



Entrepreneurship and Sustainable Development Goals: An SCT Model Analysis

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How to Cite :

Prasnowo, M. A., Aziza, N., Sulaiman, A. (2025). Entrepreneurship and Sustainable Development Goals: An SCT Model Analysis. *Bima Journal : Business, Management and Accounting Journal*, 6 (1). DOI: <https://doi.org/10.37638/bima.6.1.11-18>

ARTICLE HISTORY

Received [21 December 2024]

Revised [04 January 2025]

Accepted [14 March 2025]

KEYWORDS

Sustainable Development Goals (SDGs); Entrepreneurship; Script Concordance Test (SCT); Sustainable Innovation; Social Inclusion.

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ABSTRACT

Purpose: This study aims to explore how entrepreneurship contributes to achieving the Sustainable Development Goals (SDGs) in Sidoarjo Regency. **Methodology:** Using a quantitative approach, the research applies the Script Concordance Test (SCT) to assess how well entrepreneurial actions align with sustainability principles. Data were collected from 30 entrepreneurs across various sectors, carefully selected to ensure diverse perspectives. The SCT scores reveal an average alignment of 0.77, reflecting a solid understanding of sustainability among entrepreneurs. **Results:** The findings demonstrate that entrepreneurship significantly supports SDGs, especially by creating jobs (with a workforce increase of 32%) and improving economic well-being through higher average incomes. However, challenges remain in environmental sustainability, where scores are lower for practices like using eco-friendly materials (0.55) and reducing carbon emissions (0.47). Entrepreneurs cited barriers such as limited access to technology, financial constraints, and insufficient policy support. **Novelty:** This study is novel in applying SCT to entrepreneurship, offering a fresh perspective on decision-making in sustainability. It highlights the importance of technological innovation and multi-stakeholder collaboration in fostering a thriving, sustainable entrepreneurial ecosystem. **Practical Implications:** To bridge the gaps, policymakers are encouraged to provide fiscal incentives, enhance digital literacy, and simplify regulatory processes. Collaboration among governments, private sectors, and communities is crucial to empower entrepreneurs and foster sustainable growth. **Conclusion:** Entrepreneurship is more than an economic driver; it is a force for addressing social and environmental challenges. With the right support and policies, entrepreneurs in Sidoarjo can set a powerful example of how local initiatives contribute to global SDGs. **Type of Paper:** Empirical Research Paper.

INTRODUCTION

Sustainable development is a pressing issue for the global community, as the world grapples with challenges like poverty, inequality, climate change, and environmental degradation. These problems not only jeopardize the present but also the future of generations to come (Apostolopoulos et al., 2018; Crecente et al., 2021; Kosovych, 2021; Pomare, 2018). To address this,

the United Nations (UN) launched the 17 Sustainable Development Goals (SDGs) in 2015, offering a shared framework to guide nations in creating a balanced approach to economic, social, and environmental progress by 2030. The SDGs emphasize collaboration across all sectors of society, underscoring the importance of shared responsibility in achieving a better future for all (Elenurm, 2023; Horne et al., 2020; Huđek & Hojnik, 2020; Venâncio & Pinto, 2020). Entrepreneurs are key drivers of change in this effort, acting as innovators and problem-solvers who stimulate economic growth, create jobs, and generate innovative solutions to social and environmental challenges (Filser et al., 2019; Strugar-Jelača et al., 2024; Venâncio & Pinto, 2020). Beyond profit, socially conscious entrepreneurs work to address inequalities, protect natural resources, and foster inclusive communities. Their efforts align directly with several SDG targets, such as improving livelihoods, reducing disparities, and mitigating environmental harm. By embedding sustainability into their practices, entrepreneurs demonstrate how businesses can be a force for good (Dhahri & Omri, 2018; Patricia, 2024; Polychronopoulos et al., 2021; Pomare, 2018; Sapaloglu, 2023).

