Journal of Economics, Finance and Management Studies

ISSN (print): 2644-0490, ISSN (online): 2644-0504

Volume 06 Issue 11 November 2023

Article DOI: 10.47191/jefms/v6-i11-25, Impact Factor: 7.144

Page No: 5488- 5501

Green Entrepreneurial Orientation and Green Innovation in SMEs: An Evidence from Systematic Literature Review and Opportunities for Future Research Agenda

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ABSTRACT: Sustainable development goals agenda has been spread among macro and microeconomy in a country. At the micro level, entrepreneurship has become one of the rarest areas to be in touch with "greenness." Especially in Indonesia, there are many reasons why sustainable variables could only be implemented sparingly. This research aims to give insight into how to implement the green entrepreneurial orientation and green innovation and explain its catalyst and restraints on Indonesia's SMEs. The result found that several factors enhance the GEO and GI implementations, such as green dynamic capabilities, green market orientation, CSR, etc.

KEYWORDS: Green entrepreneurial orientation, green innovation, SMEs, sustainable, CSR

I. INTRODUCTION

The National Economic Recovery Program (Pemulihan Ekonomi Nasional/PEN) highlights the contribution of MSMEs in contributing 60.5% of GDP in 2022 and absorbing 96.9% of the workforce (Kementrian Koordinator Bidang Perekonomian Republik Indonesia, 2022). This achievement is then expected to increase in line with the increased empowerment of MSMEs at the 2022 G-20 Summit by targeting MSMEs to be more productive in a more sustainable way. This sustainable strategy is based on the contribution of MSMEs to industrial waste, 60-70% (Kauffmann & Cusmano, 2022). This condition is generally based on the need for more awareness of MSME actors on environmental issues and government policies regarding green practices (Yuliani & Soetjipto, 2019).

The importance of implementing green practices in MSMEs is also based on post-pandemic economic recovery, which, by increasing the effectiveness of energy use and catalyzing MSME agility, will be able to increase productivity, cost efficiency, and sensitivity to environmental issues (Celine Kauffmann & Lucia Cusmano, 2022). The need for a balanced combination of entrepreneurial orientation, including productivity and agility with environmental insight, forms a green entrepreneurial orientation (Muangmee et al., 2021). Green entrepreneurial orientation (GEO) is considered capable of solving economic, social, and environmental problems through improving production processes and environmentally friendly products (Muangmee et al., 2021; Putra & Utama, 2022). Creating environmentally friendly products will then birth a pattern called green innovation (Muangmee et al., 2021). In green innovation (GI), MSMEs are expected to be able to provide new ways of dealing with production problems that are more environmentally friendly and beneficial to society (Putra & Utama, 2022). Even so, of course, the implementation of GEO and GI still needs to be adjusted and studied on the condition of MSMEs in Indonesia.

GEO and GI can be beneficial for MSMEs. By adopting a GEO, MSMEs can focus on sustainable practices and environmentally friendly solutions, which can lead to cost savings and increased competitiveness. GI can also help MSMEs develop new products and services that are environmentally sustainable, which can attract environmentally conscious consumers and increase market share. Overall, incorporating green practices and innovation can help MSMEs achieve long-term success and contribute to a more sustainable future.

Departing from this phenomenon and referring to previous research conducted by (Aboelmaged & Hashem, 2019; Alshebami, 2023; Appiah et al., 2023; Azam et al., 2023; Khattak, 2023; Muangmee et al., 2021; Polas et al., 2022; Şengüllendi et al., 2023; Yousaf, 2021) regarding applying GEO and GI or green practice to MSMEs. The researcher intends to conduct a literature review (systematic literature review) regarding the opportunities for GEO and GI implementation in MSMEs in Indonesia, which can later provide academic benefits as one of the expansions of future research topics.

This study seeks to address two research gaps related to GEO and GI. Firstly, there is a need for a deeper understanding of the sources of GEO, which requires further research on the factors that drive GEO. Secondly, there is a need for a more comprehensive understanding of the processes and conditions that influence the GEO-GI link in enterprises settings, necessitating further research on how enterprises reconfigure and integrate internal and external competencies and the circumstances under which relationship is effective. The study aims to investigate research questions related to improving GEO, improving GI, and identifying moderating and mediating factors that influence the GEO-GI relationship. Additionally, the research seeks to identify potential drivers of GEO and GI in a business context and develop new research opportunities. It also aims to enhance the theoretical understanding of the relationship between GEO and GI and synthesize existing literature on moderating and mediating variables. The study will fill these gaps through a systematic literature review approach.

II. THEORETICAL BACKGROUND

A. Green Entrepreneurial Orientation

Green Entrepreneurial Orientation (GEO) refers to the strategic approach adopted by businesses towards environmental sustainability and innovation. It encompasses the integration of environmentally friendly practices and the development of eco-friendly products and services. This orientation emphasizes the importance of incorporating environmental considerations into the core business strategy, promoting sustainable practices, and seeking opportunities for green innovation and growth.

