

ANALYSIS OF WORK DISCIPLINE, SUPERVISION, AND TEAM COOPERATION IN RELATION TO EMPLOYEE PERFORMANCE AT THE ENVIRONMENTAL SERVICES DEPARTMENT OF PALEMBANG

Venny Anggarda Calvin¹
Tien Yustini^{2*}
Siti Komariah Hildayanti³

¹Universitas Indo Global Mandiri, Palembang Sumatera Selatan, 2021510061@students.uigm.ac.id

²Universitas Indo Global Mandiri, Palembang Sumatera Selatan, tien_yustini@uigm.ac.id

³Universitas Indo Global Mandiri, Palembang Sumatera Selatan, hildayanti@uigm.ac.id

*Corresponding author

Abstract

This study examines the influence of work discipline, supervision, and teamwork on employee performance at the Environmental Service Office of Palembang City. This topic is important as employee performance directly affects the quality of public services. The research uses a descriptive quantitative approach with 65 respondents selected through a saturated sampling technique. Data were analyzed using multiple linear regression. The results show that work discipline, supervision, and teamwork have a positive and significant effect on employee performance, both partially and simultaneously. These findings indicate that strengthening these factors can improve organizational performance. This study contributes to the development of performance improvement strategies through organizational behavior approaches in the public sector.

Keywords: Work Discipline, Supervision, Teamwork, Employee Performance.

INTRODUCTION

A. Background

Human resources (HR) are a key element in ensuring the success of a government institution. Employee performance is an important indicator that reflects how well an organization performs its duties in serving the community. According to (Abdillah & Sari, 2021), performance is the optimal result achieved by employees in carrying out their duties based on responsibilities and standards set by the organization.

The phenomenon of sub-optimal performance is evident at the Palembang City Environmental Services Department. Based on internal attendance data for 2023, about 30% of employees were late more than 3 times in a single month. This reflects weak discipline in the workplace. Furthermore, the first-semester 2023 performance evaluation reports show that some work units did not meet their task completion targets on time, indicating a need for improvement in supervision and team coordination systems.

Work discipline greatly influences employee performance because it directly pertains to punctuality, responsibility, and adherence to workplace regulations. (Murad et al., 2024) state that high discipline reflects responsibility and dedication to duties. However, weak discipline, such as lateness or ignoring responsibilities, can undermine productivity and impede the organization from achieving its goals.

Supervision is also an important factor in ensuring employees perform their duties in a target-oriented and procedural manner. However, internal evaluations show that routine supervision has not been implemented optimally in some divisions. This has affected performance due to the lack of an adequate control mechanism. According to (Lebis et al., 2023), consistent supervision can motivate employees and foster responsibility in their roles.

Furthermore, teamwork plays a role in organizational success. A solid team makes it possible to carry out tasks efficiently, innovatively, and in a mutually supportive way.

Nevertheless, observation results show obstacles such as poor communication between employees and weak unity, which have delayed the completion of work programs (Ibrahim et al., 2021) state that effective teamwork encourages the emergence of creative ideas and unifies individual strengths toward a shared objective.

Previous studies have shown that discipline, supervision, and teamwork are related to improving employee performance (Ananda et al., 2023) (Manalu et al., 2021). Nevertheless, different results were found in the study by (Abdillah & Sari, 2023), which stated that supervision and teamwork do not always have a significant impact.

Based on this background, this study aims to analyze the influence of discipline, supervision, and teamwork on the performance of employees at the Palembang City Environmental Services Department, in order to provide an empirical basis for more effective and well-targeted human resources policy decisions.

Based on the background described above, the formulation of the problems in this study is as follows:

1. Does discipline affect the performance of employees at the Community and Village Empowerment Service Office of Ogan Komering Ilir Regency?
2. Does supervision affect the performance of employees at the Community and Village Empowerment Service Office of Ogan Komering Ilir Regency?
3. Does teamwork affect the performance of employees at the Community and Village Empowerment Service Office of Ogan Komering Ilir Regency?

LITERATURE REVIEW

Employee Performance

Employee performance refers to the optimal results, both in terms of quality and quantity, that employees achieve in carrying out their duties in accordance with responsibilities and standards set by the organization (Irawan et al., 2021). Performance serves as a benchmark for the accomplishment

of organizational goals and reflects the effectiveness and efficiency of task implementation. According to (Gede & Wati, 2021), employee performance can be measured through indicators such as quality of work, quantity of work, task implementation, and responsibility.

