

## Analysis of Transformational Leadership and Work Environment on Employee Performance with Work Motivation as a Mediating Variable at the National Narcotics Agency of North Sumatra Province

### Analisis Kepemimpinan Transformasional dan Lingkungan Kerja terhadap Kinerja Pegawai dengan Motivasi Kerja sebagai Variabel Mediasi pada Badan Narkotika Nasional Provinsi Sumatera Utara

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#### ARTICLE HISTORY

Received [20 March 2026]

Revised [18 May 2026]

Accepted [20 May 2026]

#### KEYWORDS

Employee Performance, Transformational Leadership, Work Environment, Work Motivation.

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#### ABSTRAK

Kinerja pegawai merupakan faktor strategis dalam mendukung keberhasilan instansi pemerintah, khususnya Badan Narkotika Nasional (BNN) Provinsi Sumatera Utara yang menghadapi tantangan kompleks dan berisiko tinggi. Penelitian ini bertujuan untuk menganalisis pengaruh kepemimpinan transformasional dan lingkungan kerja terhadap kinerja pegawai dengan motivasi kerja sebagai variabel mediasi. Penelitian ini menggunakan pendekatan kuantitatif dengan metode sensus terhadap seluruh pegawai BNN Provinsi Sumatera Utara yang berjumlah 84 orang. Data dikumpulkan melalui kuesioner dan dianalisis menggunakan metode Partial Least Square (PLS) dengan bantuan aplikasi SmartPLS. Hasil penelitian menunjukkan bahwa kepemimpinan transformasional dan lingkungan kerja berpengaruh positif dan signifikan terhadap kinerja pegawai serta motivasi kerja. Motivasi kerja juga terbukti berpengaruh positif dan signifikan terhadap kinerja pegawai. Selain itu, motivasi kerja berperan sebagai variabel mediasi yang signifikan dalam hubungan antara kepemimpinan transformasional dan lingkungan kerja terhadap kinerja pegawai. Temuan ini menunjukkan bahwa peningkatan kinerja pegawai BNN Provinsi Sumatera Utara dapat dicapai melalui penerapan kepemimpinan transformasional yang efektif dan penciptaan lingkungan kerja yang kondusif dengan memperkuat motivasi kerja pegawai. Penelitian ini diharapkan dapat menjadi dasar rekomendasi kebijakan dalam upaya meningkatkan kinerja dan kualitas pelayanan publik di lingkungan Badan Narkotika Nasional Provinsi Sumatera Utara.

#### ABSTRACT

Employee performance is a strategic factor in supporting the success of government agencies, particularly the North Sumatra Provincial National Narcotics Agency (BNN), which faces complex and high-risk challenges. This study aims to analyze the influence of transformational leadership and work environment on employee performance with work motivation as a mediating variable. This study uses a quantitative approach with a census method of all 84 employees of the North Sumatra Provincial BNN. Data were collected through questionnaires and analyzed using the Partial Least Square (PLS) method with the help of SmartPLS. The results show that transformational leadership and work environment have a positive and significant effect on employee performance and work motivation. Work motivation was also found to have a positive and significant effect on employee performance. In addition, work motivation acted as a significant mediating variable in the relationship between transformational leadership and work environment on employee performance. These findings indicate that improving the performance of North Sumatra Provincial BNN employees can be achieved through the implementation of effective transformational leadership and the creation of a conducive work environment by strengthening employee work motivation. This study is expected to serve as a basis for policy recommendations in efforts to improve performance and the quality of public services within the North Sumatra Provincial Narcotics Agency.

## INTRODUCTION

Employee performance in government agencies is a strategic factor that determines the success of an organization in achieving its public service objectives. At the National Narcotics Agency (BNN) of North Sumatra Province, the demands of the job are becoming increasingly difficult and complex due to the increasing dynamics of narcotics crime, the development of illegal drug distribution methods, and the increasing need for rehabilitation services. In this situation, it is important for the organization to ensure that every employee is able to work optimally, effectively, and with a focus on service quality. According to Robbins and Judge (2020), employee performance is the result of an individual's work based on standards set by the organization that reflect effectiveness and contribution to the achievement of

objectives. This shows that improving employee performance is a major requirement in facing the operational challenges of the BNN at the provincial level.

