THE EFFECT OF NON-PHYSICAL WORK ENVIRONMENT AND WORK DISCIPLINE ON THE PERFORMANCE OF EMPLOYEES OF PERUMDA TIRTA JATI DRINKING WATER CIREBON REGENCY

Varidha Indry Fatmawati[1]
Universitas Swadaya Gunung Jati, Cirebon, Indonesia
varidha.122020015@ugj.ac.id

Lisa Harry Sulistiyowati[2]
Universitas swadaya gunung jati, Cirebon, Indonesia
lisaharry@ugj.ac.id

Abstract

This study aims to determine how the non-physical work environment and work discipline partially and simultaneously affect the work outcomes of employees at the Tirtajati Drinking Water PDAM company in the Cirebon Regency area. This study included all employees of the company using the saturated sample method to cover all 75 employees of the company PERUMDA drinking water Tirtajati, Cirebon regency. The results showed that the non-physical work environment had a significant positive influence on employee performance (t-calculated value > t-table value, 2,753 > 1,993) similarly, work discipline had a significant positive influence on employee productivity (t-value calculated > t-table value, 3,978 > 1.993) and (F-value > F-table value), 23.667 > 3.12). All parts and simultaneous test results give significant values below 0.005 or 0.000, which is equivalent to a significance level of 0.05.

Keywords: Non-Physical Work Environment, Work Discipline, Employee Performance

INTRODUCTION

Employee performance has a direct influence on the company's production, efficiency, and competitiveness, which is essential to achieve organizational goals. Today, businesses have to face a number of issues, including global competition and technological breakthroughs, and market fluctuations, which require workers with high productivity, (Stephen P. Robbins A. Judge, 2015) In their work 'Organizational Behavior', employee performance is shaped by a variety of internal and external factors, including the work environment and discipline.

Based on research (Indah et al., 2023) In multidisciplinary scientific journals, performance is defined as the achievements or results of an individual's work, which is based on the qualities achieved when carrying out activities in accordance with the obligations assigned to them. Good human resources are able to fulfill their obligations in accordance with the tasks assigned in the provision of public services. Public services are managed by private companies, and government departments are obliged to provide communal services. Employees' contribution to the workplace is the cornerstone of their effectiveness in providing public services, as stated (Solahudin et al., 2024).

According to (Alex S. Nitisemito, 2006) Performance and work discipline are influenced by social and psychological factors in the non-physical work environment, such as relationships between colleagues, personal motivation, and organizational values. Sedarmayanti (2018) stated in the journal (Miranda et al., 2023) Non-physical environment refers to the psychological, social, and emotional conditions that arise from interactions between individuals in the workplace. Although it cannot be seen directly, its influence is clearly felt. Everything related to workplace interactions, relationships between co-workers, and relationships between employers and employees is included in a non-physical work environment. The company must be able to foster an environment that encourages cooperation among management, staff, or colleagues in related roles. This suggests that employee performance will increase in a better non-physical work environment and decrease in a less adequate non-physical work environment. This is consistent with the findings of the study (Miranda et al., 2023).

According to (Sondang, 2018) Work discipline is a management strategy used to ensure that the company's personnel comply with various requirements. He claimed that there are two types of work discipline: preventive discipline and corrective discipline. Work discipline is described as the willingness and understanding of employees to comply with established policies or procedures to achieve company goals, according to research (Asri Winanti Madyoningrum, 2022) In companies, discipline is essential, especially when it comes to motivating staff members to do their jobs more efficiently, both individually and in groups. Employee performance at PT. Gina Pratama Makassar's expectations are positively and significantly influenced by work discipline, both partially and simultaneously. According to research, employees who are more disciplined will perform better, while those who are less disciplined will perform worse (Abdullah et al., 2023).

