

# The Role of Job Satisfaction in Mediating Transactional Leadership on Employee Performance at the Medan Plantation Seed and Protection Center Plantation Crops Medan

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## Abstract

Employee performance is an important factor in supporting the effectiveness of public organizations, especially in government technical agencies that have strategic tasks in serving and supervising the plantation sector. This study aims to analyze the effect of transactional leadership on employee performance with job satisfaction as a mediating variable at the Medan Plantation Seed and Plant Protection Center (BBPPTP). This study uses a quantitative approach with a survey method. The research population consists of all 135 civil servants at BBPPTP Medan, all of whom were included in the sample (population study). Data were collected through questionnaires and analyzed using the Partial Least Squares (PLS) method with the help of SmartPLS software. The results of the study indicate that transactional leadership has a positive and significant effect on employee performance and job satisfaction. In addition, job satisfaction also has a positive and significant effect on employee performance. The results of the indirect effect test prove that job satisfaction acts as an intervening variable in the relationship between transactional leadership and employee performance. These findings indicate that the application of fair and consistent transactional leadership accompanied by a clear reward system can increase job satisfaction, which in turn has an impact on improving employee performance. This study is expected to provide empirical contributions to the development of human resource management in the public sector and serve as a consideration for the leadership of BBPPTP Medan in formulating leadership policies and improving employee performance.

**Keywords:** Transactional Leadership, Job Satisfaction, Employee Performance

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## Introduction

Employee performance is a fundamental factor in determining the success of public organizations, especially government technical agencies that have a strategic function in supporting national development programs. Robbins and Judge (2020) state that employee performance reflects behavior and work results that contribute directly to the achievement of organizational goals. In the context of the Medan Plantation Seed and Protection Center (BBPPTP) as a Technical Implementation Unit under the Directorate of Plantation Seed and Protection ( ) of the Ministry of Agriculture, employee performance plays an important role in ensuring seed quality, seed certification, and plantation protection. The complexity of tasks that require procedural accuracy, data accuracy, and compliance with technical standards makes employee performance an aspect that cannot be ignored.

One of the internal organizational factors that influence employee performance is leadership. In a bureaucratic environment and government technical institutions, transactional leadership style is a relatively dominant approach because it emphasizes clarity of tasks, work targets, and exchange relationships between superiors and subordinates through a system of rewards and sanctions (Bass & Riggio, 2018). Alharbi and Aljounaidi (2021) explain that transactional leadership focuses on contingent rewards and exception-based supervision to encourage efficiency and performance achievement. These characteristics are considered relevant in organizations with hierarchical structures and standard operating procedures, such as BBPPTP Medan.

However, the effectiveness of transactional leadership in improving employee performance is not always direct. Several studies show that the implementation of a reward and punishment system that is not accompanied by fairness and consistency can actually reduce employee job satisfaction (Skopak & Hadzaihmetovic, 2022). Conversely, transactional leadership that is carried out fairly, transparently, and consistently has been proven to increase job satisfaction, which in turn has a positive impact on employee performance (Darmanto & Supriyadi, 2022). This indicates that there are certain psychological mechanisms that bridge the influence of leadership on performance.

Job satisfaction is understood as a positive emotional state that arises from an individual's assessment of their work (Greenberg & Baron, 2020). Job satisfaction includes employees' perceptions of the job itself, rewards, supervision, work relationships, and working conditions. A number of empirical studies confirm that job satisfaction acts as a mediating variable that links leadership practices to employee performance (Putra et al., 2024). Employees who are satisfied with their work tend to have higher motivation, commitment, and work engagement, resulting in more optimal performance.

In the context of public institutions, particularly BBPPTP Medan, employee performance challenges are not only related to the achievement of administrative targets but also concern the speed and accuracy of technical services, cross-unit coordination, and the ability to adapt to regulations and technological developments in the seed and plant protection sector. Phenomena such as employee dependence on superior instructions and perceptions of fairness in the reward system indicate that job satisfaction is an important aspect that needs to be considered in the application of transactional leadership. Wardana et al. (2025) emphasize that job satisfaction plays a significant role in bridging the influence of organizational factors on employee performance in the public sector.

However, empirical studies that specifically examine the role of job satisfaction in mediating the influence of transactional leadership on employee performance in government technical institutions in the field of seed and plant protection, particularly at BBPPTP Medan, are still relatively limited. Therefore, this research is important to enrich empirical evidence in the field of public sector human resource management and provide practical input for the management of BBPPTP Medan in formulating leadership strategies and policies to improve employee performance.

## **Literature Review**

### **Employee Performance**

#### **Definition of Employee Performance**

According to Robbins & Judge (2020), employee performance can be defined as behavior that contributes to the achievement of organizational goals, which is usually measured based on the achievement of the desired results by the organization or company.

