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The Impact of Green Human Resource Management on the Economic and Environmental Performance of Small and Medium Enterprises (SMEs) in West Sumatra, Indonesia

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ABSTRACT

This research invites the owners of small and medium enterprises (SMEs) to consider green not only as a cost but also as a long-term investment. This research examines the relationship between green human resource management (GHRM) and performance. The data were collected through a structured questionnaire, and the unit of research analysis is the owner of SMEs. Partial least squares structural equation modeling (PLS-SEM) was used to test the hypothesis. The population of this research was SME owners in West Sumatra Province, which has 36,403 industrial areas. Purposive sampling was implemented so that 396 respondents were obtained. The research results show that GHRM positively affects green inputs, processes, and products. In addition, this research reveals that green inputs, processes, and products positively affect the economy and environmental performance; however, green products do not significantly affect social performance. Thus, this research recommends that owners be aware of the need to produce green products to improve SMEs' performance. Also, various related parties, such as the government, need to control raw material prices, the availability of raw materials, the marketing of finished products, dissemination, periodic training, and funding through financial institutions.

1. INTRODUCTION

Many SMEs in emerging economy countries, including Indonesia, recently have low environmental concerns. One of the characteristics of an emerging economy country is that it has a large workforce. This creates a sufficient workforce for work in the industry. In line with the research conducted by Susanto et al. [1], the high industrial growth in this country is because it can absorb quite a large workforce. Based on the data from the Central Bureau of Statistics, SMEs in West Sumatra can absorb 66.25% of the employment opportunities, and the Gross Domestic Product (GDP) at current prices reaches IDR 19,588.4 trillion [2]. This industry has proven capable of boosting the national economy. However, this reasonably high industrial growth is not accompanied by environmental protection efforts. Due to the high waste processing costs, these SME owners still throw waste into rivers, sewers, and fields. This has undoubtedly resulted in pollution that creates anger among the industry residents who only think about profit and don't care about the environment. From BPS data for 2020, environmental damage can be seen through water pollution at 33.37%, land pollution at 4.08%, and air pollution at 14.35 % in West Sumatra. This condition causes Indonesia to be one of the countries that faces the negative impact of business activities on environmental and social damage. Therefore, various pressures have come so that the industrial world cares more about the environment. Industry must change its systems and practices to become green and care about environmental sustainability [3].

As a consequence, SMEs are starting to adopt green industrial practices. For this practice to work well, it must be supported by green human resources [4]. Several pieces of literature explain that green human resources are one of the management functions. Thus, several previous studies have referred to green human resources as activities that include recruitment, selection, training, payment, reward systems, empowerment, leadership, and green capabilities [5-7]. Green commitment and intellectual capital are available for environmental performance [8]. Opatha [9] argued that green human resource management aims to make employees of an organization care about the environment. Environmental knowledge, green human capital, and managerial environmental concern can improve environmental outcomes [10]. Green training is knowledge management and concern for pro-environmental activities [11]. Behavior leads to green innovation [12]. Green training and green creativity are helpful in product development [13]. Recycling, environmental certification, and social activities are the efforts to protect the organization's law [14], and business reputation and increase sales [15], efficient use of organizational resources to reduce threats, and survive in the market [16]. GHRM also improves environmental performance through green training, recruitment, and performance [7]. Jabbour et al. [17] also stated that green human resource management refers to the

implementation of activities, development, and maintenance that are aimed at making a green organization

Recently, most companies have been implementing sustainability practices that align with their desired performance outcomes. GHRM also plays a role in designing decision-making strategies for sustainable development [18]. Boudreau and Ramstad [19] explained that human resource management (HRM) can measure and influence employee sustainability. HRM effectively implements environmental sustainability policies [7]. Other human resource (HR) literature states that environmental practices are the main objective of organizational functions to support human resource management practices [20]. Treatment of the environment through organizations is an exciting and vital input from the environment and sustainability [3]. GHRM is essential in achieving sustainable development by shaping organizational and policy development [21]. GHRM is necessary both at the managerial and employee levels.