In Sidoarjo Regency, a rapidly growing region in East Java, Indonesia, entrepreneurship holds immense promise. Known for its strategic location, robust infrastructure, and skilled workforce, Sidoarjo is a thriving hub for economic activity and innovation. Recognizing this potential, local authorities have made entrepreneurship a key focus, introducing programs to support business growth through training, financial assistance, and market development. Yet, despite these initiatives, integrating sustainability into entrepreneurial activities remains a challenge. Entrepreneurs in Sidoarjo face obstacles such as limited access to technology, insufficient skills, and a lack of awareness about sustainability. These barriers prevent them from fully embracing sustainable business practices that align with the SDGs. To overcome these challenges, a comprehensive approach is needed one that combines policy reform, education, and collaboration between government, private sector, and communities.

This study explores the contributions of entrepreneurship to SDG achievement in Sidoarjo Regency by using the Script Concordance Test (SCT) model. While entrepreneurship is globally recognized as a key driver of sustainable development, a significant research gap exists in understanding its localized impact, particularly in regions like Sidoarjo, which face distinct challenges such as limited technological access, insufficient financial resources, and a lack of structured guidance on sustainability practices. The problem lies in the disparity between the potential of entrepreneurship to advance sustainable development and the practical barriers entrepreneurs encounter, especially in adopting environmentally sustainable practices such as carbon reduction and the use of eco-friendly materials. Despite various programs initiated by local authorities to promote entrepreneurship, these efforts have not adequately addressed the integration of SDG values into entrepreneurial activities. To address this gap, this research aims to evaluate the alignment of entrepreneurial actions with sustainability principles using the SCT model, which is well-suited for assessing decision-making in uncertain and complex scenarios. Specifically, the study seeks to identify the key barriers and opportunities for embedding SDG values into business practices, while providing actionable recommendations to bridge the gap between sustainability awareness and implementation. By analyzing responses from local entrepreneurs, this study generates insights that can guide policymakers in designing targeted programs and policies to foster sustainable entrepreneurship, while also equipping entrepreneurs with practical strategies to integrate sustainability into their operations. Ultimately, this research underscores the transformative potential of entrepreneurship in driving economic growth, fostering social inclusion, and addressing environmental challenges, with the aspiration of creating a more sustainable and equitable future for Sidoarjo and beyond.

METHOD

This study adopts a quantitative approach using the Script Concordance Test (SCT) model to evaluate the contribution of entrepreneurship to achieving the SDGs in Sidoarjo Regency. The

research sample comprises 30 entrepreneurs selected through purposive sampling, considering several key criteria: diversity of business sectors (agriculture, manufacturing, trade, services, and creative economy), business scale (micro, small, medium, and large enterprises), and commitment to sustainability principles in their business operations. Data were collected using an SCT questionnaire validated by an expert panel consisting of five members, including academics, practitioners, and government representatives (Gawad et al., 2020; Lubarsky et al., 2018). The questionnaire features 15 scenarios representing real-life situations faced by entrepreneurs when integrating sustainability values into their business practices. Each scenario is accompanied by three SCT questions rated on a Likert scale, ranging from -2 (highly unlikely) to +2 (highly likely). The expert panel's responses served as the benchmark for assessing the alignment of respondents' answers.

The SCT scoring system was designed to evaluate how closely respondents' answers aligned with expert panel opinions, serving as an indicator of their understanding and integration of sustainability principles in entrepreneurial decision-making. Responses matching the majority of expert opinions received a score of 2, reflecting strong alignment with sustainability values, while responses aligning with a minority of experts scored 1, indicating partial alignment or alternative approaches. Responses that did not align with any expert opinion were scored 0, suggesting minimal or no consideration for sustainability. The average SCT score for each scenario and respondent was calculated to assess overall alignment with SDGs, with higher scores indicating a stronger incorporation of sustainability into decision-making processes. To ensure the instrument's reliability and validity, a Cronbach's Alpha score of 0.82 was obtained, demonstrating high internal consistency of the questionnaire. Expert consensus was achieved through iterative discussions among the five panel members, resulting in an agreement level of 85% on scoring benchmarks to ensure the accuracy and relevance of scenarios and responses. Additionally, the content validity of the questionnaire was established by mapping each scenario to specific SDG targets, ensuring comprehensive coverage of economic, social, and environmental sustainability dimensions.