#### **Factors Influencing Employee Performance**

Factors that Influence Employee Performance according to Robbins & Judge (2020):

- 1) **Ability:** The skills, knowledge, and competencies possessed by employees to carry out their duties.
- 2) **Motivation:** The drive to work to the best of one's ability, whether from internal or external factors.
- 3) **Work Environment:** The physical and social conditions in the workplace that support or hinder performance.
- 4) **Leadership:** The leadership style applied by superiors can improve or reduce employee performance.
- 5) **Compensation:** Rewards or recognition received by employees for their performance.

#### **Employee Performance Indicators**

According to Robbins & Judge (2020) in their book "Organizational Behavior," employee performance indicators are measures used to assess the extent to which employees are successful in carrying out their duties and meeting organizational goals. Employee performance can be evaluated based on several indicators that cover the following aspects:

- 1) **Job Quality**  
Measuring the extent to which the work produced meets established standards, is free from errors, and meets desired quality expectations.
- 2) **Quantity of Work**  
Measures the amount of work completed within a certain period of time. This relates to the productivity or output generated by employees.
- 3) **Timeliness**  
Measuring employees' ability to complete work according to set deadlines. Punctuality is very important in improving organizational efficiency.
- 4) **Initiative**  
Measuring the extent to which employees are able to show initiative in completing tasks without having to wait for instructions from their superiors. This includes the ability to make decisions and act proactively.
- 5) **Teamwork**  
Measures an employee's ability to work with others in a team, as well as their contribution to the achievement of team and overall organizational goals.
- 6) **Communication**  
Measuring the extent to which employees are able to communicate clearly and effectively, both in conveying information and in listening and responding to ideas or issues.
- 7) **Creativity and Innovation**  
Measuring the extent to which employees are able to generate new ideas, creative solutions, and innovative approaches in completing tasks or facing challenges in the workplace.

## **Job Satisfaction**

### **Definition of Job Satisfaction**

Greenberg and Baron (2020) "Job satisfaction is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs." Job satisfaction encompasses both positive and negative dimensions, depending on how an individual perceives their work.

### **Job Satisfaction Indicators**

According to Greenberg and Baron (2020), the following are indicators of job satisfaction:

- 1) The job itself  
The extent to which the work performed is considered interesting, challenging, and intrinsically satisfying.
- 2) Salary or compensation  
Perception of fairness and adequacy of salary or financial compensation received.
- 3) Promotion  
The possibility of promotion or career development in the future.
- 4) Supervision  
The quality of relationships and support from superiors, including leadership style and openness of communication.
- 5) Colleagues  
Harmonious interpersonal relationships and good cooperation among employees.
- 6) Working conditions  
The physical and psychological work environment, such as comfort, safety, and available work facilities.

### Leadership Transactional

#### Definition of Transactional Leadership

Alharbi & Aljounaidi (2021) in their empirical study, view transactional leadership as a style that focuses on work relationships based on rewards and punishments to encourage employee efficiency and productivity. By consensus in the current literature, transactional leadership is understood as a managerial approach that maintains stability and efficiency through targeted supervision and clear communication regarding roles and rewards.

#### Indicators of Transactional Leadership

Alharbi & Aljounaidi (2021) use a transactional approach that focuses on reward- and punishment-based working relationships to encourage employee efficiency and productivity. Relevant indicators for this leadership style include:

- 1) Contingent Rewards  
Leaders establish clear agreements about what is expected of employees and what rewards they will receive in return.
- 2) Active Exception-Based Management  
Leaders who proactively monitor performance, look for mistakes, and take corrective action as soon as deviations are detected.
- 3) Passive Exception-Based Management  
Leaders who are more reactive, only acting after problems become significant or after failures occur and are reported.

### Conceptual Framework

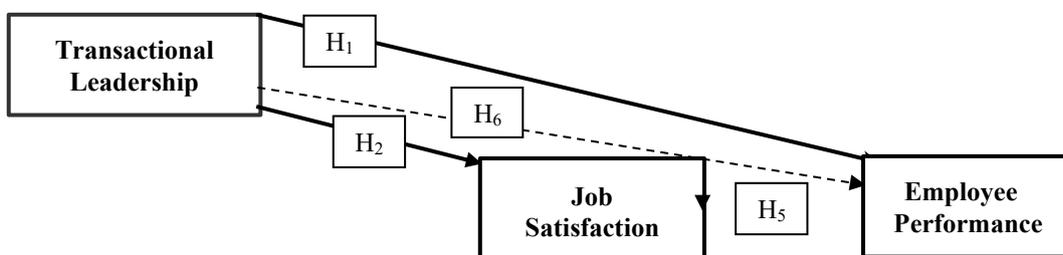


Figure 1. Conceptual Framework

### Research Hypothesis

- H<sub>1</sub>: Transactional leadership has a positive and significant effect on employee performance at the Medan Plantation Seed and Plant Protection Center .
- H<sub>2</sub> Transactional leadership has a positive and significant effect on job satisfaction at the Medan Plantation Seed and Plant Protection Center.

