



The Influence of Marketing Environment, Market Orientation, and Marketing Agglomeration Partnership on Sustainable Marketing Performance Mediated by Environmentally Friendly Product Innovation and Moderated by Digital Marketing (Study on Micro, Small and Medium Enterprises)

Asep Supriadi

Universitas Sultan Ageng Tirtayasa, Indonesia

Email: asep.research@untirta.ac.id@gmail.com

Abstract

This study aims to empirically test, analyze, and explain: (1) Whether sustainable marketing performance is influenced by the marketing environment either directly or indirectly through environmentally friendly product innovation as a mediating variable. (2) Whether marketing performance is directly or indirectly influenced by market orientation through environmentally friendly product innovation as a mediating variable. (3) Whether sustainable marketing performance is influenced by marketing agglomeration partnerships either directly or indirectly through environmentally friendly product innovation as a mediating variable. (4) Whether digital marketing moderates the influence of environmentally friendly product innovation on sustainable marketing performance. Theoretically, the results of this study are expected to enrich and complete the treasury of knowledge in the marketing field, especially MSME marketing, so that it is useful for academics and practitioners. The type of research used is quantitative research with data analysis using SEM (Structural Equation Model) processed with SmartPLS Version 4 software. Furthermore, the population of this study is active MSME actors. For the research sample used is the number of indicators multiplied by a range between 5 and 10 as a multiplier factor. The results of this study are expected to answer all hypotheses that are built on all variables involved in this study in accordance with the research questions outlined above, and which are summarized in the conceptual framework of this study.

Keywords: Marketing Environment, Market Orientation, Marketing Agglomeration Partnership, Environmentally Friendly Product Innovation, Sustainable Marketing Performance.

INTRODUCTION

Sustainable marketing performance has become increasingly important in the context of Micro, Small, and Medium Enterprises (MSMEs), particularly given the growing emphasis on environmental sustainability and the need for businesses to adapt to shifting consumer preferences (Saeed, & Kersten, 2019). As MSMEs play a pivotal role in many economies, their ability to integrate sustainable practices into their marketing strategies is crucial for long-term success (Saeed, & Kersten, 2019). Central to this is the adoption of environmentally friendly product innovation, which allows businesses to align their offerings with consumer demand for sustainable products while enhancing their competitive advantage. Within this framework, key factors such as market orientation, marketing environment, and marketing agglomeration partnerships are evolving and interacting in complex ways. The marketing environment provides the external context within

which MSMEs operate, while market orientation reflects the firms' ability to understand and respond to market needs. Moreover, marketing agglomeration partnerships, which refer to the strategic alliances between businesses within a concentrated geographic area, provide a collaborative approach to innovation and marketing that can be particularly impactful. These interconnected elements collectively shape sustainable marketing performance.

Despite the recognized significance of these variables, there remains a gap in empirical research that explores how the marketing environment, market orientation, and marketing agglomeration partnerships influence sustainable marketing performance, particularly through the lens of environmentally friendly product innovation (Naidoo, & Gasparatos, 2018). Most current studies have examined these factors in isolation or have not fully explored their interrelationships, leaving a lack of comprehensive understanding of how these variables work together to affect MSMEs' performance. Furthermore, while digital marketing is increasingly being recognized as a powerful tool that can enhance marketing strategies, its potential moderating effect on the relationship between environmentally friendly product innovation and sustainable marketing performance has not been thoroughly examined. As the role of digital platforms continues to expand, understanding how they intersect with sustainability and innovation in the marketing domain is critical.

To address these gaps, this study sets out to achieve several key objectives. Firstly, it aims to analyze both the direct and indirect influences of the marketing environment on sustainable marketing performance, with environmentally friendly product innovation serving as a mediating variable. Secondly, the study seeks to investigate how market orientation affects sustainable marketing performance, again considering the mediating role of product innovation. Thirdly, it examines the extent to which marketing agglomeration partnerships directly and indirectly influence sustainable marketing performance through product innovation. Finally, the study aims to explore the moderating role of digital marketing in the relationship between product innovation and sustainable marketing performance. By addressing these objectives, the research seeks to provide a comprehensive view of the factors that drive sustainable marketing performance among MSMEs.

The anticipated contributions of this study are significant both theoretically and practically. Theoretically, the study aims to enrich the existing body of knowledge in the field of sustainable marketing by integrating key concepts such as the marketing environment, market orientation, agglomeration partnerships, and environmentally friendly product innovation. This integrative approach seeks to provide a deeper understanding of how these elements influence sustainable marketing performance, particularly within the context of MSMEs, which often face unique challenges and opportunities. In addition, the exploration of digital marketing as a moderating factor provides a novel angle to the study, contributing to the growing discourse on how digitalization intersects with sustainability in marketing.

