

The Effect of Work Environment and Leadership Style on Employee Performance at The Bappeda Office of Panukal Abab Lematang Ilir Regency with Work Discipline as an Intervening Variable

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Abstract: *This study aims to analyze the effect of work environment and leadership style on employee performance, with work discipline as an intervening variable at the Regional Development Planning Agency (Bappeda) of Penukal Abab Lematang Ilir Regency. This research employed a quantitative approach using a survey method. Data were collected through questionnaires distributed to respondents who were state civil apparatus employees (ASN), including civil servants (PNS) and government employees under work agreements (PPPK), at Bappeda of Penukal Abab Lematang Ilir Regency. The data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software. The results show that the work environment has a positive and significant effect on employee performance; leadership style has a positive and significant effect on employee performance; the work environment has a positive and significant effect on work discipline; leadership style has a positive and significant effect on work discipline; and work discipline has a positive and significant effect on employee performance. The mediation test further indicates that work discipline significantly mediates the relationship between leadership style and employee performance, while its mediating role in the relationship between work environment and employee performance is not significant. These findings imply that improving the quality of the work environment and applying an effective leadership style can strengthen work discipline and ultimately improve employee performance*

Keywords: Work environment, leadership style, work discipline, employee performance, Bappeda.

I. INTRODUCTION

Background

Introduction of the paper should explain the nature of the problem, previous work, purpose, and the contribution of the paper. The contents of each section may be provided to understand easily about the paper. Human resources are a key factor in determining organizational success in both the public and private sectors. In government organizations, the successful implementation of duties and the achievement of development goals depend heavily on the quality and performance of employees. Therefore, improving employee performance is a major focus in the management of public organizations.

Employee performance refers to the work results achieved by individuals in accordance with their duties and responsibilities in achieving organizational goals effectively and efficiently. Optimal performance reflects organizational effectiveness, including the implementation of regional development planning functions under the responsibility of the Regional Development Planning Agency (Bappeda).

Bappeda of Penukal Abab Lematang Ilir Regency has a strategic role in formulating, coordinating, and controlling regional development planning. However, organizational performance achievements in recent years have fluctuated and have not fully reached optimal targets. This condition is assumed to be influenced by limited human resources, imbalanced workloads, and inadequate supporting facilities and infrastructure.

In addition, employee performance is also influenced by the work environment and leadership style. A less representative work environment, such as an office that still uses a rented building, may reduce employee comfort and productivity. Meanwhile, leadership changes also affect work patterns and employee adaptation in carrying out their duties.

Work discipline is an important factor that bridges the influence of the work environment and leadership style on employee performance. Discipline reflects employee compliance with rules, punctuality, and responsibility in carrying out tasks. However, observations indicate that disciplinary violations still occur, such as tardiness, noncompliance with work regulations, and a lack of responsibility in completing tasks.

These problems indicate a gap between the ideal conditions and the actual situation in the field. Therefore, this study is necessary to analyze the effect of the work environment and leadership style on employee performance through work discipline as an intervening variable.

Problem Identification

1. The work environment is less comfortable and not yet fully conducive.
2. Employee adaptation to leadership style remains low.
3. Employee work discipline is not yet optimal.
4. Employee work motivation remains insufficient.
5. Employees do not yet have an evenly distributed understanding of their duties and functions.
6. There is an imbalance between the number of employees and the workload.

Problem Limitation

This study is limited to examining the effect of work environment and leadership style on employee performance, with work discipline as an intervening variable at Bappeda of Penukal Abab Lematang Ilir Regency.

Research Questions

1. Does the work environment affect work discipline?
2. Does leadership style affect work discipline?
3. Does the work environment affect employee performance?
4. Does leadership style affect employee performance?
5. Does work discipline affect employee performance?
6. Does work discipline mediate the effect of work environment and leadership style on employee performance?

II. LITERATUR REVIEW

Employee Performance

Employee performance is the work result achieved by individuals in carrying out their duties and responsibilities in accordance with standards established by the organization. Performance reflects the extent to which employees successfully achieve organizational goals in terms of both quality and quantity (Mangkunegara, 2017). Employee performance is influenced by various factors, including ability, motivation, work environment, and work discipline. Employees with high competence, supported by a conducive work environment, are more capable of producing optimal performance (Robbins & Judge, 2017). In the context of public organizations, employee performance is measured not only by work outcomes, but also by work behavior, such as responsibility, discipline, and integrity (Sedarmayanti, 2018).

