
**GREEN SUPPLY CHAIN MANAGEMENT ON ENVIROPRENEURSHIP
PERFORMANCE : WASTE MANAGEMENT POLICY AND GREEN INNOVATION
AS MEDIATING VARIABLES
(CASE STUDY OF FURNITURE SMES)**

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ABSTRACT

This study is motivated by the increasing environmental challenges faced by Micro, Small, and Medium Enterprises (MSMEs), particularly in the furniture industry, which generates a large amount of wood waste and requires sustainable operational strategies. The purpose of this research is to examine the effect of Green Supply Chain Management (GSCM) on Enviropreneurship Performance (EP), with Waste Management Policy (WMP) and Green Innovation (GI) as mediating variables. Both direct and indirect effects were tested using a sample of 100 furniture MSMEs in Bantul, Indonesia. The sampling technique employed was purposive sampling with specific criteria, while data collection was carried out through questionnaires. Data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) 4.0, with quantitative data as the basis. The findings indicate that Green Supply Chain Management (GSCM) has a positive and significant effect on Enviropreneurship Performance (EP). Waste Management Policy (WMP) mediates the positive and significant effect of Green Supply Chain Management (GSCM) on Enviropreneurship Performance (EP). Green Innovation (GI) also mediates the positive and significant effect of Green Supply Chain Management (GSCM) on Enviropreneurship Performance (EP).

Keywords: Green supply chain management, Enviropreneurship performance, Waste management policy, Green innovation

INTRODUCTION

Sustainability issues have increasingly become a central concern in global business practices, including within the micro, small, and medium enterprises (MSMEs) sector in Indonesia. Furniture MSMEs, as one of the strategic subsectors, not only contribute to employment generation and regional economic development but also represent a significant source of environmental challenges. The furniture production process generates wood waste, chemical residues, and carbon emissions that can pollute the environment if not managed properly.

Although environmental awareness is growing, the majority of MSMEs in Indonesia remain primarily focused on short-term profitability.

Environmentally friendly practices, such as the use of certified raw materials, green innovation, and waste management, have not yet been considered a priority due to limited capital, inadequate technology, and low consumer awareness of green products. This condition directly contributes to the relatively low level of enviropreneurship performance, which is sustainability-based and integrates economic, social, and environmental

dimensions. Green Supply Chain Management (GSCM) emerges as a critical strategy in addressing these challenges. The integration of green principles into every stage of the supply chain—from raw material selection and production processes to waste management—has been proven to enhance operational efficiency while simultaneously reducing ecological impacts. However, the success of GSCM implementation is highly influenced by mediating factors, particularly waste management policies and green innovation, which can strengthen the competitiveness of MSMEs in the era of sustainable economy.

Normatively, MSMEs should be able to integrate sustainability principles into their supply chains through effective waste management policies and the adoption of green innovations. This approach is expected not only to minimize negative environmental impacts but also to enhance enviropreneurship performance by reducing costs, creating product value-added, and fostering a positive image in the global market. In practice, however, most MSMEs still lag behind in the implementation of green strategies. Limited access to environmentally friendly technologies, financial constraints, as well as weak regulatory frameworks and insufficient government incentives, have made the adoption of sustainability practices challenging. At the same time, consumers tend to prioritize low prices over environmentally friendly products, which further weakens the motivation of MSMEs to transform. This gap underscores the need for more in-depth research on the mediating mechanisms of waste management policies and green innovation in

strengthening the effectiveness of green supply chain management toward enviropreneurship performance.

Previous studies have extensively examined the relationship between GSCM, green innovation, and environmental performance across various sectors. For instance, Worasatepongsa et al. (2020) demonstrated that green innovation mediates the effect of GSCM on environmental performance in the private sector in Bangkok. Similarly, Wang and Ozturk (2023) emphasized that green innovation plays a significant role in enhancing environmental performance in China's manufacturing industry. In addition, Nabilla, Widyanesti, and Aggadwita (2024) found that GSCM positively contributes to enviropreneurship performance through environmental management practices among tourism MSMEs in Indonesia. However, most of these studies have not explicitly integrated waste management policies as a mediating variable, even though in the context of developing countries, waste management regulations and policies play a strategic role in the successful implementation of GSCM. Furthermore, the majority of prior research remains general or cross-sectoral, without specifically addressing the MSME furniture industry, which possesses unique waste characteristics, particularly in the form of wood residues and hazardous chemicals.