There are several phenomena that have been discovered recently, one of which is the upload Republiqu.ID stated that residents of the Alana Klayan housing complex voiced their dissatisfaction with inadequate PDAM services. This indicates the phenomenon of "unresolved customer dissatisfaction", where employees are less than optimal in responding

to or fixing problems effectively, such as slow response to reports of water outages or incorrect billing.[1] In the 2024 regional performance book, it can be seen that PDAM Tirta jati Cirebon Regency has a low national ranking of 131 out of hundreds of PDAMs in Indonesia with a "performance value of 3.15", showing a below-average performance. This phenomenon often recurs year after year, which signals a lack of employee initiative for improvement. This shows the phenomenon of stagnant and unresponsive performance.[2] The public complaints are related to billing (inconsistency between bills and kilometers of water used). Both complaints on Facebook social media according to the upload of the Cirebon community group (KOCI) that the problem of service performance of the Cirebon Regency PDAM is very suboptimal.[3] The following is the attendance data at PDAM Tirtajati Drinking Water:

Table 1
Attendance data for PDAM Tirta Jati Drinking Water

Yes	Attendance Indicators	Number of Cases	Percentage (%)	Description of the Phenomenon
1	Late for work	46 times	18,4 %	Showing low adherence to working hours
2	Unexplained absence (Alpha)	21 days	8,4 %	Indicates weak discipline and work responsibility
3	Work permit	37 days	14,8 %	It can be related to psychological conditions and work comfort
4	Pain	29 days	11,6 %	Potentially affected by stress and work fatigue
5	On-time attendance	117 days	46,8 %	Shows that some employees have good work discipline
Total		**250 working days**	**100 %**	

Source: Internal data of PDAM Tirta Jati Drinking Water, November 2025

Employee attendance data shows that there is still a high rate of delays, permits, and unexplained absences. This condition reflects that employee work discipline is not optimal. In addition, the high frequency of permits and illnesses indicates the existence of non-physical work environment problems, such as work motivation, psychological comfort, and work relationships. This phenomenon has the potential to affect employee performance so it needs to be further studied through research.

It is hoped that this research will offer more in-depth knowledge, especially related to non-physical work environments and work disciplines that can improve employee performance. Findings from these publications were used in this study to determine how work discipline and non-physical work environments interact with each other. Leaders can use these results as a basis for creating more successful strategies for increasing productivity.

[1] Alana Klayan Housing Residents Complain About PDAM Services That Are Not Optimal - Republiqu.id
[2] Book Kinerja_Wilayah 2_2024.pdf
[3] Social media uploaded by the Cirebon Community (KOCI)

REVIEW OF LITERATURE

Non-Physical work environment

Sedarmayanti (2012:46) states in a journal citation (Miranda et al., 2023) The work environment encompasses everything related to employees that can impact their performance, attitude, and morale. The two fundamental elements of the work environment are tangible and intangible. Connections in the workplace, such as exchanges between employees and their superiors or subordinates, are referred to as tangible features. From a social and psychological point of view, intangible factors affect productivity. Non-physical work environment, Indicators of non-physical work environment according to Sedarmayanti (2012): 1 Employment relationship between subordinates and 2. Relationships with superiors 3. Relationships between co-workers 4. Safety 5. Interactions.

Work Discipline

According to (Sondang, 2018) Work discipline includes preventive measures and remedies, according to the human resource management handbook. While corrective discipline is taking disciplinary action against employees who violate rules or fail to meet desired standards, preventive discipline aims to motivate employees to comply with relevant regulations and achieve predetermined standards. Work Discipline, Indicators of Discipline According to (Sondang, 2018) 1. Measures that motivate staff members to abide by various rules, 2. Meet the criteria set 3. Sanctions are applied fairly 4. The severity of the violation is reflected in the sanction.

Employee Performance

According to (Bintoro, 2017) According to the book "Performance Appraisal Management," a key element in achieving a company's goals is employee performance. Therefore, to improve employee performance, companies need to carry out various activities. The amount and quality of work that workers do while carrying out their duties is referred to as employee performance. Indicators according to (Bintoro, 2017) 1. Quality 2. Initiative 3.Ability 4. Punctuality 5. Communication.