The importance of GEO lies in its potential to drive sustainable economic growth while minimizing negative environmental impacts. By prioritizing environmentally responsible practices and innovation, green entrepreneurs can create new markets, reduce waste and pollution, and contribute to the transition toward a more sustainable future. This orientation can also enhance a company's reputation and competitiveness as consumers increasingly demand environmentally friendly products and services. Overall, green entrepreneurial orientation is crucial for promoting economic and environmental sustainability.

GEO refers to the characteristics of organizations that demonstrate green innovativeness, proactiveness, and risk-taking. These qualities drive organizations to make sustainable decisions and take actions that improve their environmental performance (Iqbal et al., 2020). Our research primarily examines the performance implications of an organization's green entrepreneurial posture (GEO). Scholars have suggested that GEO allows organizations to restructure themselves, create sustainable products or processes, and attain exceptional green performance (Kraus et al., 2018; Shafique et al., 2021; Teece, 2016). The argument can be reinforced by emphasizing the positive impact of GEO on organizational green performance. This is achieved by improving the ability to analyze industry trends, capitalize on emerging opportunities, and address market failures contributing to environmental degradation. By embracing new technologies, production methods, and green business models, organizations with GEO can avoid engaging in unsustainable activities and instead create environmentally friendly products and processes through networking and partnerships (Bouncken et al., 2021; Zahoor & Gerged, 2021). Therefore, GEO plays a crucial role in improving corporate environmental performance.

B. Green Innovation

Green Innovation (GI) refers to the development and implementation of new ideas, technologies, and practices that aim to minimize environmental impact and promote sustainability. The significance of GI for MSMEs is a crucial aspect to consider and cannot be overlooked. The implementation of eco-friendly practices and products can not only reduce the environmental impact but also lead to cost savings and increased customer loyalty. Therefore, MSMEs must prioritize GI to ensure long-term sustainability and growth.

GI plays a crucial role in improving the economic, environmental, and social performance of firms while also providing a competitive advantage to organizations (Muangmee et al., 2021). GI refers to an innovative approach that enables companies to minimize their negative effects on the environment and cater to the demands of the eco-friendly market (Tjahjadi et al., 2020).

Companies are increasingly adopting GI to mitigate the negative impact of waste on the environment. This approach enables them to develop various innovations, including green managerial, organizational, product, and process innovations, which contribute to reducing waste and promoting sustainability (Tjahjadi et al., 2020). GI also promotes the development of firms, enabling them to enhance their competitiveness and improve their environmental performance (Khattak, 2023).Integrating environmental consciousness can aid a company in comprehending and incorporating knowledge management into its administrative processes, thereby fostering GI (Polas et al., 2022).

C. Sustainability In Indonesia

A recent workshop supported by UNDP Indonesia (Dewanti, 2022) focused on advocating a paradigm shift towards sustainable business models among Micro-Small Medium Enterprises (MSME) owners. The workshop highlighted the potential of MSMEs in

promoting sustainable business practices in Indonesia despite the challenges posed by global factors that have increased costs. Entrepreneurs acknowledged the difficulties they face in achieving sustainability, as there currently needs to be an active policy supporting MSMEs in developing sustainability reports in Indonesia. Compared to large companies, MSMEs are not obligated to submit sustainability reports, which has led to a growing number of voluntary CSR practices that need to be revised in driving sustainable behavior by corporations (Permatasari & Gunawan, 2023).

To address this, policymakers should mandate sustainability reporting and other CSR practices to encourage SMEs to adopt more sustainable practices, positively impacting the environment, local communities, and the economy (Permatasari & Gunawan, 2023). However, the effectiveness of these regulations in mandating CSR and reporting practices could be improved by the current situation.

MSMEs, being one of the largest business sectors, must adopt environmentally friendly practices in their production, distribution, and consumption activities. These practices are crucial in addressing the resource and environmental challenges caused by human economic activities, such as global warming, pollution, depletion of renewable and non-renewable resources, disposal of toxic waste, loss of biodiversity, and ecosystem degradation (Yuliani & Soetjipto, 2019). The potential of MSMEs to negatively impact the environment is significant on a global scale (Lewis et al., 2015). MSMEs are responsible for 70 percent of global pollution (Simpson et al., 2004), highlighting the urgent need for these businesses to actively engage in green practices to manage the waste they generate. MSMEs need to recognize the environmental challenges they pose and take proactive measures to mitigate their impact. By implementing green practices, MSMEs can contribute to sustainable development and help address the resource and environmental problems associated with their operations.

The economic activities of companies, including both large and small-scale enterprises, have resulted in significant environmental damage. This issue has reached a critical level, as highlighted by (Yuliani & Soetjipto, 2019). To address this concern, small and medium-sized enterprises (SMEs) can play a crucial role in protecting the environment by adopting green practices. These practices can be implemented across various stages of MSME operations, such as manufacturing, distribution, and consumption activities. By embracing green practices, SMEs can contribute to mitigating the environmental impact caused by economic activities. This proactive approach can help in reducing pollution, conserving resources, and promoting sustainable development. Therefore, MSMEs needs to prioritize the adoption of green practices to ensure a more environmentally friendly and sustainable future.