Therefore, this study offers novelty by focusing its analysis on furniture MSMEs in Bantul and incorporating waste management policies and green innovation as mediating variables that bridge the relationship between GSCM and enviropreneurship performance. This approach is expected to provide

theoretical contributions by enriching the literature on GSCM and enviropreneurship, while also delivering practical contributions in supporting sustainability strategies for MSMEs in the furniture sector, particularly in Bantul, Yogyakarta.

The focus of this study is directed toward analyzing how green supply chain management can contribute to enhancing enviropreneurship performance in furniture SMEs in Bantul, with waste management policies and green innovation positioned as mediating variables. This research specifically aims to examine the causal relationships between these variables while identifying the mechanisms that explain the transformation of SMEs toward sustainable business practices. Consequently, the attention of this study is expected to provide insights for building sustainable competitiveness for SMEs amid the dynamics of global market competition.

LITERATURE REVIEW

Resource Based View (RBV)

The Resource-Based View (RBV) is defined as a competitive advantage derived from resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). In this study, RBV theory emphasizes the significance of managing strategic resources such as environmentally friendly raw materials, green technologies, and innovation capabilities to enhance sustainable business performance (Hasmi et al., 2021). In other words, the success of MSMEs in achieving enviropreneurship performance is highly dependent on the effectiveness of utilizing and leveraging their internal resources.

Eco Innovation

Green innovation (eco-innovation) refers to product, process, and managerial practice innovations aimed at reducing environmental impacts while simultaneously enhancing competitiveness (Rennings, 2000). The theory underscores that green innovation may serve as a mediating factor bridging the influence of green supply chain management on enviropreneurship performance, as environmentally friendly practices can yield optimal outcomes when accompanied by sustainable innovations in production and distribution.

Green Supply Chain Management

Green supply chain management (GSCM) is defined as the coordination among organizations or value chain processes that integrates economic, environmental, and social considerations to enhance organizational performance (Ahi & Searcy, 2013). GSCM is considered a process of acquiring environmentally friendly inputs and transforming them into outputs that can be reused at the end of a sustainable response cycle (Penfield, 2007). GSCM is regarded as a form of environmental innovation. The core concept of GSCM is to integrate environmental thinking into supply chain management. Its primary objective is to minimize waste – such as hazardous chemicals, emissions, energy, and solid waste – throughout the supply chain, including product design, resource and material selection, manufacturing processes, final product delivery, and end-of-life product management (Srivastava, 2007). Green supply chain management encompasses green design, green operations, reverse logistics, green purchasing, and the

level of implementation of green logistics (Chiou et al., 2011; Chege et al., 2012). Companies that implement green supply chain management can benefit from cost reductions, including savings in materials and reductions in energy and water consumption, enhanced public image, and decreased environmental liabilities (Wisner, 2012).

Enviropreneurship performance

Despite increasing awareness and concern regarding environmental issues, a significant gap remains between current practices and the sustainability models required to address pressing environmental challenges.

Unprecedented environmental challenges, such as climate change, biodiversity loss, pollution, and resource depletion, are currently confronting the world (Rasheed, Rashid, Amirah, & Hasmih, 2024). Enviropreneurship performance represents a form of entrepreneurship that integrates business innovation with environmental sustainability to generate both social and economic value simultaneously (Thompson & Scoot, 2010). Enviropreneurship is viewed as an entrepreneurial orientation that not only targets economic objectives but also addresses environmental issues and social needs (Thoo, Abdul, Rasli, & Zhang, 2014). Furthermore, enviropreneurship performance is critical in its ability to integrate economic goals, environmental sustainability, and social responsibility.

Enviropreneurship performance is measured using indicators of economic performance, environmental performance, and social performance (Hockerts & Wustenhagen, 2010). It represents a business achievement that can be attained through the implementation of green supply chain

management practices (Rasheed, Rashid, Amirah, & Hasmiah, 2024). Enviropreneurship is positioned as a business strategy integrated with environmental concern and an entrepreneurial orientation, thereby enabling the development of ecologically responsible innovative approaches (Menon Ajay & Menon Anil, 1997).

Waste Management Policy

Waste refers to the residues of a business or activity that contain hazardous or toxic materials, which, due to their nature, concentration, and quantity, can directly or indirectly endanger the environment, human health, and the survival of other living beings (Mahidi, 1984). Waste is also defined as substances or materials discarded as a result of human activities (Ign Suharto, 2011). Waste management policies are regulations that govern the comprehensive handling of waste, including its collection, transportation, processing, and final disposal, with the aim of protecting both public health and the environment (George, 2002). Indicators for measuring waste management policy include waste segregation, collection and transportation of waste, and environmentally friendly final disposal (Abah & Ohimain, 2011). Effective waste management policies should integrate source-based and community-based approaches, as well as government involvement, with priorities on developing waste management facilities and empowering local communities (Suasih et al., 2024).

