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Green HRM and Employee Engagement: Impact on Employee Performance in Manufacturing Companies

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ABSTRACT

Objectives: This study aims to analyze the impact of green training and green compensation and rewards on employee performance through employee engagement in a paint manufacturing company in Tangerang.

Methodology: Using a quantitative survey approach, 130 respondents were selected via probability sampling. Data analysis was conducted with Structural Equation Modeling (SEM) using Partial Least Square (PLS) software.

Finding: The results indicate that green training and green compensation and rewards have a positive and significant impact on employee engagement. However, green training and green compensation and rewards do not have a significant direct effect on employee performance. Employee engagement has a positive and significant effect on employee performance and fully mediates the relationship between green training and employee performance, as well as between green compensation and rewards and employee performance.

Conclusion: Green HRM practices such as green training and green compensation and rewards can effectively enhance employee performance when mediated by employee engagement. This highlights the importance of fostering employee engagement as a critical link between Green HRM initiatives and performance outcomes.

Keywords: Green Human Resource Management; Green Training; Green Compensation and Rewards; Employee Engagement; Employee Performance

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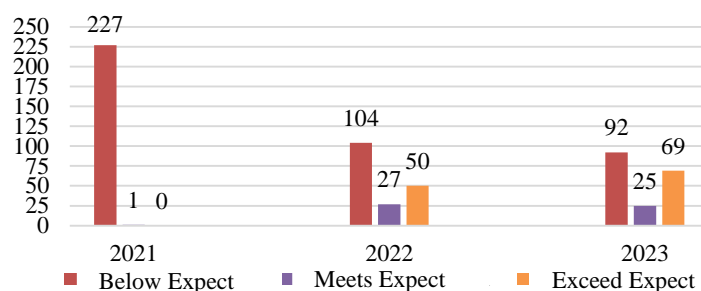
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INTRODUCTION

Environmental issues have become a global challenge requiring collective awareness from governments, businesses, and communities. Companies are now expected to balance their responsibility to preserve the environment with the need to grow their business. This highlights the growing importance of sustainable development concepts. Green Human Resources Management (GHRM) supports the "go green" initiative by fostering pro-environmental behaviors among employees to achieve sustainable corporate performance (Bombiak & Marciniuk-Kluska, 2019).

The manufacturing sector plays a critical role in Indonesia's economic growth, contributing 20.27% to the national GDP (Dayanti, 2022). However, it is also one of the main contributors to environmental problems due to the waste and pollutants it generates. To address these challenges, manufacturing companies must develop human resources aligned with the organization's sustainability goals. Regular employee performance evaluations are crucial, as employee performance significantly impacts the company's ability to meet its objectives. The following summarizes Key Performance Indicator (KPI) data from a paint manufacturing company in Tangerang over the past three years:

Figure 1. Employee Performance Results 2021-2023

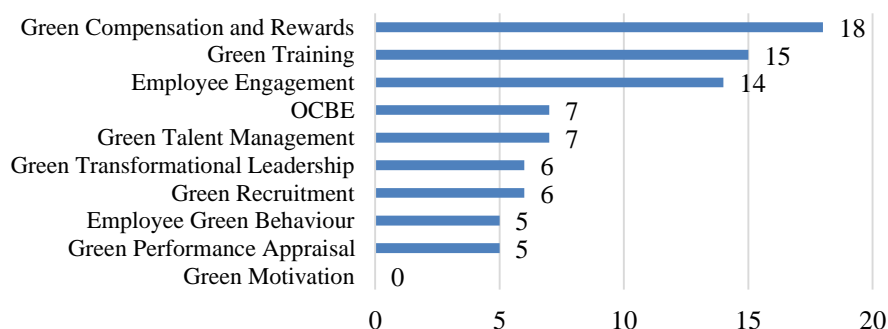


Source: Processed by the researcher from HRIS data (2024)

The figure illustrates that the number of employees with KPI's falling below expectations remains higher than those meeting or exceeding expectations. This indicates a critical need for the company to address this issue and implement effective solutions.

