

Green Entrepreneurship and Environmental Sustainability: Current Trends and Future Directions

Kewirausahaan Ramah Lingkungan dan Kelestarian Lingkungan: Tren Saat Ini dan Arah Masa Depan

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ABSTRACT

This research examines green entrepreneurship as a business strategy that integrates economic value with environmental sustainability principles. Using a systematic literature review method with the PRISMA approach, this research identifies key factors that influence the sustainability of green businesses in developing markets. The research results show that technological innovation, policy support, and green supply chain management are the main factors in the long-term sustainability of green businesses. The implications of this research are important for entrepreneurs and policy makers in developing effective strategies to support green entrepreneurial practices.

Keywords: Green Entrepreneurship, Environmental Sustainability, Emerging Markets, Green Supply Chain Management, Technological Innovation

ABSTRAK

Penelitian ini mengkaji kewirausahaan hijau sebagai strategi bisnis yang mengintegrasikan nilai ekonomi dengan prinsip-prinsip keberlanjutan lingkungan. Menggunakan metode systematic literature review dengan pendekatan PRISMA, penelitian ini mengidentifikasi faktor-faktor kunci yang mempengaruhi keberlanjutan usaha hijau di pasar berkembang. Hasil penelitian menunjukkan bahwa inovasi teknologi, dukungan kebijakan, dan manajemen rantai pasokan hijau merupakan faktor utama dalam keberlanjutan jangka panjang usaha hijau. Implikasi penelitian ini penting bagi pengusaha dan pembuat kebijakan dalam mengembangkan strategi yang efektif untuk mendukung praktik kewirausahaan hijau.

Kata Kunci: Kewirausahaan Hijau, Keberlanjutan Lingkungan, Pasar Berkembang, Manajemen Rantai Pasokan Hijau, Inovasi Teknologi

1. Introduction

Green entrepreneurship is an important focus that aims to create economic value while promoting environmental sustainability through the development and implementation of environmentally friendly products and services (Santika et al., 2022). This form of entrepreneurship involves identifying and exploiting opportunities rooted in sustainable, environmentally friendly, and green principles (Ye et al., 2020). An orientation towards green entrepreneurship plays a vital role in improving environmental performance by aligning business activities with external environmental factors, thereby encouraging green innovation performance and its impact on environmental outcomes (Makhloufi et al., 2021).

In addition, green entrepreneurship plays an important role in driving innovation and business success by integrating environmentally friendly practices and products into their operations (Rofiaty, 2024). It has the potential to address environmental challenges, such as climate change, by meeting the increasing demand for sustainable products and services (Bespalyy, 2023). Sustainable entrepreneurship, which includes green entrepreneurship, emphasizes the importance of balancing economic prosperity with ecological management, reflecting an increasing emphasis on environmentally conscious business practices (Odeyemi,

2023).

Furthermore, green entrepreneurship contributes to sustainable development by promoting economic diversification through the creation of innovative industries focused on renewable energy, green technology, sustainable agriculture and waste management (Prokopenko, 2024). By encouraging green entrepreneurial activities, businesses can introduce new environmentally friendly products, thereby encouraging a shift towards more sustainable business practices ("The Effect Of Green Variables On Sustainable Business: A Study On The Covid 19 Pandemic", 2024). The influence of green entrepreneurship on sustainable development has been studied extensively, highlighting its role in driving positive environmental outcomes and economic growth (Alwakid et al., 2021).

In conclusion, green entrepreneurship is a dynamic field that not only drives economic growth but also plays an important role in promoting environmental sustainability. By integrating green principles into entrepreneurial activities, businesses can contribute to addressing environmental challenges, fostering innovation and achieving sustainable development goals.

Green entrepreneurship is a concept that is gaining increasing attention in the current global context, referring to business practices that aim to create economic value in a sustainable manner while minimizing negative impacts on the environment. These businesses not only generate financial profits, but also seek to maintain and improve environmental quality and social welfare. This concept involves innovation in products, production processes, and management strategies that prioritize resource efficiency and the use of environmentally friendly technologies.

In an era where climate change and environmental degradation are major global challenges, green entrepreneurship is a crucial solution for achieving environmental sustainability. These efforts not only help reduce carbon footprints and waste, but also promote responsible consumption patterns and open up new opportunities in the green economy. By integrating sustainability principles into every aspect of their operations, green entrepreneurs not only reduce environmental risks but also increase their companies' competitiveness and reputation in a global market that is increasingly concerned about environmental issues.