Therefore, MSMEs must adopt environmentally friendly practices for several reasons:

1) Implementing green practices can help reduce the negative environmental impact caused by business operations. By using sustainable materials, conserving energy, and minimizing waste, small businesses can contribute to the overall goal of environmental preservation.

2) Going green can also lead to cost savings in the long run. By adopting energy-efficient technologies and practices, MSMEs can reduce their utility bills and operational expenses.

3) Embracing green practices can enhance a company's reputation and attract environmentally conscious customers, increasing customer loyalty and potential business growth.

Therefore, MSMEs must adopt green practices to ensure sustainability, cost-effectiveness, and a positive brand image.

III. RESEARCH METHOD

A systematic literature review is a research approach used to address the research inquiries of this investigation, drawing upon the recommendations provided by experts in the respective field (Champenois et al., 2020).

A. *Phase 1 - Identification of Relevant Articles*

To ensure a comprehensive and unbiased selection of relevant articles, a three-step procedure was employed. Initially, keyword searches were conducted in prominent databases such as Emerald Insight, Science Direct, Taylor and Francis, MDPI, Wiley Online Lib, and Springer, which have been utilized in previous literature reviews (Ameer & Khan, 2022; Wijewickrama et al., 2021). Boolean connectors like "OR" and "AND" were employed to link keywords and form search strings. The primary focus of the literature review was on green entrepreneurial orientation, green innovation, and sustainable entrepreneurship. Consequently, two search strings were developed to encompass various themes and incorporate internal and external factors and entrepreneurs as crucial subjects, as observed in earlier review studies (Gunawan et al., 2021). The first string aimed to identify articles discussing the drivers of green entrepreneurial orientation, while the second string focused on articles exploring the factors influencing the relationship between green entrepreneurial orientation and green innovation in small and medium-sized

enterprises (SMEs). Additionally, a snowballing technique was employed to ensure the inclusion of any significant information by assessing the references of the selected papers.

B. *Phase 2 - Articles Screening and Selection Process*

The study's second step involved using specific criteria to identify the most relevant papers. Only peer-reviewed journal articles published in English from 2021 to 2023 were considered when identifying the seminal works on GEO. The focus was on articles that emphasized entrepreneurial processes and innovation concerning the sustainable development of SMEs. Articles from various disciplines, including entrepreneurship, business, economics, environmental science journals, and social science were included in the analysis. Papers that did not fall within the sustainability domain were excluded from the analysis. This included papers that examined the link between green entrepreneurial orientation and financial performance or international performance, as well as papers that did not consider the concept of innovation in SMEs.

Articles from unrelated disciplines, such as engineering, public health, chemical structures, and mathematics were also excluded. The research did not include practical reports, thesis, dissertations, and books. Duplicates and irrelevant papers that did not meet the selection criteria were eliminated, resulting in a final selection of 100 papers for further review.

The search strings yielded hits from databases, including Emerald Insight, Science Direct, Taylor and Francis, MDPI, Wiley Online Lib, and Springer. A total of 1,343 results were obtained from these databases and specified journals. After eliminating duplicates and irrelevant papers, 100 papers were selected for analysis. The selection was based on the inclusion and exclusion criteria, which focused on the sustainability domain in their research.

The selected papers were coded based on suggestions from (Mayring, 2015). The codes were developed across various dimensions, including the link between GEO and GI, the functioning of this relationship under different conditions, and strategies for enhancing GEO. The initial coding consisted of three main categories: GEO and GI, variables influencing their relationship, and methods for improving GEO. The double-check guidelines proposed by (Seuring & Müller, 2008) were followed to ensure objectivity in the coding process. Both the first and second authors independently carried out the coding process. A collaborative investigation was conducted in cases of disagreement or uncertainty regarding the appropriate coding for specific papers until a joint decision was reached.

C. *Phase 3 – Articles Analysis Process*

The selected papers were analyzed by categorizing them according to their publication year, geographical location, and source. A comprehensive framework was also developed to integrate all the relevant variables identified in previous studies. Furthermore, research gaps were identified, which helped determine future research directions. The systematic review process undertaken in this study is summarized in Figure 1.

