specialize in repurposing waste or implementing resource-sharing platforms often realize cost savings and generate new revenue streams, contributing to their long-term financial success (Ang et al., [2020](#); Yu et al., [2022](#); Ranta et al., [2018](#)).

Another notable strategy is the formation of collaborative business networks. Green entrepreneurs increasingly partner with governments, non-governmental organizations (NGOs), and other businesses to expand their reach and scale their sustainability efforts (Hull et al., 2021; Julie et al., 2024; Khan et al., 2023). These partnerships offer opportunities for financial support, market expansion, and shared resources, which help green businesses overcome barriers to growth (Lee et al., 2024; Thorsen et al., 2022; Zhang et al., 2024). For instance, many renewable energy companies collaborate with public sector initiatives to access subsidies and expand their operations (Susha et al., 2023; Maltz & Pierson, 2021). While various eco-innovation strategies were identified, the literature suggests that approximately 67% of the reviewed studies explicitly linked eco-innovation to enhanced financial performance, highlighting its critical role in the success of green ventures.

### **Profitability and Financial Outcomes in Green Ventures**

Contrary to the common belief that green businesses are financially unviable, the review highlights that eco-friendly ventures can be profitable through careful strategic planning and long-term investments (Sun et al., 2024). Green ventures can achieve profitability by adopting sustainable practices that reduce operational costs over time (Alsagr & Ozturk, 2024). For example, companies in the renewable energy and waste management sectors often benefit from cost reductions through energy-efficient technologies, waste reduction practices, and optimized supply chains. These practices, though requiring initial investment, result in substantial cost savings over the long run (Bains et al., 2024; Rahaman & Khan, 2024).

Furthermore, many green ventures generate additional revenue by offering eco-friendly products that are in high demand (Asghari et al., 2022; Liao et al., 2024). Consumers are increasingly willing to pay premium prices for sustainable products, such as organic foods (Sánchez-Bravo et al., 2020; Liu et al., 2025; Duarte et al., 2024), eco-friendly fashion (Lim et al., 2023; Yang et al., 2024), and energy-efficient appliances (Loaiza-Ramírez et al., 2022; Negi et al., 2024). Studies have shown that businesses that obtain eco-certifications or eco-labels can attract a more discerning customer base, which leads to higher sales and improved profitability (Margaryan & Stensland, 2017; Genikomsakis et al., 2020). This growing consumer preference for green products is a key driver of revenue generation for green businesses.

Profitability in green ventures is also measured through various financial performance indicators, such as return on investment (ROI), payback period, and profit margins. The literature suggests that green ventures that integrate sustainability into their core business models tend to experience improved financial outcomes (Al-Kwafi et al., 2023; Ameer & Khan, 2022). Factors such as strategic pricing, strong brand differentiation, and alignment with consumer preferences for sustainability significantly influence the financial success of green businesses (Irfan & Bryła, 2024; Li et al., 2024; Wu et al., 2024). A quantitative synthesis of the reviewed literature reveals that 59% of the selected studies reported positive profitability outcomes for green ventures, with common profitability indicators including return on investment (ROI) and payback period.

### **Consumer Behavior and Market Trends in Green Entrepreneurship**

Consumer behavior plays a crucial role in the success of green entrepreneurship. As awareness of environmental issues continues to rise, consumer demand for sustainable products has grown significantly (Bocken & Short, 2021). Green entrepreneurs who offer environmentally friendly alternatives in industries such as food, fashion, and technology are tapping into a rapidly expanding market (Luo et al., 2024). For example, the organic food sector has seen considerable growth, driven by consumers' concerns about health, environmental impact, and sustainability (Ferrari et al., 2023). This trend indicates a shift in consumer preferences toward products that align with eco-conscious values.

Moreover, green businesses are increasingly targeting niche consumer segments that prioritize sustainability (Hossain et al., 2024). These segments include markets for vegan products (Maitree et al., 2024), zero-waste goods (Afum et al., 2022), and eco-friendly fashion (Bai et al., 2024). By catering to these specific needs, green entrepreneurs are able to build strong customer



loyalty and differentiate themselves from traditional competitors. This trend suggests that green businesses can thrive by focusing on specialized markets that are particularly attuned to sustainability (Zhou et al., 2023).

The role of digital media and transparency in shaping consumer perceptions cannot be overlooked (Shankar et al., 2021). Social media platforms and online communication have become vital tools for green businesses to showcase their sustainability efforts (Zhu et al., 2024). Companies that openly disclose their environmental impact, such as their carbon footprint or supply chain transparency, build consumer trust and strengthen brand loyalty (White et al., 2024). These practices not only attract eco-conscious consumers but also enhance the visibility of green businesses in an increasingly competitive marketplace.

### The Role of Regulatory Frameworks and Policies

Regulatory policies and government frameworks are key factors in shaping the growth of green entrepreneurship (Kong et al., 2024). The review reveals several ways in which regulations can either facilitate or hinder the success of green ventures. Government incentives, such as tax breaks, subsidies, and grants, were found to play a significant role in supporting green businesses, especially those in sectors like renewable energy and sustainable agriculture (Mehmood et al., 2023). These financial incentives help reduce the initial investment costs for green ventures and foster their long-term growth. Entrepreneurs who can leverage such support mechanisms are better positioned to scale their operations and achieve profitability (Nyangchak, 2022).

