

THE IMPACT OF COMPETENCY, WORK DISCIPLINE, AND WORK ENVIRONMENT ON EMPLOYEE PRODUCTIVITY: A CASE STUDY OF UPT WASTE MANAGEMENT IN TELUK BETUNG SELATAN

Garry Oglamando¹,
Tasya Aulia Purwanto²,
Adinda Purnomo³,
Habiburahman⁴,
M. Yusuf Sulfarano Barusman⁵

Yusuf.barusman@ubl.ac.id

¹Universitas Bandar Lampung

ABSTRACT

This study investigates the impact of competency, work discipline, and work environment on employee productivity at the UPT Waste Management in Teluk Betung Selatan, under the Dinas Lingkungan Hidup Kota Bandar Lampung. Utilizing a quantitative approach with a sample of 45 employees, data were collected through questionnaires and analyzed using multiple linear regression. The findings reveal that all three factors—competency, work discipline, and work environment—positively and significantly influence employee productivity, with a determination coefficient (R^2) of 0.610, indicating that 61% of productivity variation is explained by these variables. The study underscores the importance of effective human resource management in achieving organizational goals and recommends creating a supportive work atmosphere and enhancing peer guidance. These insights serve as a valuable reference for practitioners and future researchers in the field.

Keywords: Competency, discipline, environment, productivity, employees.

Introduction

In the contemporary organizational landscape, enhancing employee productivity is a pivotal objective for achieving operational excellence and competitive advantage (Bobbe & Schaffer, 1983; Chauke et al., 2022; McTavish et al., 1996; Shahid & Azhar, 2013). Productivity, defined as the efficiency with which resources are utilized to achieve organizational goals, is influenced (Brunner et al., 2019; Groff, 1971; Mohanty & Deshmukh, 1999; Simboli et al., 2014; Sudirman et al., 2023) by various factors, including employee competency, work discipline, and the work environment. Despite extensive research on productivity determinants, there remains a gap in understanding how these factors interact and contribute to productivity in specific organizational contexts, such as waste management units (Brunner et al., 2019; Groff, 1971; Mohanty & Deshmukh, 1999; Simboli et al., 2014). This study aims to fill this gap by examining the influence of competency, work discipline, and work environment on employee productivity at the UPT Waste Management in Teluk Betung Selatan, under the Dinas Lingkungan Hidup Kota Bandar Lampung.

The significance of this research lies in its potential to provide actionable insights for human resource management in similar organizational settings. By identifying key productivity drivers, this study can inform strategies to optimize workforce performance, thereby enhancing service delivery and operational efficiency (Afshan Doctoral Student et al., 2014; Agarwal & Farndale, 2017; Katou & Budhwar, 2015; Subramony et al., 2021). Furthermore, this research contributes to the broader literature on productivity by exploring the interplay of competency, discipline, and environment in a public sector context, which has been relatively underexplored compared to private sector studies (Majumdar & Tripathy, 2018; Vanhala & Stavrou, 2013; Wilona & Defrizal, 2024).

Methodology

This study employs a quantitative research design, utilizing a multiple linear regression analysis to assess the impact of competency, work discipline, and work environment on employee productivity (Diamantidis & Chatzoglou, 2019; Ghosh et al., 2020; Katou & Budhwar, 2015; Salman et al., 2020). The rationale for choosing this method is its ability to quantify the relationship between multiple independent variables and a dependent variable, providing a robust statistical framework for hypothesis testing.

Data were collected through a structured questionnaire distributed to a sample of 45 employees at the UPT Waste Management in Teluk Betung Selatan. The questionnaire was designed to capture respondents' perceptions of their competency, work discipline, work environment, and productivity levels (Muniandy et al., 2021; Shafi et al., 2018; Soomro et al., 2023). Each variable was measured using a Likert scale, allowing for the quantification of qualitative attributes.