The objective of waste management policies is to protect public health and the environment by effectively reducing, managing, and recycling waste (Tchobanoglous,

Theisen, & Vigil, 1993). Furthermore, the implementation of effective waste management practices can enhance resource efficiency through recycling and the reuse of materials.

Green Innovation

Green innovation refers to an instrument for enhancing corporate environmental management processes and is associated with any technological, organizational, social, or institutional changes that lead to a reduction in environmental burdens (Guoyou, Saixing, Chiming, Haito, & Hailiang, 2013). Green innovation also contributes to the competitive advantage of firms (Wong, 2012). It serves as a means to improve economic performance through the efficient use of raw materials and energy, while simultaneously creating new market shares by developing superior products that strengthen competitive positioning, derived from an understanding of potential environmental impacts (Ar, 2012). Green innovation encompasses innovations in products, services, production processes, and business methods that contribute not only to economic growth but also to environmental sustainability. Moreover, green innovation comprises multiple typologies and suggests the use of several performance criteria to reflect its multidimensional nature (Tseng et al., 2013).

Green innovation can be measured through indicators such as green process innovation and green managerial innovation (Abu Seman et al., 2019). It refers to innovations that result in more environmentally friendly products or processes, which can reduce energy consumption, greenhouse gas emissions, and hazardous waste (Triguero, Moreno-Mondéjar, & Davia,

2013). Green innovation is further defined as innovation aimed at mitigating the negative environmental impacts of production and consumption activities (Horbach et al., 2011).

Hipotesis

The Influence of Green Supply Chain Management on Enviropreneurship Performance

Three key practices of green supply chain management, including green procurement, green logistics, and green manufacturing, have been found to exert a positive impact on enviropreneurship performance in small and medium-sized enterprises (Mafini & Muposhi, 2017). The literature further indicates that environmental collaboration is expected to facilitate the implementation of green supply chain management by creating greater ease in practice execution, thereby enhancing sustainable performance (Chin & Sulaiman, 2015). Environmental collaboration, regarded as an essential relational capability, supports the strategic formulation and implementation of green supply chain management initiatives.

The adoption of green supply chain management is considered critical for improving both organizational efficiency and environmental performance, particularly in developing countries (Debnath et al., 2023). Moreover, empirical evidence demonstrates a strong relationship between green supply chain management and enviropreneurship performance. Nevertheless, the widespread application of green supply chain management remains limited, especially in specific contexts such as enviropreneurship performance. Explicitly, green supply chain management and enviropreneurship

performance are interrelated concepts: while green supply chain management emphasizes the integration of environmental considerations into supply chain processes, enviropreneurship performance focuses on developing innovative solutions that foster sustainable development (Rizwan et al., 2024).

H1 : Green supply chain management has a positive effect on enviropreneurship performance.

Green Supply Chain Management Has On Waste Management Policy

The adoption of green supply chain management within organizations contributes to effective waste management while enhancing environmental sustainability and overall business performance (Rupa & Saif, 2022). By integrating sustainable practices, green supply chain management can lead to cost savings through improved waste handling and environmental responsibility (Iqbal et al., 2020). Furthermore, the combined impact of green supply chain initiatives and environmental management systems has been associated with higher customer satisfaction, stronger internal collaboration, reduced waste generation, and lower operational costs (Das et al., 2023).

H2 : Green Supply Chain Management Has A Positive Effect On Waste Management Policy

Green Supply Chain Management Has On Green Innovation

The implementation of green supply chain management exerts a positive influence on green innovation, which subsequently enhances environmental entrepreneurship. Businesses are more inclined to adopt green innovation when continuous improvement practices in green supply chain

management are embedded within organizational operations (Kannan et al., 2014). The effectiveness of green innovation becomes more promising when it is supported by ongoing advancements in green supply chain management (Zhu, 2018). This is reflected in practices such as waste reduction, the utilization of environmentally friendly technologies, and the adoption of comprehensive environmental management strategies (Zhaolei et al., 2023).

H3 : Green Supply Chain Management Has A Positive On Green Innovation Waste Management Policy Has On Enviropreneurship Performance

The success of environmental entrepreneurship initiatives can be achieved by implementing zero-waste practices and adopting green technologies. As highlighted by Nassani et al. (2023a), the integration of green technology into waste management systems can generate improved environmental outcomes while simultaneously supporting entrepreneurial efforts. Further research suggests that zero-waste practices, combined with institutional pressures, play a critical role in meeting the targets of a circular economy (Nassani et al., 2023b). Moreover, waste management policies are not merely instruments of regulatory compliance but are increasingly recognized as strategic managerial approaches that create added value (Sularno et al., 2024).

