

THE EFFECT OF SUSTAINABLE CAREER DEVELOPMENT, GREEN TRAINING, AND SUSTAINABLE WORK ENVIRONMENT ON EMPLOYEE PRODUCTIVITY WITH EMPLOYEE INVOLVEMENT AS A MEDIATING VARIABLE AT THE PALEMBANG CITY PUPR OFFICE

Janita Wulandari¹, Agus Arijanto², Lenny Christina Nawangsari³

¹⁻³ Magister of Management Program, Universitas Mercu Buana, Indonesia

*Email corresponding author: janitaawulandarii@gmail.com

Abstract

This study aims to analyze the influence of *Sustainable Career Development*, *Green Training*, and *Sustainable Work Environment* on employee productivity at the Palembang City Public Works and Spatial Planning Office (PUPR), with employee involvement as a mediating variable. The approach used in this study is quantitative with a causal research design. This study aims to analyze the influence of Sustainable Career Development, *Green Training*, and Sustainable Work Environment on employee productivity at the Palembang City PUPR Office, with employee involvement as a mediating variable. Data was collected from civil servants (PNS) who have worked at the PUPR Office for the past five years with a population of 183 people. This study used a non-probability sampling method with a simple random sampling technique, resulting in a sample of 125 respondents. The research method used was cross-sectional with data analysis using PLS-SEM to test the relationship between variables. The results of the study show that Sustainable Career Development and *Green Training* have a positive and significant influence on employee productivity while the Sustainable Work Environment does not have a significant influence on employee productivity. In addition, employee involvement has been proven to strengthen the influence of Sustainable Career Development and *Green Training* on productivity.

Keywords: Sustainable Career Development, Green Training, Sustainable Work Environment, Employee Engagement, Employee Productivity

INTRODUCTION

The achievement of the Sustainable Development Goals (SDGs), especially SDG 8 on decent work and economic growth, requires organizations such as the Palembang City PUPR Office to create a supportive work environment, sustainable career development, and continuous improvement of employee competencies (Ali et al., 2023; Amrutha & Geetha, 2020). The challenges faced include low career flexibility, lack of continuous training, mismatch of personal values with organizational direction, and lack of mastery of green competencies (Abuelhassan & Elsayed, 2020; Xie et al., 2020).

The existing Green Training program is considered ineffective, characterized by low participation and minimal impact on energy efficiency and environmental awareness (Amrutha & Geetha, 2021). In addition, employee engagement, especially cognitively, physically, and socially, still needs to be improved so that productivity can be optimal (Yong et al., 2020). Mental well-being is also a concern due to high levels of stress and burnout (Akkermans et al., 2021; Gonzalez-Mulé & Cockburn, 2021).

Inequality in the development of technical and managerial competencies, as well as the lack of integration of training with career paths, hinder the achievement of SDG 9 and SDG 11. Therefore, a holistic approach that includes Sustainable Career Development, Green Training, and a sustainable work environment needs to be implemented to improve productivity across the board (Heijden et al., 2020; Kumar et al., 2024; Ferrara et al., 2022).

This research contributes theoretically and practically to building a strategic model for increasing employee productivity based on sustainability principles and SDGs, especially in the context of technical bureaucracy such as the PUPR Office (Ali et al., 2023).

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Sustainable Employee Productivity.

Employee productivity is not only measured by work efficiency, but also by the sustainability of their physical, mental, and emotional well-being. The concept of *Human Sustainability* emphasizes the importance of maintaining employee health to remain productive in the long term (Schleicher et al., 2019; Barnes & Wagner, 2024). Organizations that ignore this aspect risk facing decreased employee performance and engagement (Erdogan et al., 2019).

Employee Engagement.

Employee engagement encompasses emotional, cognitive, physical, social, and behavioral dimensions, all of which contribute to improving individual performance and achieving organizational goals.

Sustainable Work Environment (SWE).

A sustainable work environment is characterized by resource efficiency, a green culture, and the support of superiors and colleagues. SWE increases employee and organizational value alignment, which positively impacts productivity (Amrutha & Geetha, 2020; Ali et al., 2023; Abuelhassan & Elsayed, 2020).

Green Training (GT).

GT improves employees' green competencies and environmental awareness, contributing to productivity, operational efficiency, and green innovation (Amrutha & Geetha, 2020; Ercantan & Eyupoglu, 2022; Yong et al., 2020; Kumar et al., 2024; Saeed et al., 2022; Xie et al., 2020; Ali et al., 2023; Roscoe et al., 2019).

Sustainable Career Development (SCD).

SCD emphasizes self-renewal, flexibility, and the integration of personal values in careers. These three elements are essential for building a meaningful and productive career in a sustainable manner (Ali et al., 2023; Amrutha & Geetha, 2020).

Previous research has shown that *Sustainable Career Development* (SDC), which includes updating skills, flexibility, and alignment of personal values with career goals, has a positive effect on employee productivity (Akkermans et al., 2021; Heijden et al., 2020). Employees who have a sustainable career path are more motivated and productive in the long run.

