

Developing Green Entrepreneurship Skills in Indonesia; An Educational Perspective

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Abstract: This paper explores the critical nexus between Green Entrepreneurship and Sustainable Development, illuminating their combined potential as a powerful tool for mitigating environmental crises such as global warming and climate change. With a particular focus on burgeoning economies, especially Indonesia, it underscores the immense possibilities embedded within a proactive integration of sustainable practices into entrepreneurship. This not only paves the way towards climate neutrality but also cultivates competitive advantages in business enterprises. Despite the tremendous potential, the widespread adoption of Green Entrepreneurship has been persistently stifled by a profound lack of awareness, an alarming paucity of educational resources, and a dearth of specialised knowledge within the field. These factors collectively contribute to the unimpressive rate of implementation and relatively low acceptance of Green Entrepreneurship. To address this conundrum, this scholarly article undertakes a comprehensive gap analysis aimed at evaluating the future prospects of Green Entrepreneurship within Indonesia. It does so through a detailed examination of the development of Green Entrepreneurship skills from the perspective of educators. The study forms part of a broader initiative - the ASEAN Network for Green Entrepreneurship and Leadership (ANGEL) - a European-funded project devoted to equipping university graduates and disadvantaged societal groups with vital entrepreneurial skills geared towards sustainability. The analytical framework of the research draws upon a conducted survey among university faculty members, supplemented with a focus group discussion with participants involving a diverse mix of faculty, students, and administrative staff. The findings underscore a strikingly limited focus on Green Entrepreneurship within the curriculum. However, they also reveal a robust commitment and a strong willingness to infuse existing syllabi with Green Entrepreneurial facets. To accomplish this, the research identifies the need to surmount significant challenges, primarily those related to resource availability. Furthermore, the gap analysis points towards the need for amplifying collaboration among a broad spectrum of stakeholders. These include local businesses, government agencies, and the broader community. Such partnerships can significantly assist universities in crafting effective business school curricula that instil a sustainability mindset. Moving forward, the research proposes to extend its scope to embrace the viewpoints of community members. This would encompass a particular focus on traditionally marginalized groups, including women, minorities, and economically disadvantaged segments in both urban and rural communities.

Keywords: Green Entrepreneurship, Green Business, Sustainability, Entrepreneurial Education, Entrepreneurial Skills, Sustainable Development.

1. Introduction

The urgency of addressing environmental challenges and fostering sustainable development has become a global imperative. Environmental crises such as climate change and global warming underscore the urgent need to devise innovative and impactful solutions. One such powerful tool that holds tremendous promise is Green Entrepreneurship. This form of entrepreneurship integrates sustainable practices within business operations to not only mitigate environmental degradation but also leverage the emerging opportunities in the expanding green economy. The interplay of entrepreneurship and sustainable development can thus cultivate competitive advantages in business enterprises while concurrently working towards climate neutrality.

Despite the considerable potential of Green Entrepreneurship, its widespread adoption, particularly in developing economies such as Indonesia, is often thwarted by various barriers. These range from a deep-seated lack of awareness to an alarming scarcity of specialized educational resources and knowledge within the field. This collective inertia contributes to the slower-than-anticipated rate of implementation and acceptance of Green Entrepreneurship. In response to this pressing issue, our research embarks on a comprehensive gap analysis to explore the future potential and development of Green Entrepreneurship in Indonesia. The study is part of a broader initiative: the ASEAN Network for Green Entrepreneurship and Leadership (ANGEL) - a

European-funded project that aims to equip university graduates and disadvantaged societal groups with vital entrepreneurial skills for sustainability.

This research adopts a scientific perspective, focusing on the perceptions and insights of university faculty members. Specifically, a meticulous survey is conducted, supplemented by focus group discussions among a diverse cohort of faculty, students, and administrative staff. The goal was to shed light on the current state of Green Entrepreneurship education and the potential barriers hindering its expansion. The findings revealed a strikingly limited focus on Green Entrepreneurship within the current academic curriculum. Nevertheless, they also highlighted a strong willingness among the academic community to integrate Green Entrepreneurship principles into the existing educational framework. Further, overcoming the challenges related to resource availability emerged as a significant concern.