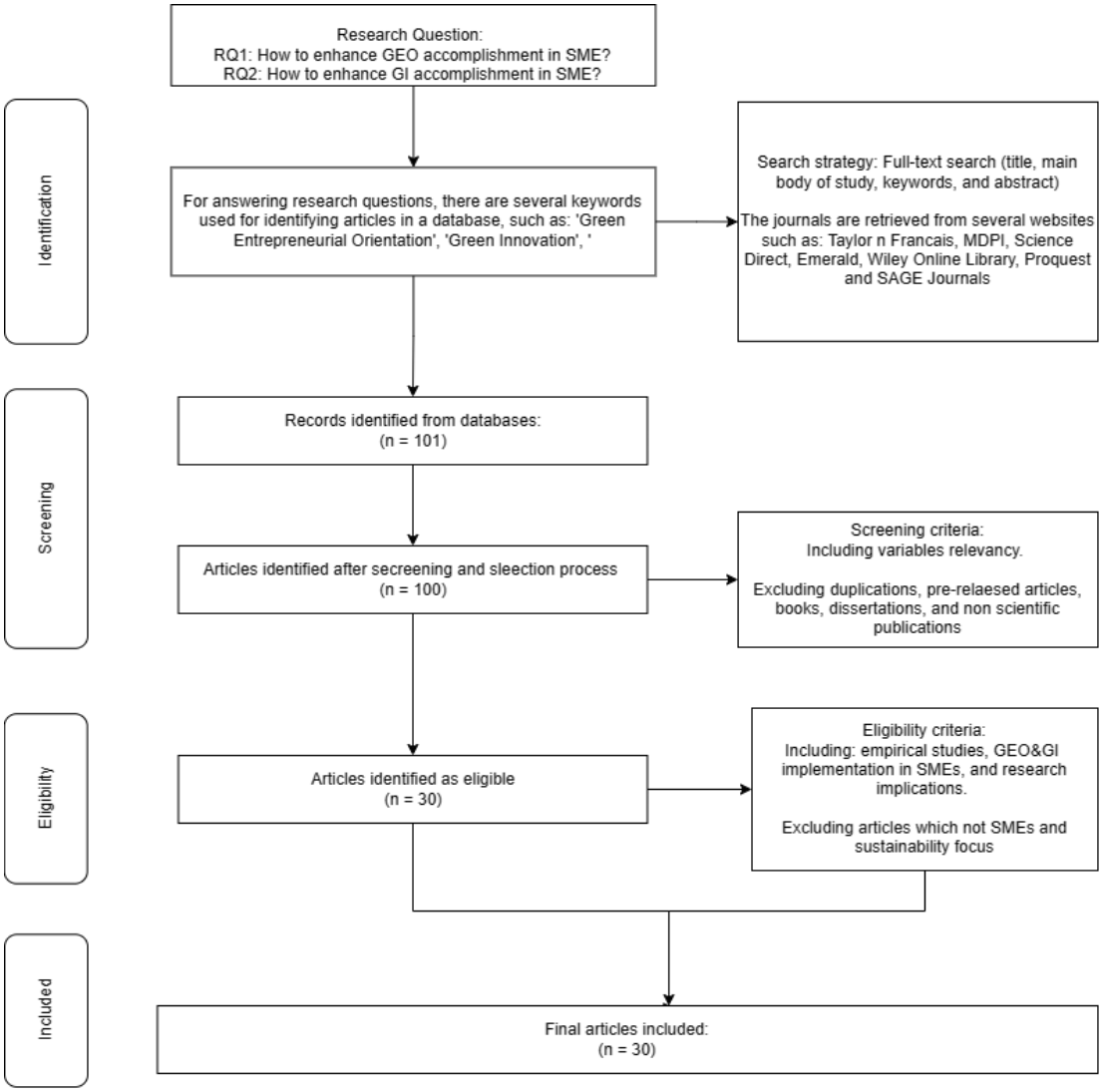

Figure 1. Systematic Review Process

IV. RESULT

A. *Descriptive Analysis*

In this segment, the selected articles were analyzed based on their year of publication, country of origin, and source of publication. The distribution of articles based on the source of publication is depicted in Table 1. Using reputed journal sources in the current study adds confidence to the synthesized findings and contributes to the literature on GEO and GI in the MSMEs relationship. The findings indicate that the Journal of Open Innovation: Technology, Market, and Complexity is the primary source for most publications. Furthermore, leading journals publish the concepts of environmental entrepreneurship and highlight the need for further studies on its foundations in contemporary research.

Table 1. The Distribution of Articles Based on The Source of Publication

Source of Publication	*Occurence*
Journal of Open Innovation: Technology, Market, and Complexity	3
Journal of Business Research	2
Economic Research	2
Business Strategy and the Environment	2
Sustainability	2
European Journal of Innovation Management	2
Journal of Intellectual Capital	1
International Journal of Innovation Science	1
Sustainable Production and Consumption	1
Resources Policy	1

The TQM Journal	1
Social Sciences	1
Journal of Business & Industrial Marketing	1
International Journal of Organizational Analysis	1
International Journal of Operations & Production Management	1
Cogent Business & Management	1
Corporate Social Responsibility and Environmental Management	1
Journal of Manufacturing Technology Management	1
Journal of Environmental Planning and Management	1
Journal of Small Business and Enterprise Development	1
Eurasia Business and Economics Society	1
Journal of Cleaner Production	1
Environmental Science and Pollution Research	1

To extend the clarity, here we provide keywords on founded works of literature as follows:

