
(Research) Article

The Role of Leadership, Motivation, Work Discipline, and Compensation in Improving Employee Performance at PT Kereta Api Indonesia (Persero) Daop IV Semarang

Aditya Catur Siwi^{1*}, Dhanan Abimanto², Adenanthera Lesmana Dewa³

¹⁻³ Transportation Study Program, AMNI Maritime University, Indonesia; e-mail: aditya@gmail.com

* Corresponding Author: Aditya Catur Siwi

Abstract: This study aims to analyze the significant role of leadership, motivation, work discipline, and compensation in improving employee performance at PT Kereta Api Indonesia (Persero) Daop IV Semarang. This research adopts a quantitative associative approach, providing a clear understanding of the key factors that influence employee performance. Data were collected through a Likert-scale questionnaire, which was distributed to 80 respondents who are permanent employees of Daop IV Semarang. The data analysis was carried out using SPSS version 26, which included validity and reliability tests, as well as multiple linear regression, t-test, F-test, and the coefficient of determination (R^2). The results reveal that leadership, motivation, work discipline, and compensation all have a positive and significant impact on employee performance. Among these variables, motivation was found to be the most dominant factor influencing performance. This finding suggests that fostering higher motivation and effective leadership can significantly enhance employee performance. This research provides practical implications for PT KAI management to enhance productivity through strengthening discipline culture, implementing fair compensation systems, and promoting participative leadership styles.

Keywords: Compensation; Employee Performance; Leadership; Motivation; Work Discipline.

1. Introduction

Employee performance is an important factor that determines the success of an organization in achieving its strategic goals. In service companies like PT Kereta Api Indonesia (Persero), employee performance not only impacts operational efficiency but also customer satisfaction and the overall image of the company. The phenomenon at PT KAI Daop IV Semarang shows that there is still variation in employee performance, particularly related to discipline, responsibility, and work motivation. In addition, the compensation system and leadership style are also important aspects that can influence employee morale.

According to Hasibuan (2021), effective leadership is capable of directing, guiding, and motivating subordinates to work optimally. Mangkunegara (2020) adds that strong motivation and high work discipline directly contribute to improving employee performance. Meanwhile, Rivai and Sagala (2020) emphasize that a fair compensation system can foster job satisfaction and employee loyalty.

Therefore, this study is important to determine the extent to which leadership, motivation, work discipline, and compensation influence employee performance at PT KAI Daop IV Semarang. Employee performance is one of the strategic factors that determines the success of the organization in achieving the set goals. In the context of public organizations or SOEs, employee performance is the main indicator of effectiveness and efficiency in providing services to the community.

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One key factor influencing performance is leadership, as leadership plays a role in directing, inspiring, and motivating employees to work optimally. According to Robbins and Judge (2020), leadership is the ability of an individual to influence the behavior of others to work together to achieve organizational goals. Good leadership not only focuses on instructional aspects but also on interpersonal skills to build trust and effective communication. In large companies like PT Kereta Api Indonesia (Persero), effective leadership is crucial to manage a diverse workforce and to cope with the dynamics of technological changes and customer needs. However, the issue of employee performance at PT KAI Daop IV Semarang remains a concern. Based on the initial observations and internal reports, there are several challenges faced by the company, including: inconsistent employee discipline, as seen from tardiness and non-compliance with operational procedures; declining work motivation among some employees due to routine tasks and high work pressure; compensation that is perceived as not fully proportional to the workload and risks on the field; and variations in leadership styles across units, which create differences in subordinates' perceptions of fairness and appreciation.

This condition indicates a gap between the performance expected by the company and the actual results in the field. Several previous studies, such as those by Riyadi (2021) and Putra & Sari (2022), have examined the impact of leadership, motivation, discipline, and compensation on performance, but their results have been inconsistent. Some studies show that leadership has a significant impact on performance, while others indicate an indirect effect through motivation. These differing results highlight a research gap that is worth revisiting, particularly in the context of a state-owned transportation organization like PT KAI.

Additionally, previous studies have generally only investigated certain variables such as motivation and compensation, without considering the synergy of all four factors simultaneously. Therefore, this study presents novelty by offering an integrated analysis of leadership, motivation, work discipline, and compensation on improving employee performance, using an empirical approach with SPSS version 26. This study is also specifically conducted at PT KAI Daop IV Semarang, which has unique organizational characteristics, work systems, and operational pressures compared to other service sectors. Based on this description, the objectives of this study are to analyze the effect of leadership on employee performance at PT KAI Daop IV Semarang, to analyze the effect of motivation on employee performance at PT KAI Daop IV Semarang, to analyze the effect of work discipline on employee performance at PT KAI Daop IV Semarang, to analyze the effect of compensation on employee performance at PT KAI Daop IV Semarang, and to identify which variable most dominantly influences the improvement of employee performance.

