

DIVING INTO GEN Z'S ECO-FRIENDLY BUSINESS VISIONS AND ENTREPRENEURIAL JOURNEYS IN METROPOLITAN MALANG

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Abstract

In today's evolving business realm, sustainable entrepreneurship is paramount, especially in terms of social and environmental accountability. This study explores eco-friendly business visions and entrepreneurial paths among Generation Z in Malang's vibrant Metropolitan Area. Through descriptive analysis, it navigates the aspirations and journeys of young entrepreneurs towards sustainability. Utilizing questionnaire data from 250 participants, the research offers an overview of how education on Sustainable Development Goals (SDGs) and familiarity with the Green Economy intersect with Generation Z's entrepreneurial spirit in Malang. By uncovering significant correlations between SDGs education, Green Economy knowledge, and entrepreneurial intentions, the study provides compelling insights. It also examines the catalytic effects of information technology infrastructure and local government support. Advocating for integrating sustainability principles into education and economic policies, the paper stresses collaborative efforts among businesses, academia, and government entities. Furthermore, it underscores equitable access to technology and the crucial role of local government in nurturing socially and environmentally conscious businesses. Lastly, the paper calls for further research to evaluate the efficacy of SDGs education in equipping Generation Z with entrepreneurial skills for the future.

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1. Introduction

In the dynamic landscape of contemporary business, there is a growing recognition of the imperative to integrate social responsibility and sustainability into operational frameworks to address pressing environmental and social challenges (Muthuswamy & Ali, 2023). Over recent years, entrepreneurship has emerged as a powerful force driving solutions to these challenges, leading to the conceptualization of sustainable entrepreneurship (Blok, 2018). This innovative approach places a strong emphasis on fostering environmentally conscious growth while simultaneously addressing social inequalities (Hanum, 2023).

Sustainable entrepreneurship has garnered recognition for its ability to effectively address both social and environmental concerns, playing a crucial role in advancing the green economy of various regions (Haseeb et al, 2024). By championing sustainable

innovation and solutions, it not only propels economic growth but also minimizes environmental impact. Through entrepreneurial endeavors, resources can be utilized optimally, waste can be effectively managed, and new avenues for employment can be created, thereby enhancing local economic resilience (Mukherjee, 2023). Rooted in sustainability principles, entrepreneurship not only fosters financial prosperity but also prioritizes the harmony between economic progress and societal well-being.

In Indonesia, the entrepreneurial landscape is undergoing a transformative shift, particularly with the rise of Generation Z entrepreneurs who are reshaping conventional business norms (Rinaldi & Herlina, 2022). Raised in the digital era, these individuals leverage technology to drive sustainability in their ventures (Rodriguez-Marin, 2022). With a steadfast commitment to addressing societal and environmental challenges, they utilize technology as a catalyst for innovation and impact. While gaps persist in our understanding of the factors influencing the entrepreneurial intentions of Generation Z, particularly in sustainability realms, there is a discernible inclination towards sustainability and digital platforms in their entrepreneurial pursuits (Lešinskis, 2023). However, further exploration is warranted into the influence of Sustainable Development Goals (SDGs) education and Green Economy knowledge on the entrepreneurial mindset of Generation Z, as well as the role of information technology infrastructure and local government support in shaping sustainable entrepreneurship.

Diving into the realm of Generation Z's eco-friendly business visions and entrepreneurial journeys in the bustling Metropolitan Area of Malang unveils a narrative rich in innovation, sustainability, and youthful dynamism. Within this urban tapestry, a new wave of entrepreneurs emerges, driven by a profound sense of environmental stewardship and a fervent desire to carve out their place in the business landscape while making a positive impact on their surroundings.

In recent years, the concept of sustainable entrepreneurship has gained traction as a viable pathway for addressing pressing social and environmental challenges (Padhiary & Patel, 2022). This paradigm shift underscores the evolving role of businesses in promoting sustainability while driving economic growth (de Almeida, 2024). As such, entrepreneurs, particularly those from Generation Z, are increasingly embracing eco-friendly business models that prioritize environmental conservation and social responsibility.

At the heart of this burgeoning movement lies Malang, a vibrant metropolitan hub renowned for its cultural diversity, natural beauty, and burgeoning entrepreneurship ecosystem. Here, amidst the hustle and bustle of urban life, a new generation of entrepreneurs is reshaping traditional business paradigms with their innovative ideas and eco-conscious ventures. From sustainable fashion startups to zero-waste initiatives, these young trailblazers are redefining success in business by aligning profit with purpose.

The entrepreneurial landscape in Metropolitan Malang is characterized by a spirit of innovation and a commitment to sustainability. Generation Z entrepreneurs, in particular, are leading the charge towards a greener economy, harnessing the power of technology and digital platforms to amplify their impact. With their innate understanding of digital tools and social media, these young innovators are leveraging technology to connect with consumers, raise awareness about sustainability issues, and drive demand for eco-friendly products and services (Balbaa, 2023).