Work Environment

The work environment refers to everything surrounding employees that can influence the implementation of their work. It consists of both physical and nonphysical environments (Sedarmayanti, 2018). The physical work environment includes workplace conditions such as lighting, ventilation, cleanliness, and work facilities. Meanwhile, the nonphysical work environment includes work relationships, communication, and the organizational atmosphere (Nitisemito, 2015). A good and conducive work environment can enhance employee comfort, motivation, and productivity. Conversely, an inadequate work environment can reduce work enthusiasm and negatively affect performance (Dhermawan et al., 2012). Previous studies have shown that the work environment has a positive effect on employee performance (Putri & Sunarsi, 2019; Nugroho, 2020).

Leadership Style

Leadership style is the behavioral pattern of a leader in influencing, directing, and controlling subordinates to achieve organizational goals. Effective leadership is able to create harmonious work relationships and improve employee performance (Hasibuan, 2016). According to Robbins and Judge (2017), a good leadership style is characterized by communication skills, the ability to provide motivation, and exemplary behavior. Participative and communicative leaders tend to increase job satisfaction and employee performance. In contrast, authoritarian and less communicative

leadership styles can reduce work motivation and create conflict within the organization (Yukl, 2013). Empirical studies show that leadership style has a significant effect on employee performance (Heriyanto et al., 2020; Dhiro & Alfiandry, 2021).

Work Discipline

Work discipline is the awareness and willingness of an individual to comply with all organizational rules and norms (Hasibuan, 2016). Work discipline reflects the level of employee compliance with organizational rules, punctuality, and responsibility in carrying out tasks (Sutrisno, 2017). Employees with high work discipline tend to have better performance because they are able to complete work on time and according to standards. Work discipline is also influenced by the work environment and leadership style. A conducive work environment and effective leadership encourage disciplined behavior among employees (Mangkunegara, 2017). Previous research indicates that work discipline has a significant effect on employee performance (Maharani & Susilowati, 2021).

Relationships Among Variables

Based on the structural model analysis, the relationships among the variables in this study show strong and significant associations, both directly and indirectly.

First, the work environment has a positive and significant relationship with employee performance. This indicates that the more conducive the work environment, both physically and nonphysically, the greater the productivity and quality of employee work. A comfortable work environment can create a work atmosphere that supports the achievement of organizational targets.

Second, leadership style is also proven to have a positive and significant relationship with employee performance. Its influence is even stronger than that of the work environment. This indicates that leaders have a strategic role in directing, motivating, and optimizing employee potential to achieve maximum performance.

Third, both the work environment and leadership style have positive relationships with work discipline. However, leadership style shows a more dominant influence. This confirms that employee discipline is strongly shaped by how leaders provide examples, direction, and supervision to their subordinates.

Fourth, work discipline has a positive and significant relationship with employee performance. This means that the higher the level of employee discipline, the higher the resulting performance. Discipline is an important factor in ensuring that work is completed on time, according to standards, and with a high level of responsibility.

Fifth, in the indirect relationship, work discipline is proven to significantly mediate the relationship between leadership style and employee performance. This shows that effective leadership improves work discipline, which in turn contributes to improved performance.

Conversely, work discipline does not significantly mediate the relationship between the work environment and employee performance. This indicates that the effect of the work environment on performance tends to be direct, without passing through work discipline as an intermediary.

Overall, the relationships among the variables in this study show that leadership style is the most dominant variable, followed by the work environment and work discipline, in influencing employee performance.

Research Hypotheses

H1: The work environment affects work discipline.

H2: Leadership style affects work discipline.

H3: The work environment affects employee performance.

H4: Leadership style affects employee performance.

H5: Work discipline affects employee performance.

H6: Work discipline mediates the effect of the work environment on employee performance.

H7: Work discipline mediates the effect of leadership style on employee performance

III. RESEARCH METHOD

Type and Approach of Research

This study uses a quantitative approach with a survey method. The quantitative approach is used to empirically test relationships among variables through statistical analysis (Sugiyono, 2019). The survey method was conducted by collecting data using questionnaires distributed to respondents who served as the research sample.

Research Location and Time

This research was conducted at the Regional Development Planning Agency (Bappeda) of Penukal Abab Lematang Ilir Regency. The research was carried out in 2025.

Population and Sample

The population in this study consisted of all employees of Bappeda of Penukal Abab Lematang Ilir Regency, totaling 67 people. The sampling technique used was saturated sampling, or census sampling, in which the entire population was used as the research sample (Sugiyono, 2019). Therefore, the sample size in this study was 67 respondents.

Data Analysis

Data analysis in this study used Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software. SEM-PLS was selected because it is able to test relationships among latent variables simultaneously and does not require strict normal distribution assumptions, making it suitable for studies with small to medium sample sizes.

The SEM-PLS analysis was carried out through two main stages: evaluation of the outer model, or measurement model, and evaluation of the inner model, or structural model.