GHRM has also supported the 'triple bottom-line' concept, that is, GHRM involves practices aligned with the three pillars of balance: environmental, social, and economic balance [22]. O'Donohue and Torugsa [23] further studied the relationship between environmental management and financial performance. At the same time, GHRM is considered a corporate social responsibility program. GHRM also aims to help organizations improve environmental performance (EP) by increasing commitment to the environment and positive employee engagement. Furthermore, Masri and Jaaron [24] emphasized that companies use environmentally friendly human resource practices, such as conducting efficient processes, reducing and improving products, eliminating environmental waste, and lowering industrial costs.

The urgency of this research can be seen through the growth of SMEs, which continues to increase yearly, making this industry require a large workforce. Indonesia's large population provides this industry with a large number of workers. This industry is also a backbone because it can boost society's economic growth and SMEs' performance. Therefore, the government supports this business activity so that the green products produced can compete with other products. Thus, the SME owners' awareness is needed to make green products.

2. LITERATURE REVIEW

Previous researchers have widely discussed research on green human resources management. GHRM is directly responsible for appointing a green workforce who understands, appreciates, and has initiative towards the environment [25]. Research by Chams and García-Blandón [26] emphasizes that companies should be ethically, socially and ecologically aware. Opatha [9] said that green human resource management aims to make employees care about the environment. Therefore, HRM effectively implements environmental sustainability policies [7]. This can be done with organizational and policy development [21]. Furthermore, concern for the natural environment through organizations is essential for the environment and sustainability [3]. Sees that GHRM can be used to support pro-environmental behavior in organizations. This can be done through green recruitment, environmental training, performance appraisals, employee involvement, and compensation [6]. Furthermore, GHRM also aims to help organizations improve environmental performance (EP) by increasing the commitment to the environment and employee involvement. Companies that pay attention to green HR practices will gain benefits, such as efficiency, product development, and waste management; all of these can reduce costs [24].

The impact of GHRM on SMEs can be seen through the research conducted on Palestinian manufacturing companies. The study found that GHRM affects environmental performance and that HRM's functions are needed to support environmental performance [24]. Another research by Polas et al. [12] on Bangladeshi SME business owners has a positive and significant relationship to green innovation. Jabbour et al. [17] also stated that GHRM refers to implementing activities, development, and maintenance to make a green organization. The other research conducted by Subramanian et al. [27] on industries in the Chinese coastal city of Ningbo found that green competencies were adjusted and had a positive impact on green competencies and green behavior. Similarly, the research completed by Majali et al. [28] found that implementing green practices is needed to improve the performance of SMEs in Jordan. Therefore, HRM effectively implements environmental sustainability policies [7].

All of the above research findings are further strengthened by a study conducted by Yusoff et al. [29] on 168 SMEs in Malaysia. They found the importance of green intellectual capital in the sustainability of SME organizations. According to Yacob et al. [30], this was the first research they conducted regarding the green initiatives framework for manufacturing SMEs in SME manufacturing companies in Malaysia. Based on the several study results above, this study is filling in the gap in the aspects of improving performance, green human resources management-based SMEs through green input strategies, green processes, and green products. If SMEs have high awareness, performance will increase through green input strategies, processes, and products.

The motivation behind this study stems from the observation that SMEs in emerging economies, including Indonesia, often prioritize economic growth over environmental sustainability. This imbalance has led to environmental degradation, such as water, land, and air pollution, which not only harms the ecosystem but also affects the well-being of local communities. As a response to these challenges, there is a growing recognition of the need for SMEs to embrace green practices and incorporate environmental considerations into their operations.

This study examines the relationship between GHRM and SMEs' economic and environmental performance in West Sumatra Province to shed light on the potential benefits of sustainable practices for businesses and the environment. The research seeks to provide valuable insights into how SMEs can leverage GHRM to improve their performance while contributing to environmental protection and sustainability. Through a comprehensive analysis of green inputs, processes, and products, this study aims to highlight the positive impact of GHRM on various aspects of SME operations and performance.

3. METHODOLOGY

This study is based on a quantitative method analysis that used a closed-ended questionnaire. The research population was the top manager level doing business in the Province of

West Sumatera, Indonesia. Meanwhile, the research unit analysis is at the organization level, namely SME. This study used a purposive sampling technique. So, the based-on-criteria questionnaire was distributed to 396 central SMEs. In statistics, the sample size must meet the sample requirements. The sample size is at least 5 to 20 observations/items to reach 0.8 and 0.5 [31]. The sampling procedure involved selecting a population of top managers operating businesses in the region and utilizing a purposive sampling technique to distribute the questionnaire to 396 central SMEs. The rationale for choosing this sample size was to meet statistical requirements, ensure the reliability of the Partial Least Squares-Structural Equation Modeling (PLS-SEM) analysis, and enhance the generalizability of the findings to the broader population of SMEs in West Sumatra. By choosing a sample size of 396, the researchers aimed to capture representative responses from SMEs in the region and ensure the study's statistical power to detect meaningful relationships between variables.