One important factor that influences performance is transformational leadership. This type of leadership is able to motivate, inspire, and encourage employees to work beyond the set standards. Bass and Riggio (2021) explain that transformational leadership is able to generate motivation, foster trust, and create a shared vision that drives organizational performance improvement. In the context of the North Sumatra Provincial BNN, visionary leaders who are able to provide moral support will greatly influence the enthusiasm of employees in carrying out tasks that are often risky and stressful. Thus, transformational leadership has great potential to increase employee commitment and productivity. Apart from leadership, the work environment is also a crucial factor that affects performance. A comfortable, safe, harmonious social work environment and adequate work facilities can increase employee motivation and effectiveness. According to Wibowo (2021), a conducive physical and non-physical work environment will support employees in working more focused, productive, and with higher quality. The work environment in agencies such as the BNN not only includes technical facilities and equipment, but also inter-employee relationships, leadership support, organizational climate, and appropriate workloads. A good work environment will create a positive psychological atmosphere that encourages employees to work optimally.

However, the relationship between transformational leadership and the work environment on employee performance is not entirely direct. One important variable that often acts as a connector is work motivation. Motivation is an internal and external drive that makes employees willing to exert maximum effort to achieve organizational goals. According to Fadilah and Kirana (2024), work motivation acts as the main driver that determines the sincerity, perseverance, and quality of employee work. BNN employees who have strong motivation will work more disciplined, have high initiative, and be able to cope with heavy work pressure. Motivation is also a factor that strengthens the positive influence of leadership and work environment on performance.

Previous research also shows that motivation can act as a mediating variable. For example, Banne et al. (2023) found that a conducive work environment improves employee performance through increased work motivation. Meanwhile, Lukito (2025) emphasized that work motivation strengthens the relationship between transformational leadership and employee performance by increasing employee awareness to achieve organizational targets. These findings show that motivation has a strategic position as a mediator in the relationship between leadership and work environment variables on performance. Looking at the conditions at the North Sumatra Provincial Narcotics Agency, several indications show that there are still challenges in improving employee motivation and performance, such as high workloads, the complexity of field tasks, limited support facilities, and psychological pressure in handling narcotics cases. Therefore, it is important to conduct research to understand how transformational leadership and the work environment affect employee performance, as well as how work motivation mediates this relationship.

## LITERATURE REVIEW

### 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 results desired by the organization or company.

Factors Affecting Employee Performance according to Robbins & Judge (2020), such as Ability, the skills, knowledge, and competencies that employees possess to perform their duties. Motivation, the drive to work to the best of one's ability, whether from internal or external factors. Work Environment, the physical and social conditions in the workplace that support or hinder performance. Leadership, the leadership style applied by superiors can increase or decrease employee performance. 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, Quality of Work, measures the extent to which the work produced meets established standards, is free from errors, and meets desired quality expectations. 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. Timeliness, measuring employees' ability to complete work according to set deadlines. Punctuality is very important in improving organizational efficiency. Initiative, measures 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. Teamwork, measures employees' ability to work with others in a team, as well as their contribution to the achievement of team and overall organizational goals. 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. 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.

## Work Motivation

According to Vo et al., 2022, work motivation is a drive that stems from individual needs (competence, autonomy, social relationships) that encourage productive and effective individual work behavior. Indicators of Work Motivation, the indicators of work motivation according to Vo et al., 2022 are as follows: Competence, refers to an individual's ability to perform tasks well and feel capable of mastering their work. In this study, competence is measured through "highest level of education achieved" as a proxy. Autonomy, refers to individual freedom and control over how they perform their work that is, the ability to make their own decisions and have choices in their work. Social connectedness, refers to the individual's need to feel connected, accepted, and have positive relationships with others in, the work environment, for example, feeling that they belong to a group, are supported by coworkers, and have a sense of social belonging.