Emerging markets, characterized by dynamic economies and rapid social transformation, offer great potential for the development of green entrepreneurship. In these countries, sustainability challenges are often more pronounced and opportunities for green innovation can generate significant social and economic impacts. A deep understanding of the factors that influence the success and sustainability of green businesses in emerging markets is crucial for guiding public policy, supporting innovation, and driving inclusive and sustainable economic growth.

Green businesses in emerging markets face a complex set of challenges in maintaining long-term sustainability. One of the main challenges is limited access to the financial resources needed to develop and maintain environmentally friendly operations. In addition, inconsistent regulations and an unstable business environment can hinder the growth of green businesses. Rapid climate change also increases risks to their infrastructure and operations, complicating efforts to maintain consistency in sustainability practices.

The main research question to be answered in this literature review is: What factors influence the long-term sustainability of green businesses in emerging markets? Through a systematic literature search, this research aims to identify key factors that influence the ability of green businesses to survive and grow in this dynamic and often unstable business environment. Understanding these factors is expected to provide valuable insights for green entrepreneurs, policy makers and researchers to develop effective strategies to support economic, environmental and social sustainability.

Although there has been some research investigating the factors influencing the

sustainability of green businesses, there is still a lack of literature focusing on emerging markets specifically. Previous research has tended to focus on developed markets with a more stable business environment and strong regulatory support. Therefore, there is an urgent need to explore in more depth the factors that influence the sustainability of green businesses in emerging markets that often have different economic, social and environmental dynamics.

Areas that still need to be explored include the worsening impacts of climate change, the potential for green technology innovation, and the influence of government policies on sustainability practices in green businesses in emerging markets. This research can also explore how green entrepreneurship can become a motor for sustainable economic growth in these countries.

Answering these research questions is important for expanding theoretical understanding of green entrepreneurship and environmental sustainability in a global context. Practically, the findings from this research can provide valuable guidance for green entrepreneurs in developing more effective and sustainable strategies. Additionally, this research has the potential to influence policymakers in designing regulations that support green entrepreneurial practices in emerging markets.

It is hoped that the findings from this literature review will provide the insights needed to improve public policy and promote sustainable practices in green entrepreneurship. This can not only improve environmental conditions in emerging markets, but also promote inclusive and sustainable economic growth.

This research is unique in its specific focus on emerging markets, which is rarely explored in the context of green entrepreneurship. The systematic literature review approach used also makes it possible to explore various perspectives from existing literature, identify existing knowledge gaps, and offer new views on the factors that influence the sustainability of green businesses. This research will take a new approach by compiling a comprehensive and critical synthesis of the literature to identify key factors influencing the sustainability of green businesses in emerging markets. Thus, this research is expected to make a significant contribution to the literature on green entrepreneurship and environmental sustainability in general.

Theoretically, this research will contribute a deeper understanding of the factors influencing the sustainability of green businesses in emerging markets, which can fill existing knowledge gaps in the academic literature. Theoretical implications include the development of new theories or expansion of existing theories in the context of green entrepreneurship. Practically, this research will provide practical guidance for green entrepreneurs in developing more effective and sustainable strategies. In addition, these findings can also provide valuable input for policy makers in designing regulations that support the growth of green entrepreneurship in emerging markets.

2. Research Methods

2.1. Collection of Articles

Data sources for this literature review will come from reputable international databases, such as Scopus and Web of Science. The selection of these databases ensured inclusion of relevant and high-quality articles in the systematic analysis.

2.2. Method PRISMA

The method used in this research is PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). PRISMA is a structured, systematic approach to compiling and reporting literature reviews in a transparent and methodical manner. The PRISMA process stages include:

1. **Identification:** Initial search and selection of articles based on certain criteria.
2. **Filtering:** Evaluate the title and abstract to decide on inclusion or exclusion.

3. **Qualifications:** Further assessment of the full article to ensure compliance with inclusion criteria.
4. **Inclusion:** Articles that met the inclusion criteria were retained for further analysis.