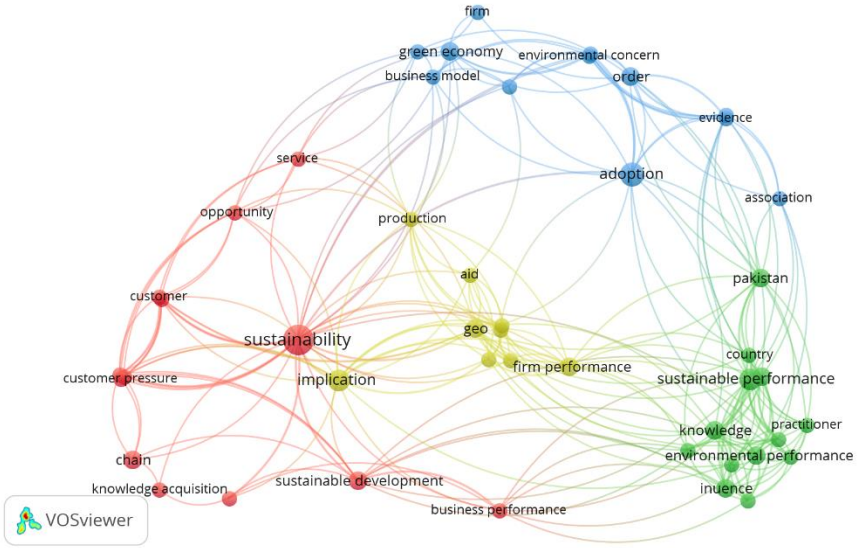

Figure 2. Systematic Review Process

Figure 2 describes several keywords related to green entrepreneurial orientation and green innovation. As we can see, if we discuss GEO and GI, it's mostly related to sustainability, environmental performance, business performance, customer pressure, and knowledge acquisition. It also indicates that among all of the literature, they mainly discuss those keywords.

B. *Content Analysis*

All selected articles were analyzed, synthesized, and grouped into pre-specified categories in this section. The first section explains methods to enhance GEO, and the second section explains how to improve GI. The third section delves into the details of mediating and moderating variables that influence the relationship between GEO and GI. The findings regarding the relationship between GEO and GI are presented in Table 2.

Table 2. The Relationship of Green Entrepreneurial Orientation and Green Innovation

Author - Year	*Keyword*	*Country*	*Source*
(Ebrahimi & Mirbargkar, 2017a)	Green Innovation, Green Entrepreneurship, SME Development, Market Turbulence	Iran	Springer
(Mellett et al., 2018)	Resource, Green Innovation, Capability Development, Facilitated Networks, Micro-firms	Ireland and Canada	Emerald
(Chen & Liu, 2020)	Green Product Innovation, Customer Participation, Opportunity Recognition Opportunity Exploitation, Customer Pressure	China	Science Direct

(Tjahjadi et al., 2020)	Green Market Orientation, Green Innovation, Business Performance, Sustainability Theory, Entrepreneurship Theory, No Poverty	Indonesia	MDPI
(Shahzad et al., 2020)	Corporate Social Responsibility (CSR), Environmental Performance, Green Entrepreneurial Orientation, Organizational Ambidexterity, SMEs	Pakistan	Wiley Online Library
(Muangmee et al., 2021)	Green Entrepreneurial Orientation, Green Innovation, Economic Performance, Environmental Performance, Social Performance	Thailand	MDPI
(Polas et al., 2022)	Isomorphic Pressures, Green Procurement, Green Product Innovation, Green Process Innovation, Organizational Legitimacy, Financial Performance	Abu Dhabi	Emerald
(Jun et al., 2019)	Small To Medium Sized Enterprises, Environmental Degradation, Green Innovation, Green Development, Sustainable Economic Development	Pakistan	Emerald
(Huang et al., 2016)	Analytical Hierarchal Process Method (AHP), Fuzzy Topsis, Green Innovation, SMEs, Pakistan	Pakistan	Taylor &Francis
(Polas et al., 2022)	Blockchain Technology, Green Entrepreneurship, Green Innovation, Green Economy, Sustainability	Lima	Taylor & Francis
(Appiah et al., 2023)	Green Innovation, Green Dynamic Capabilities, Green Practices, Green Value Co-Creation, SMEs	Ghana	Springer
(Tze San et al., 2022)	Intellectual Capital (IC), Green Entrepreneurial Orientation (GEO), Green Technology Dynamism (GTD), Environmental Consciousness, Sustainable Performance, Intellectual Capital-Based View	Pakistan - Malaysia	Emerald
(Azam et al., 2023b)	Green Innovation, Total Quality Management, Corporate Social Responsibility, Green Product, Green Process, Green Theory	Pakistan	Emerald
(Nuryakin & Maryati, 2022)	Green Marketing Orientation, Green Innovation; Green Competitive Advantage, Green Marketing Performance, Education, Experience	Indonesia	Taylor & Francis
(Cancela et al., 2023)	Ambidexterity, Customer Pressure, Green Product Innovation, New Green Product Success, Sustainable Development	Portugal	Wiley Online Library
(Singh et al., 2022)	Emerging Markets, Firm Performance, Green Dynamic Capability, Green Innovation, SMEs, Stakeholder Pressure	United Arab Emirates	Wiley Online Library
(Agyabeng-Mensah et al., 2023)	Innovation, Logistics, Knowledge Management, Learning, Supply Chain Management, Product Innovation, Corporate Reputation, Green Innovation, Non-Supply Chain Learning, Supply Chain Knowledge, Social Reputation, External Knowledge Sources	Ghana	Emerald
(Yadegaridehkordi et al., 2023)	Sustainability Performance, Resource-Based View, Institutional Theory, Green Innovation, Environmental Sustainability, Social Sustainability	Malaysia	Science Direct
(Xin et al., 2023)	Artificial Intelligence, Internationalization, Financial and Technological Resources, Green Entrepreneurial Orientation, Sustainable Performance, Hybrid Approach	Pakistan	Science Direct