The manuscript employed Partial Least Squares-Structural Equation Modeling (PLS-SEM) as the analytical model to investigate the relationship between green human resources management (GHRM) and performance indicators in SMEs in West Sumatera, Indonesia. The choice of PLS-SEM is justified by its suitability for analyzing complex models and relationships between latent variables, which is essential for examining the multifaceted constructs of GHRM and performance in SMEs. Additionally, PLS-SEM is known for its robustness with small sample sizes, making it appropriate for studies where obtaining a large sample may be challenging, as in the case of SMEs in a specific region like West Sumatra. The decision to use PLS-SEM is further supported by its focus on predicting latent variables, aligning with the study's objective of understanding how GHRM influences green inputs, processes, products, and performance in SMEs. The methodological fit between the research design, data collection approach, and the analytical technique employed underscores the appropriateness of PLS-SEM in this study. Moreover, referencing previous research that has successfully utilized PLS-SEM in similar contexts provides additional evidence of its effectiveness in analyzing relationships between constructs in organizational settings.

The measurement in this study used a five-point scale with the anchoring "very not" agree (1) to strongly agree (5). This scale was used because it was easy for the respondents to respond and only needed a little more understanding to complete the questionnaire when compared to open-ended questions. All item measurements were previously studied in the SME context, and in this study, the items consisted of the variables involved. The GHRM consisted of eight items, green input had six items, the green process had 8 items, green product had 8 items, performance economy had 8 items, performance social rated with 8 items, and performance environment rated with 8 items.

Green Human Resource Management (GHRM): GHRM refers to the integration of environmental sustainability principles into human resource practices within an organization. In this study, GHRM is measured through a set of eight items related to green recruitment, environmental training, performance appraisals, employee involvement, and compensation. Respondents rate their agreement on a five-point scale ranging from "very not agree" to "strongly agree".

Green Inputs: Green inputs encompass the environmentally friendly resources and materials used in SMEs' production processes. This variable is measured through six items that assess the extent to which SMEs prioritize the use of sustainable inputs in their operations.

Green Processes: Green processes refer to the eco-friendly practices and procedures SMEs implement to minimize environmental impact. This variable is assessed through eight items that evaluate the adoption of sustainable processes within SMEs.

Green Products: Green products are environmentally sustainable goods or services offered by SMEs to meet consumer demand while minimizing ecological footprint. This variable is measured through eight items that gauge the extent to which SMEs produce and promote green products in the market.

Economic Performance: Economic performance reflects the financial outcomes and profitability of SMEs in West Sumatra Province. This variable is assessed through eight items that evaluate the economic success and growth of SMEs in their adoption of green practices.

Social Performance: Social performance evaluates SMEs' social responsibility initiatives and impact on local communities and stakeholders. This variable is assessed through eight items that measure SMEs' social initiatives, community engagement, and ethical practices in West Sumatra Province.

Environmental Performance: Environmental performance measures the ecological impact and sustainability practices of SMEs in terms of reducing pollution and resource consumption. This variable is evaluated through eight items that assess the environmental initiatives and outcomes of SMEs in West Sumatra Province.

Before the questionnaire was given to the respondents, the researchers carried out a pilot-tested survey on some previous SME owners to know if there was a problem with words, reading, and grammar. A pilot study was conducted on the 30 top management level. The pilot study result was satisfactory enough. The minimum amount that can be received for a pilot is 30. To test the internal consistency, the researchers obtained Pearson Correlation for GHRM (0.713), green input (0.70), green process (0.646), green product (0.727), performance economy (0.641), performance social (0.712), and performance environment (0.640).