H<sub>3</sub> : Job satisfaction has a positive and significant effect on employee performance at the Medan Plantation Seed and Plant Protection Center.

H<sub>4</sub> : Transactional leadership has a positive and significant effect on employee performance through job satisfaction at the Medan Plantation Seed and Plant Protection Center.

## Research Methodology

### Type of Research

The type of research used by the researcher is quantitative research. According to Sugiyono (2022), quantitative research can be defined as a method based on positivism philosophy, used to study a specific population or sample, with sampling techniques generally conducted randomly, data collection using research instruments, and quantitative/statistical data analysis with the aim of testing predetermined hypotheses. This type of quantitative research was conducted to create a study aimed at adjusting a study and analyzing the role of job satisfaction in mediating transactional leadership on employee performance at the Medan Plantation Seed and Plant Protection Center.

### Research Location and Time

The research location was at the Medan Plantation Seed and Protection Center, located at Jalan Asrama No. 124 Sei Sikambing Medan, North Sumatra. The research was conducted over a period of 3 months, from October to December 2025.

### Population and Sample

Sugiyono (2021) defines population as a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions are drawn. The population and sample in this study were all permanent employees at the Medan Plantation Seed and Protection Center. There were 135 civil servant employees at the Medan Plantation Seed and Protection Center. In this study, the entire population was used as the sample, which is known as a population study.

### Research Data Sources

The data source used in this study is primary data.

## Results

### Outer Model Analysis

Outer Model Analysis using the PLS Algorithm produced the following results:

#### Validity Test

**Table 1.** Outer Loadings Values

	Employee Performance	Job Satisfaction	Transactional Leadership
X1.1			0.849
X1.2			0.857
X1.3			0.856
Y.1	0.768		
Y.2	0.731		
Y.3	0.868		
Y.4	0.698		
Y.5	0.854		
Y.6	0.837		

Y.7	0.872		
Z.1		0.840	
Z.2		0.786	
Z.3		0.917	
Z.4		0.858	
Z.5		0.868	
Z.6		0.898	

Source: Smart PLS Output, 2025

Based on the values in Table 1 above, which show the results of outer model testing through loading factor/outer loadings values, all indicators in each variable have a loading value  $\geq 0.60$ . This indicates that each indicator is measured validly and strongly. Therefore, it can be concluded that all items in the questionnaire have met the validity criteria, as shown in the following figure.

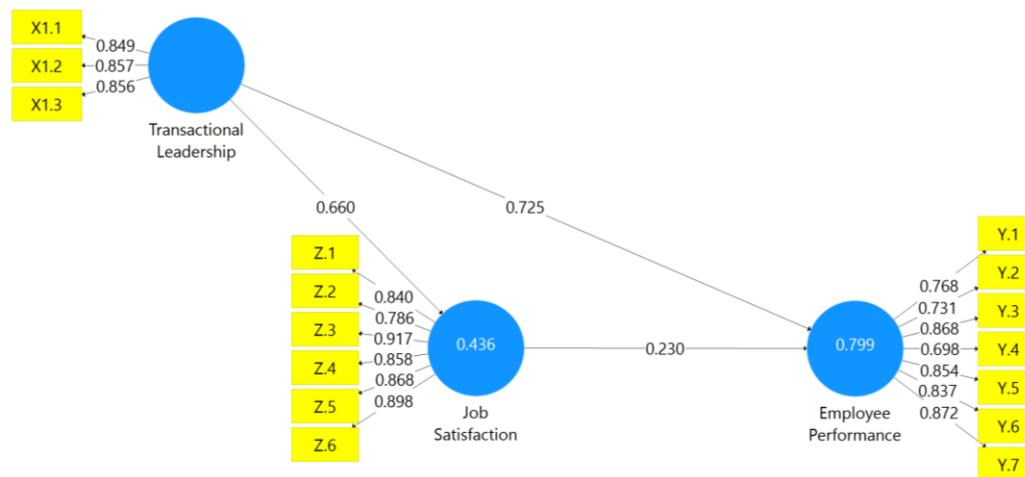


Figure 2. Outer Loading

Reliability Test

Table 2. Construct Reliability and Validity Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Employee Performance	0.909	0.913	0.928	0.651
Job Satisfaction	0.930	0.933	0.945	0.743
Transactional Leadership	0.815	0.819	0.890	0.729

Source: Smart PLS Output, 2025

From Table 2 above, the reliability test results show that the Cronbach's Alpha and Composite Reliability values for all constructs are above 0.70. This indicates that all indicators have high internal consistency and are reliable in measuring their respective constructs. Thus, the research instrument is declared reliable and suitable for use in structural model testing.