Outer Model Analysis (Measurement Model)

The outer model is used to test the validity and reliability of indicators in measuring latent constructs. The outer model evaluation includes:

1. Convergent validity test. This is assessed based on the loading factor value. An indicator is considered valid if its loading is greater than 0.50, and ideally greater than 0.70.
2. Discriminant validity test. This can be observed through the Average Variance Extracted (AVE) value, which should be greater than 0.50, as well as through comparison of cross-loading values among constructs.
3. Reliability test. Reliability is measured using Composite Reliability and Cronbach's Alpha values. A construct is considered reliable if these values are greater than 0.70.

Inner Model Analysis (Structural Model)

The inner model is used to test relationships among latent variables in the research model. The inner model evaluation includes:

1. R-Square (R²) value. This value is used to measure the ability of independent variables to explain dependent variables.
2. Significance test (bootstrapping). This test is conducted to determine the significance of the effect among variables by examining t-statistics (> 1.96) or p-values (< 0.05).
3. Path coefficient value. This value indicates the direction and strength of the relationship among latent variables in the model.

Hypothesis Testing

Hypothesis testing was conducted based on the bootstrapping results in SmartPLS. A hypothesis is accepted if the t-statistics value is greater than 1.96 and the p-value is less than 0.05.

IV. RESULT AND DISCUSSION

Measurement Model Analysis (Outer Model)

The results of the measurement model, or outer model, show that all indicators for each variable have loading factor values greater than 0.70. This indicates that each indicator has a high correlation with the construct being measured and therefore meets the criteria for convergent validity. Thus, all indicators are declared valid and are able to represent the latent variables properly.

In addition, the Average Variance Extracted (AVE) values for all variables are greater than 0.50, meaning that more than 50% of the indicator variance can be explained by the latent constructs. This further strengthens the conclusion that the model meets the requirements for convergent validity and that there are no problems in construct measurement.

Furthermore, the reliability test results show that Cronbach's Alpha and Composite Reliability values for all variables are greater than 0.70. This indicates that the research instrument has a high level of internal consistency and is reliable in measuring the research variables. Therefore, all constructs in the model meet the criteria for good reliability.

In the discriminant validity test, the cross-loading analysis shows that each indicator has a higher correlation with its own construct than with other constructs. This indicates that each latent variable has adequate distinctiveness. Although several cross-loading values are not entirely ideal, this condition remains acceptable because the AVE values ($>$

0.50) and Composite Reliability values (> 0.70) meet the standards recommended by Hair et al. (2021). Accordingly, the measurement model as a whole is considered valid and feasible for further analysis.

Overall, the measurement model results demonstrate that all indicators meet the criteria for validity and reliability. Therefore, the measurement model is appropriate for testing the structural model.

Structural Model Analysis (Inner Model)

1) Coefficient of Determination (R-Square)

The R-Square value is used to measure how much the independent variables are able to explain the dependent variables in the research model. Based on the data processing results, the following values were obtained:

- a. Work Discipline (Z) = 0.983. This value indicates that 98.3% of the variation in work discipline can be explained by the work environment (X1) and leadership style (X2). The remaining 1.7% is influenced by other variables outside the research model. This value falls into the very strong category, indicating that the two exogenous variables have a very high ability to explain changes in employee work discipline.
- b. Employee Performance (Y) = 0.989. This value indicates that 98.9% of the variation in employee performance can be explained by the work environment (X1), leadership style (X2), and work discipline (Z). The remaining 1.1% is explained by other factors outside this study. This value also falls into the very strong category, suggesting that the research model has very high predictive power.

Overall, the very high R-Square values indicate that the developed model is highly effective in explaining relationships among the variables in this study.

2) Effect Size (F-Square)

The F-Square value is used to determine the magnitude of the effect of each exogenous variable on the endogenous variables. Based on Cohen's criteria as cited by Hair et al. (2017), F-Square values are classified as follows:

- 0.02 = small effect
- 0.15 = medium effect
- 0.35 = large effect

Based on the analysis results, the following values were obtained:

- a. Work Environment -> Work Discipline = 0.098. This value falls into the medium category, meaning that the work environment has a moderate influence on improving employee work discipline, but it is not the dominant factor.
- b. Work Environment -> Employee Performance = 0.223. This value falls into the large category, indicating that the work environment has a strong direct influence on improving employee performance.
- c. Leadership Style -> Work Discipline = 0.769. This value falls into the very large, or dominant, category, meaning that leadership style is the strongest factor influencing employee work discipline. This shows that leader behavior and leadership approaches strongly determine the level of discipline.
- d. Leadership Style -> Employee Performance = 0.139. This value falls into the medium category, meaning that leadership style affects performance, although its influence is not as large as its effect on work discipline.
- e. Work Discipline -> Employee Performance = 0.148. This value falls into the medium category, indicating that work discipline contributes sufficiently to improving employee performance.