By evaluating the reliability of the survey instruments, researchers can determine the extent to which the data collected is dependable and free from random error or measurement bias. This is essential for ensuring that the findings and conclusions drawn from the survey data are valid and trustworthy. Reliability assessments help researchers gauge the extent to which the survey items or scales consistently measure the intended constructs or variables over time and across different conditions. High reliability indicates that the survey instruments are producing consistent results, increasing confidence in the accuracy and precision of the data. On the other hand, low reliability may suggest that the measurements are unreliable and prone to variability, casting doubt on the robustness of the study findings. Therefore, conducting reliability assessments is critical for researchers to make informed decisions based on the survey data and to draw reliable conclusions that can be applied in practice or policy-making.

4. RESULTS AND DISCUSSION

Based on SME's characteristics, Table 1 below presents a descriptive analysis of SMEs based on their business type and asset value. SMEs are classified into two main business types: Industry and Trade. The industry category includes 279 SMEs, which accounts for 70.5% of the total, while the Trade category includes 117 SMEs, making up 29.5%. Regarding asset value, SMEs are categorized into those with assets less than 1 billion Rp and those with assets exceeding 1 billion Rp. A majority of 313 SMEs, or 79.1%, fall into the former category, whereas 83 SMEs, or 20.9%, belong to the latter. In total, the study surveyed 396 SMEs, representing 100% of the sample.

Table 1. SMEs

Characteristics	Classification	Total	Percentage %
Business Type	Industry	279	70.5
	Trade	117	29.5
Asset Value	< 1 Billion Rp	313	79.1
	> 1 Billion Rp	83	20.9
Total		**396**	**100%**

Source: Questionnaire processed by researchers, 2022

Validity and reliability tests were carried out on the measurement model. Test validity consisted of convergence and discriminant tests. Test validity convergence is seen from the score of OuterLoadings. OuterLoadings value is the correlation score among latent variables with indicators. The indicator is valid if the score OuterLoading >0.7 and Average Variance Extracted (AVE) >0.5. The larger the value of outer loading, the more critical the role of the indicator in interpreting latent variables [31].

In Figure 1, all indicators have an outer loading value >0.7, which means that all the indicators used are valid. Furthermore, the Average Variance Extracted (AVE) value is seen in this convergent validity test. Therefore, an indicator is said to be valid if it has an AVE value >0.5 [15].

Table 2 shows that all variables' average variance extracted (AVE) value is>0.5. This means that all indicators used are valid and have passed the convergent validity test. Then, the discriminant validity test is assessed based on the Fornell-Larcker Criterion. If each variable in the model has the highest indicator correlation value compared to other latent variables, then the variable is declared good discriminant validity.

Table 2. Average Variance Extracted (AVE) results

Variable	Average Variance Extracted (AVE)
GHRM	0.603
Green Input	0.597
Green Process	0.610
Green Products	0.619
Economic Performance	0.561
Social Performance	0.575
Environmental Performance	0.622

Source: Author's work (2022)

Table 3 shows the results of the Fornell-Larcker Criterion. Every variable in the model has the highest score correlation with the respective indicators compared to other latent variables. This indicates that the indicators used have good discriminant validity. Furthermore, the reliability test was carried out using two methods of reliability testing: Cronbach's alpha and Composite reliability. A variable or construct is reliable if it gives a Cronbach's Alpha value >0.6 and Composite Reliability >0.7.