Employee performance is influenced by various factors, including discipline, supervision, and teamwork. The research by (Ananda et al., 2023) shows that these factors significantly affect employee performance. That is, improving these factors directly correlates with improving organizational performance.

Work Discipline

Work discipline refers to an individual's attitude and behavior in adhering to workplace regulations consciously and consistently, without pressure from external parties (Fauzia et al., 2020). Work discipline plays an important role in creating a positive and professional workplace culture. According to (Murad et al., 2024), a high level of discipline reflects an employee's sense of responsibility toward their duties and roles.

Indicators of work discipline, according to (Insan et al., 2024), include attendance, compliance with regulations, effective use of time, and responsibility for tasks. The relationship between discipline and employee performance is supported by (Manalu et al., 2021), who state that discipline has a positive influence on the achievement of workplace goals and organizational efficiency.

However, a study by (Irawan et al., 2021) finds that under certain conditions, discipline may not always have a significant impact on performance if it is not supported by a good supervision system. This highlights the need for an integrated approach that combines discipline and supervision.

Supervision

Supervision is a managerial control process carried out to assure that all organizational activities conform to the plans that have been defined (Manalu et al., 2021). Supervision comprises activities such as setting workplace standards,

measuring results, evaluating, and taking corrective action when deviations arise (Lebis et al., 2023).

Supervision is closely related to discipline. Strict and ongoing supervision motivates employees to be more disciplined in their tasks. (Abdillah & Sari, 2021) found that supervision does not have a significant influence on performance if it is not implemented thoroughly and consistently.

In contrast, a study by (Nasution & Khair, 2022) shows that periodic and well-structured supervision can minimize workplace mistakes and enhance accountability and performance. This underscores the importance of supervision as a key supportive factor within the performance management system.

Teamwork

Teamwork is a form of collaboration between individuals within a working group to achieve shared goals effectively and efficiently (Ibrahim et al., 2021). Such collaboration enables synergy between different skills, experiences, and ideas to produce better solutions than when working individually.

Indicators of teamwork include active contribution, trust, open communication, and unity of goals (Lebis et al., 2023). The relationship between teamwork and performance is explained in a study by Ananda et al. (2023), which shows that teamwork positively influences productivity and innovation in the workplace.

However, a study by Abdillah & Sari (2023) states that teamwork does not always affect performance if communication and roles are not clearly defined. This indicates that the effectiveness of teamwork is strongly influenced by the organizational system and culture that supports collaboration.

RESEARCH METHODS

This study uses a quantitative method with a descriptive approach and was conducted at the Palembang City Environmental Services Department. The population consists of 65 employees, and all of them were taken as samples

through saturated sampling. Data were collected using closed-ended questionnaires distributed directly. The instrument employed a 1–5 Likert scale, ranging from “Strongly Disagree” to “Strongly Agree.” Validity and reliability tests were conducted to assure the validity of the instrument. Data analysis includes classical assumption tests (normality, multicollinearity, heteroscedasticity) and multiple linear regression. The t-test was used to determine the influence of each variable, while the F-test was used to assess their joint influence. The data were processed using SPSS version 26 with a significance level of 5%.

DATA ANALYSIS RESULTS

In this study, the object of research comprises employees of the Palembang City Environmental Services Department. The sample consists of 65 respondents, and the identity data collected includes gender, age, education, and length of service. The following is the data on the characteristics of respondents successfully collected by the researcher through the distribution of questionnaires.

Table 1. Characteristics of Respondents

Characteristic	Category	Number (people)	Percentage (%)
Gender	Female	41	63,1%
	Male	24	36,9%
Age	21–30 years	12	18,5%
	31–40 years	21	32,3%
	41–50 years	26	40,0%
	> 50 years	6	9,2%
	Senior High School (SMA/SMK)	7	10,8%
Education	Diploma (D-I/II/III)	6	9,2%
	Bachelor's degree (S1)	27	41,5%
	Master's degree (S2)	25	38,5%
	< 5 years	12	18,5%

Length of Service	5–10 years	19	29,2%
	11–15 years	23	35,4%
	> 15 years	11	16,9%
Total Respondents		65	100%

Based on the table above, the majority of respondents are female employees, totaling 41 people (63.1%), while male employees number 24 people (36.9%). This indicates that the majority of operational employees at the Palembang City Environmental Services Department are women.