Coefficient of Determination (R<sup>2</sup>)

In assessing the model with PLS, we begin by looking at the R-square for each dependent latent variable. The table below shows the Rsquare estimation results using SmartPLS.

Table 3. R Square Results

	R Square	Adjusted R-Square
Job Satisfaction	0.436	0.432

Employee Performance	0.799	0.796
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Source: Smart PLS, 2025

Table 3 shows the R square values for both dependent variables. For the job satisfaction variable, the R square value is 0.436, meaning that the influence of transformational leadership is 0.436 or 43.6%, with the remainder attributable to other variables outside the model. The R-square value for employee performance is 0.799, meaning that transformational leadership, compensation, and work motivation account for 0.799 or 79.9%, with the remainder attributable to other variables outside the model.

## Structural Model Testing (Inner Model)

### Hypothesis Testing

#### Direct Influence Between Variables

The direct effect between variables can be seen in the path coefficients. The data analysis results show the direct effect values in the following table.

**Table 4.** Path Coefficients (Direct Effects)

	Original Sample	T Statistics	P Values	Conclusion
Transactional Leadership -> Employee Performance	0.725	13.001	0.000	Accepted
Transactional Leadership -> Job Satisfaction	0.660	11,882	0.000	Accepted
Job Satisfaction -> Employee Performance	0.230	4,147	0.000	Accepted

Source: Smart PLS Output, 2025

Table 4 shows the following direct effect values:

1. Transactional leadership has a positive and significant effect on employee performance with a t-statistic value of 13.001 above 1.96 and a significance of 0.000 below 0.05, meaning that transactional leadership has a real effect on employee performance because the significance value is below 0.05 . The results of this study are in line with previous studies, namely that transactional leadership has a positive and significant effect on employee performance (Syahrani & Mesra, 2024).
2. Transactional leadership has a positive and significant effect on job satisfaction with a t-statistic value of 11.882 above 1.96 and a significance of 0.000 below 0.05, meaning that transactional leadership has a significant effect on job satisfaction because the significance value is below 0.05. The results of this study are in line with previous research findings, namely that transactional leadership has a positive and significant effect on job satisfaction (Skopak & Hadzaihmetovic, 2022).
3. Job satisfaction has a positive and significant effect on employee performance with a t-statistic value of 4.147 above 1.96 and a significance of 0.000 below 0.05, meaning that job satisfaction has a significant effect on employee performance because the significance value is below 0.05. The results of this study are in line with previous research findings, namely that job satisfaction has a positive and significant effect on employee performance (Nurseha & Ferine, 2024).

#### Indirect Effects Between Variables

The indirect effect between variables can be seen in the specific indirect effects value. The data analysis results show the indirect effect value in Table 5 below.

**Table 5.** Specific Indirect Effects (Indirect Effects)

	Original Sample	T Statistics	P Values	Conclusion

Transactional Leadership -> Job Satisfaction -> Employee Performance	0.152	3.360	0.001	Accepted
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Source: Smart PLS, 2025

Table 5 shows the indirect effect between variables, namely: transactional leadership has a positive and significant effect on employee performance through job satisfaction with a t-statistic value of 3.360 above 1.96 and a significance value of 0.001 below 0.05, meaning that job satisfaction acts as an intervening variable between transactional leadership and employee performance.

### Conclusion

1. Transactional leadership has a positive and significant effect on employee performance at the Medan Plantation Seed and Plant Protection Center.
2. Transactional leadership has a positive and significant effect on job satisfaction at the Medan Plantation Seed and Plant Protection Center.
3. Job satisfaction has a positive and significant effect on employee performance at the Medan Plantation Seed and Protection Center.
4. Transactional leadership has a positive and significant effect on employee performance through job satisfaction at the Medan Plantation Seed and Plant Protection Center.

### Recommendations

1. Employee performance with the lowest score was "I take initiative to act or find solutions without waiting for orders from my superiors." Therefore, the recommendation is that the Medan Plantation Seed and Plant Protection Center (BBPPTP Medan) needs to build a work culture that encourages employee initiative by providing clarity of authority, coaching-style leadership support, and recognition for ideas and solutions that are taken independently in accordance with SOPs.
2. Job satisfaction with the lowest score was "I am satisfied with the salary or compensation I receive in accordance with my workload and job responsibilities." The Medan Plantation Seed and Protection Center is advised to continuously review and adjust its remuneration system, taking into account the balance between workload, job responsibilities, and compensation received, in order to improve employee satisfaction and performance.
3. Transactional leadership with the lowest score: "My supervisor gives clear rewards or compensation when I successfully achieve the set work targets." The Medan Plantation Seed and Plant Protection Center should implement a clear, objective, and consistent reward system for achieving work targets to improve employee motivation, satisfaction, and performance.

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