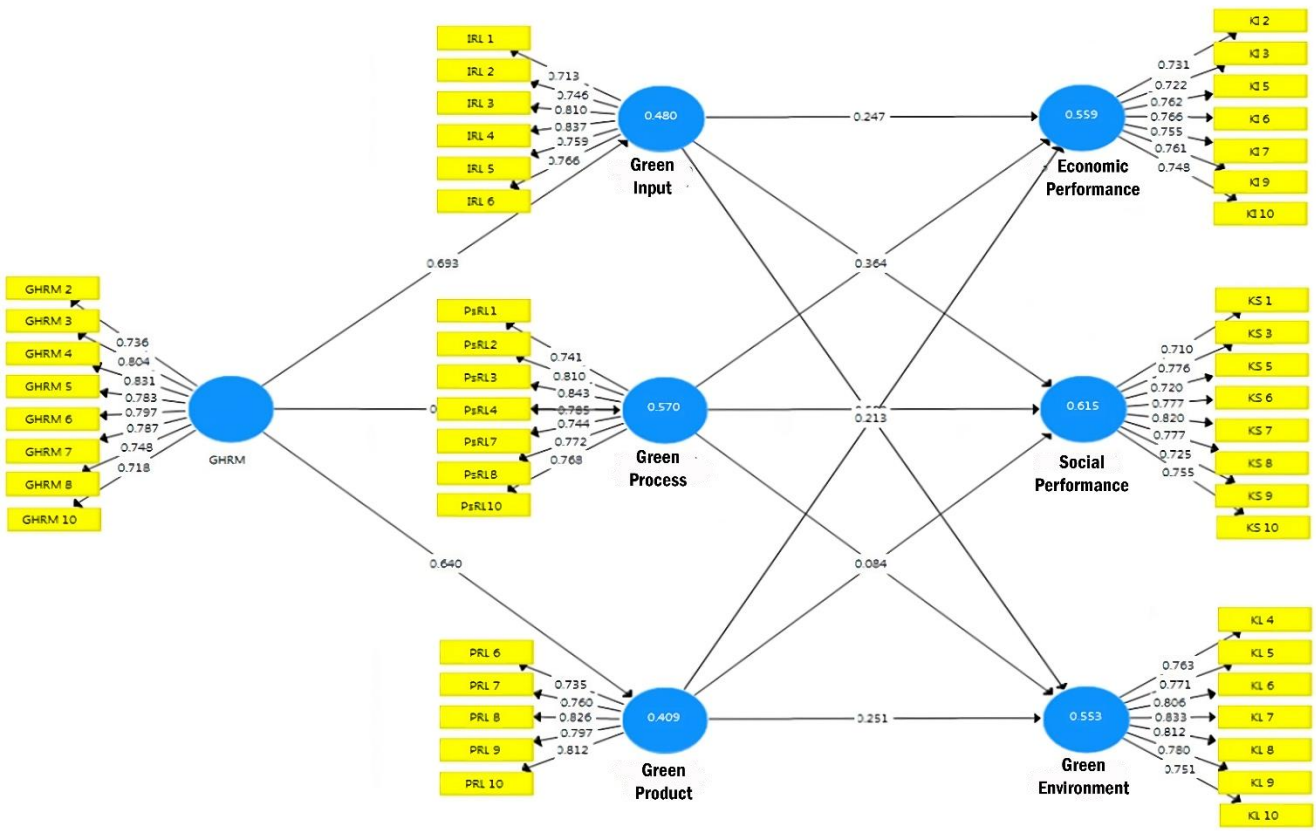

Figure 1. Outer model
Source. Smart PLS Output, 2022

Table 3. Fornell-Larcker Criterion results

Variable	GHRM	IRL	KI	KL	KS	PRL	PsRL
GHRM	**0.776**						
Green input	0.693	**0.773**					
Economic Performance	0.640	0.673	**0.749**				
Environmental Performance	0.683	0.646	0.721	**0.789**			
Social Performance	0.667	0.693	0.763	0.770	**0.758**		
Green product	0.640	0.624	0.625	0.639	0.600	**0.787**	
Green process	0.755	0.804	0.714	0.712	0.772	0.710	**0.781**

Source: Author's work (2022)

Table 4 shows that Cronbach's Alpha value for all variables is >0.6, and the Composite Reliability value is >0.7. This means that all latent variables have passed the reliability test.

Structural models were used to predict causality between latent variables. The structural model was measured by using the Coefficient of Determination (R^2) to test the model and the Coefficient Path value to test the hypothesis. The value of R^2 explains how much the independent variable can explain the dependent variable. The R^2 criteria, according to Diabat et al. [32], are 0.67 (strong), 0.33 (moderate/moderate), and 0.19 (weak).

Table 4. Cronbach's Alpha and composite reliability

Variable	Cronbach's Alpha	Composite Reliability
GHRM	0.905	0.924
Green input	0.865	0.899
Green process	0.893	0.916
Green product	0.846	0.890
Economic Performance	0.870	0.900
Social Performance	0.894	0.915
Environmental Performance	0.898	0.920

Source: Author's work (2022)

Table 5 shows that the green input variable has an R-square value of 0.480, meaning that the GHRM variable's ability to explain the green input variable is 48%. Thus, the model is classified as moderate. The green process variable has an R-square value of 0.570, meaning that the ability of the GHRM variable to explain the green process variable is 57%. Thus, the model is classified as moderate. The green product variable has an R-square value of 0.409, meaning that the ability of the GHRM variable to explain the green product variable is 40%. Thus, the model is classified as moderate. The economic performance variable has an R-square value of 0.559, meaning that the ability of the green input, process, and product variables to explain economic performance variables is 55%. Thus, the model is classified as moderate. The social performance variable has an R-square value of 0.615, meaning that the green input, process, and product variables can explain the social-environmental performance variable of 61%. Thus, the model is classified as moderate. The environmental performance variable has an R-square value of 0.553, meaning that the ability of the green input, process, and product variables to explain environmental performance variables is 55%. Thus, the model is classified as moderate.