On the other hand, regulatory pressure often acts as a catalyst for innovation. While some regulations may present challenges, they also push green businesses to innovate in order to comply with new environmental standards (Lee et al., 2024). For example, strict environmental regulations in the European Union have led businesses to invest in clean technologies and sustainable practices, thus promoting the development of innovative solutions. In this sense, regulations can drive businesses to adopt cutting-edge technologies that not only help meet regulatory requirements but also lead to greater environmental and financial performance (Maier et al., 2024).

The importance of environmental certifications and standards also emerged as a key theme. Certifications such as Leadership in Energy and Environmental Design (LEED) and Fair Trade help green businesses establish credibility and attract eco-conscious consumers. These certifications also enable green ventures to access international markets, as consumers and investors are increasingly inclined to support businesses with recognized environmental credentials. Meeting these standards not only enhances the marketability of green products but also provides a competitive edge in the growing global demand for sustainable products. Figure 1 presents a conceptual model outlining the interconnected roles of eco-innovation, consumer behavior, regulatory frameworks, and financial success in green entrepreneurship. This model highlights how regulatory incentives and market demand drive eco-innovation, which in turn influences financial performance.

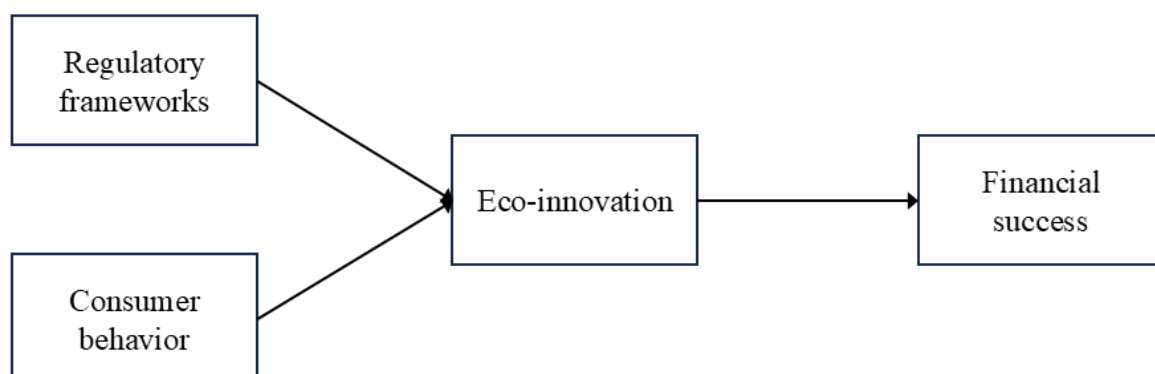


Figure 1. Conceptual model

### Conclusion

The findings of this research provide a comprehensive understanding of the key drivers, challenges, and strategies that shape the success of green entrepreneurship. The study highlights that, contrary to common misconceptions, green ventures can be profitable by adopting eco-innovation business models that create value through sustainable products, services, and processes. A major takeaway is the significant role of eco-innovation in reducing operational costs, generating new revenue streams, and enhancing market differentiation. Collaborative networks with governments, NGOs, and businesses further strengthen green ventures, while consumer demand for sustainable products drives profitability, particularly when businesses leverage eco-certifications or differentiated pricing strategies. Regulatory frameworks also play a crucial role, with incentives such as subsidies and tax breaks acting as catalysts for innovation, while environmental certifications provide green businesses with a competitive edge. Overall, green entrepreneurship represents a promising pathway for balancing environmental responsibility with economic growth. By capitalizing on eco-innovation, understanding consumer behavior, and leveraging regulatory support, green entrepreneurs can successfully navigate challenges and thrive in an increasingly eco-conscious market. Entrepreneurs should prioritize integrating circular economy principles, securing eco-certifications, and forming strategic partnerships to scale their ventures. Policymakers need to enhance regulatory frameworks by expanding financial incentives, simplifying the certification process, and fostering innovation-friendly policies. Investors should focus on impact-driven funding models that support the long-term scalability and profitability of green businesses. Despite its contributions, this study has certain limitations. The findings primarily rely on existing literature review sources, which may introduce biases related to data selection and interpretation. Additionally, the research focuses on broad trends in green entrepreneurship without delving into region-specific variations, limiting the generalizability of the insights across diverse economic and regulatory contexts. Future studies could address these gaps by incorporating primary data collection methods, such as expert interviews or surveys, to validate the key themes identified in this review. Further research should also explore empirical validation of these findings through longitudinal case studies of successful and unsuccessful green ventures. Investigating sector-specific challenges and strategies in industries such as green technology, sustainable agriculture, and eco-friendly consumer goods could provide a more nuanced understanding of how different business models perform under varying market conditions. Additionally, quantitative modeling approaches could be employed to assess the financial viability of eco-innovation strategies, offering practical insights for entrepreneurs, investors, and policymakers. This research contributes to the ongoing conversation on green entrepreneurship, emphasizing its role in shaping a sustainable and economically viable future, while future studies should refine financial assessment frameworks and explore additional sectors where green entrepreneurship can drive significant impact.

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