(Fahad et al., 2022)	Green Transformational Leadership, Green Entrepreneurial Orientation, Green Product Innovation, Performance of SMEs	Jordan	MDPI
(Khattak, 2023)	Environmental Sustainability Thoughts, Social Innovation, Environmental Performance, Green Innovation	Saudi Arabia	Emerald
(Shou et al., 2023)	Subjective Norms, Supply Chain, Green Innovation, Flexibility Orientation, Environmental Dynamism, Theory of Planned Behavior	China	Emerald
(Alshebami, 2023)	Green Innovation, Self-Efficacy, Entrepreneurial Orientation and Economic Performance, Interactions Among Saudi Small Enterprises	Saudi Arabia	Emerald
(Şengüllendi et al., 2023)	Green Innovation, Ethical Leadership, Green Organizational Culture, SMEs	Pakistan	Emerald
(Cheng et al., 2023)	Simmelian Tie, Corporate Green Innovation, Knowledge Acquisition Knowledge Integration, Network Routines	China	Emerald
(Rodrigues & Franco, 2023)	Green Innovation (GI), SMEs, Sustainability, Entrepreneurship	Portuguese	MDPI

The Ways of improving Green Entrepreneurial Orientation

The antecedent of green entrepreneurial orientation (GEO) refers to the factors influencing the development and adoption of environmentally sustainable business practices. GEO refers to the extent to which a business incorporates environmentally sustainable practices and values into its entrepreneurial activities.

The significance of GEO lies in its importance for sustainable business practices. GEO emphasizes the integration of environmental considerations into entrepreneurial activities, promoting adopting eco-friendly strategies and technologies. This orientation is crucial in addressing environmental challenges and reducing the negative impact of business operations on the planet. By embracing GEO, businesses can contribute to the preservation of natural resources, mitigate climate change, and enhance their reputation as socially responsible entities.

GEO and GI have the potential to enhance the comprehension of SME managers regarding the determinants that contribute to the sustainable performance of businesses (Muangmee et al., 2021). GEO positively influences both GI and firm performance regarding environmental, social, and financial aspects (Appiah et al., 2023; Muangmee et al., 2021). To enhance the relationship between sustainable performance and small and medium-sized enterprises (SMEs), managers must implement Green Technology Dynamism (GTD) and promote environmental consciousness (Tze San et al., 2022).

The study by (Majali et al., 2022) supports the importance and advantages of adopting green practices. GEO, characterized by a focus on innovation, risk-taking, and proactiveness in implementing green practices, leads to a mutually beneficial outcome. By reducing resource consumption, green practices help lower costs while enhancing revenue through an improved reputation.

Organizational ambidexterity has been found to have a positive relationship with GEO, indicating that it is a significant predictor of SMEs' inclination towards eco-friendly business practices (Shafique et al., 2021). The study's findings suggest that firms need to be socially proactive and innovative, but they may encounter challenges in balancing the two aspects of organizational ambidexterity, namely exploration and exploitation (March, 1991). However, firms that can effectively navigate exploration and exploitation have a higher likelihood of success than their counterparts (Gibson & Birkinshaw, 2004).

The Ways of improving Green Innovation

The significance of green innovation (GI) for MSMEs cannot be overstated. Small businesses must adopt sustainable practices and technologies to reduce their environmental impact and improve their bottom line. GI can help small businesses save money on energy and resource consumption, attract environmentally conscious customers, and comply with increasingly stringent environmental regulations. Moreover, it can enhance the reputation of small businesses as responsible and forward-thinking entities, leading to increased customer loyalty and brand recognition. Therefore, small businesses should prioritize GI as a critical strategy for long-term success and sustainability.

GI has a significant impact on both economic and environmental performances (Alshebami, 2023; Appiah et al., 2023; Chen & Liu, 2020; Khattak, 2023; Majali et al., 2022; Muangmee et al., 2021; Nuryakin & Maryati, 2022; Polas et al., 2022; Şengüllendi et

al., 2023; Singh et al., 2022; Tjahjadi et al., 2020; Yousaf, 2021). The research highlights the significance of GI in improving the economic, environmental, and social performances of firms, thereby providing a competitive advantage to the organizations.

GI refers to the development and implementation of new products, services, processes, and business models that have a positive environmental impact (Tjahjadi et al., 2020). It involves finding creative and sustainable solutions to address environmental challenges while driving business growth and profitability. One of the critical ways GI impacts business performances is through cost savings. By adopting sustainable practices and technologies, businesses can reduce their energy consumption, waste generation, and resource usage. This leads to lower operating costs, improved efficiency, and increased profitability. For example, implementing energy-efficient technologies can reduce electricity bills, while recycling and waste reduction initiatives can lower waste disposal costs. Moreover, GI can enhance a company's reputation and brand image. Consumers are increasingly conscious of environmental issues and are more likely to support businesses committed to sustainability.