SmartPLS does not assume normality and distribution of data. Therefore, SmartPLS uses a non-parametric test to determine the level of significance of the direct relationship of a variable by looking at the path coefficient value generated through bootstrapping calculations on SmartPLS. The hypothesis is accepted if the t-statistic value > the T-table value. For example, the T-table value is 1.96 with hypothesis testing at 5% alpha and has a significant effect if the P-value <0.05.

Table 5. R^2 (R-Square)

Variable	R-Square
Green input	0.480
Green process	0.570
Green product	0.409
Economic Performance	0.559
Social Performance	0.615
Environmental Performance	0.553

Source: Author's work, 2022

Table 6 shows that GHRM positively affects green input [4]. Likewise, the model of green management can be created through green input, processes, products, selling, and distribution [33]. These findings show that GHRM contributes to green inputs. Therefore, there is a need for a deeper understanding of SEMs' behavior toward the awareness of producing green products using green inputs related to environmental protection efforts.

Furthermore, our result revealed that GHRM positively impacts the green process [34]. Likewise, using resources efficiently to reduce the impact involved the worker processing the waste [35] and using the technology [36]. To make GHRM understand the green processes, organizations must realize the importance of carrying out green activities to ensure employee safety and protect employees when carrying out production activities, such as by wearing the equipment and tools according to the safety standards. Furthermore, producing green products can be done with renewable technology and energy efficiency [37].

Moreover, GHRM positively affects green products. This finding is in line with. Likewise, developing green products, efficient energy, waste, and recycling [38]. These findings provide a deep understanding of the behavior of SME owners in producing green products regarding product protection efforts. Therefore, it is essential to understand green products. Green products have low emissions and save energy [39]. Consequently, SMEs need to create models of green products. These will start from green inputs and processes to green products, including government implementation and public awareness to improve the performance [33].

Green inputs positively affect economic performance [40]. Likewise, green inputs will generate short-term and long-term benefits, including cost savings and the improvement of the company's image [33]. These findings show that green inputs can improve economic performance by using alternative inputs and renewable energy. This will impact economic performance. Therefore, it is necessary to understand the importance of green inputs to improve performance.

Table 6. Path coefficient

No.	Variable	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Information
1	GHRM -> Green Input	0.693	18,436	0.000	Received
2	GHRM -> Green Process	0.755	26,304	0.000	Received
3	GHRM -> Green Products	0.640	18,520	0.000	Received
4	Green Input -> Economic Performance	0.24	3,650	0.000	Received
5	Green Input -> Social Performance	0.192	3,563	0.000	Received
6	Green Input -> Environmental Performance	0.170	2,777	0.006	Received
7	Green Process -> Economic Performance	0.364	5,206	0.000	Received
8	Green Process -> Social Performance	0.559	10,004	0.000	Received
9	Green Process -> Environmental Performance	0.398	5,006	0.000	Received
10	Green Product -> Economic Performance	0.213	3,802	0.000	Received
11	Green Product -> Social Performance	0.084	1,558	0.120	Rejected
12	Green Product -> Environmental Performance	0.251	3,610	0.000	Received

Source: Author's work, 2022

Green inputs positively affect environmental performance [41]. Likewise, this finding shows that green inputs can improve environmental performance. The product life cycle model includes a source of reduction (green input), environmental and waste minimization design (green process), and green management during the green production cycle [42].

Also, Yildiz Çankaya and Sezen [43] revealed that environmental performance is measured through an enterprise's ability to prevent the use of hazardous substances. Therefore, the owners need to understand green inputs so that awareness of using green inputs will also increase.

Green processes positively affect the economy's performance [44]. This finding shows that green processes can improve economic performance. Likewise, green processes are critical to developing image, competency, and economic performance [45], and green processes can strengthen the economy's performance, cost, and resources [46]. This can be done through good planning with the commitment of the industry owners.