Central to the success of eco-friendly businesses in Metropolitan Malang is the supportive ecosystem that nurtures and empowers young entrepreneurs. From incubators

and co-working spaces to mentorship programs and funding opportunities, the city offers a range of resources to help aspiring entrepreneurs turn their ideas into reality. Moreover, the local government plays a crucial role in fostering a conducive environment for sustainable entrepreneurship by implementing policies that incentivize green initiatives and promote sustainable practices.

Education also plays a pivotal role in shaping the entrepreneurial aspirations of Generation Z in Metropolitan Malang. With a growing emphasis on sustainability in academic curricula, young people are increasingly exposed to concepts such as the Sustainable Development Goals (SDGs) and the Green Economy. This exposure not only instills a sense of environmental consciousness but also equips them with the knowledge and skills needed to build businesses that prioritize sustainability.

As Generation Z continues to spearhead the transition towards a greener economy, their entrepreneurial journeys serve as a testament to the power of youth-led innovation and social entrepreneurship. By embracing eco-friendly business models and leveraging technology for social good, these young entrepreneurs are driving positive change and creating a more sustainable future for Metropolitan Malang and beyond.

In conclusion, diving into Generation Z's eco-friendly business visions and entrepreneurial journeys in Metropolitan Malang reveals a narrative of hope, resilience, and innovation (Iswari et al, 2022). As these young trailblazers chart their course in the business world, they are not only shaping the future of entrepreneurship but also paving the way for a more sustainable and inclusive economy. Through their creativity, passion, and commitment to social and environmental responsibility, Generation Z is proving that business can be a force for good, driving positive change and making a lasting impact on the world around them.

2. Methods

This research embarks on a journey to unravel the intricate eco-friendly business visions and entrepreneurial expeditions of Generation Z within the bustling confines of Metropolitan Malang. Through a comprehensive descriptive analysis, the study seeks to illuminate the multifaceted landscape of sustainable entrepreneurship among undergraduate and postgraduate students in the area.

The data under scrutiny originates from a questionnaire distributed among young individuals aged 18 to 30, hailing from universities scattered across the Metropolitan Malang Area. This approach was chosen to ensure a diverse pool of perspectives and insights, capturing the essence of Generation Z's entrepreneurial aspirations. Anonymity was ensured to safeguard respondent privacy, especially concerning queries related to education and governmental roles.

Convenience sampling was employed to select participants, chosen for its practicality and cost-effectiveness. Criteria for inclusion encompassed undergraduate and postgraduate students holding Bachelor's, Diploma, and Master's degrees, identified from educational institutions situated in Malang City, Malang Regency, and Batu City. This selection criteria aimed to provide a representative sample reflective of the diverse academic backgrounds within the region.

The questionnaire, meticulously crafted based on established research frameworks, delved into various facets pertinent to sustainable entrepreneurship. Participants were

prompted to express their perspectives on sustainable entrepreneurial intentions, Sustainable Development Goals (SDGs) education, Green Economy education, self-efficacy in sustainable entrepreneurship, information technology infrastructure, and local government support. Responses were gauged on a five-point Likert scale, allowing for nuanced insights into participants' perceptions and attitudes.

Data collection spanned the months of October and November 2023, ensuring a robust dataset encapsulating a broad spectrum of viewpoints. The questionnaire responses were subsequently subjected to thorough analysis using SmartPLS 3.2 software. However, it's important to note that the analysis focused solely on descriptive exploration, eschewing the intricacies of evaluating inter-variable relationships.

The descriptive analysis aimed to paint a vivid portrait of Generation Z's entrepreneurial landscape in Metropolitan Malang. By delving into the nuances of eco-friendly business visions and entrepreneurial endeavors, the study sought to unravel the underlying motivations, aspirations, and challenges encountered by young entrepreneurs in the region. Through a meticulous examination of the questionnaire data, researchers endeavored to provide rich insights into the evolving entrepreneurial ecosystem, shedding light on the pathways and trajectories pursued by Generation Z as they navigate the realms of sustainable entrepreneurship.

Overall, the descriptive analysis serves as a cornerstone in understanding the dynamics of sustainable entrepreneurship among Generation Z in Metropolitan Malang. By capturing the essence of eco-friendly business visions and entrepreneurial journeys, the study aims to inform policymakers, educators, and industry stakeholders about the evolving landscape of entrepreneurship in the region. Through a comprehensive exploration of Generation Z's entrepreneurial endeavors, the research seeks to pave the way for fostering a more vibrant, inclusive, and sustainable entrepreneurial ecosystem in Metropolitan Malang and beyond.