Hypothesis Testing

Hypothesis testing in this study was conducted using the bootstrapping method in the SEM-PLS model by examining path coefficient values (beta), t-statistics, and p-values. The testing criterion was that a hypothesis is accepted when the t-statistics value is ≥ 1.96 and the p-value is ≤ 0.05 .

Direct Effects

The test results show that all direct relationships among variables have positive and significant effects, as described below:

1. The effect of the work environment on employee performance shows a coefficient value of $\beta = 0.423$ with $p < 0.05$. This means that a better work environment significantly improves employee performance.
2. The effect of leadership style on employee performance has a coefficient value of $\beta = 0.573$ with $p < 0.05$. This indicates that leadership style is a dominant factor in improving employee performance.
3. The effect of the work environment on work discipline has a coefficient value of $\beta = 0.261$ with $p < 0.05$. This means that the work environment has a positive effect on developing employee discipline.
4. The effect of leadership style on work discipline has the largest coefficient value, namely $\beta = 0.732$ with $p < 0.05$. This indicates that leadership has a very strong role in improving employee work discipline.

5. The effect of work discipline on employee performance shows a coefficient value of $\beta = 0.317$ with $p < 0.05$. This means that an increase in work discipline has a significant impact on improving employee performance.

Overall, these findings indicate that both the work environment and leadership style contribute directly to improving performance, both directly and through increased work discipline.

Indirect Effects / Mediation

The test results for indirect effects through the intervening variable of work discipline show different results for each relationship:

1. The effect of the work environment on performance through work discipline shows a coefficient value of $\beta = 0.083$ with $p > 0.05$; therefore, it is not significant. This indicates that work discipline has not effectively mediated the relationship between the work environment and employee performance. In other words, improvement in the work environment does not automatically improve performance through increased work discipline.
2. The effect of leadership style on performance through work discipline shows a coefficient value of $\beta = 0.232$ with $p < 0.05$; therefore, it is significant. This means that work discipline serves as a mediating variable in the relationship between leadership style and employee performance. In other words, a good leadership style improves work discipline, which subsequently contributes to improved employee performance.

V. CONCLUSION, IMPLICATION, RECOMMENDATIONS

Conclusions

Based on the results of the analysis and discussion, this study draws the following conclusions:

1. The work environment has a positive and significant effect on work discipline. This indicates that the more conducive the work environment, the higher the level of employee discipline.
2. Leadership style has a positive and significant effect on work discipline. This means that effective leadership is able to improve employee compliance and responsibility at work.
3. The work environment has a positive and significant effect on employee performance. A comfortable and supportive work environment has been proven to improve employee productivity.
4. Leadership style has a positive and significant effect on employee performance. Communicative and participative leaders are able to encourage improvement in employee performance.
5. Work discipline has a positive and significant effect on employee performance. The higher the employee discipline, the better the resulting performance.
6. Work discipline significantly mediates the effect of leadership style on employee performance. However, work discipline does not significantly mediate the effect of the work environment on employee performance. This indicates that leadership style improves performance partly through discipline, while the work environment tends to influence performance directly.

Research Implications

A. Theoretical Implications

This study contributes to the development of human resource management knowledge, particularly regarding the relationships among work environment, leadership style, work discipline, and employee performance. The findings support the theory that organizational factors such as the work environment and leadership play an important role in shaping work behavior, especially discipline, which subsequently affects employee performance. Furthermore, the finding regarding the mediating role of work discipline provides a more comprehensive understanding of the mechanism of relationships among variables in the employee performance model, particularly in the public sector.

B. Practical Implications

Practically, the findings of this study provide input for Bappeda of Penukal Abab Lematang Ilir Regency in improving employee performance through the following efforts:

1. Improving the work environment. The institution needs to create a more comfortable and conducive work environment, both in terms of physical aspects, such as facilities and office space, and nonphysical aspects, such as harmonious work relationships.
2. Improving leadership style. Leaders are expected to apply a communicative and participative leadership style and be able to motivate employees.
3. Strengthening work discipline. Enforcement of work discipline should be carried out consistently through clear rules as well as fair reward and sanction systems.
4. Improving employee performance. The institution needs to encourage employees to improve responsibility, accuracy, and initiative in completing work according to established targets.

Practical Recommendations

1. The institution is advised to improve the quality of work facilities and create a comfortable work atmosphere to support employee productivity.
2. Leaders need to be more active in providing direction, motivation, and periodic performance evaluations.
3. Stricter supervision of employee discipline is needed, particularly regarding attendance, compliance with regulations, and task completion.
4. The institution is advised to provide rewards to outstanding employees as an effort to increase work motivation.

Academic Recommendations

Future researchers are advised to:

1. Add other variables such as job satisfaction, organizational culture, and employee competence.
2. Use more complex analytical methods or qualitative approaches to deepen the research findings.
3. Expand the research object to other government institutions so that the research results can be generalized more broadly.

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