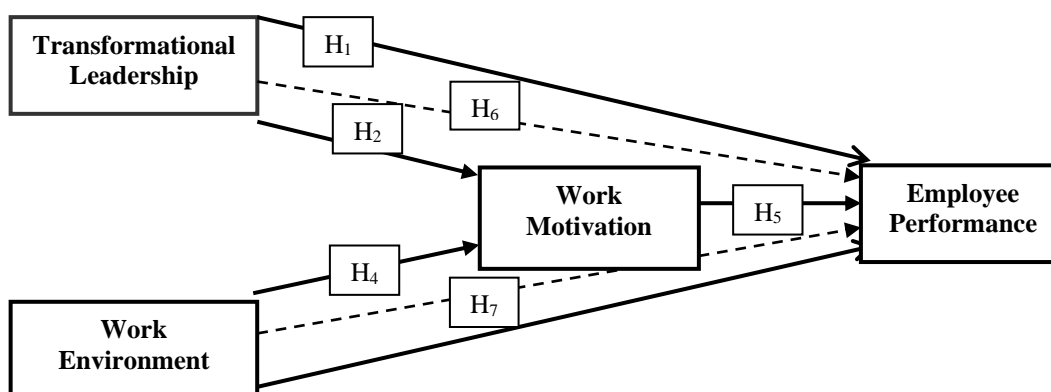
## Work Environment

Saefullah (2022) states that the work environment is everything that surrounds workers and can influence them in performing their work. Work Environment Indicators according to Saefullah (2022), the work environment can be measured through the following indicators: Physical Work Environment, this indicator focuses on the physical conditions of the workspace that affect employee comfort, thereby increasing focus and productivity. Non-Physical Work Environment, this includes psychological and social factors in the workplace, such as a good social atmosphere that promotes the psychological well-being of employees. Supervisory Support, supervisors have a strong influence on the quality of the work environment; for example, supportive supervisors increase motivation and work enthusiasm. Work Facilities, adequate facilities are crucial to the smooth running of work, as good facilities will increase work efficiency and effectiveness.

## Transformational Leadership

Robbins & Judge (2020) define transformational leadership as a leadership style that can bring about major changes in an organization by influencing the values, perceptions, and aspirations of subordinates to align with the leader's vision. Indicators of Transformational Leadership, according to Robbins and Judge (2020), the indicators of transformational leadership include four main dimensions: Idealized Influence, leaders act as role models who are respected and trusted by their followers, and demonstrate ethical behavior and high moral principles. Inspirational Motivation, leaders convey a clear vision and mission, and motivate their followers to achieve common goals with enthusiasm and optimism. Intellectual Stimulation, leaders encourage creativity and innovation, and invite their followers to think critically and seek new solutions to the problems they face. Individualized Consideration, eaders pay special attention to the needs and potential of each follower, and act as mentors or coaches in their personal development

Figure 1. Conceptual Framework



### Research Hypothesis

- H1: Transformational leadership has a positive and significant effect on employee performance at the North Sumatra Provincial National Narcotics Agency .
- H2: Transformational leadership has a positive and significant effect on work motivation at the North Sumatra Provincial National Narcotics Agency.
- H3: The work environment has a positive and significant effect on employee performance at the North Sumatra Provincial National Narcotics Agency.
- H4: Work environment has a positive and significant effect on work motivation at the North Sumatra Provincial National Narcotics Agency.
- H5: Work motivation has a positive and significant effect on employee performance at the North Sumatra Provincial National Narcotics Agency.
- H6: Transformational leadership has a positive and significant effect on employee performance through work motivation at the North Sumatra Provincial National Narcotics Agency.
- H7: The work environment has a positive and significant effect on employee performance through work motivation at the North Sumatra Provincial National Narcotics Agency.

## RESEARCH METHOD

### 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 transformational leadership and work environment on employee performance with work motivation as a mediating variable at the North Sumatra Provincial National Narcotics Agency.