Thus, the results of this study are expected to provide a theoretical contribution by strengthening the model of the relationship between leadership, motivation, work discipline, and compensation on employee performance, and offer practical contributions to PT KAI management in formulating strategies for improving performance based on human resources.

2. Literature Review

Leadership

Leadership is an essential element in human resource management because it determines the direction, culture, and effectiveness of an organization's work. According to Robbins and Judge (2020), leadership is the ability of an individual to influence a group in achieving common goals. A leader not only directs but also serves as a source of inspiration and a role model for their subordinates. Hasibuan (2021) states that leadership is the way a person influences the behavior of others to work enthusiastically and confidently to achieve organizational goals. An effective leader is able to adjust their leadership style to the situation, conditions, and characteristics of their subordinates (situational theory). Some leadership styles that are commonly used include: a. Authoritarian leadership, where the leader makes decisions unilaterally; b. Participative/democratic leadership, which involves subordinates in the decision-making process; and c. Transformational leadership, which focuses on long-term vision and fosters enthusiasm and creativity among employees (Bass & Avolio, 2019).

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Motivation

Motivation is the driving force that makes a person act towards achieving a specific goal. According to Herzberg (2019), work motivation consists of two main factors: motivators (such as achievement, recognition, responsibility) and hygiene factors (such as salary, working conditions, and relationships among employees). High motivation drives employees to work harder and increase productivity. Mangkunegara (2020) adds that work motivation can stem from internal factors (the desire to achieve, personal ambition, self-actualization needs) or external factors (rewards, work environment, and leadership). Good motivation makes employees feel responsible for the success of the organization.

There are several relevant motivation theories, including: Maslow's Hierarchy of Needs Theory, which emphasizes that humans have five levels of needs, ranging from physiological to self-actualization; Herzberg's Two-Factor Theory, which distinguishes between factors causing job satisfaction and dissatisfaction; and Vroom's Expectancy Theory, which explains that a person will be motivated if they believe their efforts will result in good performance and provide valuable outcomes for themselves (Vroom, 2019).

In the context of PT KAI Daop IV Semarang, motivation can be influenced by the reward system, career development opportunities, and a supportive work environment. Employees with high motivation will demonstrate strong dedication and commitment to their responsibilities.

Work Discipline

Work discipline is a form of compliance with the rules and norms that apply within an organization. Siagian (2021) states that work discipline reflects how well an individual adheres to work rules, time management, and organizational procedures. Good discipline creates an orderly and productive work environment. Factors that influence work discipline include: a. Leadership role modeling; b. Clarity of rules and sanctions; c. Consistency in enforcing regulations; and d. Motivation and job satisfaction. In an organization like PT KAI, where safety and punctuality are top priorities, work discipline becomes a fundamental aspect that must be maintained. Disciplined employees will support efficient operations and high-quality service.

Compensation

Compensation is the reward received by employees for their contributions to the organization. According to Rivai and Sagala (2020), compensation can be financial (salary, bonuses, allowances) or non-financial (recognition, career opportunities, good working conditions). Fair and appropriate compensation can foster job satisfaction and increase employee loyalty. Compensation also serves as a managerial tool to boost productivity and reduce turnover. In the context of PT KAI, the compensation structure needs to consider the level of job risk, working hours, and operational responsibilities to create fairness and high work enthusiasm.

Employee Performance

Employee performance is the quality and quantity of work achieved by an individual in accordance with the responsibilities assigned (Mangkunegara, 2020). Performance reflects a person's ability, commitment, and motivation in completing their tasks. According to Gibson et al. (2019), performance is influenced by three main factors: individual ability, level of effort, and organizational support. In the context of a service organization like PT KAI, employee performance includes aspects such as service quality, punctuality, responsibility for safety, and professionalism. Performance assessments are often linked to indicators such as: 1. Quality of work results; 2. Quantity of work; 3. Timeliness; 4. Initiative and responsibility; 5. Teamwork and work ethics. High employee performance directly impacts operational efficiency, customer satisfaction, and the company's image.