Furthermore, green processes positively affect social performance [44]. Green processes reduce the impact of industrial activities on social performance. This finding indicates that green processes can improve social performance. The most important things to do for industries in order to improve social performance are increasing efficiency, reducing energy consumption, and using technology. Therefore, the owners of SMEs need to understand the green process.

Green processes positively affect environmental performance [16]. Several sources indicate that the green process to customers and suppliers in the supply chain affects sustainability and environmental performance [47]. This finding shows that the green process can improve environmental performance. Several ways can be used to carry out green processes, including modifying the equipment used. Therefore, SME owners need a deeper understanding of green processes to improve economic performance.

Green products positively affect economic performance [45]. Product innovation is one of the ways to increase financial performance [48], and Xie et al. [47] argued that green products affect economic performance. Similarly, Hung et al. [49] argued that green products can benefit a company competitively. This finding provides a fact that it is essential to raise the awareness of SME owners to produce the products considering the shift in people's lifestyles who realize the importance of maintaining health. They have started to switch to green products. Therefore, SME owners must be able to plan and develop green products. This will undoubtedly have an impact on the economic performance of SMEs.

However, green products have an insignificant impact on social performance. This finding shows that green products are not able to improve social performance. One cause is the inability of SMEs to fulfill the requirement to produce safe products that impact social performance. The consequences will impact society and the environment. Therefore, SMEs must develop a greater understanding of green products. These findings contribute to further research to determine the importance of green products in social performance.

Moreover, this study shows that green products positively affect environmental performance [50]. Also, stakeholder pressure affects the environmental performance of green products [50]. These findings show that green products can improve environmental performance because they will impact environmental performance. With the pressure on the industrial world, SEMs are becoming more concerned about the impact of products on environmental performance. Therefore, it is necessary to understand the impact of green products on environmental performance to reduce the adverse effects of the products.

The current study's findings that GHRM positively affects green inputs, processes, and products, leading to improvements in economic and environmental performance, are consistent with previous research that emphasizes the importance of GHRM in enhancing environmental performance and sustainability in SMEs. This alignment suggests a robust relationship between GHRM practices and organizational outcomes across different contexts.

However, the current study's observation that green products have an insignificant effect on social performance contrasts with some prior studies that suggest a positive relationship between GHRM initiatives and social performance outcomes. This discrepancy highlights the need for further investigation into the specific mechanisms through which green products impact social performance in SMEs.

The current study validates and extends the findings of previous research by confirming the positive impact of GHRM on environmental performance and the need for HRM functions to support sustainability initiatives in SMEs. This validation strengthens the existing knowledge base on the role of GHRM in driving organizational sustainability and performance.

The current study's emphasis on the importance of strategic goals related to the environment and green HR practices for improving SME performance builds upon prior literature that highlights the benefits of green HR practices in enhancing efficiency, product development, and waste management. This enhancement of understanding underscores the significance of integrating sustainability principles into HRM strategies for

SMEs.

By transparently addressing the limitations of the study and considering their implications, researchers can enhance the validity and reliability of their conclusions while providing valuable insights for future research and practice. One of the limitations of the study may be related to the data collection method, such as using a structured questionnaire. While this method allows for quantitative analysis, it may limit the depth of insights obtained from participants. Researchers could acknowledge this limitation and discuss how it might have influenced the richness of the data collected and suggest complementary qualitative approaches for future studies to provide a more comprehensive understanding of the phenomena under investigation.

Another limitation could be the sample size and the specific focus on SME owners in West Sumatra. Researchers could discuss the implications of this limited sample on the generalizability of the findings to a broader population of SMEs or other regions. Addressing this limitation could involve suggesting strategies for expanding the sample size or diversifying the participant demographics in future studies to enhance the external validity of the research. Limitations related to the measurement scales or instruments used in the study could also be discussed. Researchers could reflect on the potential biases, reliability, or validity issues associated with the measurement tools employed and propose ways to address these limitations in future research. This discussion could include recommendations for refining or validating the measurement instruments to ensure the robustness of the study results.