By incorporating green practices into their operations, companies can attract environmentally conscious customers, differentiate themselves from competitors, and build brand loyalty. This can lead to increased sales, market share, and customer retention. GI also opens up new market opportunities. As governments and consumers become more focused on sustainability, there is a growing demand for eco-friendly products and services. By developing and offering innovative green solutions, businesses can tap into these emerging markets and gain a competitive advantage. For instance, companies that produce renewable energy technologies or offer sustainable transportation options are well-positioned to capitalize on the increasing demand for clean energy and low-carbon transportation.

Furthermore, GI can drive employee engagement and productivity. Studies have shown that employees are more motivated and satisfied when working for companies prioritizing sustainability (Alshebami, 2023; Cancela et al., 2023; Klewitz & Hansen, 2014; Majali et al., 2022; Muangmee et al., 2021; Nuryakin & Maryati, 2022). By involving employees in green initiatives and providing training and development opportunities in sustainable practices, businesses can foster a sense of purpose and pride among their workforce. This can lead to higher employee retention rates, improved productivity, and a positive company culture. In conclusion, GI has a significant impact on business performance. It not only helps businesses reduce costs and enhance their reputation but also opens up new market opportunities and drives employee engagement. By embracing GI, companies can create a win-win situation that contributes to environmental sustainability while achieving long-term business success.

On the other, to achieve better business performance, MSMEs must embrace a green market orientation and implement GI in their operations, particularly in light of the current emphasis on sustainable development and environmental consciousness (Tjahjadi et al., 2020). MSMEs often face limitations in terms of knowledge and resources when it comes to implementing GI. However, customer participation can be crucial in enhancing GI for MSMEs (Azam et al., 2023b; Cancela et al., 2023; Chen & Liu, 2020; Şengüllendi et al., 2023). By involving customers in the innovation process, MSMEs can gain valuable insights into their needs and preferences, which can help them develop more sustainable products and services. Customer participation can take many forms, such as surveys, focus groups, and co-creation workshops. Through these activities, MSMEs can engage with their customers and gather feedback on their existing products and services. This feedback can then be used to identify areas for improvement and develop new, more sustainable offerings. In addition to providing valuable insights, customer participation can help MSMEs overcome resource limitations. By involving customers in the innovation process, MSMEs can tap into their knowledge and expertise, which can help them develop more effective and efficient solutions. This can be particularly beneficial for MSMEs that lack the resources to invest in research and development, stay competitive in an increasingly environmentally conscious market, and contribute to a more sustainable future.

Henceforth, MSMEs should possess unique characteristics related to GI, which can enhance their understanding and implementation of sustainable practices (Klewitz & Hansen, 2014). The success of new products can be increased through green product innovation, as there is a growing demand for more sustainable options (Cancela et al., 2023) . Engaging MSMEs in developing green enterprises is crucial for sustainable development (Alshebami, 2023).The presence of Simmelian ties has a significant and positive impact on enterprise GI (Cheng et al., 2023). GI plays a vital role in enabling businesses to gain a competitive advantage by expanding their market share, appealing to customers, and developing green product manufacturing or services (Şengüllendi et al., 2023). For GI to be successful, organizations need to demonstrate a higher level of commitment towards their green practices, green dynamic capabilities, and green value co-creation (Yousaf, 2021).

The Mediating Factors Influence GEO And GI Relationship

(Chen & Liu, 2020) study sheds light on the importance of Customer Participation in promoting and driving GI within MSMEs. The research emphasizes that involving customers in the innovation process can have a significant impact on the development

and implementation of environmentally friendly practices and products. The study also identifies opportunity identification and exploitation as the critical mediating mechanisms through which customer participation influences GI in MSMEs. By actively engaging with customers, businesses can identify emerging trends, needs, and preferences related to sustainability. This information serves as a valuable resource for MSMEs to identify opportunities for GI.

Moreover, (Agyabeng-Mensah et al., 2023) suggest that the Reputation of a Corporation is a crucial factor in determining the extent to which Supply Chain Knowledge influences GI within the organization. In other words, a positive Corporate Reputation can enhance the impact of Supply Chain Knowledge on GI, while a negative reputation may hinder this relationship. The mediating role of Corporate Reputation implies that it acts as a bridge or facilitator between Supply Chain Knowledge and GI. It helps to establish trust and credibility, both internally and externally, encouraging the adoption and implementation of sustainable practices and initiatives. A positive corporate reputation can enhance the perceived value and legitimacy of GI efforts, making it more likely for employees, suppliers, and other stakeholders to support and engage in sustainable practices. On the other hand, the absence of a mediating effect of non-supply chain learning on the relationship between supply chain knowledge and GI suggests that other forms of organizational learning, such as marketing or financial knowledge, may have a different impact on driving sustainable practices. This highlights the unique role of supply chain knowledge in promoting GI within a corporation.

