

The Impact of Transformational Leadership and Work Environment on Performance Through Intrinsic Motivation as A Mediating Variable

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ABSTRACT

This study aims to analyze the influence of transformational leadership and the work environment on employee performance, with intrinsic motivation as an intervening variable. The study was conducted on employees of the Regional Development Planning, Research, and Development Agency of Bogor Regency, with 62 respondents. The research approach used a quantitative method through Structural Equation Modeling–Partial Least Squares (SEM-PLS). The sampling technique used was simple random sampling, with data collected through questionnaires. The results of the study indicate that transformational leadership influences performance, while the work environment does not. However, both factors influence intrinsic motivation. Furthermore, intrinsic motivation influences performance and mediates the relationship between transformational leadership and performance, as well as between the work environment and performance. Therefore, increasing intrinsic motivation can strengthen the influence of transformational leadership and the work environment on performance.

Keywords: Transformational leadership; work environment; intrinsic motivation; performance.

INTRODUCTION

Facing the era of globalization and increasingly fierce competition, public sector organizations are required to improve performance in order to provide optimal services to the public. Performance is a benchmark in supporting organizational goals to create effective public services. Therefore, aspects of employee performance within the scope of government are regulated in Law Number 20 of 2023 concerning State Civil Apparatus (Amendment to Law Number 5 of 2014) and the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia Number 6 of 2022 concerning the Management of State Civil Apparatus Employee Performance. One of the important factors that influence organizational performance is the quality of human resources, which is greatly affected by leadership style and the work environment (Bass & Riggio, 2006).

The Regional Development Planning, Research, and Development Agency (Bappedalitbang) of Bogor Regency plays a strategic role in supporting regional governance through planning, development evaluation, and research and innovation development (Bass & Riggio, 2006; Bogor, 2024a, 2024b). Based on the Performance Evaluation document for the Implementation of the Fourth Quarter of the 2024 Work Plan, the organization's main performance indicators have generally demonstrated maximum achievement, such as a score of 39.64 points on the Government Agency Performance Accountability System (SAKIP), a Regional Innovation Index rating of "Very Innovative," and other planning and performance measurement indicators achieving 100% of the set targets.

This research is crucial to identify and analyze the influence of transformational leadership and the work environment on performance, with intrinsic motivation as an intervening variable, at the Bogor Regency Regional Development Planning, Research, and Development Agency. This research is expected to provide both theoretical and practical contributions to improving the performance of public sector organizations (Peraturan Menteri Pendayagunaan Aparatur Negara Dan Reformasi Birokrasi Republik Indonesia Nomor 6 Tahun 2022 Tentang Pengelolaan Kinerja Pegawai Aparatur Sipil Negara, 2022; Undang-Undang Republik Indonesia Nomor 20 Tahun 2023 Tentang Aparatur Sipil Negara, 2023; Van Wart, 2017).

A study by (Andersen et al., 2016; Bass & Riggio, 2006; Vogel & Masal, 2015) examined the impact of transformational leadership on employee performance, highlighting the significance of leadership styles in shaping organizational outcomes. The research found that transformational leadership directly influences performance by fostering motivation and commitment within the workforce, which supports the hypothesis in your study regarding the role of transformational leadership in influencing performance through intrinsic motivation.

Another relevant study by (Belle, 2014; Hassan et al., 2014; Jacobsen & Andersen, 2017; Miao et al., 2018) investigated the relationship between the work environment and employee performance. It emphasized how factors like organizational climate and workplace culture could enhance intrinsic motivation, which in turn positively impacts performance. This aligns with your research findings that the work environment indirectly affects performance through intrinsic motivation.