Considering the specific context of SMEs in West Sumatra, researchers could discuss how contextual factors, such as cultural norms, regulatory environments, or industry characteristics, may have influenced the study outcomes. Acknowledging these contextual limitations and their potential impact on the results can provide valuable insights for interpreting the findings and adapting the research approach to different contexts in future studies. By discussing the study's limitations and their practical and policy implications, researchers can offer recommendations for stakeholders, policymakers, and practitioners in GHRM and sustainability. Addressing how the identified limitations may affect the implementation of green HR practices in SMEs and suggesting strategies to overcome these challenges can enhance the relevance and applicability of the research findings. By engaging in a comprehensive discussion of the limitations and their implications, researchers can demonstrate a critical reflection on the study design, data collection, and analysis processes, ultimately strengthening the overall rigor and impact of the research on GHRM and performance in SMEs. This reflective approach not only enhances the credibility of the findings but also contributes to advancing knowledge and informing future research directions in the field.

Incorporating a transparent discussion of the limitations in the research design is essential for ensuring the credibility and robustness of the study. By openly addressing and examining the constraints and shortcomings of the research methodology, this study aims to provide a comprehensive understanding of the boundaries within which the findings can be interpreted. Transparency around the limitations serves as a foundation for critical evaluation and helps readers contextualize the results within the scope of the study. It also facilitates a more nuanced interpretation of the conclusions and recommendations derived from the research. By openly discussing the limitations in the research design, this study upholds the principles of academic integrity and intellectual honesty, fostering a culture of transparency and accountability in scholarly endeavors.

5. CONCLUSIONS

This study highlights the impact of GHRM and performance. Due to the current shift in people's lifestyles, which are starting to switch to healthy products, this needs to be a concern for the industrial world. The industrial world must look at this opportunity. It is not easy to produce green products as there will be obstacles ahead. The barriers to be faced include high costs, availability of raw materials, and product marketing. Green products will impact long-term economic performance and environmental protection [42]. Therefore, SMEs must be aware of healthy products, starting from the raw materials used, production processes, efficiency, low risk, and waste management. In line with the research of Pullman [51], the impact of green products on social performance will reduce the effects of industrial waste costs. If SMEs can make green products, it will benefit the industry itself. These products will be able to compete, and their reputation will automatically increase, which will improve performance.

Furthermore, the main findings are that GHRM positively affects green inputs, processes, and products. Green input positively affects economic, social, and environmental performance. Also, green processes positively affect financial, social, and environmental performance. Green products positively affect the economy and environmental performance; however, green products significantly affect social performance. Green inputs positively affect economic, social, and environmental performance. Also, green processes positively affect economic, social, and environmental performance. Green products positively affect economy and environmental performance; however, green products have insignificant effects on social performance.

The policy recommendation from this research contributes to improving performance by directing SME owners to create strategic goals related to the environment and green human resources management. Furthermore, green human resources can be disseminated to the employees to conduct green practices. Additionally, the government and other related institutions should work together to improve this industry's performance and protect the environment. This can be pretty difficult to do, considering the obstacles SMEs face. Several sectors must commit to collaboration to carry out green activities; for example, the government, banking, and society can help realize green industries. Several policies that the government can take include providing training and dissemination periodically. In practice, these disseminating activities are rarely carried out. Banking institutions can stimulate SMEs by rewarding those who have improved their products by providing credit with low interest. So they can use these funds for industrial operational activities. This is because their capital is limited and only enough for minimal activities. Another policy that can be taken is to provide sanctions that have a deterrent effect for industries that violate the law, such as warnings or stopping industrial activities if there are still SME owners who do not heed the prohibition.

This study helps direct the industry to implement green activities for sustainability. It is hoped that this study can

become a guide for SME owners to run green businesses by established standards so that they can impact sustainability. This study also develops management concepts and theories and sustainable business performance. Besides, this study builds an understanding of green awareness based on the green theories and the findings of this research and sustainable performance.

For future research in the realm of green human resources management (GHRM) and its impact on performance in small and medium enterprises (SMEs), avenues for exploration include longitudinal studies to track the long-term effects of GHRM practices, comparative analyses between SMEs with and without GHRM initiatives, cross-cultural investigations into the influence of culture on green strategies, integration of technology for optimizing GHRM processes, stakeholder engagement studies, cost-benefit analyses of GHRM investments, employee perspectives on sustainability initiatives, and examinations of policy implications for promoting GHRM in SMEs. By delving into these areas, researchers can contribute valuable insights to enhance understanding of how GHRM practices can drive sustainable business performance and inform stakeholders on fostering environmentally responsible organizational practices.

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