## RESULTS AND DISCUSSION

### Validity Test

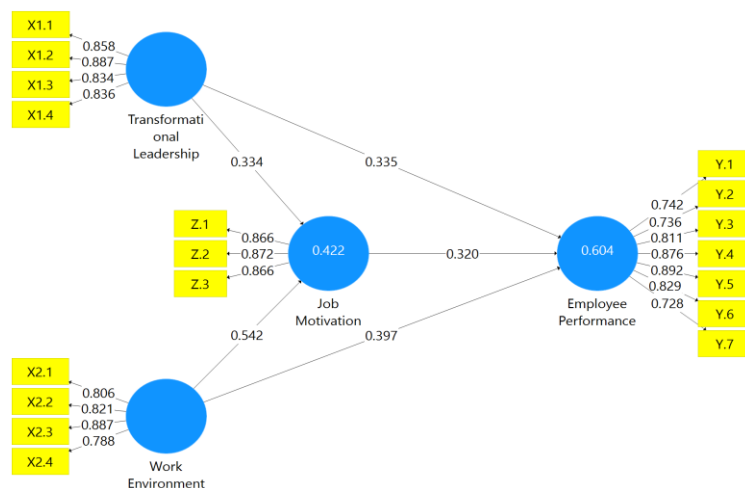
**Table 1. Outer Loadings Values**

	Employee Performance	Job Motivation	Transformational Leadership	Work Environment
X1.1			0.858	
X1.2			0.887	
X1.3			0.834	
X1.4			0.836	
X2.1				0.806
X2.2				0.821
X2.3				0.887
X2.4				0.788
Y.1	0.742			
Y.2	0.736			
Y.3	0.811			
Y.4	0.876			
Y.5	0.892			
Y.6	0.829			
Y.7	0.728			
Z.1		0.866		
Z.2		0.872		
Z.3		0.866		

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  $\geq 0.70$ . 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**



In this study, there is an equation, and that equation consists of two substructures for substructure 1:

$$Z = \beta_1 X_1 + \beta_2 X_2 + e_1$$

$$Z = 0.334 X_1 + 0.542 X_2 + e_1$$

For substructure 2:

$$Y = \beta_2 X_1 + \beta_3 X_2 + \beta_3 Z + e_2$$

$$Y = 0.335 X_1 + 0.397 X_2 + 0.320 Z + e_2$$

## Reliability Test

**Table 2. Construct Reliability and Validity Test**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Employee Performance	0.908	0.918	0.927	0.647
Job Motivation	0.837	0.837	0.902	0.754
Transformational Leadership	0.876	0.881	0.915	0.729
Work Environment	0.845	0.854	0.896	0.683

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 R-square estimation results using SmartPLS.

**Table 3. R Square Results**

	R Square	Adjusted R-Square
Job Motivation	0.422	0.408
Employee Performance	0.604	0.589

Source: Smart PLS, 2025

Table 3 shows the R square values for both dependent variables. For the work motivation variable, the R square value is 0.422, meaning that the influence of transformational leadership and work environment is 0.422 or 42.2%, with the remainder attributable to other variables outside the model. The R-square value for employee performance is 0.604, meaning that transformational leadership, work environment, and work motivation account for 0.604 or 60.4%, with the remainder attributable to other variables outside the model.

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

	Original Sample	T Statistics	P Values	Conclusion
Transformational Leadership -> Employee Performance	0.335	3.852	0.000	Accepted
Transformational Leadership -> Job Motivation	0.334	4.467	0.000	Accepted
Work Environment -> Employee Performance	0.397	3,955	0.000	Accepted
Work Environment -> Job Motivation	0.542	8,482	0.000	Accepted
Job Motivation -> Employee Performance	0.320	2,806	0.005	Accepted

Source: Smart PLS Output, 2025

The results in Table 4 show the following direct effect values, Transformational leadership has a positive and significant effect on employee performance with a t-statistic value of 3.852 above 1.96 and a significance of 0.000 below 0.05, meaning that transformational leadership has a real effect on employee performance because the significance value is above 0.05. The results of this study are in line with previous studies, namely that transformational leadership has a positive and significant effect on employee performance (Rahman et al., 2023; Fadillah & Mesra, 2024). Transformational leadership has a positive and significant effect on work motivation with a t-statistic value of 4.467 above 1.96 and a significance of 0.000 below 0.05, meaning that transformational leadership has a significant effect on work motivation because the significance value is below 0.05. The results of this study are in line with previous studies, namely that transformational leadership has a positive and significant effect on work motivation (Fadillah & Mesra, 2023). The work environment has a positive and significant effect on employee performance with a t-statistic value of 3.955 above 1.96 and a significance of 0.000 below 0.05, meaning that the work environment 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 the work environment has a positive and significant effect on employee performance (Bana et al., 2025).