To identify key factors influencing employee performance in the company, a preliminary survey was conducted involving 20 employees.

Figure 2. Results of Preliminary Survey on Factors Influencing Employee Performance



Source: Processed by the researcher from HRIS data (2024)

The preliminary survey identified three key factors influencing employee performance in the paint manufacturing company in Tangerang: green compensation and rewards, green training, and employee engagement.

Green training is a crucial aspect of human resource management, equipping employees with knowledge and skills to achieve organizational goals. It helps employees address challenges and adapt to organizational changes by integrating environmental considerations, enhancing

engagement, promoting skills, and motivating environmental competence development (Mandip, 2012). Studies, such as those by Sinaga and Nawangsari (2019), show that green training positively and significantly impacts employee performance.

Green compensation and rewards recognize employees' dedication to environmental sustainability through financial and non-financial incentives. Organizations can link green initiatives to career advancement and encourage employees to generate innovative environmental ideas. Ardiza, Nawangsari, and Sutawidjaya (2021) found that green compensation positively and significantly influences employee performance.

Employee engagement ensures that employees remain motivated to achieve organizational goals. When employees feel their work positively impacts the environment and their contributions are valued, their engagement increases (Santoso, Nuraeni & Huda, 2023). Research by Suprpto and Suharto (2023) confirms the significant positive influence of employee engagement on performance.

Despite existing studies on these variables individually, a research gap remains in exploring their integration. Limited studies examine the combined influence of green training, green compensation and rewards, and employee engagement on performance. Addressing this gap could provide comprehensive insights into effective strategies for enhancing employee performance within the context of environmental sustainability.

LITERATURE REVIEW

Sustainable Development Goals (SDGs)

The 70th UN General Assembly in New York established the global development agenda “Transforming Our World: the 2030 Agenda for Sustainable Development,” comprising 17 goals and 169 targets, effective from 2016 to 2030, focusing on eradicating poverty, reducing inequality, and protecting the environment. This agenda is known as the Sustainable Development Goals (SDGs). In Indonesia, the implementation of SDGs is guided by PP No. 59 2017. Companies play a vital role in achieving SDG Goal 8, which emphasizes decent work and economic growth. This can be realized by fostering economic growth through inclusive practices and creating sustainable job opportunities. Green Human Resources Management (GHRM) supports these efforts by integrating environmental considerations into human resource practices, such as training, rewards, and employee engagement.

Employee Performance

Job performance refers to the actual achievements or outcomes attained by an individual in their work. According to Mathis and Jackson (2012), performance is defined as actions taken or not taken by employees, while Wibowo (2016) describes performance as the execution of a pre-designed plan. Robbins (2012) explains performance as the result of the interaction between ability and motivation, expressed as $\text{performance} = f(A \times M)$. Performance evaluation is a critical tool for assessing the achievement of organizational goals, with key indicators including work quality, quantity, timeliness, adherence to schedules, and the ability to collaborate effectively on tasks requiring teamwork (Mathis and Jackson, 2012).

Green Training

Jabbour and Jabbour (2016) define green training as a series of activities aimed at enhancing employees' skills and awareness regarding environmental protection while engaging all

organizational members. This training motivates employees to safeguard the environment and improve their responses to environmental control and damage prevention (Nawangarsi & Sutawidjaya, 2018). Daily et al. (2012), as cited in Jabbour (2015), identify five dimensions of green training: training quality, training opportunities, training quantity, evaluation, and training effectiveness.

Green Compensation and Rewards

According to Latan et al. (2018), green compensation and reward refer to financial and non-financial reward systems designed to motivate employees to support environmental objectives. These rewards include financial incentives and non-financial recognition. This strategy aligns employee performance with corporate goals for sustainable development through environmentally friendly innovation and skills (Ramus, 2002). Bernardin and Russel (2016) emphasize that such rewards encompass recognition for eco-friendly initiatives and variable incentives that promote pro-environmental behavior, fostering a productive and sustainable work environment.