RESEARCH METHOD

With the causal relationship between variables, the methodology of this study uses quantitative and descriptive associative approaches. The non-physical work environment and work discipline are said to have an impact on the performance of PERUMDA Tirta Jati Drinking Water employees. Primary data was obtained directly through the results of the distribution of questionnaires to employees. Secondary data is obtained through documents and literature such as company reports, books, and journals related to research variables. Population is a category for generalizations consisting of individuals or items with specific characteristics that the researcher chooses to examine and from which conclusions are then drawn (Scott, 2018) In addition, the population was calculated using a saturated sample instead of using the Slovin formula because the population is still very small and can be analyzed as a whole. According to (Scott, 2018), The sample for this study consisted of 75 respondents. Since the Sloven formula is not used for measurements and calculations, saturated sampling techniques were applied in this study. This study uses a likert scale to measure each questionnaire item. Data analysis techniques include validity and reliability tests, classical assumption tests which include normality tests, multicollinearity tests, and heteroscedasticity tests, multiple linear regression analysis tests, determination coefficient tests and hypothesis tests with t-test and f-tests with the help of SPSS version 26 devices.

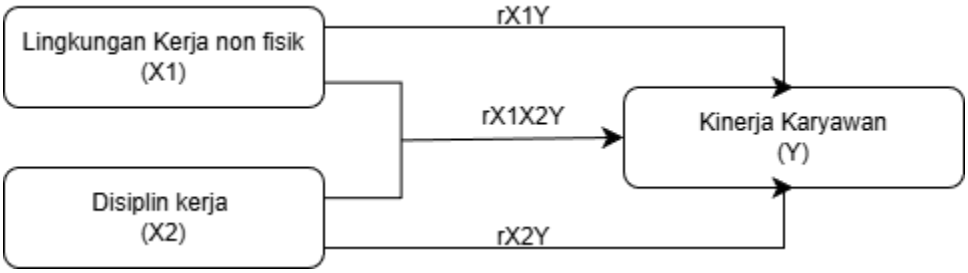
Research Hypothesis

The assumptions of this study, which are based on theoretical research and other studies, aim to assess how the non-physical work environment and work discipline affect worker performance.

H1: It is suspected that the non-physical work environment has a positive and significant effect on employee performance at PDAM Tirta Jati.
H2: It is suspected that work discipline has a positive and significant effect on employee performance at PDAM Tirta Jati.
H3: It is suspected that the non-physical work environment and work discipline simultaneously have a positive and significant effect on employee performance at PDAM Tirta Jati.

Research Model

The relationship between these two factors is supported by empirical data from previous publications, which show that managing both simultaneously has a significant and beneficial effect on worker productivity. The analysis presented above leads to the following theoretical framework:



The research model diagram shows that both independent variables have a direct relationship with employee performance, which will be tested through multiple linear regression analysis. This study uses a quantitative approach with a survey method, where data is collected through a questionnaire with a Likert scale. The data analysis technique used is a linear regression test to examine the effect of each variable on employee performance. The results of this study are expected to provide deeper insights for the PDAM Tirta Jati company in improving the quality of their services with a focus on the non-physical work environment and work discipline to improve employee performance.

RESULTS AND DISCUSSION

The following are the research results obtained from the analysis using SPSS, namely:

Table 1.
Regression Analysis

ANOVAa

Models	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	187.610	2	93.805	23.667	.000b
	Residual	285.377	72	3.964		
	Total	472.987	74			

a. Dependent Variable: employee performance

b. Predictors: (Constant), work discipline, non-physical work environment

Source: Data processed (2025)

Table 2.
Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	8.722	2.202		3.961	.000		
	non-physical work environment	.309	.112	.294	2.754	.007	.733	1.363
	work discipline	.371	.093	.425	3.978	.000	.733	1.363

ı. Dependent Variable: employee performance

Source: Data processed (2025)

Table 3.
Correlation Coefficient and Determination Coefficient Test

Model Summary

Models	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630a	.397	.380	1.991

a. Predictors: (Constant), Work discipline, Non-physical work environment

Source: Data Processed (2025)

T Test

The analysis shows that responsiveness positively and significantly affects customer satisfaction with telecommunications services. Based on the t-test, the non-physical work environment variable has a regression coefficient of 0.539 with a calculated t-value of 5.118 and a significance level of 0.000. Since the significance value is less than 0.05, the first hypothesis (H1) is accepted, meaning that the higher the non-physical work environment, the higher the employee performance level.

The t-test results show that the work discipline variable has a regression coefficient of 0.503 with a calculated t-value of 6.038 and a significance value of 0.000. Since the significance value is greater than 0.000, the second hypothesis (H2) is accepted, indicating that work discipline has a positive and significant effect on employee performance.