H1: SDC has a positive effect on sustainable employee productivity.

Green Development Career (GDC), including green training and mastery of environmental competencies, also contributes to increased productivity, as it strengthens employees' awareness and skills on sustainability issues (Amrutha & Geetha, 2020; Ercantan & Eyupoglu, 2022; Kumar et al., 2024).

H2: GDC has a positive effect on employee productivity continuously.

Sustainable Work Environment (SWE), which supports green practices, the support of superiors, and good environmental policies, helps increase employee productivity through increased job satisfaction and engagement (Ali et al., 2023; Abuelhassan & Elsayed, 2020).

H3: SWE has a positive effect on the productivity of sustainable employees.

SDC also affects productivity indirectly through the mediation of employee engagement. When employees feel their career paths are evolving and aligned with personal values, engagement increases, and productivity is boosted (Amrutha & Geetha, 2020; Heijden et al., 2020).

H4: SDC affects productivity through employee engagement.

Similarly, GDC increases engagement through increased environmental awareness and a sense of belonging to organizational goals, which positively impacts productivity (Amrutha & Geetha, 2020; Ercantan & Eyupoglu, 2022; Kumar et al., 2024; Abuelhassan & Elsayed, 2020).

H5: GDC affects productivity through employee engagement.

A sustainable work environment also increases engagement, as employees feel that their work contributes to a larger mission, which is environmental and social sustainability (Ali et al., 2023; Abuelhassan & Elsayed, 2020).

H6: SWE affects productivity through employee engagement.

RESEARCH METHODS

This study uses a quantitative approach with a causal design that aims to analyze the influence of Sustainable Development Career, Green Development Career, and Sustainable Work Environment on Sustainable Employee Productivity at the Palembang City PUPR Office. The research population was 183 civil servants, with a sample of 125 people determined through the Slovin formula with an error rate of 5%. The sampling technique used is proportional sampling so that each strata in the population is proportionally represented (Ghozali, 2021).

The operational definition of the variable was compiled based on the previous literature, with measurements using a Likert scale of 1–5. Data collection was carried out through an electronic questionnaire. Data analysis was carried out with SmartPLS 4 using the PLS-SEM approach. The evaluation of the outer model included convergent validity ($AVE \geq 0.50$), discriminant validity ($HTMT \leq 0.90$), and composite reliability ($CR \geq 0.70$). The inner model was analyzed through R^2 , effect size (f^2), Goodness of Fit ($GoF = \sqrt{AVE \times R^2}$), and predictive relevance ($Q^2 > 0$) (Hair & Alamer, 2022). The hypothesis test was carried out using the bootstrapping technique at a significance level of 5%, using a t-calculated value compared to a t-table of 1.6526.

The Slovin formula used to determine the sample size is as follows:

$$1. \quad n = \frac{183}{1 + 0,4575} = \frac{183}{1,4575} = 125 \quad (1)$$

RESULTS AND DISCUSSION

The results of the study showed that *Sustainable Career Development* and *Green Training* had a significant effect on *Employee Productivity* through *Employee Involvement* as a mediating variable, while *the Sustainable Work Environment* did not show a significant influence. The test results also showed that the *Composite Reliability* and *Cronbach's Alpha values* were all constructs > 0.7 , which signifies good reliability, although the AVE value is still < 0.5 .

In the structural model analysis, the *R Square* values of the variables Z and Y are in the good category as shown in Table 1. This indicates that the model has good accuracy.

Table 1. Determination Coefficient Results

Variable	R Square	Adjusted R Square
Z	0.948	0.948
Y	0.426	0.423

Source: Hasil Olahan Data (2024)

Path Coefficient *analysis* shows that the variables X1 and X2 have a significant influence on Z and indirectly have a significant effect on Y through Z. However, X3 has no significant effect. This indicates that career sustainability and green training have a real contribution to increasing employee productivity, while the sustainable work environment has not been directly felt by employees.

Table 2. Path Coefficient dan Indirect Effect Result

Relationship	T Statistics	P Value	Description
$X1 \rightarrow Z$	39.789	0.000	Significant
$X2 \rightarrow Z$	4.125	0.000	Significant
$X3 \rightarrow Z$	0.999	0.318	Not Significant
$Z \rightarrow Y$	39.789	0.000	Significant
$X1 \rightarrow Z \rightarrow Y$	18.750	0.000	Significant
$X2 \rightarrow Z \rightarrow Y$	3.690	0.000	Significant
$X3 \rightarrow Z \rightarrow Y$	0.985	0.325	Not Significant

Source: Hasil Olahan Data (2024)

Temuan ini mendukung teori keterlibatan pegawai dan teori motivasi yang menyatakan bahwa karier dan pelatihan yang bermakna mampu meningkatkan keterlibatan dan produktivitas. Hasil juga menguatkan temuan sebelumnya (Amrutha & Geetha, 2020; Heijden et al., 2020; Kumar et al., 2024), bahwa *Green Development Career* memiliki kontribusi signifikan terhadap produktivitas jangka panjang.