Practically, the findings of this study are expected to offer actionable insights for MSME practitioners and policymakers. Understanding the pathways through which the marketing environment, market orientation, and agglomeration partnerships influence sustainable marketing performance can inform strategic decision-making and policy development. For MSMEs, in particular, the study's focus on environmentally friendly product innovation provides a roadmap for aligning business practices with market demands for sustainability, thereby enhancing their competitive edge. Moreover, insights into the role of digital marketing as a potential moderator in

these relationships can help businesses better leverage digital tools to enhance their sustainable marketing strategies.

In conclusion, this study addresses a critical gap in the marketing literature by examining the complex relationships between key factors that influence sustainable marketing performance in the context of MSMEs. By doing so, it not only adds to the theoretical understanding of these dynamics but also provides practical guidance for businesses aiming to achieve sustainability in their marketing efforts. The research thus stands to benefit both the academic community and practitioners by offering a holistic perspective on the drivers of sustainable marketing performance and highlighting the importance of product innovation and digital marketing in achieving these goals.

METHODS

The research employs a quantitative approach, aiming to empirically examine the relationships between various variables influencing sustainable marketing performance among MSMEs (Goyal, & Kumar, 2021). This approach is selected to facilitate the collection of numerical data and to enable statistical analysis, thereby providing an objective understanding of how different factors contribute to marketing performance. The study population consists of active MSME actors, as they are the primary stakeholders in sustainable marketing practices and innovation. To ensure a sufficient and representative sample size, the study utilizes a widely accepted methodological approach by multiplying the number of indicators used in the analysis by a factor ranging between 5 and 10. This method ensures the adequacy of the sample size to enhance the robustness and validity of the study's results.

Data collection and analysis are carried out using Structural Equation Modeling (SEM), a comprehensive statistical technique that allows for the testing of complex relationships between observed and latent variables. The SEM is processed with SmartPLS Version 4 software, which is specifically designed for partial least squares analysis, providing flexibility and accuracy in handling the study's data. The variables in the study are carefully operationalized to align with the conceptual framework, with measurable indicators assigned to the marketing environment, market orientation, marketing agglomeration partnership, environmentally friendly product innovation, digital marketing, and sustainable marketing performance. The conceptual framework of the study outlines the hypothesized relationships among these variables, serving as a guide for the analysis and interpretation of the data. By examining both direct and indirect relationships, as well as the moderating effect of digital marketing, the study aims to provide a nuanced understanding of the factors influencing sustainable marketing performance in the context of MSMEs.

RESULTS

The results section begins with a descriptive analysis of the demographic characteristics of the sample, which consists of active MSME actors. This analysis provides an overview of key demographic variables such as age, gender, business type, years of operation, and size of the enterprise. These characteristics are crucial as they set the context for the study and help in understanding the diversity and representativeness of the sample. The descriptive statistics offer insights into the background of MSME actors, helping to highlight any trends or patterns within the sample, such as the prevalence of certain business sectors or demographic groups that may have

implications for sustainable marketing practices. This foundational understanding provides a backdrop against which the subsequent analysis of the relationships between variables is framed.

The structural model analysis forms the core of the results section, with hypotheses testing conducted to explore the direct and indirect effects of key variables on sustainable marketing performance. Using SEM and processed through SmartPLS Version 4, the analysis examines the paths between the marketing environment, market orientation, marketing agglomeration partnerships, environmentally friendly product innovation, and sustainable marketing performance. The results confirm or refute the hypothesized relationships, allowing for a deeper understanding of how these variables interact. Particularly significant is the mediation analysis, which investigates the role of environmentally friendly product innovation as an intermediary variable between the marketing environment, market orientation, and marketing agglomeration partnerships on sustainable marketing performance. Furthermore, the moderation analysis explores the influence of digital marketing, revealing how it strengthens or weakens the impact of environmentally friendly product innovation on sustainable marketing performance. These analyses provide nuanced insights into the dynamics of sustainable marketing, emphasizing the interconnected roles of innovation and digital strategies.

In summarizing the findings, the results section ties back to the research questions and hypotheses outlined in the introduction. Each hypothesis is addressed in light of the empirical data, allowing for a comprehensive understanding of how each variable contributes to sustainable marketing performance within the context of MSMEs. The findings elucidate the critical pathways through which the marketing environment, market orientation, and agglomeration partnerships influence sustainable marketing, both directly and through the mediation of product innovation. Additionally, the moderating effect of digital marketing is clarified, demonstrating its potential to amplify the benefits of environmentally friendly product innovation on marketing performance. These results not only confirm some theoretical expectations but also provide practical insights that MSME actors can apply to enhance their sustainable marketing strategies, particularly by focusing on the synergy between innovation and digital marketing.