From the age perspective, the largest group of respondents falls within the 41–50 age range, totaling 26 people (40.0%). This is followed by the 31–40 age range with 21 people (32.3%). This shows that most employees are in a mature and productive age.

In terms of education, the majority of employees hold Bachelor's degrees (S1), totaling 27 people (41.5%) and Master's degrees (S2) with 25 people (38.5%). This indicates that most employees have a sufficiently high level of education to support their performance.

Meanwhile, based on length of service, the largest group comprises those who have been employed for 11–15 years, totaling 23 people (35.4%). This is followed by the 5–10 years group with 19 people (29.2%). This shows that the majority of respondents have extensive work experience, which can positively affect their understanding of duties and performance achievements.

VALIDITY TEST RESULTS

In this study, a validity test was conducted by distributing questionnaires to 65 respondents. Factor analysis was used to evaluate the validity of each item. An item is considered valid if its corrected item-total correlation is greater than the r-table, which is 0.244 (at a significance level of 0.05 with a two-sided test). If the r-calculated is less than the r-table, the item is declared invalid.

Based on the results of the validity test above, it can be seen that all items have r -calculated greater than r -table. At the 5% significance level ($\alpha = 0.05$) and $n = 65$, r -table is 0.244. The r -calculated for each item is greater than 0.244. Therefore, all research variables are declared valid and suitable to be used as instruments in this study, or the statements presented can be relied upon to measure the variables under study.

RELIABILITY TEST RESULTS

The reliability test aims to measure the extent to which a questionnaire can be relied upon as an indicator of a variable. The test was conducted using SPSS version 26. A questionnaire is considered reliable if the Cronbach's Alpha coefficient is greater than 0.7, and unreliable if the Alpha value is less than 0.7.

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	Cut-off	Description
Work Discipline	0,757	0,7	Reliabel
Supervision	0,826	0,7	Reliabel
Team Cooperation	0,886	0,7	Reliabel
Employee Performance	0,875	0,7	Reliabel

Based on the results presented in the table above, it is shown that the Cronbach's Alpha values for Work Discipline (X1), Supervision (X2), Team Cooperation (X3), and Employee Performance (Y) are all greater than 0.7. Therefore, all statements in the research instrument are reliable, which means the instrument is suitable for collecting data in this study.

CLASSICAL ASSUMPTIONS TEST

Normality Test Results

This study used a graphical test and Kolmogorov-Smirnov statistical test with a Monte Carlo approach. If the probability (Monte Carlo Sig.) is greater than 0.05, the data are considered normal; if it is less, the data are considered non-

normal. Normality can also be assessed from the distribution of points on the normal P-P plot or from the shape of the residual histogram, which should resemble a normal distribution.

Table 3. Kolmogorov-Smirnov Test Results

Uji	Nilai
N	65
Mean (Unstandardized Residual)	0,0000000
Std. Deviation	0,99761154
Most Extreme Differences (Absolute)	0,142
Most Extreme Differences (Positive)	0,142
Most Extreme Differences (Negative)	-0,069
Test Statistic	0,142
Asymp. Sig. (2-tailed)	0,002
Monte Carlo Sig. (2-tailed)	0,128
99% Confidence Interval	0,136

Based on the results in the table above, it is shown that after conducting the normality test using Kolmogorov-Smirnov, the Monte Carlo Sig. is $0.128 > 0.05$. Therefore, it can be concluded that the dependent and independent variables have a normal distribution.

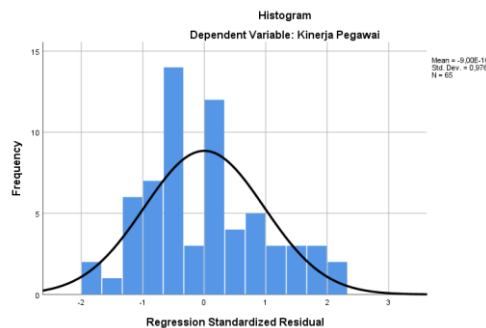


Figure 1. Histogram of Normal Distribution

Based on the histogram shown above, the residuals approximate a bell-shaped curve, with most values concentrated around the mean (close to zero) and a symmetrical distribution. The residual mean is $-9.00E-16$ and the standard deviation is 0.976 from 65 samples, indicating a

normal distribution with slight deviations. Therefore, the residuals visually satisfy the normality assumption.

Based on the P-P Plot, the points follow the diagonal line closely and do not diverge significantly, indicating a normal distribution pattern. This means that the regression model meets the normality assumption.