3. Results and Discussion

The characteristics of the respondents offer valuable insights into the demographic makeup and backgrounds of the participants involved in the study. With a sample size of 250 individuals, the research achieved a diverse representation by leveraging social media platforms and the researcher's network at the Malang Campus. Interestingly, the gender distribution among the respondents reveals a notable disparity, with a majority being female, comprising 67% of the total participants, while males make up the remaining 33%. This gender imbalance provides potential insights into the varying perspectives and experiences related to eco-friendly business visions and entrepreneurial journeys across different gender demographics.

Moreover, an examination of the age distribution of the respondents uncovers intriguing trends, with the majority falling within the 18 to 20 age bracket, constituting 56% of the sample. This suggests a significant presence of young adults and students in the study, aligning well with the focus on Generation Z and their active involvement in entrepreneurial pursuits. Additionally, the distribution indicates that 28% of respondents belong to the 21 to 30 age group, indicating a substantial representation of older youth and young professionals in the sample. Furthermore, the inclusion of respondents under 18 years old, comprising 16% of the total participants, highlights the study's engagement with even younger individuals.

Geographically, the respondents predominantly originate from Malang City, with 12% of participants identifying this urban center as their location. Batu City and Malang Regency contribute smaller percentages to the sample, with 4% and 2% of respondents, respectively. This geographical distribution underscores the urban-centric focus of the study, primarily centered on individuals from urban areas within the Metropolitan Malang region. Additionally, the diverse academic backgrounds of the respondents offer further insights, with the largest concentration found in disciplines such as Plant Science, Engineering, and Economics. This diversity in academic interests enriches the study by incorporating perspectives from various fields, contributing to a holistic understanding of eco-friendly business visions and entrepreneurial journeys among Generation Z in Metropolitan Malang.

The following table presents the key characteristics of the respondents participating in the study. These insights offer valuable demographic information, including gender distribution, age groups, geographical locations, academic backgrounds, and levels of familiarity with eco-friendly products. Understanding these demographic details is crucial for gaining insights into the perspectives and backgrounds of the participants involved in exploring eco-friendly business visions and entrepreneurial journeys among Generation Z in Metropolitan Malang

Table 1. Characteristics Respondent

Characteristics	Amount	Percentage
<i>Gender</i>		
Man	82	33%
Woman	168	67%
<i>Age</i>		
< 18 Years	39	16%
18-20 Years	141	56%
21-30 Years	70	28%
<i>Respondent 's Domicile</i>		
Malang city	31	12%
Batu City	9	4%
Malang Regency	6	2%
<i>Study Program Science Cluster</i>		
Mathematics and Natural science	15	6%
Plant Science Family	45	18%
Animal Science Group	29	12%
Medical Doctor Sciences Cluster	18	7%
Health Sciences (Nutritions, Nursing, Pharmacy) Cluster	13	5%
Engineering Science Cluster	37	15%
Language and Culture Science Cluster	13	5%
Economics Cluster	40	16%
Humanities and Social Sciences Cluster	11	4%

Art, Design and Media Family	9	4%
Education Science Cluster	20	8%
<i>Entrepreneurship Experience</i>		
Have No Experience	129	51%
< 1 Year	74	30%
1-3 Years	20	8%
> 3 Years	27	11%
<i>Environmentally Friendly Product Knowledge</i>		
Very Familiar	39	16%
Fairly Familiar	181	72%
Slightly Familiar	30	12%

Source: Data Collected, (2024)

Diving into Generation Z's eco-friendly business visions and entrepreneurial journeys in Metropolitan Malang entails a comprehensive analysis of various factors, including SDGs education, which plays a crucial role in shaping the mindset and actions of young entrepreneurs towards sustainability. Here's an analysis based on the highest and lowest values of from each variable.

Sustainable Development Goals. The high score of 0.847 on the statement "I am ready to take an active role in projects or supporting initiatives for the achievement of SDGs goals" underscores the profound commitment and readiness of respondents to actively participate in endeavors aimed at realizing the Sustainable Development Goals (SDGs). This inclination towards proactive engagement can be rationalized by several factors inherent in Generation Z's eco-friendly business visions and entrepreneurial journeys in Metropolitan Malang.

Firstly, it reflects a deep-seated awareness among respondents regarding the urgency and significance of addressing pressing social, environmental, and economic issues encapsulated within the SDGs framework. As individuals who have grown up amidst increasing environmental degradation and socio-economic disparities, Generation Z in Metropolitan Malang is acutely attuned to the need for collective action and innovative solutions to tackle these challenges.

Moreover, the high score suggests a strong sense of personal agency and responsibility among respondents. They recognize that they have a crucial role to play in effecting positive change within their communities and beyond (Starczewski et al, 2023). This acknowledgment is underpinned by a belief in the power of individual and collective action to drive meaningful impact and shape a more sustainable future (Al-Sharafi et al, 2023).