H4 : Waste Management Has A Positive Enviropreneurship Performance

Green Innovation Has On Enviropreneurship Performance

Empirical studies have demonstrated a positive relationship between green innovation and enviropreneurship

performance (Hizarci-Payne et al., 2021). The impact of environmentally friendly business strategies on enviropreneurship performance indicates that firms can enhance financial gains when green innovation practices such as recycling are effectively implemented (Asad et al., 2023). Green innovation plays a crucial role in improving environmental performance, as it enables companies to minimize waste, reduce energy costs, and strengthen their eco-friendly reputation among consumers and stakeholders (Ahmed et al., 2023).

H5 : Green Innovation Has A Positive Enviropreneurship Performance Waste Management Policy As A Mediating Between Green Supply Chain Management And Enviropreneurship Performance

Waste management practices significantly mediate the relationship between waste handling and sustainable waste minimization, where policy-related factors, environmental knowledge, and waste separation intentions contribute to the effectiveness of waste management in reducing waste and promoting sustainable practices. The mediating role of policy-related factors has also been highlighted in the link between waste practices and sustainable construction waste management (Mohammed Shafiq, Al-Mekhlafi, Rashed, Khalil, Zawawi, Muhammad, & Sadis, 2022). Moreover, various factors, including environmental awareness, have been found to influence waste reduction behavior (Mumtaz et al., 2022). Waste management practices, environmental knowledge, and the intention to separate waste play a critical role in shaping sustainable outcomes (Ma,

Hou, & Xin, 2017). Waste management policies also mediate the relationship between green supply chain management (GSCM) and enviropreneurship performance, as effective waste governance serves as an operational mechanism that translates green supply chain strategies into environmentally oriented entrepreneurial outcomes. Without the proper implementation of waste policies, GSCM practices cannot fully optimize efficiency, strengthen reputation, or enhance business sustainability (Liu, Yousaf, & Rosak-Szyrocka, 2024).

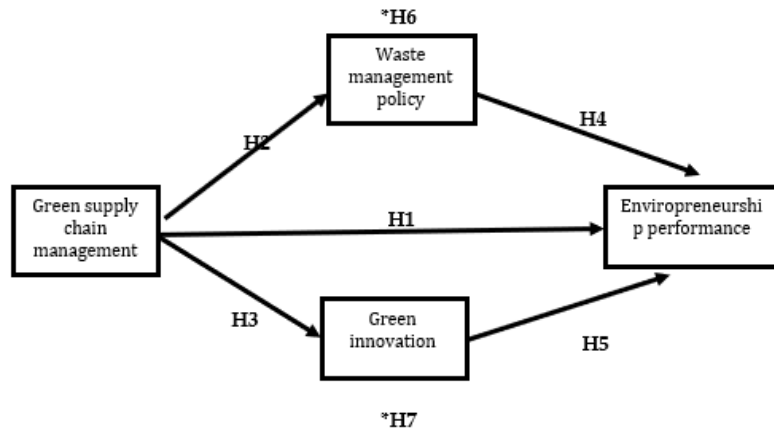
H6 : Waste Management Policy Mediating The Positive Influence Of Green Supply Chain Management On Enviropreneurship Performance.

Green Innovation Mediating The Relationship Between Green Supply Chain Management And Enviropreneurship Performance.

Firms are more likely to engage in green innovation when they integrate continuous Green innovation serves as a mediating factor in the relationship between several elements such as top management commitment, customer collaboration, green human resource management, environmental performance, and the benefits of innovation (Rasheed, Rashid, Amirah, & Hasmiah, 2022). Another study suggested that green innovation mediates the link between green supply chain management and enviropreneurship performance (Fang et al., 2022). Similarly, research has shown that green innovation positively influences enviropreneurship performance, with knowledge acquisition acting as a mediator between training and green innovation (Barba et al., 2024). Since green

innovation significantly enhances long-term benefits and strengthens corporate image, it plays a crucial mediating role in the relationship between green supply chain management and enviropreneurship performance (Ma et al., 2017).

H37 : Green Innovation Mediating The Positive Influence Of Green Supply



Notes :

*H6 : GSCM -> WMP -> EP

* H7 :GSCM -> GI -> EP

H1 : Green supply chain management has a positive and significant effect on enviropreneurship performance.