The novelty of this research lies in its deeper understanding of the role of intrinsic motivation as an intervening variable that connects the influence of transformational leadership and the work environment on employee performance. While previous studies, such as those conducted by Bass and Riggio (2006), have explored the impact of transformational leadership on performance, and Salanova et al. (2011) have demonstrated the role of the work environment in enhancing performance, this research adds a new dimension by examining how intrinsic motivation functions as a mediator that strengthens the relationship between these two factors (transformational leadership and the work environment) and performance. This study also focuses on the local context of the regional government, specifically the Regional Development Planning, Research, and Development Agency of Bogor Regency, providing a relevant perspective for managerial policy development (Christensen & Lægheid, 2017; Ritz et al., 2016; Tummers et al., 2015; Wright & Moynihan, 2018).

The main difference between this research and previous studies is the context and the application of a more specific analytical model. Bass and Riggio's (2006) study focuses on leadership in general, while this research specifically examines the impact of transformational leadership in the public sector, adding intrinsic motivation as a mediator. Additionally, although Salanova et al.'s (2011) research explores the effect of the work environment on performance, this study provides a more detailed approach by using Structural Equation Modeling-Partial Least Squares (SEM-PLS) techniques to evaluate both direct and indirect relationships between the variables, making the results more reliable in a broader empirical context (George et al., 2019; Meier & O'Toole, 2015).

The aim of this research is to analyze the effect of transformational leadership and the work environment on employee performance at the Regional Development Planning, Research, and Development Agency of Bogor Regency, with intrinsic motivation as an intervening variable. This research aims to explore how transformational leadership influences employee performance, as well as analyze the role of the work environment in improving performance. Furthermore, this study seeks to examine the impact of transformational leadership and the work environment on intrinsic motivation and to test how intrinsic motivation can strengthen the relationship between these two factors and employee performance.

The benefits of this research can be felt both theoretically and practically. Theoretically, this research contributes to the development of literature on transformational leadership, work environment, and intrinsic motivation in the context of employee performance, particularly in the public sector. It is expected to enrich the understanding of the role of intrinsic motivation as a mediator connecting these factors and provide new insights into human resource management theory. Practically, the findings of this study are expected to serve as a reference for public organizations, especially the Regional Development Planning, Research, and Development Agency of Bogor Regency, in formulating more effective employee performance management policies. With a deeper understanding of the impact of leadership, the work environment, and intrinsic motivation, organizations can design more appropriate strategies to improve employee performance and create a more productive work environment.

METHOD

The method used in this research uses a quantitative approach technique, data collection was carried out by distributing questionnaires to 62 respondents, namely employees at the Regional Development Planning, Research and Development Agency of Bogor Regency.

In filling out the questionnaire, respondents were required to answer questions related to the research objects of transformational leadership variables, work environment, intrinsic motivation, and performance. The following are the hypotheses in this study, H1: Transformational leadership influences performance, H2: Transformational leadership influences intrinsic motivation, H3: Work environment influences performance, H4: Work environment influences intrinsic motivation, H5: Intrinsic motivation influences performance, H6: Transformational leadership influences performance with intrinsic motivation as an intervening, H7: Work environment influences performance with intrinsic motivation as an intervening. The research design is explained in Figure 1.