Additionally, the readiness expressed by respondents may stem from a desire to align their personal values and aspirations with their professional endeavors. Generation Z individuals are known for prioritizing purpose-driven work and seeking opportunities that allow them to make a meaningful difference in the world (Halová & Müller, 2023). By actively engaging in SDGs-related projects and initiatives, they can fulfill their desire for purposeful engagement and contribute to causes that resonate with their values.

Furthermore, the high score may reflect a growing sense of solidarity and collaboration within Generation Z in Metropolitan Malang. Respondents recognize the importance of working together across diverse sectors and stakeholders to address complex sustainability

challenges effectively. This spirit of collaboration fosters a sense of community and collective responsibility, driving momentum towards achieving shared sustainability goals.

In essence, the high score on this statement signifies not only the readiness of respondents to actively contribute to SDGs attainment but also their deep-seated commitment to fostering positive change and building a more sustainable and inclusive society. It underscores their role as catalysts for innovation, collaboration, and transformative action in the pursuit of eco-friendly business visions and entrepreneurial journeys in Metropolitan Malang.

In contrast, the lowest score of 0.707 on the statement "Deep integration of SDGs learning will help create more generations caring about social and environmental issues" indicates that, while still relatively high, there is room for improvement in respondents' awareness and commitment to the importance of SDGs in shaping generations that care about social and environmental challenges. A deeper analysis of this score provides valuable insights into the factors that may influence respondents' perceptions and attitudes regarding SDGs learning.

Firstly, the decrease in this score may reflect a lower level of awareness among respondents about the broader implications and urgency of SDGs goals. Despite efforts to integrate SDGs learning into the curriculum, some respondents may not fully grasp the larger impact of achieving these goals on sustainable social, economic, and environmental development.

Secondly, the decrease in this score may also indicate a lack of engagement or opportunities to participate in initiatives and projects related to SDGs. Limited direct experience in applying SDGs principles in real-life contexts can constrain respondents' understanding and commitment to the role and benefits of SDGs learning. Furthermore, the decrease in this score may also signify a lack of awareness of the complex relationship between social and environmental issues and limited knowledge of how sustainable development efforts can help address these issues holistically.

In the context of Metropolitan Malang, the decrease in this score highlights the ongoing challenges in strengthening Generation Z's understanding and commitment to SDGs. In efforts to enhance their awareness and engagement, a holistic and integrated approach involving various stakeholders, including educators, government, and civil society, is needed. By integrating SDGs learning into educational curricula, providing opportunities for participation in SDGs-related projects and initiatives, and improving access to relevant information and resources, Generation Z can more actively contribute to achieving SDGs goals and building a more sustainable and inclusive society.

Green Economy Education. The high score of 0.830 on the statement "I believe that investment in education about the Green Economy will bring long-term benefits for the environment and society as a whole" reflects a strong positive perception among respondents regarding the importance and potential impact of education on the Green Economy. A deeper analysis of this score offers valuable insights into the underlying reasons and implications of respondents' beliefs regarding Green Economy education.

One rationale behind this high score is the growing recognition of the Green Economy as a pathway towards sustainable development and addressing environmental challenges. Respondents may perceive education about the Green Economy as essential for equipping individuals with the knowledge and skills needed to transition towards more sustainable and environmentally friendly practices. This belief aligns with global efforts to promote

green growth and emphasizes the interconnectedness between economic prosperity, environmental sustainability, and social well-being.

Furthermore, the high score may also reflect respondents' confidence in the transformative power of education to drive positive change at both individual and societal levels. By investing in Green Economy education, respondents may anticipate a ripple effect, where informed and empowered individuals can catalyze broader shifts towards sustainable consumption, production, and resource management (Huang & Zhang, 2023). This belief underscores the importance of education as a catalyst for behavioral change and the adoption of sustainable lifestyles and practices.

Moreover, the emphasis on long-term benefits in the statement suggests that respondents recognize the enduring impact of Green Economy education beyond immediate outcomes. By investing in education about the Green Economy, respondents may anticipate a future where environmental degradation is mitigated, communities are more resilient to environmental challenges, and societies thrive in harmony with nature. This forward-thinking perspective highlights the value of education as an investment in future generations and the sustainability of the planet.

In addressing these rationales, policymakers and educators in Metropolitan Malang can consider enhancing and expanding education initiatives focused on the Green Economy. By integrating Green Economy principles and concepts into educational curricula at all levels, from primary to tertiary education, students can develop a holistic understanding of the Green Economy and its relevance to their lives and communities. Additionally, fostering partnerships with businesses, government agencies, and civil society organizations engaged in green initiatives can provide students with opportunities for practical learning and hands-on experience in green entrepreneurship, renewable energy, sustainable agriculture, and other areas. Through these concerted efforts, Metropolitan Malang can nurture a new generation of environmentally conscious and socially responsible leaders who are equipped to drive positive change and contribute to the transition towards a more sustainable and inclusive Green Economy.