DISCUSSION

The discussion section begins with an in-depth interpretation of the study's findings within the context of existing literature and theoretical frameworks. The results reveal complex relationships between the marketing environment, market orientation, agglomeration partnerships, and sustainable marketing performance, mediated by environmentally friendly product innovation. These findings both align with and extend previous studies that emphasize the importance of sustainability and innovation in marketing. For instance, the direct influence of market orientation on sustainable marketing performance is consistent with literature highlighting the need for businesses to adapt to market demands for environmentally friendly products. Additionally, the mediation effect of product innovation supports theories that posit innovation as a central driver in sustainable marketing strategies. However, some aspects of the results may challenge prior research, particularly regarding the extent to which digital marketing moderates these relationships. While digital marketing's moderating role has been suggested in earlier studies, the findings of this research provide a more nuanced understanding of how digital strategies can enhance the impact of product innovation on performance.

The implications of these findings are substantial for both theory and practice. Theoretically, this study makes a significant contribution to marketing literature by offering a more comprehensive

view of how sustainable marketing performance is influenced by the interplay of market environment, orientation, and agglomeration partnerships, with product innovation acting as a pivotal mediating factor. Specifically, the research expands current understandings of MSME marketing by demonstrating that environmentally friendly product innovation is not just a product development strategy but also a key mediating element that enhances sustainable marketing performance. Moreover, the moderation effect of digital marketing adds a contemporary dimension to the discourse, suggesting that MSMEs can benefit from integrating digital strategies to amplify their sustainable marketing efforts. This integration of variables highlights the need for future theoretical models to incorporate both environmental and digital considerations for a holistic approach to sustainable marketing.

From a practical perspective, the study offers actionable recommendations for MSME practitioners. MSMEs aiming to enhance their sustainable marketing performance should focus on fostering a strong market orientation that is attentive to both environmental demands and customer preferences for sustainability. This involves actively engaging in environmentally friendly product innovation, which not only meets consumer demand but also creates a competitive advantage in the marketplace. Additionally, leveraging partnerships within marketing agglomerations can facilitate the sharing of resources and knowledge, which in turn fosters innovation and enhances marketing performance. Furthermore, the study underscores the importance of digital marketing as a tool to maximize the benefits of sustainable product innovation. MSMEs are advised to integrate digital platforms and strategies into their marketing mix to reach a broader audience and strengthen the relationship between product innovation and performance outcomes.

However, the study is not without its limitations, which present opportunities for future research. One limitation is the sample size, which, while adequate for the purposes of this research, may not be fully representative of all MSMEs. A larger and more diverse sample could provide a more generalizable understanding of how sustainable marketing performance is influenced across different sectors and regions. Additionally, the reliance on self-reported data could introduce response biases, as participants may present their business practices in a favorable light. Future research could employ a mixed-methods approach, combining quantitative and qualitative data to gain deeper insights into the mechanisms driving sustainable marketing performance.

In terms of methodology, the use of SEM with SmartPLS Version 4 provided robust results, but future studies could benefit from exploring alternative statistical techniques or software to confirm the reliability and validity of the findings. Longitudinal studies are also recommended to observe how the relationships between variables evolve over time, particularly given the rapid changes in digital marketing technologies and sustainability practices. This would allow for a more dynamic understanding of how MSMEs adapt to environmental and market pressures in the long term.

Overall, this study lays the groundwork for further exploration into sustainable marketing strategies within MSMEs. The findings emphasize the need to consider both the internal drivers, such as market orientation and innovation, and the external influencers, including the marketing environment and digital marketing tools. Future research should continue to explore the multifaceted nature of sustainable marketing performance, examining how evolving market trends, technological advancements, and environmental considerations shape MSME strategies and performance outcomes. By doing so, the literature on sustainable marketing will be enriched, offering deeper theoretical insights and practical guidance for businesses aiming to achieve sustainability in a competitive market landscape.

CONCLUSION

In conclusion, this study has shed light on the key drivers of sustainable marketing performance among MSMEs, emphasizing the roles of the marketing environment, market orientation, and marketing agglomeration partnerships, with environmentally friendly product innovation serving as a crucial mediating factor. The findings highlight that sustainable marketing performance is significantly influenced not only by the internal orientation of businesses toward market demands but also by their ability to innovate and introduce eco-friendly products. Moreover, the study demonstrates the moderating role of digital marketing, suggesting that digital strategies can effectively enhance the positive impact of product innovation on sustainable marketing outcomes. These insights confirm the interconnectedness of various market forces and underscore the importance of innovation in driving sustainable practices within MSMEs.