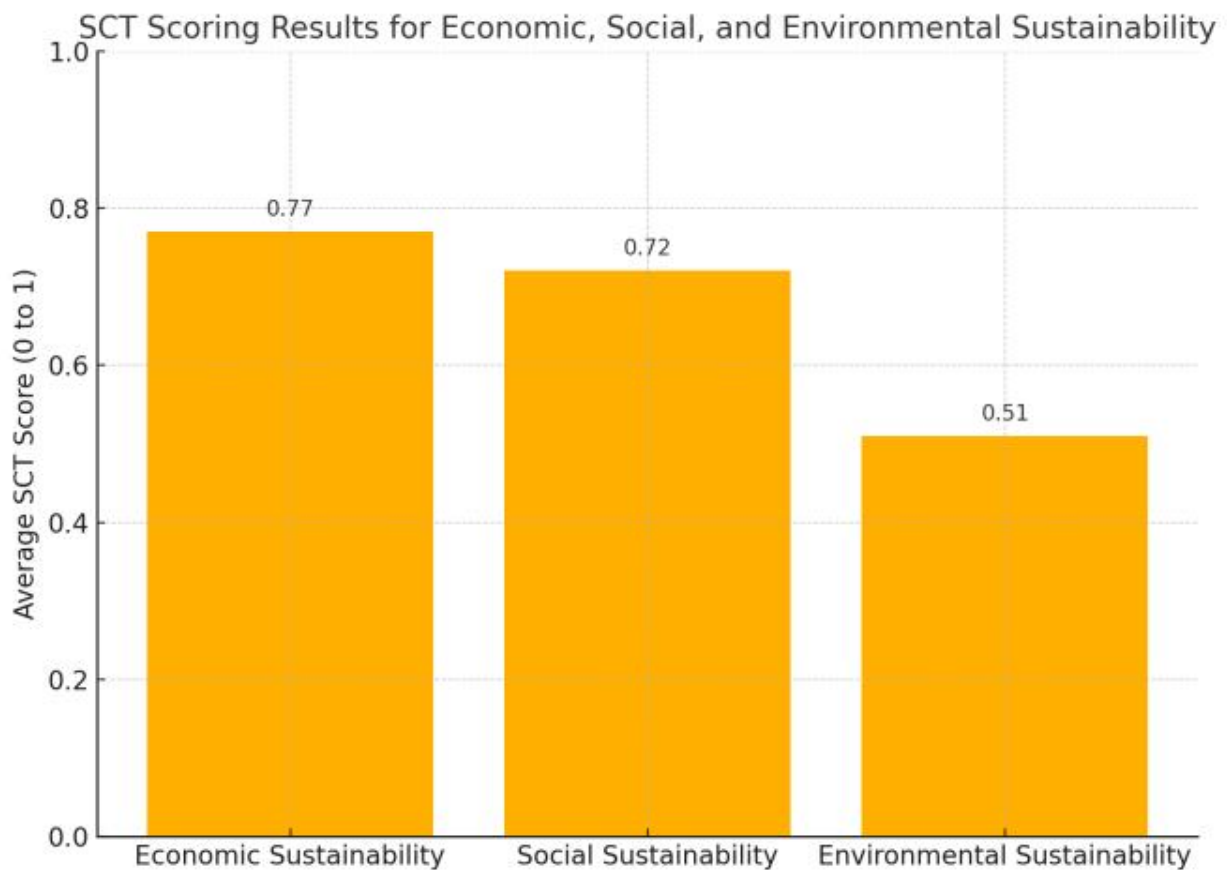
SCT scores were calculated by comparing respondents' answers with those of the expert panel, using the following scoring criteria: responses aligning with the majority of experts were scored 2, responses aligning with a minority of experts were scored 1, and responses not aligning with the panel were scored 0 (Deschênes et al., 2021; Ganesan et al., 2023; Lineberry et al., 2019; Peyrony et al., 2020; Wan et al., 2018). The questionnaire results were analyzed using descriptive statistics to provide an overall view of the SCT scores and to assess the extent to which entrepreneurs' actions align with SDG principles. To complement the quantitative analysis, in-depth interviews were conducted with selected respondents. This approach provided richer insights into the challenges and opportunities entrepreneurs face in supporting sustainable development. Additionally, the analysis delved into factors influencing the success and barriers to integrating SDG principles into entrepreneurial activities.