The selection of participants was based on purposive sampling, targeting employees with varying roles and responsibilities to ensure a comprehensive understanding of the factors influencing productivity (Beaton et al., 2009; Othman & Mahmood, 2020; Saraih et al., 2021). The data collection process adhered to ethical research standards, ensuring participant confidentiality and voluntary participation.

The analysis involved testing the hypotheses that competency, work discipline, and work environment have significant positive effects on employee productivity. The regression model's validity and reliability were assessed through diagnostic tests, including checks for multicollinearity, heteroscedasticity, and normality of residuals, ensuring the robustness of the findings (Ab Hamid et al., 2013; Alam et al., 2019; Diamantidis & Chatzoglou, 2019).

Result and Discussion

a. Results

The analysis revealed that all three independent variables—competency, work discipline, and work environment—exert a significant positive influence on employee productivity. The regression model demonstrated a high level of explanatory power, with an R^2 value of 0.610, indicating that 61% of the variation in productivity could be explained by these factors. Competency emerged as a critical determinant of productivity, underscoring the importance of skills and knowledge in enhancing employee performance. Work discipline also showed a significant impact on productivity, highlighting the role of adherence to organizational rules and procedures in fostering a productive work environment. Lastly, the work environment was found to be a significant predictor of productivity, reflecting the influence of physical and psychological workplace conditions on employee performance.

b. Discussion

The finding that competency significantly impacts productivity is consistent with previous studies, emphasizing the role of skills and knowledge in enabling employees to perform tasks efficiently and effectively (Bobbe & Schaffer, 1983; Chauke et al., 2022). In the context of waste management, where technical skills and problem-solving abilities are crucial, enhancing employee competency through targeted training and development programs can significantly boost productivity (Brunner et al., 2019; Mohanty & Deshmukh, 1999).

Similarly, the positive effect of work discipline on productivity highlights the importance of organizational rules and procedures (Shahid & Azhar, 2013). Disciplined employees are more likely to meet deadlines, maintain quality standards, and contribute to a harmonious workplace, all essential for achieving organizational objectives. This suggests that fostering a culture of discipline through clear communication of expectations and consistent enforcement of policies can enhance productivity (Groff, 1971; McTavish et al., 1996).

Additionally, the significant influence of the work environment on productivity aligns with studies that highlight the importance of ergonomic workspaces, positive organizational culture, and supportive leadership in enhancing employee performance (Simboli et al., 2014). A supportive work environment that promotes employee well-being, collaboration, and motivation can lead to higher productivity levels.

The simultaneous influence of competency, discipline, and environment on productivity underscores the need for an integrated approach to human resource management (Afshan et al., 2014; Agarwal & Farndale, 2017). Organizations should not only focus on individual factors but also consider how these elements interact to create a conducive environment for productivity. For instance, while competency development is crucial, it should be complemented by efforts to enhance work discipline and improve the work environment (Katou & Budhwar, 2015; Subramony et al., 2021). This integrated approach can lead to optimized workforce performance, enhancing service delivery and operational efficiency, particularly in public sector contexts that have been less explored compared to private sector studies (Majumdar & Tripathy, 2018; Vanhala & Stavrou, 2013).

Conclusion

This study provides empirical evidence of the significant impact of competency, work discipline, and work environment on employee productivity in the context of UPT Waste Management in Teluk Betung Selatan. The findings highlight the importance of a holistic approach to human resource management that addresses multiple productivity drivers simultaneously.

For practitioners, the study offers actionable insights into enhancing productivity through targeted interventions in competency development, discipline enforcement, and environmental improvements. By creating a supportive work environment, fostering a culture of discipline, and investing in employee competency, organizations can achieve higher productivity levels and improve service delivery.

Future research could explore the impact of additional factors, such as leadership style, employee motivation, and organizational culture, on productivity. Longitudinal studies could also provide insights into the dynamic nature of these relationships over time. By expanding the scope of research, scholars can further enrich the understanding of productivity determinants and inform strategies for optimizing workforce performance in diverse organizational contexts.