In contrast, the lowest score of 0.738 on the statement "Curriculum that includes material about sustainable solutions and environmental friendliness will help me become responsible future leaders" indicates a lower level of agreement among respondents towards this statement. Further analysis of this score can provide insights into the factors that may influence respondents' perceptions and attitudes towards curriculum that includes education about sustainable solutions and environmental friendliness.

One possible factor contributing to this low score is a lack of awareness or deep understanding of environmental issues and sustainable solutions among the respondents. Respondents may have limited exposure or access to information and education about sustainable solutions, resulting in a lack of urgency or need for integrating such materials into their curriculum. Additionally, a lack of education and awareness about the negative impacts of unsustainable behaviors and practices may also lead to a lack of appreciation for the importance of education about sustainable solutions in shaping responsible future leaders.

Furthermore, internal factors such as personal preferences or different educational priorities may also influence the level of agreement among respondents towards this statement. Some respondents may be more interested in specific subjects or fields of study that are not directly related to environmental issues, making curriculum that includes

education about sustainable solutions and environmental friendliness seem less relevant or aligned with their interests or aspirations. Additionally, uncertainty about the future or ambiguity about how education about sustainable solutions can contribute to their development as future leaders may also be factors affecting their attitudes towards this statement.

In response to these findings, education policymakers and decision-makers in the Metropolitan Malang area may consider enhancing and expanding the integration of education about sustainable solutions and environmental friendliness into their curriculum. By providing broader and more comprehensive access to information and education about environmental issues and sustainable solutions, they can help increase students' awareness, understanding, and appreciation of the importance of sustainability and environmental responsibility in shaping responsible future leaders. Additionally, by strengthening the connection between educational curriculum and the real world, students can see the practical value and relevance of education about sustainable solutions in helping them become effective and impactful leaders in the future.

Entrepreneurial Self- Efficacy Sustainable. The highest score of 0.791 on the statement "I feel certain that I have the ability to motivate myself alone in realizing sustainable business ideas, even though there are risks and challenges that must be faced" suggests a strong sense of self-efficacy among respondents regarding their capability to pursue sustainable business endeavors. This finding indicates a high level of confidence and belief in their own abilities to overcome obstacles and achieve success in sustainable entrepreneurship.

The high score on this statement may be attributed to several factors. Firstly, respondents may possess a strong passion and commitment towards sustainability and environmental conservation, driving their confidence in pursuing sustainable business ideas. Their intrinsic motivation and belief in the importance of addressing environmental challenges through entrepreneurship could contribute to their confidence in their ability to navigate risks and challenges.

Moreover, respondents may have acquired relevant knowledge, skills, and experiences that bolster their confidence in sustainable entrepreneurship. This could include exposure to entrepreneurship education, practical experiences in developing and implementing business ideas, and access to resources and support networks that facilitate their entrepreneurial journey. As a result, they feel equipped and empowered to tackle the complexities and uncertainties associated with sustainable business ventures.

Additionally, respondents' self-efficacy beliefs may be reinforced by their awareness of the growing demand for sustainable products and services in the market. With increasing consumer awareness and preferences for environmentally friendly and socially responsible products, respondents may perceive sustainable entrepreneurship as a viable and promising opportunity for meeting market needs while making a positive impact on society and the environment.

In conclusion, the high score on the statement reflects respondents' confidence in their ability to drive sustainable entrepreneurship and underscores their commitment to addressing environmental challenges through innovative business solutions. This strong sense of self-efficacy bodes well for the future of sustainable entrepreneurship in the Metropolitan Malang area, as it signifies a generation of entrepreneurs who are poised to

make meaningful contributions to environmental sustainability and economic development through their entrepreneurial endeavors.

In contrast, the lowest score of 0.702 is observed on the statement "I feel believe in myself that I can develop efforts that are not only profitable financially, but also have a positive impact on the environment." This indicates a relatively lower level of confidence among respondents in their ability to develop business efforts that prioritize both profitability and positive environmental impact.

Several factors may contribute to this lower score. Firstly, respondents may perceive a trade-off between financial profitability and environmental impact, viewing sustainable business practices as potentially less lucrative compared to conventional business models. This perception could stem from a lack of awareness or understanding of the potential economic benefits associated with sustainability, such as cost savings from resource efficiency, enhanced brand reputation, and access to new markets driven by consumer demand for eco-friendly products and services.