Employee Engagement

According to Robbins and Judge (2015), employee engagement encompasses satisfaction, enthusiasm, and emotional commitment to work and the organization. Engaged employees demonstrate dedication, accountability, and a results-oriented focus, positively impacting job satisfaction and the achievement of organizational goals. Bakker (2017) states that engagement levels can be measured through vigor (energy and perseverance), dedication (enthusiasm and pride), and absorption (deep focus on work). The dimensions of employee engagement include leadership strength, a caring work culture, clarity of organizational vision, feedback, and career development opportunities.

Hypothesis Development

1) The Relationship Between Green Training and Employee Engagement

Singh and Pandey (2020) state that green training has a positive and significant effect on employee engagement. This training increases employees' awareness and involvement in environmentally friendly practices, which is reflected in their commitment, engagement, and enthusiasm for their work and the organization.

H1: Green training has a positive and significant effect on employee engagement.

2) The Relationship Between Green Compensation & Reward and Employee Engagement

Razali and Vasudevan (2023) state that green compensation and reward have a positive and significant effect on employee engagement. This practice can motivate employees to support green initiatives, increasing their commitment, engagement, and motivation toward the organization.

H2: Green compensation and rewards have a positive and significant effect on employee engagement.

3) The Relationship Between Green Training and Employee Performance

Megaster et al. (2022) state that green training has a positive and significant effect on employee performance. This training improves employees' awareness and skills in supporting the company's green initiatives, thereby enhancing the quality and productivity of their work.

H3: Green training has a positive and significant effect on employee performance.

4) The Relationship Between Green Compensation & Reward and Employee Performance

Ardiza and Nawangsari (2019) state that green compensation and reward have a positive and significant effect on employee performance. This reward system motivates employees to contribute to the company's green goals, improving their productivity, work quality, and commitment.

H4: Green compensation and rewards have a positive and significant effect on employee performance.

5) The Relationship Between Employee Engagement and Employee Performance

Sucahyowati and Hendrawan (2020) state that employee engagement has a positive and significant effect on employee performance. Employees who are emotionally engaged tend to show higher dedication, motivation, and concentration, thus improving productivity, work quality, and retention rates.

H5: Employee engagement has a positive and significant effect on employee performance.

6) The Relationship Between Green Training and Employee Performance through Employee Engagement

Faisal (2024) states that green training has a positive effect on employee performance through employee engagement. This training enhances employees' emotional involvement and motivation, which contributes to their performance in various aspects of their work.

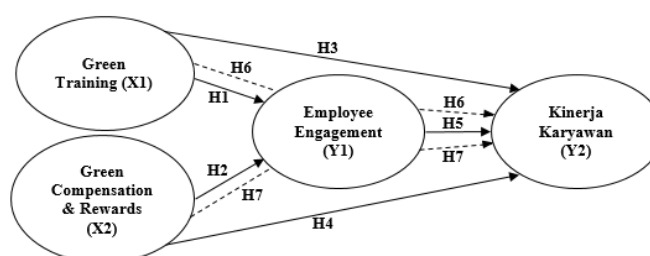
H6: Green training has a positive and significant effect on employee performance through employee engagement.

7) The Relationship Between Green Compensation and Rewards and Employee Performance through Employee Engagement

Fakhri et al. (2020) state that employee engagement mediates the relationship between green compensation and rewards and employee performance. Green compensation and rewards increase employee engagement, which in turn drives improvements in productivity, work quality, innovation, and commitment to the organization.

H7: Green compensation and rewards have a positive and significant effect on employee performance through employee engagement.