The work environment has a positive and significant effect on work motivation with a t-statistic value of 8.482 above 1.96 and a significance of 0.000 below 0.05, meaning that the work environment has a real effect on work motivation because the significance value is above 0.05. The results of this study are in line with previous studies, namely that the work environment has a positive and significant effect on work motivation (Wirandono & Indrawan, 2023). Work motivation has a positive and significant effect on employee performance with a t-statistic value of 2.806 above 1.96 and a significance of 0.005 below 0.05, meaning that work motivation has a significant effect on employee performance because the significance value is below 0.05. The results of this study are consistent with previous studies, which found that work motivation has a positive and significant effect on employee performance (Dwipayana et al., 2023; Siahaan et al., 2025).

#### Indirect Influence 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
Transformational Leadership -> Job Motivation -> Employee Performance	0.107	2.483	0.013	Accepted
Work Environment -> Job Motivation -> Employee Performance	0.173	2.736	0.006	Accepted

Source: Smart PLS, 2025

Table 5 shows the indirect effects between variables, namely: Transformational leadership has a positive and significant effect on employee performance through work motivation with a t-statistic value of 2.483 above 1.96 and a significance value of 0.013 below 0.05, meaning that work motivation acts as an intervening variable between leadership and employee performance.

The work environment has a positive and significant effect on employee performance through work motivation with a t-statistic value of 2.736 above 1.96 and a significance value of 0.016 below 0.05, meaning that work motivation acts as an intervening variable between rewards and employee performance.

## CONCLUSION AND RECOMMENDATION

### Conclusion

1. Transformational leadership has a positive and significant effect on employee performance at the North Sumatra Provincial National Narcotics Agency.
2. Transformational leadership has a positive and significant effect on work motivation at the North Sumatra Provincial National Narcotics Agency.
3. The work environment has a positive and significant effect on employee performance at the North Sumatra Provincial National Narcotics Agency.
4. The work environment has a positive and significant effect on work motivation at the North Sumatra Provincial National Narcotics Agency.
5. Work motivation has a positive and significant effect on employee performance at the North Sumatra Provincial National Narcotics Agency.
6. Transformational leadership has a positive and significant effect on employee performance through work motivation at the North Sumatra Provincial National Narcotics Agency.
7. The work environment has a positive and significant effect on employee performance through work motivation at the North Sumatra Provincial National Narcotics Agency.

### Recommendation

1. Employee performance with the lowest value statement is "I am able to generate new ideas or ways to improve work effectiveness." Therefore, the recommendation is that the North Sumatra Provincial National Narcotics Agency should encourage an innovative work climate through transformational leadership that provides space for ideas, creative discussion forums, and rewards for employee initiatives, so that work motivation and employee performance can improve continuously.
2. Work motivation with the lowest score was "I am motivated to work because I feel I have the skills required for the job." The North Sumatra Provincial National Narcotics Agency is advised to improve the alignment of employee competencies with job requirements through continuous training, coaching, and appropriate job placement so that employee motivation and performance can improve.
3. Work environment with the lowest score: "The available work facilities support me in completing my work optimally." The North Sumatra Provincial Narcotics Agency is advised to improve the availability and quality of adequate, ergonomic, and task-based work facilities so that employees can work optimally and be motivated to improve their performance.
4. Transformational leadership with the lowest value statement "Leaders encourage me to think creatively and find new solutions at work." The North Sumatra Provincial Narcotics Agency is advised to implement more inspirational transformational leadership by encouraging creativity, opening up space for discussion of ideas, and providing support and constructive feedback so that employees are encouraged to find new solutions at work.

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