3. Research Method

Research Type and Approach

This study uses an associative quantitative approach, which aims to determine the influence between two or more variables (Sugiyono, 2022). A quantitative approach is chosen because it can objectively measure the degree of relationship through numerical data and statistical testing. The associative approach is used to analyze the effect of leadership (X_1), motivation (X_2), work discipline (X_3), and compensation (X_4) on employee performance (Y) at PT Kereta Api Indonesia (Persero) Daop IV Semarang.

Population and Sample

The population in this study consists of all permanent employees of PT Kereta Api Indonesia (Persero) Daop IV Semarang, totaling 400 people. To determine the sample size, Slovin's formula (Sugiyono, 2022) is used with a 5% margin of error. The sample size is determined using Slovin's formula:

$$n = \frac{N}{1 + N(e)^2}$$

n = sample size, N = population size, e = margin of error (commonly used as 0.05 or 0.10). With a 10% error tolerance (0.1) and a population of 400 people, the calculation is as follows: If $N = 400$ and $e = 0.05$, then:

$$N = \frac{400}{1 + 400(0.05)^2} = 80$$

Therefore, the sample size used in this study is 100 respondents.

Types and Sources of Data

This study uses two types of data: a. Primary data, which is obtained directly through the distribution of questionnaires to respondents; and b. Secondary data, which is obtained from internal company documents, performance reports, and relevant literature. Secondary data sources also include scientific publications, books, and journals related to the research variables.

Data Collection Techniques

Data collection was conducted using several techniques. Questionnaires were designed using a 5-point Likert scale, with categories ranging from "Strongly Disagree" to "Strongly Agree." Each variable indicator was broken down into 4-6 statements to measure the respondents' perceptions. Supporting interviews were conducted with unit leaders on a limited basis to strengthen the interpretation of the quantitative results. Additionally, secondary data was obtained from documentation, such as employee reports, organizational structure, and annual employee performance data.

4. Results and Discussion

Description of Research Data

This study involves 80 respondents, all of whom are permanent employees of PT Kereta Api Indonesia (Persero) Daop IV Semarang. Data was collected through the distribution of questionnaires measuring respondents' perceptions of five main variables, namely:

- a. Leadership (X_1)
- b. Motivation (X_2)
- c. Work Discipline (X_3)
- d. Compensation (X_4)
- e. Employee Performance (Y)

Each variable was measured using a 1-5 Likert scale. The recap results show that the majority of respondents gave scores above average (mean > 3.5), indicating that perceptions of leadership, motivation, and compensation are generally favorable.

Validity and Reliability Testing

Validity Test

The validity test was conducted using Pearson correlation between each statement item and the total score of the variable. The results show that all items have a calculated r value > 0.220 (r table for $n=80$, $\alpha=0.05$), indicating that all items are valid.

Reliability Test

Reliability was measured using Cronbach's Alpha. Below are the results of the reliability test for each variable:

Table 1. Reliability Test Results

Variable	Cronbach's Alpha	Criteria	Description
Leadership	0.873	> 0.70	Reliable
Motivation	0.889	> 0.70	Reliable
Work Discipline	0.865	> 0.70	Reliable
Compensation	0.812	> 0.70	Reliable
Employee Performance	0.894	> 0.70	Reliable

In conclusion, all variables have very good reliability, making the research instrument suitable for further analysis.

Multiple Linear Regression Analysis

The multiple linear regression model is used to determine the effect of leadership (X_1), motivation (X_2), work discipline (X_3), and compensation (X_4) on employee performance (Y). The obtained regression equation is: $Y = 6.215 + 0.276X_1 + 0.314X_2 + 0.228X_3 + 0.195X_4$

Table 2. Multiple Linear Regression Analysis Results.

Variable	Coefficient (B)	Std. Error	t-value	Sig.	Description
Constant	6.215	1.182	5.260	0.000	Significant
Leadership (X_1)	0.276	0.091	3.032	0.003	Significant
Motivation (X_2)	0.314	0.095	3.305	0.002	Significant
Work Discipline (X_3)	0.228	0.082	2.780	0.007	Significant
Compensation (X_4)	0.195	0.079	2.468	0.016	Significant

Source: Processed primary data, 2025 (SPSS 26)

F Test (Simultaneous)**Table 3.** F Test Results.

Model	F-value	Sig.	Description
Regression	43.527	0.000	Significant

Since the Sig. value = 0.000 < 0.05, it can be concluded that, simultaneously, leadership, motivation, work discipline, and compensation have a significant effect on employee performance.

Coefficient of Determination (R^2)**Table 4.** Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.872	0.760	0.745	1.627

This means that 76.0% of the variation in employee performance can be explained by the variables of leadership, motivation, work discipline, and compensation. The remaining 24.0% is influenced by other factors outside the model, such as the work environment, workload, and organizational culture.