References

- Ab Hamid, M. R., Mustafa, Z., Mohd Suradi, N. R., Idris, F., & Abdullah, M. (2013). The impact of culture and employee-focused criteria on productivity: A structural equation modelling approach. *AIP Conference Proceedings*, 1522(1), 1442–1446. <https://doi.org/10.1063/1.4801299>
- Afshan Doctoral Student, N., Chakrabarti, D., & Balaji, M. S. (2014). Exploring the relevance of employee productivity-linked firm performance measures: an empirical study in india. *Journal of Transnational Management*, 19(1), 24–37. <https://doi.org/10.1080/15475778.2014.869462>
- Agarwal, P., & Farndale, E. (2017). High-performance work systems and creativity implementation: the role of psychological capital and psychological safety. *Human Resource Management Journal*, 27(3), 440–458. <https://doi.org/https://doi.org/10.1111/1748-8583.12148>
- Alam, I. A., Singagerda, F. S., & Hairani, T. (2019). Mapping of international trade liberalization and trade balance position in developing country. *Año*, 35(21), 272–287.
- Beaton, D., Bombardier, C., Escorpizo, R., Zhang, W., Lacaille, D., Boonen, A., Osborne, R. H., Anis, A. H., Strand, C. V., & Tugwell, P. S. (2009). Measuring worker productivity: frameworks and measures. *Journal of Rheumatology*, 36(9), 2100–2109. <https://doi.org/10.3899/jrheum.090366>
- Bobbe, R. A., & Schaffer, R. H. (1983). Productivity improvement: manage it or buy it? *Business Horizons*, 26(2), 62–69. [https://doi.org/https://doi.org/10.1016/0007-6813\(83\)90087-3](https://doi.org/https://doi.org/10.1016/0007-6813(83)90087-3)
- Brunner, B., Igc, I., Keller, A. C., & Wieser, S. (2019). Who gains the most from improving working conditions? Health-related absenteeism and presenteeism due to stress at work. *The European Journal of Health Economics*, 20(8), 1165–1180. <https://doi.org/10.1007/s10198-019-01084-9>
- Chauke, S., Mashwama, N., Aigbavboa, C., & Thwala, W. (2022). Investigating employee performance for improved learning curve in the south african construction industry. *IOP Conference Series: Materials Science and Engineering*, 1218(1), 012028. <https://doi.org/10.1088/1757-899X/1218/1/012028>
- Diamantidis, A. D., & Chatzoglou, P. (2019). Factors affecting employee performance: an empirical approach. *International Journal of Productivity and Performance Management*, 68(1), 171–193. <https://doi.org/10.1108/IJPPM-01-2018-0012>
- Ghosh, D., Huang, X. (Sharon), & Sun, L. (2020). Managerial ability and employee productivity *. In L. L. Burney (Ed.), *Advances in Management Accounting* (Vol. 32, pp. 151–180). Emerald Publishing Limited. <https://doi.org/10.1108/S1474-787120200000032006>

