

ANALYSIS OF THE INFLUENCE OF WORK ENVIRONMENT ON EMPLOYEE PERFORMANCE AT PT. CAHAYA ALAM SEJATI

Renti Nainggolan¹, Flora Silalahi², Eka Wulandari Surbakti³

Digital Business Study Program, Politeknik LP3I Medan, Medan, North Sumatra, Indonesia^{1,2,3}

ABSTRACT

Keywords:

Work Environment; Employee Performance; Simple Linear Regression; PT. Cahaya Alam Sejati

This study aims to analyze the influence of the work environment on employee performance at PT. Cahaya Alam Sejati, a packaging company based in Medan, Indonesia. A quantitative approach was employed using a survey method, with data collected from 108 permanent employees through a structured questionnaire distributed via Google Form. The work environment variable encompasses physical aspects (lighting, noise, room temperature), social aspects (relationships with colleagues and supervisors), and psychological aspects (stress and work pressure). Data were analyzed using simple linear regression with SPSS software. The results indicate a significant positive effect of the work environment on employee performance, with a significance value (Sig.) of $0.000 < 0.05$ and a t-value of 6.395. The coefficient of determination (R^2) is 0.278, indicating that 27.8% of the variation in employee performance can be explained by the work environment, while the remaining 72.2% is influenced by other factors such as motivation, leadership, and compensation. These findings underscore the importance of a supportive and conducive work environment in enhancing employee productivity and job satisfaction. It is recommended that management continue to improve both physical and psychosocial working conditions to foster better performance outcomes.



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Corresponding Author:

Renti Nainggolan
Politeknik LP3I Medan
North Sumatra, Indonesia
Email: rentinainggolan12@gmail.com

INTRODUCTION

Human resources are the most critical asset in any organization, directly influencing productivity and competitiveness. In today's dynamic business environment, employee performance is shaped by various internal and external factors, among which the work environment plays a pivotal role. A supportive work environment—encompassing physical, social, and psychological aspects—not only enhances comfort but also motivates employees, reduces stress, and improves job satisfaction (Sedarmayanti, 2017). Previous studies, such as Ni Made Yuanda Puspita Sari (2024) on PT. Pegadaian, have confirmed that both physical and non-physical work environments significantly affect employee performance.

Despite these findings, gaps remain in understanding how specific dimensions of the work environment impact performance in small to medium enterprises (SMEs) in Indonesia, particularly in the packaging industry. PT. Cahaya Alam Sejati, established in 1990 and operating in Medan, faces challenges related to inter-departmental communication and emotional discomfort among employees, despite having adequate physical facilities. This indicates a potential disconnect between structural

conditions and employee well-being.

Therefore, this study aims to examine the influence of the work environment on employee performance at PT. Cahaya Alam Sejati. The research contributes practically by offering actionable insights for management and academically by reinforcing the relevance of environmental factors in performance models within Indonesian SMEs. The findings are expected to support HR strategies that foster sustainable productivity and employee engagement.

METHODS

This study employed a quantitative research method with a descriptive and explanatory approach. The population consisted of 148 permanent employees at PT. Cahaya Alam Sejati, with a sample size of 108 respondents determined using Slovin's formula (margin of error 10%). Probability sampling was applied to ensure representativeness.

Data were collected through a structured questionnaire using a 4-point Likert scale (1 = Strongly Disagree, 4 = Strongly Agree), distributed via Google Form. The instrument measured two variables: (1) Work Environment (X), including physical and psychological dimensions, and (2) Employee Performance (Y), assessed through quality of work, timeliness, competence, and communication.

Validity was tested using Pearson correlation, with all items showing r-value > 0.1891 (valid). Reliability was confirmed via Cronbach's Alpha (X = 0.968; Y = 0.888), exceeding the 0.70 threshold. Classical assumption tests—normality (Kolmogorov-Smirnov, $p = 0.200$), multicollinearity (VIF = 1.000), and heteroscedasticity (Glejser test, $p = 0.070$)—were satisfied.

Data were analyzed using simple linear regression in SPSS:

$$Y = a + bX + e$$

where Y is employee performance, X is work environment, a is the constant, b is the regression coefficient, and e is the error term.