Additionally, the analysis underscores the need to promote collaboration among a broad range of stakeholders, including local businesses, government agencies, and the broader community. Such partnerships are instrumental in assisting universities in curating effective curricula that instill a sustainability mindset. As our research continues, we aim to broaden its scope to include the perspectives of traditionally marginalized community groups, aiming to foster an inclusive approach towards Green Entrepreneurship. This paper contributes to the burgeoning literature on Green Entrepreneurship by focusing on the often-overlooked perspective of educators and students. It also provides practical insights into the development and implementation of Green Entrepreneurship education in developing economies.

2. Literature Review

Green Entrepreneurship has emerged as a vanguard for integrating sustainable business practices, offering innovative solutions to pressing environmental challenges. Grounded in the pioneering work of Schaper (2016), Green Entrepreneurs are posited as the linchpin in championing environmental sustainability (Hockerts, 2015; Hockerts, 2017). By venturing into the green sector, these individuals seek to transform industries with sustainable product innovations, enhanced processes, and eco-friendly services that move industries towards a zero-waste paradigm (OECD, 2011). These entrepreneurs harness distinctive attributes, such as accountability and proactive problem-solving, to capitalize on green opportunities and innovate in ways that yield both environmental and economic benefits (Nasution et al., 2011; Caggese, 2012).

Indonesia serves as an intriguing backdrop for this discussion. With its dynamic young demographic contrasted against high youth unemployment rates, the country presents a dual challenge (Gunawan & Fraser, 2016). Indonesia's ambitious commitment to reducing its carbon emissions by up to 41% by 2020 underscores the growing importance of a green transition in its policy frameworks (Gunawan & Fraser, 2016). The country's unique decentralization policy since 2001 adds layers of complexity, spotlighting the challenges of governance over its diverse archipelago (Fraser, 2013). This intricate landscape makes Indonesia an apt case for delving into the intricacies of Green Entrepreneurship, especially among its youth. At the heart of entrepreneurial challenges, access to capital emerges as a recurring theme, more so for green businesses (Perri & Chu, 2012; Gujba et al., 2012). Traditional financial institutions often hesitate to fund ventures perceived as innovative or risky, a category into which many green enterprises fall (Lerner, 2010). However, the potential of these businesses lies in their ability to champion an ecologically balanced economy by pioneering sustainable solutions (Mukherjee et al., 2016).

Recent literature advancements, such as those by Moon et al. (2022), synergize the frameworks of EntreComp and GreenComp. While EntreComp outlines the essential competencies for entrepreneurial success, GreenComp reinforces the environmental ethos, urging businesses to strike a balance between profitability and ecological stewardship. A growing consensus in contemporary research highlights the urgency for businesses to intertwine sustainable and digital strategies. Marneros et al. (2023) underline the business benefits of sustainable practices, while Papageorgiou et al. (2021a, 2021b, 2021c) draw attention to the evolving landscape of entrepreneurial education in the digital age. Collectively, these studies emphasize the crucial interplay of sustainability, digitalization, and education in the modern business realm.

Despite the promising potential of Green Entrepreneurship, several impediments exist, particularly in emerging economies like Indonesia. Primary among these are limited awareness and a lack of dedicated educational resources (Gupta & Dharwal, 2022; Muo & Azeez, 2019). The transformative role of education in propagating Green Entrepreneurship remains a focal point, emphasizing the need for embedding sustainability within entrepreneurial curricula (Barton, 2010). Yet, a discernable gap exists in Indonesia's academic settings, with a conspicuous absence of Green Entrepreneurship in mainstream education (Gunawan & Fraser, 2016). To

actualize Green Entrepreneurship's potential, a collaborative approach encompassing academia, businesses, government, and communities is paramount (York & Venkataraman, 2010; Gunawan & Fraser, 2016). Despite the burgeoning discourse on the subject, there remains a noticeable gap in exploring the perspectives of educators and students, particularly in emerging contexts like Indonesia. This study aims to contribute to the literature by amplifying these often-sidelined voices, offering a richer understanding of the challenges and opportunities in fostering Green Entrepreneurship.