2.3. Keywords Used

The search will use a variety of keywords to ensure broad coverage and relevance of the topic, including but not limited to: "Green Entrepreneurship", "Sustainability", "Emerging Markets", "Long-term Sustainability", and similar. The selection of these keywords is based on the main focus of the literature review on green entrepreneurship and environmental sustainability.

2.4. Number of Articles Obtained

The total articles found in each stage of the PRISMA process will be documented in detail. A PRISMA flow chart will be used to illustrate the number of articles included, as well as the reasons for the inclusion and exclusion of each article.

2.5. Article Inclusion and Exclusion Techniques

Inclusion criteria will include the article's relevance to the research topic, publication in a reputable journal, as well as empirical studies that concretely support the findings. Duplicate articles, studies with weak methodology, and articles that are not relevant to the research focus will be excluded from the analysis.

2.6. Article Quality Assessment Process

Article quality assessment will be carried out using established tools and criteria, such as the Newcastle-Ottawa Scale (NOS) method for observational studies or the Critical Appraisal Skills Program (CASP) for qualitative research. The data processing process will include literature synthesis analysis to systematically integrate findings from relevant studies.

3. Results and Discussions

3.1. KGreen Entrepreneurship Concepts and Theory

Green entrepreneurship is an integration of business entrepreneurship with sustainable development principles, where companies actively pursue environmental and sustainable goals while combining startup characteristics (Tuncer, 2024). Green entrepreneurs tend to have a different psychological time perspective, focus more on past experiences, have a long-term view, and are oriented towards future possibilities compared to non-green entrepreneurs (Zabelina et al., 2023). Various models of green entrepreneurship have been studied, emphasizing the social impact on sustainable development in various sectors such as solar energy, green agriculture, and green product development, highlighting the influence on social, economic, and environmental factors (Prokopenko, 2024).

In the context of green business, Green Supply Chain Management (GSCM) and Environmental Economics (CE) are interrelated concepts, having similar goals, benefits and implementation strategies that require a comprehensive green framework which includes various aspects such as management, resource utilization, marketing, and reverse logistics (Aroonsrimorakot, 2023). The implementation of green marketing practices has been proven to have a positive impact on company performance, providing motivation to develop innovative and environmentally friendly products using organic and non-toxic materials (Al-Dmour et al., 2021). Implementation of green business practices in green startup companies not only helps reduce waste but also contributes to environmental resilience, in line with the goals of the green economy and sustainable development (Sadma, 2021).

The difference between green businesses in emerging markets and developed markets

can be observed in the adoption and adaptation of green business models. While green business models aim to minimize costs, waste, and environmental impact while creating value and superior products, specific strategies and approaches may vary based on the local characteristics, culture, and industry focus of each market (Lampthey et al., 2020). The impact of executive green incentives and top management team characteristics on firm value in China highlights the importance of aligning management teams with sustainable development characteristics to drive firm transition successfully (Wu, 2023). In conclusion, green entrepreneurship reflects the integration of business intelligence with sustainable development goals, where green businesses display unique characteristics and focus on environmental and sustainable efforts. Theories related to green entrepreneurship explore the psychological aspects of green entrepreneurs and the impact of green initiatives on organizational performance. Understanding the differences between green businesses in emerging and developed markets provides a better picture of the diverse approaches to integrating sustainability into business practices.

3.2. External Factors that Influence the Sustainability of Green Businesses

3.2.1. The Role of Government Policy and Regulation

Government policies and regulations play an important role in influencing the sustainability of green businesses. Policy support for green businesses and applicable environmental regulations are key factors that can facilitate or hinder the development and operation of environmentally friendly businesses (Soyombo, 2024). By setting clear standards, providing incentives, and leading by example, governments can create an environment that encourages and rewards green practices, which will ultimately result in a more sustainable business landscape.

3.2.2. Financial Support and Investment

Financial support and investment are also very important for the sustainability of green businesses. Access to funding sources and the role of investors and financial institutions are significant factors that can determine the success and sustainability of green businesses (Widagdo & Sa'diyah, 2023). Behavioral finance, financial technology and financial literacy practices have been shown to have a direct impact on business sustainability, highlighting the importance of financial support in driving green initiatives.