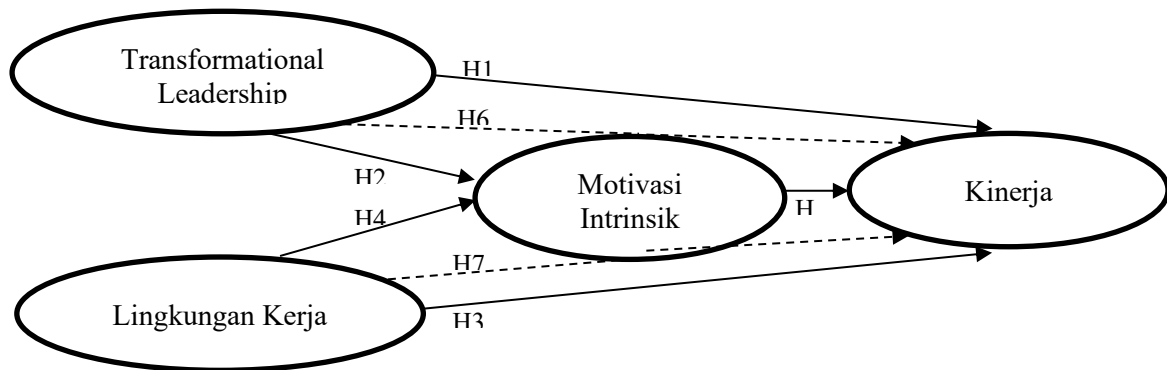


Figure 1. Research Design

The questionnaire given to respondents contained several statements that had to be selected based on the indicators in each variable. The questionnaire filling method used an interval scale of 1-5 with details SS (Strongly Disagree) = value 1, TS (Disagree) = value 2, CS (Quite Agree) = value 3, S (Agree) = value 4, SS (Strongly Agree) = value 5. The operationalization of the variables is explained in Table 1.

Table 1. Operationalization of Variables

Variables	Indicator	Scale
Transformational Leadership (X1)	Ideal Influence; Inspirational Motivation; Inspirational Stimulation; Intellectual Considerations; Individual Considerations.	Interval 1 - 5
Work Environment (X2)	Physical Work Environment; Non-Physical Work Environment.	Interval 1 - 5
Intrinsic Motivation (Y)	Autonomy; Competence; Connectedness.	Interval 1 - 5
Performance (Z)	Quality of Work; Quantity of Work; Punctuality; Attendance and Work Discipline; Collaboration Ability; Initiative and Responsibility.	Interval 1 - 5

SmartPLS Data Processing Results for 2025

From the results of the data collection above, the data was then processed using the Structural Equation Modeling–Partial Least Square (SEM-PLS) program.

RESULTS AND DISCUSSION**Respondent Description**

Respondent descriptive data provides information about the condition of the respondents (Employees of the Bogor Regency Regional Development Planning, Research and Development Agency). The information provided relates to the condition of the respondents who are the objects of research, or descriptive data, namely: gender, age, and last education. Based on the questionnaire completed by 62 respondents, it is known that 33 people or 53.22% are male and 29 people or 46.77% are female.

Based on the age range, it is known that 6 people or 9.68% are aged 21-30 years, 21 people or 33.87% are aged 31-40 years, 25 people or 40.32% are aged 41-50 years, and 10 people or 16.13% are aged 51-60 years.

Based on education level, it is known that 2 people or 3.22% are employees with a high school education, 1 person or 1.61% are employees with a D3 education, 28 people or 43.32% are employees with a S1 education, and 31 people or 50% are employees with a S2 education.

Instrument Test

The validity test in this study was carried out using the Structural Equation Modeling–Partial Least Square (SEM-PLS) program with two stages, namely Convergent Validity testing, through Confirmatory Factor Analysis (CFA) with the provision of loading factor > 0.7 and Discriminant Validity testing through cross loading value with the provision of correlation coefficient $>$ value of other construct blocks.

Table 2. Confirmatory Factor Analysis (CFA)

	Transformational Leadership (KT)	Work environment (LK)	Intrinsic Motivation (MI)	Performance (K)	Information
KT1	0.840				Valid
KT2	0.902				Valid
KT3	0.896				Valid
KT4	0.848				Valid
KT5	0.843				Valid
KT6	0.838				Valid
KT7	0.909				Valid
KT8	0.848				Valid
KT9	0.918				Valid
KT10	0.873				Valid
KT11	0.861				Valid

KT12	0.876	Valid
KT13	0.865	Valid
KT14	0.860	Valid
LK1	0.787	Valid
LK2	0.889	Valid
LK3	0.901	Valid
LK4	0.925	Valid
LK5	0.910	Valid
LK6	0.851	Valid
LK7	0.875	Valid
LK8	0.831	Valid
MI1	0.778	Valid
MI2	0.804	Valid
MI3	0.838	Valid
MI4	0.807	Valid
MI5	0.818	Valid
MI6	0.840	Valid
MI7	0.810	Valid
MI8	0.867	Valid
MI9	0.870	Valid
MI10	0.856	Valid
K1	0.824	Valid
K2	0.844	Valid
K3	0.851	Valid
K4	0.881	Valid
K5	0.765	Valid
K6	0.837	Valid
K7	0.831	Valid
K8	0.796	Valid
K9	0.786	Valid
K10	0.820	Valid
K11	0.873	Valid
K12	0.794	Valid