3. Methodology

This research adhered to a mixed-methods approach, as proposed by Creswell and Clark (2017) and Molina-Azorin (2012). This methodology enables the concurrent utilization of quantitative and qualitative data, thereby offering a holistic perspective on the subject of green entrepreneurship within the Indonesian context. The analytical framework of the research draws upon a conducted survey among a representative sample of thirteen university faculty members, supplemented with a focus group discussion with nine participants involving a diverse mix of faculty, students, and administrative staff. Initially, a comprehensive survey was deployed, inspired by the theoretical frameworks of Cohen and Winn (2007) followed by a focus group for triangulation purposes. The questionnaire was divided into five segments, each focusing on a specific aspect of the educators' perception and implementation of green entrepreneurship:

Demographics: This section collected data on the respondents' age, gender, educational level, position, and duration of association with the university. This information provided the context for subsequent demographic-based analysis.

Awareness: Drawing on the work of York and Venkataraman (2010), this segment assessed educators' understanding of green entrepreneurship, gauging their awareness of the concept and its application in a business context.

Integration: The survey sought to understand the extent to which green entrepreneurship was integrated into the current curriculum, capturing details about relevant courses, modules, and programs.

Challenges: This section asked respondents to identify the barriers to implementing green entrepreneurship education, facilitating the identification of key areas for improvement.

Future Aspirations: This final section gauged respondents' willingness and plans to integrate green entrepreneurship into their future teaching, helping to assess the potential for growth in this field.

Following the survey, a Focus Group Discussion (FGD) was conducted, guided by Krueger and Casey's methodology (2014). This discussion involved a select group of faculty members, students, and administrative staff. Grounded in Schaltegger's (2002) work on ecopreneurship and Gibbs' (2009) model for sustainability entrepreneurship, the FGD aimed to delve deeper into the issues identified in the survey and explore potential strategies for promoting green entrepreneurship education. Finally, ethical considerations were paramount in this research. All participants were informed about the study's objectives, procedures, potential risks, and benefits. Informed consent was obtained from each participant, thereby ensuring voluntary participation and respecting individual autonomy (Denscombe, 2017). Participant confidentiality and privacy were strictly maintained, with all personal identifiers removed or anonymized in the final presentation of the data. The data were securely stored and access was restricted to the research team. The ethical considerations of this study were reviewed and approved by a relevant ethics committee, demonstrating a commitment to uphold research integrity and maintain high ethical standards. In this way it was ensured that the findings of this study will be used exclusively for academic purposes and policy formulation, contributing to the advancement of green entrepreneurship education in Indonesia.

4. Results

The exhaustive analysis of the survey data, complemented by the Focus Group Discussion (FGD), has afforded a nuanced comprehension of the prevailing scenario of green entrepreneurship education in Indonesia. The survey unveiled a conspicuous commitment to green entrepreneurship and leadership at the university institutional level. However, this commitment contrasts with a discernible gap in its practical manifestation within the curriculum. While there exists a plethora of initiatives orbiting sustainability, dedicated programs that center on green entrepreneurship and leadership remain surprisingly sparse. Respondents shed light on several challenges: a pronounced disconnection between university environmental aspirations and the

tangible intricacies of business, suggesting a need for weaving environmental principles more seamlessly into the business curricula. Furthermore, the expressed concerns about the shortage of specialized experts in the domain and the limited resources apportioned to sustainability initiatives underscore the urgent need for a recalibrated focus in these areas. Beyond these concerns, there resonated a collective call for a more robust collaboration framework, emphasizing the indispensable role of cohesive, inter-stakeholder initiatives in advancing the green entrepreneurship agenda.