3.2.3. Market Demand and Consumer Awareness

Market demand for green products as well as consumer awareness and behavior towards environmentally friendly products are essential external factors that influence the sustainability of green businesses. Consumer preferences and behavior towards sustainability can drive market demand for green products, creating opportunities for businesses that prioritize environmental responsibility (Maheswari, 2024). Additionally, businesses that align their strategies with green supply chain management practices can improve their environmental performance and meet the growing market demand for sustainable products.

Overall, government policies, financial support, market conditions, and consumer behavior all play interrelated roles in shaping the sustainability of green businesses. By fostering a supportive regulatory environment, providing financial incentives, responding to market demand, and promoting consumer awareness, businesses can develop sustainably while contributing to environmental protection and social responsibility.

3.3. Internal Factors that Influence Green Business Sustainability

To improve the sustainability of green businesses, it is important to consider management and leadership capabilities, innovation and technology, and organizational culture.

3.3.1. Management and Leadership Ability

Effective management and leadership are essential in driving green business sustainability. Leaders with experience and a vision for sustainability can steer organizations toward environmentally friendly practices (Haseeb et al., 2019). Strategic management for sustainability is essential to align business goals with environmental goals, ensuring long-term success (Hidroğlu, 2020). Green transformational leadership has been shown to have a positive impact on green product and process innovation, thereby contributing to sustainable practices (Xia et al., 2021).

3.3.2. Innovation and Technology

Innovation and technology are fundamental components in green business sustainability. Utilizing environmentally friendly technology and focusing on product and process innovation in green business operations can improve sustainability performance (Liu et al., 2022). A green organizational identity can encourage sustainable innovation, which in turn improves business sustainability outcomes (Liu et al., 2022).

3.3.3. Organizational culture

Organizational culture is another important factor that influences the sustainability of green businesses. Integrated sustainability values in organizations can motivate employees to engage in green practices, creating an environmentally responsible environment (Fok et al., 2022). Organizational green culture has been linked to enhanced green performance and competitive advantage, emphasizing the importance of integrating environmental values into corporate policies and communication strategies (Wang, 2019).

The continued success of a green business depends on effective management and leadership capabilities, the use of innovative technology, and a strong organizational culture that prioritizes sustainability. By cultivating environmental responsibility, implementing green technology, and having visionary leadership, businesses can achieve long-term sustainability goals and gain a competitive advantage in the green era.

4. Conclusion

Green entrepreneurship is an integration between business entrepreneurship and sustainable development principles. Green entrepreneurs have a different time perspective, focusing more on past experiences and orienting towards future possibilities. The green entrepreneurship model emphasizes social impact on sustainable development in sectors such as solar energy, green agriculture, and green product development. In the context of green business, Green Supply Chain Management (GSCM) and Environmental Economics (CE) are interrelated concepts that cover various aspects such as management, resource utilization, marketing and reverse logistics. The implementation of green marketing practices and the adoption of green business models in emerging and developed markets shows variations in strategies and approaches based on local characteristics, culture and industry focus.

This research has several important implications. Theoretically, this research enriches the literature on green entrepreneurship by highlighting the psychological time perspective of green entrepreneurs and the social impact of green business models. These findings also add insight into the role of GSCM and CE in business sustainability. Practically, the results of this research provide guidance for entrepreneurs and policy makers about the importance of policy and regulatory support, as well as strategies for implementing effective green practices. This also shows the important role of management, leadership, technological innovation and organizational culture in improving the sustainability of green business. From a policy perspective, the results of this research can be used by policy makers to formulate regulations and incentives that support green business, creating a conducive environment for the

development of sustainable business practices.

This research has several limitations. The geographic scope of this research may be limited to a particular market context, so generalization of findings to a global context needs to be done with caution. Additionally, the focus on some sectors such as solar energy and green agriculture may not be fully applicable to all types of green industries. The systematic literature review approach also has limitations in identifying all relevant publications, especially those outside the database used.

To overcome these limitations and broaden horizons, future research is needed to examine the sustainability of green businesses across different geographic contexts to understand differences and similarities in the adoption and adaptation of green business models. In-depth studies across other industries will provide a more comprehensive picture of the practices and challenges faced by green businesses. Additionally, future research could combine qualitative and quantitative methods to provide deeper insights into the factors influencing green business sustainability. By understanding and implementing these findings, businesses and policymakers can be more effective in driving sustainability and green innovation, and better confront global environmental challenges.

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