H2 : Green supply chain management has a positive and significant effect on waste management policy

H3 : Green supply chain management has a positive and significant on green innovation

H4 : Waste management policy has a positive and significant on enviropreneurship performance

H5 : Green innovation has a positive and significant on enviropreneurship performance

H6 : Waste management policy mediating the effect of green supply chain management on enviropreneurship performance.

H7 : Green innovation mediating the effect of green supply chain management on enviropreneurship performance.

Chain Management On Enviropreneurship Performance.

Figure 1 illustrates the research model of this study. The figure explains the relationship between green supply chain management and enviropreneurship performance, which is mediated by waste management policy and green innovation:

3. Research Methods

This study employed a quantitative approach, with data analyzed statistically to test the research hypotheses. The population consisted of all furniture SME owners in Bantul Regency. Considering limitations in time, cost, and manpower, the study applied purposive sampling with the following criteria: (1) furniture SMEs that understand the concept of green supply chain management, and (2) furniture SMEs that are still actively operating sustainably. The sample comprised 100 respondents, all of whom were SME owners. Primary data were collected through a closed-ended questionnaire distributed via Google Forms. The research instrument was designed using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software. This analytical technique was selected because it is

capable of testing latent variable relationships with relatively small samples and non-normal data.

RESULTS

Table 1. Description of Respondents by Gender

Category	Frequency	Presentation (%)
Laki-laki	73	73%
Perempuan	27	27%

Source: Processed research data (2025)

Table 1 indicates that 73% of the respondents are male, while 27% are female.

Table 2

Description of Respondents Based on Income

Category	Frequency	presentation (%)
500.000 – 1.000.000	5	5%
1.500.000 – 2.000.000	10	10%
2.500.000 – 3.000.000	30	30%
3.500.000 – 4.000.000	36	36%
>5.000.000	19	19%

Source: Processed research data

Table 2 demonstrates that respondents with an income ranging from IDR 500,000 to 1,000,000 account for 5 individuals or 5%. Those earning between IDR 1,500,000 and 2,000,000 comprise 10 individuals or 10%. Respondents with an income of IDR

2,500,000 to 3,000,000 total 30 individuals or 30%, while those with an income of IDR 3,500,000 to 4,000,000 represent 36 individuals or 36%. Furthermore, respondents earning above IDR 5,000,000 constitute 19 individuals or 19%.

Table 3 Description of Respondents Based on Length of Business Operation

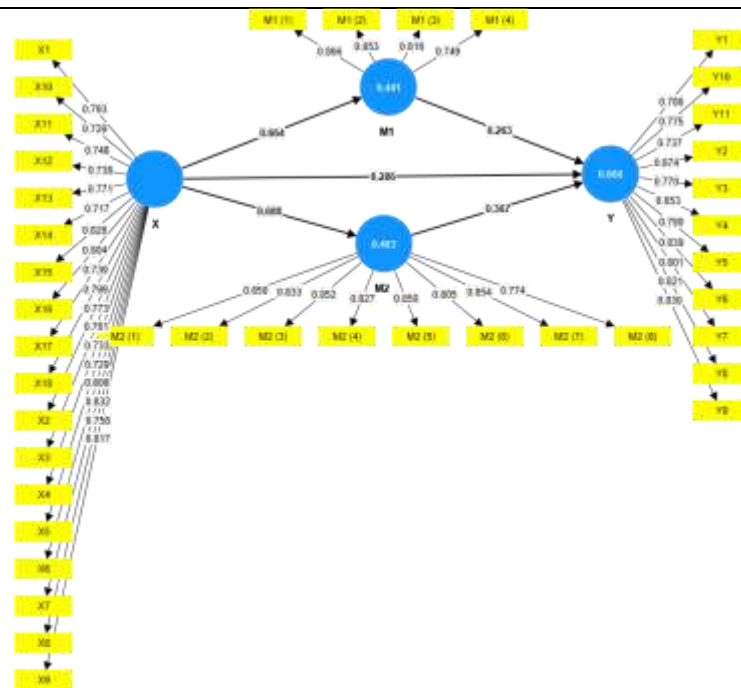
Category	Frequency	presentation
		(%)
1 – 5 tahun	43	33%
6-10 tahun	40	40%
>10 tahun	27	27%

Source: Processed research data (2025)

Table 3 indicates that 43 respondents, or 43%, have been operating for 1–5 years; 40 respondents, or 40%, have been operating for 6–10 years; and 27 respondents, or 27%, have been operating for more than 10 years.