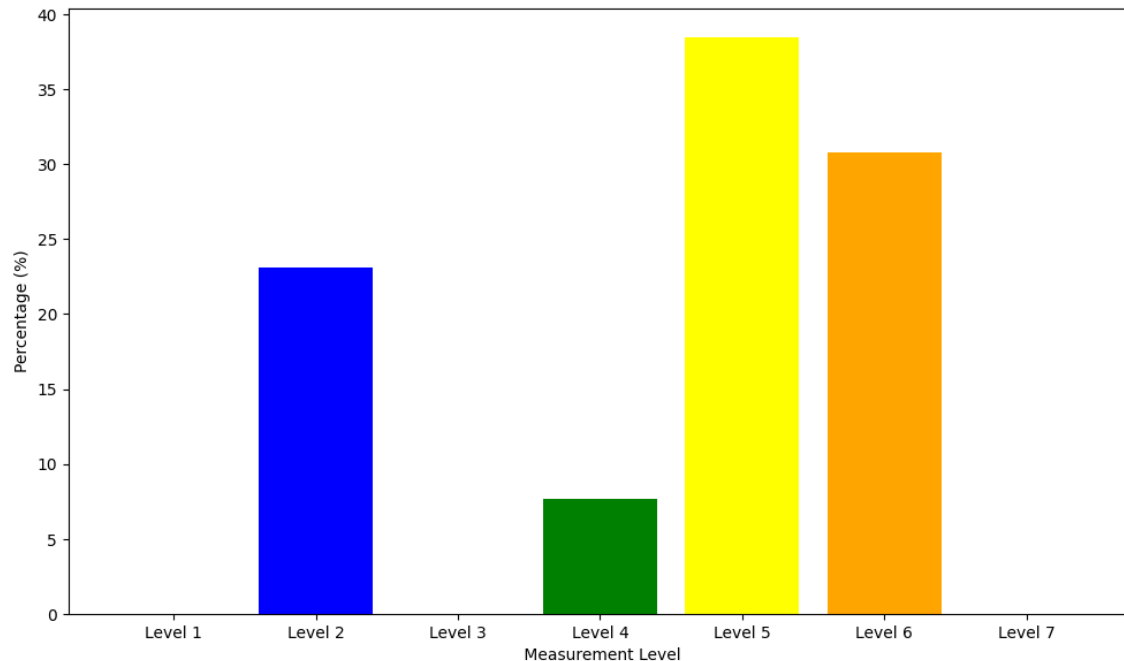


Figure 1: Presence of an Educational Collaborative Scheme with the Industry on Green Entrepreneurship and Leadership

Specifically, Figure 1 illustrates the existing collaborative dynamics between university and industry partners in green entrepreneurship and leadership. Among the respondents, 23.1% situated their institution's collaborative efforts at Level 2, indicating initial stages of partnerships. 7.7% identified with Level 4, signaling a moderate level of engagement. Notably, a combined majority of 69.3% placed their collaborations at Levels 5 and 6, reflecting matured and intensive engagements. However, the non-represented Level of 7 suggests areas that merit further improvement for enhancing the Educational Collaborative Scheme with the Industry on Green Entrepreneurship and Leadership. The survey findings showcase the educational institutions' commitment to fostering green entrepreneurship, highlighting both its strengths in higher-tier collaborations and areas requiring intensified focus. In the broader context of Indonesia's drive toward green entrepreneurship education would definitely play a significant role.

The Focus Group Discussion (FGD) outcomes harmonized with the survey's revelations, reiterating the university's unmistakable vow to sustainability and the existing lacunae in infrastructural and curricular support. Participants were unanimous in their call for a more integrated, multidisciplinary approach to green entrepreneurship. A recurrent theme was the demand for a comprehensive infusion of green principles throughout the curriculum, ensuring students grasp the full spectrum of sustainability's role in business. The FGD further underscored the lacuna of professionals with a formal grounding in sustainability, underscoring the pivotal role educators play in shaping the green entrepreneurs of tomorrow.