Further, Environmental Awareness is a crucial factor in promoting GI (Polas et al., 2022). It plays a mediating role in the connection between the Dissemination of Knowledge and the promotion of GI. The dissemination of knowledge about environmental issues and the need for sustainable development is essential to create awareness among individuals and organizations. This knowledge helps people understand the impact of their actions on the environment and motivates them to take steps toward sustainability.

(Singh et al., 2022) suggest that Stakeholder Pressure can have a significant impact on GI, but this impact is mediated by the presence of Green Dynamic Capability within an organization. Green Dynamic Capability refers to an organization's ability to continuously adapt and innovate in response to environmental challenges and opportunities. Stakeholder pressure can come from various sources, including customers, investors, regulators, and advocacy groups. These stakeholders may demand that organizations adopt more sustainable practices, reduce their environmental impact, or develop new green products and services. In response to this pressure, organizations may invest in GI initiatives, such as research and development of new technologies or implementing more sustainable production processes. However, the success of these GI initiatives depends on the organization's green dynamic capability. Organizations with solid green dynamic capability are better able to identify and respond to environmental challenges and opportunities and to innovate and improve their sustainability performance continuously. This may involve developing new skills and knowledge, building partnerships with other organizations, or investing in new technologies and processes.

On the other hand, (Şengüllendi et al., 2023) suggest that Green Organizational Culture plays a crucial role in mediating the relationship between Ethical Leadership and Green Product and Process Innovations. The research findings indicate that ethical leadership has a significant and positive impact on green product innovation. However, it does not have a significant effect on green process innovation. Therefore, organizations can benefit from promoting ethical leadership behaviors such as fostering effective communication, serving as reliable role models, creating a fair workplace environment, and actively managing ethics in the workplace. These actions can lead to energy-saving practices, the development and production of environmentally friendly products, and the reduction of environmental pollution.

The Moderating Factors Influence GEO And GI Relationship

In (Appiah et al., 2023) study, it was discovered that the presence of Green Innovative Capability greatly impacted the relationship between GEO and GI performance. This finding suggests that the ability of a company to develop and implement GI effectively plays a crucial role in determining the success of its green entrepreneurial endeavours.

GI capability refers to a company's internal resources, capabilities, and competencies, enabling it to develop and implement GI effectively. This includes research and development capabilities, technological expertise, access to green networks and partnerships, and the ability to integrate sustainability into various aspects of the business. (Appiah et al., 2023) study found that companies with solid Green Innovative Capability were more likely to translate GEO into successful GI performance. This suggests that having the necessary resources and capabilities to support GI efforts is crucial for companies to capitalize on their GEO effectively.

On the other hand, the impact of GEO on the financial performance of small and medium-sized enterprises (SMEs) in Pakistan and Malaysia is greatly influenced by environmental consciousness (Tze San et al., 2022). Environmental consciousness refers to the awareness and concern of individuals and organizations towards the environment and its preservation. It includes reducing carbon

emissions, conserving energy and water, and adopting sustainable business practices. SMEs that prioritize environmental consciousness are more likely to implement eco-friendly measures, which can have a positive impact on their financial performance.

Moreover, (Shafique et al., 2021) found that Corporate Social Responsibility (CSR) plays a crucial role in moderating the organizational ambidexterity on GEO. The study revealed that GEO mediates the relationship between CSR-ambidexterity and environmental performance. The authors concluded that CSR activities, integrated into a firm's strategy, enhance the effectiveness of organizational ambidexterity in predicting GEO. This is because CSR reflects the well-being of stakeholders, including society and the environment, and thus motivates firms to prioritize actions that benefit society and the environment.

Further, (Ebrahimi & Mirbargkar, 2017b) argue that green entrepreneurship is essential for small and medium-sized enterprises (SMEs) in market turbulence. This is because green entrepreneurship can mediate between green innovation and business growth. By adopting sustainable practices and developing eco-friendly products, SMEs can differentiate themselves from their competitors and attract environmentally conscious consumers. This can increase sales and profits, supporting business growth and development.

In addition, (Silajdzic et al., 2015) highlight that green entrepreneurship not only generates profits but also contributes to the betterment of society, the economy, and the environment. By promoting sustainable practices and reducing environmental impact, green entrepreneurs can help to address pressing environmental issues such as climate change, pollution, and resource depletion. They can also create jobs and stimulate economic growth, particularly in sectors such as renewable energy, waste management, and sustainable agriculture.

CONCLUSION

In conclusion, embracing green entrepreneurial orientation and innovation is essential for the growth and survival of SMEs in a rapidly changing business landscape. By integrating sustainable practices into their core business strategies, SMEs can create a positive impact on the environment, gain a competitive advantage, and ensure long-term success in the market. Collaboration between governments, businesses, and society is vital to overcoming challenges and fostering a sustainable future for SMEs.

ACKNOWLEDGMENT

I would like to acknowledge the Faculty of Economic and Business Universitas Negeri Malang for providing access to resources and facilities that were essential for conducting this research. Your support was crucial to the successful completion of this project. Lastly, I want to express my appreciation to all the researchers, scholars, and authors whose work laid the foundation for this study. Their contributions have been invaluable in shaping my understanding of the subject matter.

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