Discussion***The Effect of Leadership on Employee Performance***

The partial test results show that leadership has a positive and significant effect on employee performance ($\beta = 0.276$; Sig. 0.003). This means that the better the leadership style, the higher the employee performance. This finding supports the theory by Robbins & Judge (2020), which states that effective leadership can improve the enthusiasm and commitment of subordinates. In the context of PT KAI Daop IV Semarang, communicative leadership, setting a good example, and involving employees in decision-making have proven to increase work discipline and responsibility.

The Effect of Motivation on Employee Performance

Motivation has the most dominant effect on performance ($\beta = 0.314$; Sig. 0.002). This result indicates that employees with high motivation, both intrinsic and extrinsic, will be more enthusiastic in achieving work targets. This is consistent with the theory by Herzberg (2019) and the research by Putra & Sari (2022), which found that motivation is the main driving factor for employee productivity in the transportation sector. Reward programs, promotions, and career development opportunities at PT KAI have proven to be important motivational factors for performance improvement.

The Effect of Work Discipline on Employee Performance

The work discipline variable also shows a significant effect ($\beta = 0.228$; Sig. 0.007). This means that employees who adhere to work rules, are punctual, and are responsible for their tasks tend to have higher performance. This finding supports Siagian's (2021) view that discipline is an important factor in maintaining productivity and organizational stability. At PT KAI, the implementation of a punctual work culture and operational safety strengthens employee commitment to optimal work results.

The Effect of Compensation on Employee Performance

Compensation also has a positive and significant effect on employee performance ($\beta = 0.195$; Sig. 0.016). This means that a fair and transparent reward system increases job satisfaction and encourages employees to perform better. This result is consistent with the research by Rivai & Sagala (2020), which states that compensation is a powerful motivational tool to improve individual and organizational performance.

Simultaneous Analysis (F Test)

The simultaneous test shows that the four independent variables together have a significant effect on employee performance. This indicates that performance improvement cannot be achieved through just one aspect alone but rather through a combination of effective leadership, strong motivation, high discipline, and fair compensation.

General Discussion and Implications

The results of this study reinforce the concept of organizational behavior theory proposed by Robbins & Judge (2020), which states that individual behavior in an organization is greatly influenced by factors such as leadership, motivation, and reward systems. The practical implications for PT KAI Daop IV Semarang management are the importance of building a participative leadership system, strengthening employee motivation programs, enforcing work discipline, and implementing a performance-based compensation system.

Conclusion from the Analysis Results

The conclusion from the analysis results is that leadership has a positive and significant effect on employee performance, motivation has the most dominant effect on performance, work discipline positively impacts employee performance, and compensation also significantly affects employee performance. Additionally, the four variables together contribute 76% to the employee performance at PT KAI Daop IV Semarang.

5. Conclusions

Based on the results of the study on the role of leadership, motivation, work discipline, and compensation in improving employee performance at PT Kereta Api Indonesia (Persero) Daop IV Semarang, it can be concluded that all independent variables have a positive and significant effect on employee performance. The regression analysis shows that leadership plays an important role in setting the direction and work spirit of employees, motivation is the most dominant factor in driving productivity improvement, work discipline contributes to maintaining order and individual responsibility, while compensation plays a role in providing satisfaction and driving higher work performance. Simultaneously, these four variables can explain 76% of the variation in employee performance, while the remaining 24% is influenced by other factors outside the model, such as the work environment, organizational culture, and workload. Therefore, the improvement of employee performance at PT KAI Daop IV Semarang cannot be separated from the effective combination of inspirational leadership, high motivation, strong discipline, and a fair and transparent compensation system.

Based on the research results and empirical findings, it is recommended that the management of PT Kereta Api Indonesia (Persero) Daop IV Semarang strengthen the participative and communicative leadership style to create a collaborative and harmonious

work environment. Additionally, the company should enhance motivation programs through performance-based rewards, career development opportunities, and a transparent promotion system to maintain employee work enthusiasm. In terms of work discipline, management is expected to consistently enforce rules and provide proportional sanctions to establish a disciplined and professional work culture. On the other hand, the compensation system should be periodically reviewed to ensure it remains aligned with workload, responsibilities, and employee performance, thus fostering a sense of fairness and loyalty to the company. For future research, it is suggested to add other variables such as the work environment, organizational culture, and job satisfaction to make the research model more comprehensive and capable of explaining employee performance in greater depth.

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