F Test

The F test shows that the non-physical work environment and work discipline simultaneously affect employee performance. This is evidenced by an F value of 23.667, which indicates a fairly strong relationship between the independent and dependent variables. In addition, an R Square value of 0.380 means that the percentage of influence of the non-physical work environment and work discipline together on employee performance is 38.0%. On the other hand, the rest is influenced by other factors not included in this research model. Therefore, even though both independent variables simultaneously affect employee performance, the partial test results show that the non-physical work environment and work discipline have a significant impact. Therefore, to improve employee performance, companies need to focus more on improving the non-physical work environment and work discipline because these factors have been proven to have a significant positive impact.

The Effect of Influence of Non-Physical Work Environment (X1) on Employee Performance (Y)

Using calculations from the Statistical Package for the Social Sciences (SPSS) software version 26 for Windows, the results of the study resulted in a t-calculation value of 2.754 and T-table with degrees of freedom (df) = 75-2 = 73 at a significance level of 0.05 (double-sided test) of 1.993. As a result, 2,754>1,993, with a positive beta coefficient (β = 0.309) shows that t-calculus>t-table and that the non-physical work environment has a favorable and substantial impact on the performance of PDAM workers in Cirebon Regency. This shows that employee performance is affected by a non-physical work environment; On the other hand, performance will decline if the non-physical work environment is not so much considered. This is consistent with the thesis of Sedarmayanti (2017) and research by (Noviyanti & Asmalah, 2023; Ramadhani et al., 2025) which indicates that a non-physical work environment includes employee interaction. Building positive relationships with colleagues and superiors is part of this need. Building harmonious relationships with colleagues and preventing conflict in the workplace is essential.

The Effect of Work Discipline (X2) on Employee Performance (Y)

Based on the findings of the study, the value of t with degrees of freedom (df) = 75-2 = 73 at a significance level of 0.05 (bidirectional test) is 1.993, with a positive beta coefficient (β = 0.371). while the t-count value is 3.978. Work discipline has a considerable influence on employee performance in PDAM Cirebon Regency, as shown by the t-value calculated > the t-value (3,978> 1,993). Thus, work discipline greatly improves employee performance; On the other hand, ignoring work discipline will lead to a decline in performance. This is in line with research showing that work discipline affects employee performance (Noviyanti & Asmalah, 2023). The company's ability to maintain and maintain staff loyalty and quality is demonstrated by a high level of employee discipline. We can also evaluate employee performance by knowing how disciplined they are. Employee performance and work discipline are interrelated. Moreover, the findings of this study are relevant to this idea (Susamai & Cay, 2025) At Pharmacy School X in the city of Bandung,

employee work discipline is often evaluated according to the circumstances of the organization. There are a number of indicators with relatively high ratings. Nonetheless, a number of low-rated indicators need improvement.

Simultaneous Effect of Influence of Non-Physical Work Environment (X1) and Work Discipline (X2) on Employee Performance (Y)

The F test, sometimes referred to as the simultaneous ANOVA test based on the findings of the study, tests how all independent factors together affect the dependent variables. The value of the F count is calculated using the Statistical Package for The Social Sciences (SPSS) program version 24 for Windows, with the degree of freedom (dk1) of the numerator = the number of variables - 1 or 3 - 1 = 2 and the degree of freedom (dk2) of the enumerator = the number of cases - the number of variables = 75 - 3 = 72. The significance level is set at 0.05. The F number of the table is obtained as 2.73 using this provision. Therefore, since 23,667 > 3.12, it can be said that F counts > F table, which shows that work discipline and non-physical work environment have a great impact on the performance of PDAM personnel in Cirebon Regency. These results are consistent with research by (Miranda et al., 2023; Noviyanti & Asmalah, 2023), which found that employee performance was influenced by work discipline and non-physical work environments. These results also support the idea that organizational and individual variables can equally impact employee performance. According to research (Widyatmoko & Arif, 2024), employee performance is affected by work discipline and non-physical work environment simultaneously.