Our study bore further insights into the current deficiencies and latent opportunities for magnifying the resonance of green entrepreneurship in academia. The dialogues revealed a compelling consensus for embedding green entrepreneurship as a cornerstone within the academic curriculum rather than relegating it to the peripheries. This was coupled with an emphatic call for a surge in sustainability training, advocating for a comprehensive pedagogical approach towards green entrepreneurship and leadership. There was also a shared sentiment about the need for cultivating an environment that champions green ventures, a milieu characterized by mentoring, rich resources, and robust community support. In summation, the study's findings accentuate the pressing need to address the observed disparities in green entrepreneurship education. They

also delineate a roadmap for subsequent research and policymaking trajectories in Indonesia, spotlighting the instrumental role of synergetic endeavours amongst academia, industry, and governance in sculpting a generation proficient in the green economy's complexities.

5. Discussion – Conclusion

The results of this research study illuminate the existing gaps in the curriculum, the challenges faced by stakeholders, and the potential avenues for fostering green entrepreneurship and leadership. The survey findings underscored a perceptible commitment to green entrepreneurship and leadership at the university level. However, a notable disparity emerged between this commitment and the limited incorporation of sustainability-focused programs within the curriculum. The absence of specialized study programs in green entrepreneurship and leadership indicated a crucial area for improvement. Respondents expressed concerns over the misalignment of environmental ideals with practical business realities, emphasizing the need for sustainable initiatives to address fundamental business issues faced by small and medium enterprises. Additionally, sustaining and scaling up green entrepreneurship was hindered by inadequate financial resources, a lack of education and training in eco-friendly business practices, and the challenging market landscape, characterized by intense competition and fluctuating consumer preferences.

The Focus Group Discussion reinforced the survey results and provided valuable in-depth perspectives. It emphasized the urgency of adopting an integrated, multidisciplinary approach to green entrepreneurship and leadership. Participants advocated for the infusion of green concepts throughout the curriculum, enabling students to develop a holistic understanding of sustainability within the business context. Furthermore, they highlighted the dearth of experts with formal training and research in the specific field of sustainability, emphasizing the necessity of building faculty capabilities in this domain. The discussion also underscored the importance of fostering collaboration across disciplines, academia, industry, and government to create a supportive ecosystem that nurtures green businesses.

In conclusion, the gap analysis conducted at the university level has shed light on the state of green entrepreneurship education in Indonesia. While there exists a strong perceived commitment to sustainability at the university level, the actual curriculum dedicated to green entrepreneurship and leadership remains limited. The findings reveal the need for more focused and comprehensive study programs that address the specific challenges and opportunities presented by the green economy. To address these gaps, it is imperative to integrate sustainability concepts more prominently into the business curriculum, fostering a new generation of entrepreneurs who possess the knowledge and skills to operate successfully within the green economy. This integration should encompass not only theoretical knowledge but also practical training in eco-friendly business practices. Collaborations between academia, industry, and government are essential to create a nurturing environment for green entrepreneurship, offering access to resources, mentorship, and funding platforms for aspiring green entrepreneurs.

Moreover, the development of faculty expertise in the field of sustainability is crucial for fostering a culture of green entrepreneurship within the academic community. Investing in faculty training and research in sustainability-related areas will equip educators with the competence to inspire and guide students in their green entrepreneurial endeavors. Overall, the gap analysis carried out in this study provides valuable insights for policymakers, educational institutions, and stakeholders in Indonesia to devise targeted interventions that promote and advance green entrepreneurship education. By harnessing the potential of green entrepreneurship, Indonesia can pave the way towards a sustainable and resilient economy, addressing environmental challenges while fostering innovation and economic growth.

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