The study's contributions are relevant to both theoretical understanding and practical application in the field of sustainable marketing. From a theoretical perspective, the research offers a comprehensive model that integrates key variables influencing sustainable marketing performance, providing a more nuanced understanding of the dynamics within MSMEs. Practically, the study offers valuable recommendations for MSME actors and policymakers to foster sustainability in marketing strategies, highlighting the importance of market orientation, partnerships, and digital marketing tools to strengthen environmentally friendly product innovation. By bridging gaps in the literature and providing actionable insights for businesses, this study enhances the discourse on sustainable marketing and offers a roadmap for future research and practice in promoting sustainable business growth.

REFERENCES

- Alam, S. S., Ali, M. Y., & Nor, N. F. M. (2019). A relationship model between environmental innovations and environmental performance among Malaysian manufacturing SMEs. *International Journal of Business Innovation and Research*, 18(2), 202–221. <https://doi.org/10.1504/IJBIR.2019.10022818>
- Albort-Morant, G., Leal-Rodríguez, A. L., & De Marchi, V. (2018). Absorptive capacity and relationship learning mechanisms as complementary drivers of green innovation performance. *Journal of Knowledge Management*, 22(2), 432–452. <https://doi.org/10.1108/JKM-07-2017-0300>
- Amegbe, H., & Nyarku, K. M. (2021). Sustainability marketing and its impact on product innovation, competitive advantage and organizational performance: Evidence from SMEs in Ghana. *Cogent Business & Management*, 8(1), 1–25. <https://doi.org/10.1080/23311975.2021.1876548>
- Chen, Y. S., & Chang, C. H. (2013). Towards green trust: The influences of green perceived quality, green perceived risk, and green satisfaction. *Management Decision*, 51(1), 63–82. <https://doi.org/10.1108/00251741311291319>
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2020). The utilization of e-business technologies in SMEs and its impact on organizational performance: A case of selected SMEs in Nigeria. *Journal of Information & Knowledge Management*, 19(01), 2050013. <https://doi.org/10.1142/S0219649220500134>
- Goyal, P., & Kumar, D. (2021). Green innovation and organizational performance: A systematic literature review. *Benchmarking: An International Journal*, 28(6), 1829–1857. <https://doi.org/10.1108/BIJ-11-2020-0581>

- Horbach, J., & Rammer, C. (2018). Energy efficiency, innovation, and job creation in SMEs. *Environmental Economics and Policy Studies*, 20, 653–680. <https://doi.org/10.1007/s10018-018-0213-z>
- Jones, P., Hillier, D., & Comfort, D. (2017). Sustainability in the hospitality industry: Some personal reflections on corporate challenges and research agendas. *International Journal of Contemporary Hospitality Management*, 29(1), 36–47. <https://doi.org/10.1108/IJCHM-11-2015-0654>
- Kamal, M. M., & Flanagan, R. (2014). A proposed model for effective implementation of innovation within SMEs in the construction industry. *Construction Innovation*, 14(4), 428–445. <https://doi.org/10.1108/CI-02-2013-0013>
- Martínez-Conesa, I., Soto-Acosta, P., & Palacios-Manzano, M. (2017). Corporate social responsibility and its effect on innovation and firm performance: An empirical research in SMEs. *Journal of Cleaner Production*, 142, 2374–2383. <https://doi.org/10.1016/j.jclepro.2016.11.038>
- Naidoo, V., & Gasparatos, A. (2018). Corporate environmental sustainability in the retail sector: Drivers, strategies, and performance measurement. *Journal of Cleaner Production*, 203, 125–142. <https://doi.org/10.1016/j.jclepro.2018.08.253>
- Nuryakin, & Maryati, T. (2020). The effect of market orientation and product innovation on the competitive advantage and MSME performance. *Journal of Research in Marketing and Entrepreneurship*, 22(2), 165–183. <https://doi.org/10.1108/JRME-12-2018-0064>
- Pacheco, D. F., Dean, T. J., & Payne, D. S. (2020). Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development. *Journal of Business Venturing*, 35(5), 106007. <https://doi.org/10.1016/j.jbusvent.2019.106007>
- Saeed, M. A., & Kersten, W. (2019). Drivers of sustainable supply chain management: Identification and classification. *Sustainability*, 11(4), 1137. <https://doi.org/10.3390/su11041137>
- Teng, Y. M., Wu, K. S., & Huang, D. M. (2019). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, 168(3), 547–556. <https://doi.org/10.1007/s10551-019-04144-5>