RESULTS AND DISCUSSION

Validity and Reliability Tests

All 18 questionnaire items were valid, with correlation coefficients ranging from 0.65 to 0.94. Cronbach's Alpha values of 0.968 (X) and 0.888 (Y) confirmed high internal consistency, indicating reliable measurement instruments.

Classical Assumption Tests

1. Normality: Kolmogorov-Smirnov test yielded $p = 0.200 > 0.05$, confirming normal data distribution
2. Multicollinearity: Tolerance = 1.000 and VIF = 1.000, indicating no multicollinearity.
3. Heteroscedasticity: Glejser test showed $p = 0.070 > 0.05$, confirming homoscedasticity.

Simple Linear Regression

The regression equation is:

$$Y = 15.615 + 0.249X$$

The positive coefficient (0.249) indicates that a one-unit improvement in work environment leads to a 0.249 increase in performance

Hypothesis Testing (t-test)

The t-value for work environment is 6.395 ($p = 0.000 < 0.05$), leading to the rejection of H_0 . Thus, work environment significantly influences employee performance.

Coefficient of Determination (R^2)

$R^2 = 0.278$, meaning 27.8% of performance variance is explained by work environment, while 72.2% is influenced by other factors such as motivation, leadership, or compensation.

Discussion

The results align with Sedarmayanti (2017) and Mudrika et al. (2021), confirming that a positive work environment enhances motivation and performance. The moderate R^2 value suggests that while environment is important, it is not the sole driver. The lack of significant issues in physical conditions but presence of communication gaps highlights the need for psychosocial interventions, such as team-building and leadership training.

CONCLUSION

This study confirms that the work environment has a significant positive effect on employee performance at PT. Cahaya Alam Sejati. The findings emphasize the importance of holistic workplace management, integrating physical comfort with social and psychological support. Management is advised to improve communication, reduce work pressure, and foster a harmonious climate. Future research could explore mediating variables like job satisfaction or leadership style. Limitations include the single-company focus and cross-sectional design, which restrict generalizability.

REFERENCES

- Sari, N. M. Y. P. (2024). Analisis Lingkungan Kerja Terhadap Kinerja Karyawan Pada PT Pegadaian (Persero) Cabang Jimbaran.
- Akhyari, H. (in Sri Sundary). Manajemen Sumber Daya Manusia. Meneur Nitisemo (in Muhammad Choirull Wafa). Manajemen Personalia.
- Danang Sunyoto (in Devi Muzdalifah Novitasari). Manajemen Sumber Daya Manusia.
- Wibowo (in Ita Kusumayati). Manajemen Kinerja.
- Wirawan (in Sukmawati Heryanto). Perilaku Organisasi.
- Soedarmayanti (in Sri Sundary). Analisis Jabatan dan Evaluasi Jabatan.
- Tetiana Ovia Rahayu. (2021). Pengaruh Lingkungan Kerja Terhadap Kinerja Karyawan di Rumah Sakit Islam Siti Aisyah Madiun.
- Ade Rahmat Riadi. (2024). Pengaruh Lingkungan Kerja Fisik dan Disiplin Kerja Terhadap Kinerja Karyawan CV. Modern Optik Cirebon.
- Ghozali, I. (2018). Aplikasi Analisis Multivariate dengan Program SPSS. Semarang: Badan Penerbit Universitas Diponegoro.
- Sugiyono. (2020). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung:

Alfabeta.

Mangkunegara, A. A. (2011). *Manajemen Sumber Daya Manusia Perusahaan*. Bandung: CV. Refika Aditama.

Sedarmayanti. (2017). *Sumber Daya Manusia dan Produktivitas Perusahaan*. Bandung: Mandar Maju.

Mudrika, et al. (2021). Pengaruh Lingkungan Kerja Terhadap Kinerja Karyawan pada Perusahaan Jasa. *Jurnal Manajemen dan Bisnis*, 10(2), 112–123.

Irawan, et al. (2023). Pengaruh Aspek Lingkungan Kerja Terhadap Kinerja Karyawan di Sektor Manufaktur. *Jurnal Ekonomi dan Manajemen*, 15(1), 45–58.