CONCLUSION

Based on the findings of research and debate on the impact of non-physical work environment and work discipline on employee performance at Tirta Jati Drinking Water Company in Cirebon Regency, the following conclusions can be drawn:

Non-physical work environment (X1)

Employee performance (Y) is positively and significantly affected by the non-physical work environment (X1). This shows how positive working relationships, effective communication, and support from colleagues and superiors can improve the performance of PERUMDA Tirta Jati drinking water employees in Cirebon regency.

Work Discipline (X2)

Employee performance (Y) is positively and significantly influenced by work discipline (X2). A higher level of employee work discipline, such as compliance with policies and duties in the workplace, can improve the performance of PERUMDA employees in the drinking water of Tirta Jati Regency.

Employee Performance (Y)

Employee performance (Y) is positively and significantly influenced by the non-physical work environment (X1) and work discipline (X2). Therefore, these two variables are important elements that, when combined, can improve the performance of employees of PERUMDA drinking water in Tirta Jati Regency.

REFERENCES

Abdullah, R., Husain, A., & Bahari, A. F. (2023). Pengaruh Disiplin Kerja Terhadap Kinerja Karyawan. *Paradoks : Jurnal Ilmu Ekonomi*, *6*(2), 85–92. https://doi.org/10.57178/paradoks.v6i2.632

Alex S. Nitisemito. (2006). *Manajemen Personalia*. Ghalia Indonesia.

Asri Winanti Madyoningrum, R. A. (2022). *PENGARUH MOTIVASI KERJA, LINGKUNGAN KERJA DAN DISIPLIN KERJA TERHADAP KINERJA KARYAWAN*. JURNAL EKOBIS: EKONOMI, BISNIS & MANAJEMEN.

Bintoro. (2017). *Manajemen Penilaian Kinerja Karyawan*. GAVA MEDIA.

Indah, P., Simanjuntak, F., Tarmizi, A., & Perkasa, D. H. (2023). *Pengaruh Kepemimpinan , Disiplin Kerja , dan Lingkungan Kerja*. *1*(7), 76–88.

Miranda, M., Halin, H., & Veronica, M. (2023). Pengaruh Lingkungan Kerja Non Fisik dan Disiplin Kerja Terhadap Kinerja Pegawai.Puskesmas Keramasan Palembang. *Eksis: Jurnal Ilmiah Ekonomi Dan Bisnis*, *14*(1), 26. https://doi.org/10.33087/eksis.v14i1.340

Noviyanti, I., & Asmalah, L. (2023). the Influence of Work Discipline and Work Environment on Employee Performance. *Dita Aulia, Retno Resawati International Journal Management and Economic*, *2*(3), 28–38. https://doi.org/10.56127/ijme.v2i3.973

Ramadhani, P., Sumarni, S., & Kurniawan, D. (2025). The Influence of Employee Quality, Non-Physical Work Environment and Discipline on Employee Performance at Class IIB Muara Bulian Penitentiary. *East Asian Journal of Multidisciplinary Research*, *4*(6), 2735–2754. https://doi.org/10.55927/eajmr.v4i6.233

Solahudin, A., Fatimah, S. E., & Sulistiowati, L. H. (2024). Factors affecting affective commitment. *Edelweiss Applied Science and Technology*, *8*(6), 3475–3483. https://doi.org/10.55214/25768484.v8i6.2738

Sondang. (2018). *Manajemen Sumber Daya Manusia*. bumi aksara.

Stephen p. Robbins A. Judge. (2015). *Perilaku Organisasi* (16th ed.). Salemba Empat.

Sugiyono. (2018). *Metode penelitian kuantitatif, kualitatif dan R&D* (p. 130). Alfabeta.

Susamai, A. A., & Cay, S. (2025). The Effect of work Discipline and Work Motivation on Employee Performance. *Asep Syaefulloh Journal of Investment Development, Economics and Accounting*, *1*(3), 285–294. https://doi.org/10.70001/jidea.v1i3.274

Widyatmoko, A., & Arif, F. (2024). *TERHADAP KINERJA GURU DAN TATA USAHA PADA SMAN 1 BOJONGGEDE KABUPATEN BOGOR Jurnal KONSISTEN*. *1*(4), 204–217.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. Journal of Marketing, 60(2), 31-46. https://doi.org/10.2307/1251929