RESULTS AND DISCUSSION

RESULTS

This study reveals that entrepreneurship in Sidoarjo Regency significantly contributes to several Sustainable Development Goals (SDGs), particularly in creating job opportunities, improving economic well-being, and supporting social inclusion. Based on quantitative analysis using the Script Concordance Test (SCT), the overall average score is 0.77, indicating a fairly strong alignment between entrepreneurial actions and SDG principles. These findings highlight that most entrepreneurs are aware of the importance of sustainability, although implementation remains uneven across different aspects.

Figure 1. Sustainability Dimensions.



In terms of job creation, the study shows that most entrepreneurs have successfully increased their workforce since the inception of their businesses, contributing to a reduction in unemployment rates in the region. This impact is especially evident in the creative and manufacturing sectors, where entrepreneurs report significant employment absorption.

Entrepreneurship in Sidoarjo also positively impacts the economic well-being of the community. Business owners report increased personal and employee incomes, indirectly contributing to poverty alleviation in the area. Some entrepreneurs are also engaged in corporate social responsibility (CSR) programs, such as empowering local communities through skill training and providing business capital.

On the social dimension, entrepreneurship in Sidoarjo demonstrates a commitment to social inclusion. Most entrepreneurs offer employment opportunities to marginalized groups, including women, individuals with disabilities, and other vulnerable populations. This commitment fosters a more inclusive and equitable work environment, aligning with SDGs aimed at reducing social inequalities. However, the study also identifies significant challenges in environmental sustainability. While some entrepreneurs have initiated efforts in energy efficiency and waste management, other aspects, such as the use of environmentally friendly materials and carbon emission reduction, show lower SCT scores, at 0.55 and 0.47, respectively. These findings indicate that environmental sustainability efforts require greater attention, particularly in promoting eco-friendly business practices among micro and small enterprises. Barriers such as limited access to technology, resource constraints, and low awareness of sustainability are key factors influencing these gaps.

DISCUSSION

The findings of this study reaffirm the critical role of entrepreneurship in supporting the achievement of SDGs in Sidoarjo Regency. Entrepreneurship serves not only as an economic engine but also as a strategic lever for promoting social inclusion and sustainability. The relatively high overall SCT score reflects a significant awareness among entrepreneurs of the importance of sustainability principles, although implementation is still hindered by structural challenges. One of the key findings highlights that entrepreneurship in Sidoarjo has successfully created substantial employment opportunities, particularly in the creative and manufacturing sectors. This contributes not only to local economic growth but also to reducing unemployment rates in the region, aligning with SDG 8 (Decent Work and Economic Growth).

However, the study also reveals a gap between awareness and concrete actions in certain sustainability aspects, particularly environmental sustainability. The adoption of eco-friendly materials and efforts to reduce carbon emissions remain major challenges. Many entrepreneurs struggle to integrate environmentally friendly technologies into their business processes due to limited capital, inadequate infrastructure, and low digital literacy. These obstacles are especially pronounced among micro and small enterprises, which often face difficulties accessing new technologies and sufficient financial resources.

In-depth interviews further reveal that government regulations and policies play a crucial role in influencing business sustainability. While local authorities have launched various programs to support entrepreneurship, such as training and business capital provision, some entrepreneurs report challenges with bureaucratic complexity and a lack of incentives to adopt sustainable practices. For instance, complicated business licensing processes often hinder the growth of micro and small enterprises, while the absence of fiscal incentives reduces motivation to implement environmentally friendly technologies. From a social perspective, entrepreneurship in Sidoarjo has made significant positive impacts. Many entrepreneurs actively empower vulnerable groups, such as women and individuals with disabilities, demonstrating that entrepreneurship can be an effective tool for reducing social inequalities. These initiatives not only support SDG 10 (Reduced Inequalities) but also foster a more inclusive and equitable work environment. However, environmental sustainability showed lower alignment, with average scores of 0.55 for eco-friendly materials and 0.47 for carbon reduction efforts. These findings are consistent with prior studies highlighting the challenges faced by small businesses in adopting sustainable practices (Dhahri & Omri, 2018; Polychronopoulos et al., 2021). To address these gaps, this study recommends targeted government incentives, enhanced access to green technologies, and capacity-building programs for entrepreneurs.