Figure 3. Research Framework



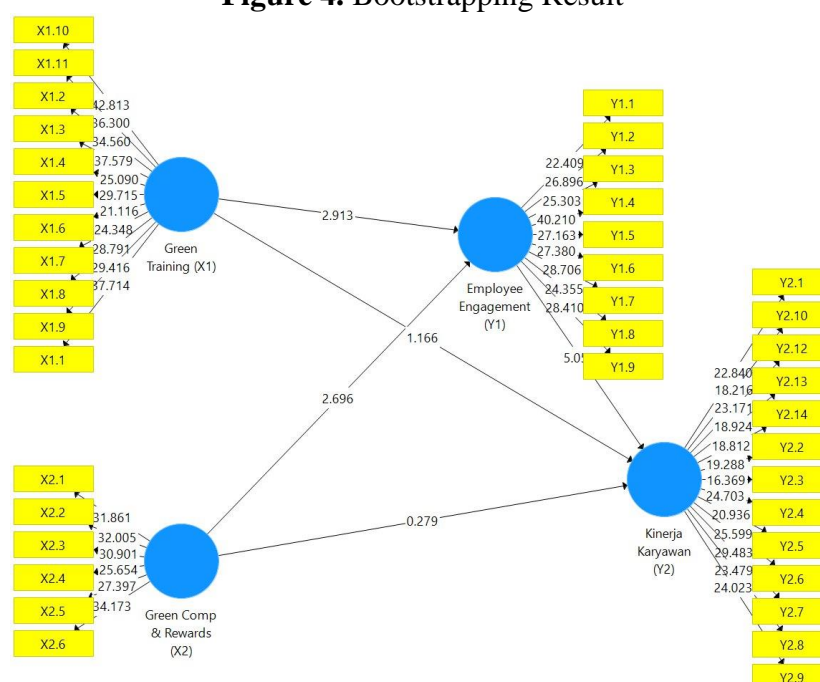
Source: Processed by the researcher (2024)

METHOD

This study employs a quantitative approach with a survey method to analyze the relationship between green training and green compensation and rewards on employee performance through employee engagement. The population of this study consists of 183 permanent employees with more than 1 year of service in a paint manufacturing company in Tangerang. The sampling technique used is simple random sampling with a 5% margin of error, resulting in a sample size of 130 employees. The study uses primary data from questionnaires and secondary data from employee performance assessments obtained from the company's HRIS system. Data is collected through a questionnaire that was pilot-tested before use. The data analysis technique employs Structural Equation Modeling (SEM) using the software Partial Least Square (PLS) version 3.0. The analysis includes descriptive analysis, inner model, and outer model.

RESULTS AND DISCUSSION

Figure 4. Bootstrapping Result



Source: Processed by the researcher (2024)

Tabel 1. Hypothesis Result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Conclusion
Direct Effect						
X1 -> Y1	0.356	0.361	0.115	3.091	0.002	Accepted
X1 -> Y2	0.112	0.100	0.094	1.190	0.234	Rejected
X2 -> Y1	0.352	0.359	0.126	2.794	0.005	Accepted
X2 -> Y2	0.028	0.010	0.103	0.272	0.786	Rejected
Y1 -> Y2	0.657	0.684	0.123	5.353	0.000	Accepted
Indirect Effect						
X1 -> Y1 -> Y2	0.234	0.249	0.097	2.417	0.016	Accepted
X2 -> Y1 -> Y2	0.232	0.250	0.108	2.145	0.032	Accepted

Source: Processed by the researcher (2024)

1) Relationship between Green Training (X1) and Employee Engagement (Y1)

H1 is accepted: Green training has a positive and significant impact on employee engagement. The positive effect indicates that as the implementation of green training improves in the organization, the higher the employee engagement levels. The company has increasingly implemented green training programs to raise environmental awareness, such as 5S socialization, 8 waste reduction, green office initiatives, and the “LISA” (Look at Trash, Pick it Up) campaign. The high participation rate reflects employees' increased involvement in maintaining workplace cleanliness and supporting the company's sustainability goals. The SmartPLS analysis shows that the indicator “environmentally relevant and current training topics” has the highest loading factor, emphasizing the importance of topic relevance in green training. This finding reinforces the role of green training in boosting employee engagement, which not only enhances employees' skills but also strengthens their connection to the company's values and sustainability.