- Groff, G. K. (1971). Worker productivity: An integrated view: Three influential variables. *Business Horizons*, 14(2), 78–86. [https://doi.org/https://doi.org/10.1016/0007-6813\(71\)90012-7](https://doi.org/https://doi.org/10.1016/0007-6813(71)90012-7)
- Katou, A. A., & Budhwar, P. (2015). Human resource management and organisational productivity. *Journal of Organizational Effectiveness: People and Performance*, 2(3), 244–266. <https://doi.org/10.1108/JOEPP-06-2015-0021>
- Majumdar, S., & Tripathy, S. (2018). Service sector performance: a critical review. *IOP Conference Series: Materials Science and Engineering*, 377(1), 012063. <https://doi.org/10.1088/1757-899X/377/1/012063>
- McTavish, R., Gunasekaran, A., Goyal, S., & Yli-Olli, P. (1996). Establishing a strategic framework for improving productivity. *Integrated Manufacturing Systems*, 7(4), 12–21. <https://doi.org/10.1108/09576069610125067>
- Mohanty, R. P., & Deshmukh, S. G. (1999). Managing green productivity: a case study. *Work Study*, 48(5), 165–169. <https://doi.org/10.1108/00438029910279402>
- Muniandy, G., Anuar, M. M., Foster, B., Saputra, J., Johansyah, M. D., Khoa, T. T., & Ahmed, Z. U. (2021). Determinants of sustainable waste management behavior of Malaysian academics. *Sustainability (Switzerland)*, 13(8). <https://doi.org/10.3390/su13084424>
- Othman, S. A., & Mahmood, N. H. N. (2020). Linking Level of Engagement, HR Practices and Employee Performance Among High-potential Employees in Malaysian Manufacturing Sector. *Global Business Review*, 23(3), 641–661. <https://doi.org/10.1177/0972150919877342>
- Salman, M., Ganie, S. A., & Saleem, I. (2020). Employee competencies as predictors of organizational performance: a study of public and private sector banks. *Management and Labour Studies*, 45(4), 416–432. <https://doi.org/10.1177/0258042X20939014>
- Saraih, U. N., Mariadass, R. J., Abashah, A., & Mutalib, S. A. (2021). Employee performance in the perspectives of training, reward and motivation: Evidences from the Malaysian manufacturing company. *AIP Conference Proceedings*, 2339(1), 020054. <https://doi.org/10.1063/5.0044181>
- Shafi, M. A., Rusiman, M. S., Nor, M. E., Khamis, A., Syuhada Abdullah, S. N., Azmi, M. S., Zainal Abidin, M. S., & Ali, M. (2018). The factors that influence job satisfaction among royal Malaysian customs department employee. *Journal of Physics: Conference Series*, 995(1), 012016. <https://doi.org/10.1088/1742-6596/995/1/012016>
- Shahid, A., & Azhar, S. M. (2013). Gaining employee commitment: linking to organizational effectiveness. *Journal of Management Research*, 5(1), 250. <https://doi.org/10.5296/jmr.v5i1.2319>
- Simboli, A., Taddeo, R., & Morgante, A. (2014). Value and wastes in manufacturing. An overview and a new perspective based on eco-efficiency. *Administrative Sciences*, 4(3), 173–191. <https://doi.org/10.3390/admsci4030173>
- Soomro, M. A., Ali, M. H., Zailani, S., Tseng, M.-L., & Makhbul, Z. M. (2023). Understanding barriers and motivations in solid waste management from Malaysian industries: a comparative analysis. *Environmental Science and Pollution Research*, 30(3), 5717–5729. <https://doi.org/10.1007/s11356-022-22558-z>
- Subramony, M., Guthrie, J. P., & Dooney, J. (2021). Investing in HR? human resource function investments and labor productivity in US organizations. *The International Journal of Human Resource Management*, 32(2), 307–330. <https://doi.org/10.1080/09585192.2020.1783343>

- Sudirman, C., Finorina, F., & Alam, I. (2023). The Influence of Leadership and Motivation on the Performance of Employees of The South Lampung Regency Transportation Office. *Mabuss Journal of Management Busiess and Social Science*, 2(1), 191–202. <http://journal.ubl.ac.id/index.php/mabuss>
- Vanhala, S., & Stavrou, E. (2013). Human resource management practices and the HRM-performance link in public and private sector organizations in three Western societal clusters. *Baltic Journal of Management*, 8(4), 416–437. <https://doi.org/10.1108/BJM-12-2012-0115>
- Wilona, N. N., & Defrizal, D. (2024). The Influence of Leadership Style and Work Environment on the Performance. *International Journal of Accounting, Management, Economics and Social Sciences (IJAMESC)*, 2(1), 13–23. <https://doi.org/10.61990/ijamesc.v2i1.171>