Figure 2 presents the results and statistical testing of this study using SmartPLS 4.0 software. The results illustrated in Figure 2 explain the direct

effect of green supply chain management on enviropreneurship performance, the effect of green supply chain management on enviropreneurship performance mediated by waste management policy, and the effect of green supply chain management on enviropreneurship performance mediated by green innovation.



Source: Processed research data

Figure 2 Research Model Testing Results

Source: Processed Primary Data (2025)

Table 4. Results of the Convergent Validity Test on the Variables of Green Supply Chain Management (GSCM), Enviropreneurship Performance (EP), Waste Management Policy (WMP), and Green Innovation (GI).

Indicator	Green supply chain management	Enviropreneurship performance	Waste management policy	Green innovation
GSCM 1	0,793			
GSCM 2	0,773			
GSCM 4	0,733			
GSCM 5	0,729			
GSCM 6	0,808			
GSCM 7	0,832			
GSCM 8	0,758			
GSCM 9	0,817			
GSCM 10	0,729			
GSCM 11	0,748			
GSCM 12	0,738			
GSCM 13	0,771			
GSCM 14	0,717			
GSCM 15	0,828			
GSCM 16	0,804			
GSCM 17	0,739			
GSCM 18	0,799			
EP 1		0,788		
EP 2		0,874		

Indicator	Green supply chain management	Enviropreneurship performance	Waste management policy	Green innovation
EP 3		0,770		
EP 4		0,853		
EP 5		0,790		
EP 6		0,839		
EP 7		0,801		
EP 8		0,821		
EP 9		0,830		
EP 10		0,775		
EP 11		0,737		
WMP 1			0,866	
WMP 2			0,853	
WMP 3			0,816	
WMP 4			0,749	
GI 1				0,850
GI 2				0,833
GI 3				0,852
GI 4				0,827
GI 5				0,850
GI 6				0,805
GI 7				0,854
GI 8				0,774

Source: Processed research data (2025)

Table 4 shows that the indicators of the variables Green Supply Chain Management, Enviropreneurship Performance, Waste Management Policy, and Green Innovation have loading factor values greater than 0.7. This indicates that each variable indicator in this study is valid and has met the requirements of convergent validity.

Table 5
Results of the Composite Reliability Test

Variables	Composite Reliability	Cronbach's Alpha	Notes
Green supply chain management	0,961	0,960	Reliabel
Enviropreneurship performance	0,949	0,947	Reliabel
Waste management policy	0,858	0,841	Reliabel
Green innovation	0,938	0,936	Reliabel

Source: Processed research data (2025)

Table 5 shows that the composite reliability values of the variables are as follows: Green Supply Chain Management at 0.961, Enviropreneurship Performance at 0.949, Waste Management Policy at

0.858, and Green Innovation at 0.938. These results indicate that all four variables demonstrate good composite reliability, as the values exceed the threshold of 0.7. Furthermore, the Cronbach's Alpha values are 0.960 for Green Supply Chain Management,

0.947 for Enviropreneurship Performance, 0.841 for Waste Management Policy, and 0.936 for Green Innovation. Collectively, these results confirm that the variables employed in this study are reliable.

Table 6 Results of Direct and Indirect Hypothesis Testing

Variabel	Original sampel	Sampel mean	Standar deviation	T-Statistic	P-Value	Notes
Manajemen rantai pasok hijau -> Enviropreneurship performance	0,286	0,279	0,079	3,630	0,000	Significant
Manajemen rantai pasok hijau -> kebijakan pengelolaan limbah	0,664	0,665	0,068	9,772	0,000	Significant
Manajemen rantai pasok hijau -> inovasi hijau	0,680	0,680	0,076	8,907	0,000	Significant
Kebijakan pengelolaan limbah -> Enviropreneurship performance	0,263	0,262	0,087	3,029	0,002	Significant
Inovasi hijau -> enviropreneurship performance	0,367	0,372	0,092	3,991	0,000	Significant
Manajemen rantai pasok hijau -> kebijakan pengelolaan limbah -> enviropreneurship performance	0,175	0,175	0,063	2,780	0,005	Significant
Manajemen rantai pasok hijau -> inovasi hijau -> enviropreneurship performance	0,250	0,254	0,071	3,537	0,000	Significant

Source: Processed research data (2025)

DISCUSSION

Green supply chain management on enviropreneurship performance

The hypothesis testing results indicate that green supply chain management has a significant influence

on enviropreneurship performance, with an original sample value of 0.286 and a P-value of 0.000. This finding confirms that the first hypothesis of this study is supported. The positive relationship between green supply chain management and enviropreneurship performance suggests that furniture SMEs possess a strong understanding of how sustainable supply chain practices contribute to improved entrepreneurial environmental performance.