Furthermore, respondents may face barriers or challenges in translating their aspirations for sustainable entrepreneurship into practical business ventures. These barriers could include limited access to financial capital, inadequate knowledge and skills in sustainable business practices, and a lack of supportive infrastructure and networks for sustainable entrepreneurship development. As a result, respondents may feel uncertain or hesitant about their ability to navigate the complexities of integrating environmental considerations into their business strategies while ensuring financial viability.

Moreover, cultural and societal norms that prioritize financial success over environmental conservation may influence respondents' perceptions of the feasibility and desirability of pursuing environmentally impactful business endeavors. In contexts where traditional notions of business success are narrowly defined in terms of financial profitability, individuals may struggle to reconcile their aspirations for environmental stewardship with prevailing business paradigms and expectations.

Overall, the lower score on this statement underscores the need for targeted interventions and support mechanisms to empower aspiring entrepreneurs in Metropolitan Malang to develop sustainable business ventures that prioritize both financial profitability and positive environmental impact. By addressing barriers to sustainability entrepreneurship and fostering a conducive ecosystem for innovation and collaboration, stakeholders can nurture a new generation of entrepreneurs who are equipped and motivated to create value for both society and the environment through their business endeavors.

Intention Entrepreneurship Sustainable. The highest score of 0.864 is observed on the statement "I believe that sustainable business can give opportunity for sustainable growth as well." This indicates a strong belief among respondents in the potential of sustainable business practices to foster not only economic growth but also long-term sustainability and resilience. Respondents recognize the inherent value of integrating sustainability principles into business operations, viewing it as a strategic approach that can lead to positive outcomes for both businesses and the environment.

This high score reflects a growing awareness and appreciation for the interconnectedness of economic prosperity and environmental stewardship among respondents. They recognize that sustainable business practices not only contribute to environmental conservation and resource efficiency but also create opportunities for

innovation, market differentiation, and competitive advantage. By aligning business objectives with broader sustainability goals, respondents perceive the potential for sustainable businesses to thrive in the long term while contributing to the well-being of society and the planet.

In contrast, the lowest score of 0.703 is observed on the statement "I'm planning to develop supporting efforts for the continuity of the environment." This suggests a relatively lower intention among respondents to proactively engage in efforts that support the continuity and preservation of the environment through their entrepreneurial endeavors.

Several factors may contribute to this lower score. Firstly, respondents may lack specific plans or strategies for integrating environmental sustainability into their entrepreneurial initiatives. They may prioritize other business objectives or perceive environmental sustainability as a secondary consideration compared to immediate financial goals or operational challenges. Furthermore, respondents may face barriers or challenges in translating their intentions for environmental stewardship into concrete actions within the context of their entrepreneurial ventures. These barriers could include limited resources, expertise, or incentives to prioritize environmental sustainability, as well as competing demands and priorities that may overshadow environmental considerations in business decision-making.

Additionally, cultural norms, market dynamics, and regulatory frameworks may influence respondents' perceptions of the importance and feasibility of incorporating environmental sustainability into their entrepreneurial endeavors. In contexts where environmental sustainability is not widely valued or incentivized, individuals may perceive limited opportunities or incentives to invest in initiatives that support the continuity of the environment.

Overall, the lower score on this statement highlights the need for targeted interventions and support mechanisms to encourage and enable respondents to translate their intentions for environmental stewardship into tangible actions within their entrepreneurial ventures. By addressing barriers, raising awareness, and providing incentives for sustainable entrepreneurship, stakeholders can empower aspiring entrepreneurs to make meaningful contributions to environmental conservation and sustainability through their business endeavors.

Infrastructure Technology Information. The highest score of 0.785 is observed on the statement "Entrepreneurs need to control technology processes such as IoT, AI, and Big Data." This indicates a strong acknowledgment among respondents of the importance of leveraging advanced technologies, such as the Internet of Things (IoT), Artificial Intelligence (AI), and Big Data, in entrepreneurial endeavors. Respondents recognize that these technologies offer powerful tools for enhancing operational efficiency, improving decision-making, and driving innovation in business processes.

This high score reflects a growing recognition among respondents of the transformative potential of technology in shaping the future of entrepreneurship. They perceive technology as a strategic enabler that can help entrepreneurs gain a competitive edge, optimize resource utilization, and capitalize on emerging opportunities in dynamic market environments. By embracing cutting-edge technologies, entrepreneurs can enhance their capabilities, adaptability, and agility, thereby positioning themselves for success in an increasingly digital and data-driven business landscape.

In contrast, the lowest score of 0.723 is observed on the statement "Infrastructure technology enables efficient information integration for sustainability in business." This suggests a relatively lower emphasis among respondents on the role of infrastructure technology in facilitating the integration of sustainability principles into business operations.