2) Relationship between Green Compensation & Rewards (X2) and Employee Engagement (Y1)

H2 is accepted: Green compensation and rewards have a positive and significant impact on employee engagement. The green compensation and rewards program provides point-based incentives for employees and departments supporting sustainability efforts. Employees earn points for contributing to waste reduction, while departments are rewarded for implementing 5S and process optimization. This program encourages sustainability initiatives, enhances teamwork collaboration, and impacts environmental awareness and efficiency. The SmartPLS analysis reveals that the indicator "Providing benefit packages to encourage pro-environmental behavior" has the highest loading factor, underlining the importance of benefit packages in the green compensation and rewards program. This program not only offers financial benefits but also strengthens employee engagement and supports organizational sustainability.

3) Relationship between Green Training (X1) and Employee Performance (Y2)

H3 is rejected: Green training does not significantly affect employee performance. Although green training has a positive effect on employee performance, it is not statistically significant. The green training implemented needs to be more tailored to have a direct impact on improving

employee performance by integrating training materials into daily tasks. The influence of green training on performance is long-term, requiring the company to monitor performance changes periodically and complement them with policies or work cultures that support it.

4) Relationship between Green Compensation & Rewards (X2) and Employee Performance (Y2)

H4 is rejected: Green compensation and rewards do not have a significant impact on employee performance. While green compensation and rewards can positively affect employee performance, the impact is not statistically significant. The reward system in the company is somewhat rigid and non-inclusive, with high minimum point thresholds for rewards and limited award segments in certain departments. This reduces motivation and involvement in sustainability programs. The company needs to evaluate and develop a fairer and more inclusive reward scheme to improve overall employee participation.

5) Relationship between Employee Engagement (Y1) and Employee Performance (Y2)

H5 is accepted: Employee engagement has a positive and significant impact on employee performance. Since mid-2022, the company has focused on improving employee engagement through the establishment of a Culture division, which develops inclusive programs such as talent searches, employee involvement in company event committees, and wellness and social activities like yoga, meditation, and social service initiatives. The SmartPLS analysis shows that the indicator “I have high enthusiasm for my work” has the highest loading factor, highlighting the importance of employee enthusiasm in driving motivation, innovation, and collaboration, which in turn enhances individual productivity and team performance. This finding underscores the crucial role of employee engagement in influencing employee performance. By involving employees in programs that support motivation, commitment, and a sense of belonging, companies can create an inclusive and productive work environment.

6) Mediating Role of Employee Engagement (Y1) between Green Training (X1) and Employee Performance (Y2)

H6 is accepted: Employee engagement fully mediates the relationship between green training and employee performance. The findings indicate that enhancing employee engagement amplifies the positive effects of green training on employee performance. Effective green training increases employee engagement, which in turn improves performance. Based on the T-Statistic values, employee engagement has the greatest impact on employee performance, making it a key factor in boosting performance. Additionally, green training has a more significant effect on employee engagement than green compensation and rewards, showing that effective green training programs can increase employee engagement and positively impact performance. Therefore, the company should ensure that sustainability-related training is relevant to employees' jobs and fosters active engagement to support performance improvement.

7) Mediating Role of Employee Engagement (Y1) between Green Compensation & Rewards (X2) and Employee Performance (Y2)

Employee engagement fully mediates the relationship between green compensation & rewards and employee performance. When the company provides rewards and compensation related to environmental sustainability, and employees feel engaged and appreciated for their contributions, it motivates them to enhance their performance. Therefore, companies need to

continuously focus on how green compensation and rewards policies can be designed to further enhance employee engagement, which will ultimately contribute to better employee performance.

CONCLUSION

This research aimed to address the gap in understanding how green training and green compensation & rewards influence employee performance through employee engagement. The findings show that green training and green compensation & rewards positively affect employee engagement, but their direct impact on employee performance was not significant. However, employee engagement was found to have a significant positive effect on performance, fully mediating the relationship between green practices and employee output.

The study implies that employee engagement is crucial for maximizing the effectiveness of green HR practices. Companies should focus on creating engaging and inclusive sustainability programs that align with employee values. Green compensation should be more flexible and equitable to boost participation.

For future research, it is suggested to incorporate additional variables, such as OCBE, green transformational leadership, green talent management could offer a more comprehensive understanding of the drivers of employee performance in the context of green HRM.

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