To address these gaps and challenges, the study emphasizes the importance of multi-stakeholder collaboration. Governments, the private sector, academia, and communities must work together to create a more conducive entrepreneurial ecosystem for sustainability. For example, the government could strengthen policies by providing fiscal incentives, simplifying regulations, and promoting digital literacy among entrepreneurs. The private sector, on the other hand, could act as a strategic partner by offering technology and venture capital to support the adoption of sustainable practices. With an integrated approach, entrepreneurship in Sidoarjo has the potential to become a successful model for supporting sustainable development at both local and national levels.

CONCLUSION

This study highlights the transformative potential of entrepreneurship in advancing Sustainable Development Goals (SDGs) in Sidoarjo Regency, particularly in fostering economic growth, social inclusion, and sustainability. Entrepreneurs have significantly contributed to the economic and social dimensions of sustainability by creating jobs, improving livelihoods, and

empowering marginalized groups, which aligns with SDG targets such as poverty alleviation (SDG 1), decent work and economic growth (SDG 8), and reducing inequalities (SDG 10). However, the study also uncovers critical gaps in the environmental dimension, as low adoption rates of eco-friendly materials and limited efforts to reduce carbon emissions suggest that environmental sustainability remains underdeveloped. To address these gaps, policymakers should simplify regulations to reduce bureaucratic barriers for micro and small enterprises, provide financial incentives such as tax breaks or grants for adopting sustainable practices, and invest in technology hubs to enhance access to green technologies and digital training. Entrepreneurs, on the other hand, need to proactively seek partnerships to access funding and resources, start integrating sustainable practices such as energy efficiency or waste reduction, and participate in government-driven sustainability programs. Meanwhile, private sector actors and academic institutions can play a crucial role by providing affordable green technologies, conducting feasibility studies on sustainable practices, and establishing business incubation programs that offer technical and financial support for entrepreneurs transitioning to more sustainable operations. At a broader level, addressing these challenges in Sidoarjo has the potential to transform the region into a model for sustainable entrepreneurship, demonstrating how small and medium enterprises can drive economic growth while minimizing environmental impact. Nationally, scaling up such initiatives can enhance Indonesia's contribution to global SDG targets. Globally, this research adds to the growing body of literature advocating for sustainable entrepreneurship as a critical pathway to achieving the SDGs, emphasizing the importance of balancing economic profitability with positive social and environmental outcomes. By fostering collaboration among stakeholders, empowering entrepreneurs with resources and knowledge, and addressing structural barriers, Sidoarjo can showcase how local initiatives can drive sustainable development and serve as a benchmark for similar regions. In conclusion, while entrepreneurship in Sidoarjo has made meaningful strides in advancing economic and social sustainability, addressing environmental challenges through collaborative, innovative, and actionable strategies will not only strengthen local economies but also pave the way for a more equitable and resilient future at a national and global scale.

ACKNOWLEDGMENTS

We would like to express our deepest gratitude to all parties who contributed to the success of this research. Our heartfelt appreciation goes to the entrepreneurs in Sidoarjo Regency who generously shared their time, experiences, and insights, which formed the foundation of this study. We extend our thanks to the panel of experts, including academics, practitioners, and government representatives, for their invaluable input in validating the Script Concordance Test (SCT) and providing guidance throughout the research process. Your expertise and constructive feedback have greatly enriched this study. Our sincere gratitude also goes to the local government of Sidoarjo for their support and cooperation, as well as for creating an enabling environment for entrepreneurship development in the region. Finally, we are deeply grateful for the encouragement and support of colleagues, and Universitas Maarif Hasyim Latif, without which this research would not have been possible. Your unwavering belief in the importance of this work has been our source of inspiration. This study is dedicated to fostering sustainable entrepreneurship and contributing to the broader goals of sustainable development. Thank you for being part of this journey.

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