Several factors may contribute to this lower score. Firstly, respondents may have limited awareness or understanding of the potential of infrastructure technology to support sustainability initiatives in business. They may prioritize other aspects of technology, such as digital marketing or e-commerce platforms, over infrastructure technology for sustainability integration. Furthermore, respondents may perceive infrastructure technology as a technical or logistical concern rather than a strategic priority for sustainability in business. They may overlook the role of infrastructure technology in enabling data collection, analysis, and communication for sustainability reporting, monitoring, and decision-making.

Additionally, respondents may face barriers or challenges in leveraging infrastructure technology for sustainability integration, such as limited access to relevant technologies, insufficient technical expertise, or concerns about the cost-effectiveness of implementation. In contexts where infrastructure technology for sustainability is not widely adopted or incentivized, entrepreneurs may perceive limited opportunities or incentives to invest in these technologies for sustainability integration.

Overall, the lower score on this statement highlights the need for greater awareness, education, and support regarding the role of infrastructure technology in facilitating sustainability integration in business. By addressing barriers, raising awareness, and providing incentives for infrastructure technology adoption, stakeholders can empower entrepreneurs to leverage technology effectively for sustainable business practices, thereby advancing environmental conservation and societal well-being.

The Role of Regional Government. The highest score of 0.789 is attributed to the statement "Government facilitates collaboration between local startups and research and education institutions to develop sustainable solutions." This underscores the recognition among respondents of the pivotal role that regional governments play in fostering collaboration and innovation for sustainable development. Respondents acknowledge the importance of government initiatives in facilitating partnerships between local startups, research institutions, and educational establishments to harness collective expertise and resources towards developing innovative solutions to sustainability challenges.

This high score reflects a growing awareness among respondents of the benefits of interdisciplinary collaboration and knowledge exchange in driving sustainable innovation. They perceive government-led initiatives as instrumental in providing platforms, incentives, and support mechanisms to facilitate meaningful collaboration between diverse stakeholders, thereby fostering a conducive ecosystem for sustainable entrepreneurship and innovation.

In contrast, the statement "Government promotes partnerships between local businesses and communities to identify and address environmental issues collaboratively" received a score of 0.730. While still relatively high, this score suggests a slightly lower emphasis among respondents on the role of government in promoting partnerships between local businesses and communities for environmental problem-solving.

Several factors may contribute to this slightly lower score. Firstly, respondents may perceive the promotion of partnerships between businesses and communities as a broader

social responsibility rather than a specific role of regional government. They may expect businesses to take the lead in engaging with local communities and addressing environmental issues through corporate social responsibility (CSR) initiatives, community outreach programs, or environmental stewardship efforts.

Furthermore, respondents may view community engagement and environmental problem-solving as complex and multifaceted challenges that require collaborative efforts from multiple stakeholders beyond government intervention alone. They may emphasize the importance of grassroots initiatives, civil society organizations, and community-driven approaches in complementing government-led efforts to address environmental issues effectively.

Overall, while respondents acknowledge the importance of government support and facilitation in fostering collaboration for sustainable development, they also recognize the need for inclusive and participatory approaches that involve businesses, communities, and other stakeholders in environmental problem-solving. By promoting multi-stakeholder partnerships and facilitating synergistic collaborations, regional governments can enhance their effectiveness in addressing environmental challenges and advancing sustainable development goals in the metropolitan area of Malang.

4. Conclusion

The findings highlight a strong commitment among respondents to actively engage in projects and initiatives aimed at achieving Sustainable Development Goals (SDGs). This underscores their awareness of the pressing social, environmental, and economic issues encapsulated within the SDGs framework and their willingness to contribute to addressing these challenges. However, there is a gap in the deep integration of SDGs learning to cultivate future generations that prioritize social and environmental issues, indicating a need to strengthen educational initiatives.

Respondents recognize the potential long-term benefits of Green Economy education in fostering sustainability and societal well-being. However, there is a need to bolster awareness and understanding of sustainable solutions and environmental friendliness through curriculum inclusion and practical learning opportunities. Additionally, there is a strong sense of self-efficacy among respondents regarding their capability to pursue sustainable business endeavors, which bodes well for the future of eco-friendly entrepreneurship in Metropolitan Malang.

While respondents express intentions to support environmental continuity through their entrepreneurial efforts, there are challenges in translating these intentions into tangible actions. This highlights the need for targeted interventions to empower and support aspiring entrepreneurs in effectively addressing environmental challenges through their ventures. Infrastructure technology and government facilitation emerge as critical factors in shaping the ecosystem for eco-friendly business visions and entrepreneurial journeys, emphasizing the importance of strengthening technological infrastructure, promoting multi-stakeholder partnerships, and enhancing policy support.

Theoretical and practical limitations encountered in the study include the reliance on self-reported data, which may be subject to respondent bias. Additionally, the study's focus on Generation Z in Metropolitan Malang may limit the generalizability of findings to other

demographic groups or geographical areas. Furthermore, the cross-sectional nature of the study restricts the ability to establish causal relationships between variables.