CONCLUSION

Conclusion: Sustainable Development Career and Green Training have been proven to have a positive and significant influence on employee productivity at the Palembang City PUPR Office. Sustainable career development and green training can increase employee engagement, which in turn has an impact on work productivity. In contrast, the Sustainable Work Environment did not show a significant influence on employee productivity or engagement. These findings indicate that employee engagement plays an important role as a mediator in the relationship between career development and green training on productivity.

Implications: the importance of sustainable career development and green training in employee performance improvement strategies. Public organizations need to develop programs that give meaning to work and equip employees with sustainability skills.

Research Limitations: on the implementation aspect of the Sustainable Work Environment that is not specific, so that the influence has not been significantly seen in the context of this study.

Further research: it is recommended to explore more deeply the concrete elements of a sustainable work environment, such as work flexibility, eco-friendly facilities, and support for employees' mental and physical health so that the results obtained are more relevant and have an impact on employee productivity in a sustainable manner.

BIBLIOGRAPHY

- Abuelhassan, A. E., & Elsayed, Y. N. M. K. (2020). *The impact of employee Green Training on hotel environmental performance in the Egyptian hotels. International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 4(1), 24–33.
- Akkermans, J., Spurk, D., & Fouad, N. (2021). *Careers and career development. Oxford Research Encyclopedia of Psychology*.
- Ali, M., Malik, M., Zafar, M., Jose, C., Jabbour, C., Beatriz, A., Sousa, L. De, & Latan, H. (2023). *Green means long life - green competencies for corporate sustainability performance: A moderated mediation model of green organizational culture and top management support. Journal of Cleaner Production*, 427(September), 139174. <https://doi.org/10.1016/j.jclepro.2023.139174>

- Amrutha, V. N., & Geetha, S. N. (2020). *A systematic review on green human resource management: Implications for social sustainability*. *Journal of Cleaner Production*, 247, 119131.
- Amrutha, V. N., & Geetha, S. N. (2021). *Linking organizational Green Training and voluntary workplace green behavior: Mediating role of green supporting climate and employees' green satisfaction*. *Journal of Cleaner Production*, 290, 125876. <https://doi.org/10.1016/j.jclepro.2021.125876>
- Barnes, C. M., & Wagner, D. T. (2024). *Human Sustainability and Work: A Meta-Synthesis and New Theoretical Framework*. <https://doi.org/10.1177/01492063221131541>
- Erdogan, B., Bauer, T. N., Truxillo, D. M., Mansfield, L. R., & Truxillo, D. M. (2019). *Journal of Management*. January. <https://doi.org/10.1177/0149206311429379>
- Ercantan, O., & Eyupoglu, S. (2022). *How do green human resource management practices encourage employees to engage in green behavior? Perceptions of university students as prospective employees*. *Sustainability*, 14(3), 1718.
- Ferrara, B., Pansini, M., De Vincenzi, C., Buonomo, I., & Benevene, P. (2022). *Investigating the role of remote working on employees' performance and well-being: an evidence-based systematic review*. *International Journal of Environmental Research and Public Health*, 19(19), 12373.
- Gonzalez-Mulé, E., & Cockburn, B. S. (2021). *This job is (literally) killing me: A moderated-mediated model linking work characteristics to mortality*. *Journal of Applied Psychology*, 106(1), 140.
- Heijden, B. Van Der, Vos, A. De, Akkermans, J., & Spurk, D. (2020). *Sustainable careers across the lifespan: Moving the field forward*. *Journal of Vocational Behavior*, 117, 103344. <https://doi.org/10.1016/j.jvb.2019.103344>
- Kumar, A., Yadav, U. S., Mandal, M., & Yadav, S. K. (2024). *Impact of Corporate Innovation, Technological Innovation and ESG on Environmental Performance: Moderation Test of Entrepreneurial Orientation and Technological Innovation as Mediator Using Sobel Test*. *International Journal of Sustainable Development & Planning*, 19(7).
- Roscoe, S., Subramanian, N., Jabbour, C. J. C., & Chong, T. (2019). *Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development*. *Business Strategy and the Environment*, 28(5), 737–749.
- Saeed, A., Rasheed, F., Waseem, M., & Tabash, M. I. (2022). *Green human resource management and environmental performance: the role of green supply chain management practices. Benchmarking: An International Journal*, 29(9), 2881–2899.
- Schleicher, D. J., Baumann, H. M., Sullivan, D. W., & Yim, J. (2019). *Evaluating the effectiveness of performance management: A 30-year integrative conceptual review*. *Journal of Applied Psychology*, 104(7), 851.
- Xie, X., Zhu, Q., & Qi, G. (2020). *How can Green Training promote employee career growth?* *Journal of Cleaner Production*, 259, 120818. <https://doi.org/10.1016/j.jclepro.2020.120818>
- Yong, J. Y., Yusliza, M.-Y., Ramayah, T., & Fawehinmi, O. (2020). *Nexus between green intellectual capital and green human resource management*. *Journal of Cleaner Production*, 215, 364–374.