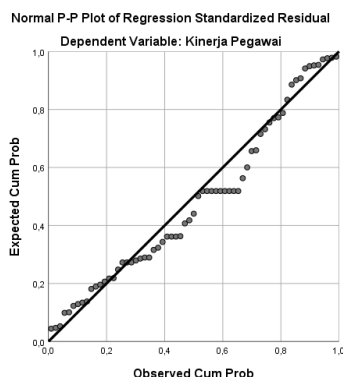


Figure 2. P-P Plot of Normality Test

Results of Multicollinearity Test

The multicollinearity test aims to identify whether there is a significant correlation among independent variables in the regression model. A good regression model should not show high correlations between independent variables. Multicollinearity is detected by examining Tolerance and Variance Inflation Factor (VIF) values. Low Tolerance and high VIF indicate multicollinearity. Generally, multicollinearity is considered present if Tolerance < 0.10 or VIF > 10 (Ghozali, 2021).

Table 4. Multicollinearity Test Results

Variable	Tolerance	VIF
Work Discipline	0,717	1,394
Supervision	0,666	1,501
Team Cooperation	0,648	1,544

Based on multicollinearity test results, all independent variables have Tolerance values above 0.10 and VIF values

below 10. This indicates that there is no multicollinearity in the regression model, and all independent variables can be used for further analysis.

Heteroskedasticity Test Results

The heteroskedasticity test aims to determine whether there are differences in residual variance across observations in the regression model. If the residual variance is consistent, it is called homoskedastic; if it varies, it is called heteroskedastic. A good regression model meets the homoskedasticity assumption, which means there should be no heteroskedasticity (Ghozali, 2021). The results of the test can be seen in the following figure.

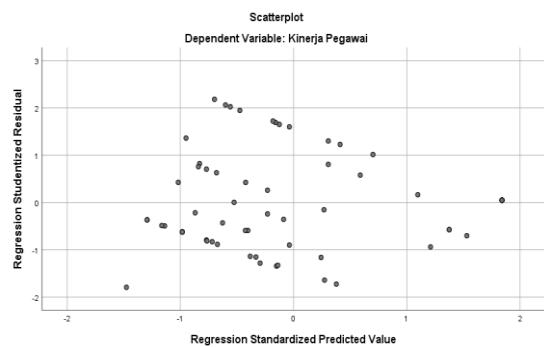


Figure 3. Scatterplot Graph

Based on the graph above, it can be seen that the distribution of the data points does not show a clear pattern. Therefore, it can be concluded that this regression model does not suffer from heteroskedasticity.

Results of Hypothesis Test
t-Test (Partial Test)

Table 5. t-Test (Partial) Result

Variabel	t Count	(Sig.)
Work Discipline	3,732	0,000
Supervision	4,417	0,000
Team Cooperation	4,313	0,000

Work Discipline	4,390	0,000
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The results of the study show that discipline, supervision, and team cooperation have a positive and significant influence on employee performance. Work discipline has a t-count of 4.417, supervision 4.313, and team cooperation 4.390, all of which are greater than the t-table of 2.000. Furthermore, the significance level for each variable is 0.000, which is lower than 0.05; therefore, H₀ is rejected and H₁ is accepted. Thus, discipline, supervision, and team cooperation are proven to have a significant partial influence on employee performance.

Results of F-Test (Simultaneous Regression)

Table 6. Results of F-Test

Model	Sum of Squares	df	Mean Square	F	(Sig.)
Regression	174,975	3	58,325	55,858	0,000
Residual	63,695	61	1,044		
Total	238,670	64			

From the table above, the F-calculated (55.86) is greater than the F-table (2.76). This is also shown by the significance value of 0.000, which is lower than the significance level used, namely 0.05 or 5%. Therefore, it can be concluded that discipline, supervision, and teamwork simultaneously have a significant influence on employee performance.

Results of Determination Coefficient (R²) Test

Table 7. Results of Determination Coefficient (R²) Test

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,856	0,733	0,720	1,022

Based on the table above, the coefficient of determination can be observed from the R² value of 0.733. This

means that the ability of the independent variables to explain the dependent variable is 73.3%. The remaining 26.7% may be explained or influenced by other variables not discussed in this study.

DISCUSSION

The Influence of Work Discipline on Employee Performance at the Palembang City Environment Agency.