Green supply chain management on enviropreneurship performance are closely interrelated, with evidence indicating a positive relationship between the two. Rashid et al. (2024) emphasize that the adoption of GSCM is essential for SMEs in strengthening their entrepreneurial environmental performance while maintaining competitiveness. Previous studies also suggest that environmental collaboration can support the effective implementation of GSCM by facilitating its practices and thereby enhancing sustainable performance outcomes (Chin et al., 2015). Furthermore, the application of GSCM has been recognized as a critical factor in improving both operational efficiency and environmental performance across developed and developing economies (Debnath et al., 2023).

Green supply chain management on waste management policy

The hypothesis testing results reveal that green supply chain management significantly influences waste management policies, with an original sample value of 0.664 and a P-value of 0.000. This outcome indicates that the second hypothesis of the study is supported. Consistent with prior research, Iqbal et al. (2020) highlighted

that the integration of GSCM into waste management policies can reduce costs and mitigate environmental impacts. Their findings demonstrate that GSCM practices statistically affect cost efficiency, waste disposal, resource utilization, and greenhouse gas emissions. Similarly, Rupa et al. (2022) emphasize the role of GSCM in enhancing environmental performance while reducing the ecological footprint of businesses. Moreover, Das et al. (2023) reported that the combined impact of green supply chain management and environmental management systems contributes to higher customer satisfaction, stronger internal collaboration, waste reduction, and overall cost savings.

Green supply chain management on green innovation

The hypothesis testing results demonstrate that green supply chain management has a significant effect on green innovation, with an original sample value of 0.680 and a P-value of 0.000. This finding confirms that the third hypothesis of the study is supported. SMEs are able to cope with intense environmental pressures by maintaining and improving their environmental performance through the adoption of green practices. As highlighted by Chiou et al. (2011), this underscores the importance of developing green innovation practices as a strategic approach for SME owners. Zhu (2018) further suggests that green innovation generates promising outcomes when continuously supported by enhanced green supply chain management practices. This is reflected in efforts such as waste reduction, the use of more eco-friendly technologies, and the implementation of

effective environmental management systems (Zhaolei et al., 2023).

The implementation of green supply chain management encourages companies to integrate sustainability principles across various activities, including procurement, production, distribution, and waste management. According to Li et al. (2022), the more intensively GSCM is applied, the greater the opportunity for firms to generate green innovations. Furthermore, Novitasari (2022) highlights that the adoption of GSCM fosters innovation at both the product and process levels, ultimately enhancing organizational performance from both financial and environmental perspectives. Consistent with these findings, Gelmez et al. (2024) assert that GSCM consistently stimulates the emergence of green innovation within SMEs. This is largely because embedding environmental principles throughout the supply chain—from raw material selection and product design to production processes and distribution—creates not only the necessity but also the opportunity to develop environmentally friendly innovations.

Waste management policy on enviropreneurship performance

The hypothesis testing results indicate that waste management policies significantly influence enviropreneurship performance, with an original sample value of 0.263 and a P-value of 0.002. This finding confirms that the fourth hypothesis of the study is supported. As noted by Nassani et al. (2023), integrating green technologies into waste management systems can improve environmental outcomes while simultaneously fostering entrepreneurial initiatives. Their research also highlights that zero-waste

practices and institutional pressures contribute to achieving circular economy performance targets. Moreover, Sularno et al. (2024) emphasize that waste management policies should not merely be regarded as regulatory compliance tools but also as managerial strategies capable of creating added value for organizations. Waste management policies such as reduction, segregation, and recycling make a significant contribution to improving environmental performance. From an enviropreneurship perspective, enhanced environmental performance strengthens the ability of SMEs to integrate sustainability into their business operations. This implies that the more effectively waste management policies are implemented, the greater the achievement of enviropreneurship performance (Quartey, 2025).

Green innovation on enviropreneurship performance

The hypothesis testing results reveal that green innovation has a significant effect on enviropreneurship performance, with an original sample value of 0.367 and a P-value of 0.000. This finding indicates that the fifth hypothesis of the study is accepted. Aggregate research supports a positive association between green innovation and enviropreneurship performance (Hizarci-Payne et al., 2021). Asad et al. (2023) further demonstrate that eco-friendly business strategies positively influence enviropreneurship performance, where financial gains can be achieved through the adoption of green innovation practices such as recycling. Moreover, Ahmed et al. (2023) emphasize that green innovation plays a vital role in strengthening environmental performance by

enabling firms to reduce waste, lower energy costs, and enhance their eco-friendly reputation among consumers and stakeholders.