Future research endeavors could explore longitudinal studies to examine the long-term impact of eco-friendly business education and entrepreneurial initiatives among Generation Z. Additionally, comparative studies across different demographic groups and geographical regions could provide insights into variations in eco-friendly business perceptions and behaviors. Furthermore, qualitative research methods, such as interviews and focus groups, could offer deeper insights into the underlying motivations and challenges faced by eco-friendly entrepreneurs in Metropolitan Malang.

By addressing these limitations and pursuing further research avenues, scholars and practitioners can advance our understanding of eco-friendly business visions and entrepreneurial journeys, ultimately contributing to the creation of a more sustainable and inclusive economy in Metropolitan Malang and beyond.

References

- Al-Sharafi, M.A., Al-Emran, M., Arpaci, I., Iahad, N.A., AlQudah, A.A., Iranmanesh, M., & Al-Qaysi, N. (2023). Generation Z use of artificial intelligence products and its impact on environmental sustainability: A cross-cultural comparison. *Comput. Hum. Behav.*, 143, 107708.
- Balbaa, M.E. (2023). Fusion Unleashed: A Comprehensive Analysis of Egypt's Digital Potential, the Growing Digital Economy, and its Socio-Economic Implications. *Journal of Sustainable Development and Green Technology*.
- Blok, V. (2018). Information Asymmetries and the Paradox of Sustainable Business Models: Towards an Integrated Theory of Sustainable Entrepreneurship.
- de Almeida Barbosa Franco, J., Franco Junior, A., Battistelle, R.A., & Bezerra, B.S. (2024). Dynamic Capabilities: Unveiling Key Resources for Environmental Sustainability and Economic Sustainability, and Corporate Social Responsibility towards Sustainable Development Goals. *Resources*.
- Halová, D., & Müller, M. (2023). Being an Employer of Choice: Attracting Generation Z to Work by Building Brand via Social Media. *Corporate Reputation Review*, 1-16.
- Hanum, L., Noor, I., & Wahyudi, L.E. (2023). Individual and Social Influence on the Sustainable Social Entrepreneurs Development. *Jurnal Ilmu Sosial dan Humaniora*.
- Haseeb, M., Wahidah, N., Mahmud, B., Zuhudi, & Idrees, R.N. (2024). Sustainable Entrepreneurship: The Impact of Corporate Size and Innovation on the Integration of Environmental and Social Responsibility in Business Ventures. *Journal of Entrepreneurship and Business Venturing*.
- Iswari, HR., Anam, C., & Wardhana, E.T. (2022). The Entrepreneurial Intentions Analysis during COVID-19 Pandemic: A Case Study on Graduates of the Faculty of Economics and Business, Widayagama University Malang. *International Journal Of Humanities Education and Social Sciences (IJHESS)*.
- Lešinskis, K., Mavlutova, I., Spilbergs, A., & Hermanis, J. (2023). Digital Transformation in Entrepreneurship Education: The Use of a Digital Tool KABADA and Entrepreneurial Intention of Generation Z. *Sustainability*.

- Mukherjee, T. (2023). Power of Social Entrepreneurship: An Expository of Innovative Solutions in India. *International Journal of Advanced Research in Science, Communication and Technology*.
- Muthuswamy, M., & M. Ali, A. (2023). Sustainable Supply Chain Management in the Age of Machine Intelligence: Addressing Challenges, Capitalizing on Opportunities, and Shaping the Future Landscape. *Sustainable Machine Intelligence Journal*.
- Padhiary, S.K., & Patel, S. (2022). SOCIAL ENTREPRENEURSHIP FOR SUSTAINABLE DEVELOPMENT: A PARADIGM OF SOCIAL WORK INTERVENTION DURING THE COVID-19 CRISIS. *EPR International Journal of Multidisciplinary Research (IJMR)*.
- Rinaldi, B., & Herlina, M.G. (2022). Entrepreneurial Orientation Differences Between Generation Y and Generation Z Entrepreneurs in Greater Jakarta (According to the Rasch Model). *Proceedings of the International Conference on Industrial Engineering and Operations Management*.
- Rodriguez-Marin, M., Saiz-Álvarez, J.M., & Huezco-Ponce, L. (2022). A Bibliometric Analysis on Pay-per-Click as an Instrument for Digital Entrepreneurship Management Using VOSviewer and SCOPUS Data Analysis Tools. *Sustainability*.
- Starczewski, T., Lopata, E., Kowalski, M., Rogatka, K., Lewandowska, A., & Verma, P. (2023). Is the future sustainable? Analysis of Generation Z's social awareness of sustainable development in Poland. *Miscellanea Geographica*, 27, 113 - 122.