Based on the results of this study, it is known that discipline has a significant influence on the performance of employees at the Palembang City Environment Agency. This shows that discipline is a key foundation in developing productive and responsible work behavior.

Empirically, from the questionnaire results, the majority of respondents demonstrated a high level of discipline, such as arriving on time, completing tasks within deadline, and adhering to applicable workplace regulations. This positively impacts performance, as employees become more consistent and focused in carrying out their duties. When discipline is implemented evenly, work efficiency increases, mistakes are minimized, and the productivity of the workplace becomes more optimal.

This research is supported by the findings of Ananda et al. (2023) and Murad et al. (2024), which state that discipline has a significant influence on employee performance. Manalu et al. (2021) also emphasize that discipline plays a vital role in encouraging employees to carry out their duties responsibly, both individually and in teams. Hidayat (2021) further states that discipline assists employees in complying with workplace rules and instructions, thereby helping the organization's operations run more smoothly.

The Influence of Supervision on Employee Performance at the Palembang City Environment Agency

The results of this study show that supervision also has a significant influence on employee performance. Empirically, respondents stated that the active supervision by their superiors who provide direction and evaluate their work

motivates employees and makes them feel more responsible for their tasks.

Effective supervision allows the work process to run in conformity with the defined standards and plans. When employees know that their performance will be regularly monitored or evaluated, they are encouraged to improve their quality of work. This aligns with the management concept that control is a key function in ensuring the achievement of organizational goals.

This research supports the findings of Lebis et al. (2023) and Manalu et al. (2021), who stated that supervision positively influences performance. Without effective supervision, organizations will find it difficult to achieve their goals due to the lack of a control mechanism that guides employees in carrying out their duties as expected.

The Influence of Team Cooperation on Employee Performance at the Palembang City Environment Agency

This study also proves that team cooperation has a significant influence on employee performance. Empirically, the results of the respondents' answers show that they feel more productive and motivated when working in a cohesive and supportive team.

Team cooperation facilitates the exchange of information, assists in completing tasks together, and creates a more harmonious working atmosphere. When employees feel they are part of a solid team, they feel valued and motivated to contribute optimally. This directly contributes to overall performance improvement.

These findings are consistent with the research of (Siagian, 2020) and (Murad et al., 2024), which state that team cooperation positively influences employee performance. Team cooperation not only assists in the accomplishment of tasks but also increases a sense of ownership of the organization, speeds up decision-making, and encourages innovation.

The Influence of Work Discipline, Supervision, and Team Cooperation on Employee Performance at the Palembang City Environment Agency

Simultaneously, these three variables discipline, supervision, and team cooperation have a significant influence on employee performance. The results show that all these factors complement each other in creating a conducive, productive, and efficient workplace.

Empirically, discipline establishes order, supervision ensures direction and work quality, while team cooperation develops solidarity and efficiency. The combination of these elements reflects how individual behavior and group dynamics collectively contribute to the overall organizational performance.

This research is supported by the findings of (Lebis et al., 2023) and (Ananda et al., 2023), which state that all these variables together have a positively significant influence on performance. It underscores the importance of a comprehensive and integrated managerial approach to developing optimal employee performance.

CONCLUSION AND SUGGESTIONS

Conclusion

This study aims to determine the influence of discipline, supervision, and team cooperation on the performance of employees at the Palembang City Environment Agency. Based on the results of the analysis, it can be concluded that these three variables, both partially and simultaneously, have a positive and significant influence on improving employee performance. A high level of discipline encourages employees to obey regulations and take responsibility in carrying out their duties. Supervision, when implemented actively and continuously, provides direction and control to help employees maintain the quality of their work. Meanwhile, team cooperation develops a harmonious work environment and supports collaboration, making it easier to achieve organizational goals.

However, this study has limitations; it did not consider other variables that may affect employee performance, such

as motivation, leadership, and organizational culture. Furthermore, the quantitative approach used may not fully capture the contextual dimensions or deep behavioral aspects of the employees.

Suggestions

Based on the results of this study, it is recommended that the Palembang City Environment Agency put greater emphasis on improving discipline, particularly in the effective use of time. Furthermore, supervision should focus not only on results but also on daily processes to control and direct performance more effectively. To enhance team cooperation, it is recommended to carry out activities that foster collaboration and communication among employees in order to strengthen unity in achieving shared goals. Future research may consider adding variables such as motivation and leadership to provide a more comprehensive understanding of the factors that affect employee performance.

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