Green innovation drives improvements in environmental performance and has a positive impact on overall firm performance (Wang et al., 2022). It serves as a key factor in promoting environment-based entrepreneurship. For SMEs, green innovation not only facilitates compliance with emission reduction regulations but also creates new business opportunities, enhances energy efficiency, and strengthens competitiveness. These findings reinforce the assumption that the higher the level of green innovation adoption, the greater the enviropreneurship performance achieved, as firms are able to integrate both economic value and environmental sustainability (Sun et al., 2025).

Waste management policy mediating the effect on green supply chain management on enviropreneurship performance

The hypothesis testing results demonstrate that green supply chain management influences enviropreneurship performance when mediated by waste management policies, with an original sample value of 0.175 and a P-value of 0.005. This confirms that the second hypothesis of the study is accepted, indicating that waste management policies play a mediating role in the positive relationship between green supply chain management and enviropreneurship performance. As a mediating variable, waste management policies strengthen the impact of GSCM by ensuring that environmentally friendly operational frameworks are

effectively implemented within SMEs. Through this mechanism, enviropreneurship performance can be realized in the form of cost efficiency, improved regulatory compliance, waste reduction, stronger customer loyalty, and organizational profitability. These findings demonstrate that the integration of waste management policies as a mediator between GSCM and enviropreneurship performance enhances sustainable entrepreneurial performance.

Waste management policies significantly mediate the relationship between green supply chain management and enviropreneurship performance, where policy-related factors, environmental knowledge, and waste separation intentions contribute to the effectiveness of waste management in reducing waste and promoting sustainable practices (Rashid et al., 2024). Supporting this view, Mafini and Muposhi (2017) assert that waste management positively affects environmental performance in small and medium-sized enterprises. Effective waste management helps conserve natural resources, reduce waste generation, and minimize energy consumption.

Green innovation mediating the effect of green supply chain management on enviropreneurship performance

The hypothesis testing results indicate that green supply chain management affects enviropreneurship performance when mediated by green innovation, with a value of 0.250 and a P-value of 0.000. This confirms that the third hypothesis is supported, showing that green innovation plays a mediating role. The findings demonstrate that SMEs are not only complying with regulations but are also proactively

anticipating potential violations. The combination of green supply chain management and green innovation in enhancing enviropreneurship performance has enabled furniture SMEs to strengthen their competitiveness and business sustainability. These results are consistent with Albhirat et al. (2024), who revealed that the growing interest in eco-friendly and sustainable products among entrepreneurs has increased the demand for environmentally friendly initiatives. Furthermore, Asad et al. (2023) highlight that adopting green business strategies has a positive impact on firm performance, as financial benefits can be achieved through environmentally responsible practices.

This study found that the implementation of green supply chain management promotes the development of green innovation, which in turn enhances enviropreneurship performance. In other words, green innovation acts as a mediating mechanism between green supply chain practices and enviropreneurship performance (Novitasari et al., 2021). This study emphasizes that the implementation of green supply chain management drives green innovation, which in turn enhances the environmental performance. In other words, green innovation serves as a mediator linking green supply chain practices to environmental performance (Liu et al., 2024). Green supply chain management provides a framework for SMEs to implement green innovation, which ultimately enhances sustainable performance, including energy efficiency, waste reduction, and competitive advantage (Junejo et al., 2025).

CONCLUSION

This study examines the influence of green supply chain management on enviropreneurship performance, with waste management policy and green innovation as mediating variables. The findings reveal that green supply chain management has a positive and significant effect on enviropreneurship performance. Furthermore, waste management policy mediates the positive effect of green supply chain management on enviropreneurship performance, and green innovation also mediates the positive effect of green supply chain management on enviropreneurship performance.

Sugestion

Furniture SMEs in Bantul need to strengthen the implementation of green supply chain management through the selection of environmentally friendly raw materials, green innovation in design and production, as well as value-added waste management, in order to enhance production efficiency, reduce costs, and ensure compliance with business sustainability regulations. Waste management policies should be considered as a strategic business approach rather than merely a regulatory obligation, and government support is essential in the form of regulations, incentives, and training programs. Moreover, SMEs should strengthen networking to foster enviropreneurship performance capable of competing in the market while implementing sustainable business practices. By doing so, furniture SMEs can expand access to markets, capital, and green innovation collaborations. Consequently, SMEs are not only profit-oriented but also capable of generating sustainable value for the environment.

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