Data analysis

Table 3. R Square Value Results

Variables	R Square	R Square Adjusted	Information
Intrinsic Motivation (Y)	0.570	0.555	Strong
Performance (Z)	0.669	0.651	Strong

Source: SmartPLS Data Processing Results for 2025

Based on the table above, it can be seen that the R2 value of the intrinsic motivation variable (Y) is 0.570. These results explain that 57% of intrinsic motivation is influenced by transformational leadership and the work environment, while the remaining 43% is influenced by other factors not observed in this study. R2 Performance Value (Z) is 0.669. These results explain that 66.9% of performance is influenced by transformational leadership, work environment and intrinsic motivation, while 33.1% is influenced by other factors not observed in this study.

Table 4. Results of f-square values

Variables	Intrinsic Motivation (Y)	Performance (Z)
Transformational Leadership (X1)	1,045	0.149
Work environment (X2)	0.444	0.008
Performance (Z)		0.414

Source: SmartPLS Data Processing Results for 2025

Table 4 shows the f-square value for the transformational leadership variable on intrinsic motivation is 1.045, so the influence is classified as large. The f-square value for the leadership variable on performance is 0.149, so the influence is classified as moderate. The f-square value for the work environment variable on intrinsic motivation is 0.444, so the influence is classified as large. The f-square value for the work environment variable on performance is 0.008, so the influence is classified as low . The f-square value for the intrinsic motivation variable on performance is 0.414, so the influence is classified as high.

Path Analysis

Path analysis is the result of bootstrapping the calculation of research hypothesis testing, the numbers in the image are the values of the t-test between variables and variables with indicators.

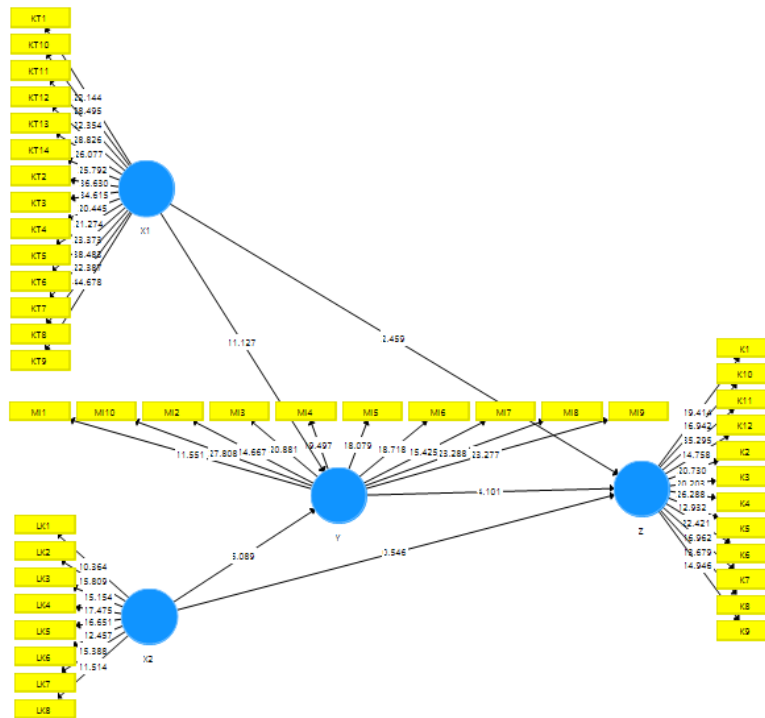


Figure 3. Path Diagram of t-Statistic Values (Bootstrapping)

Source: SmartPLS Data Processing Results for 2025

The image above is the result of bootstrapping the calculation of the research hypothesis test, the numbers in the image are the values of the t-test between variables and variables with indicators.

Table 5. Hypothesis Testing Based on Path Coefficient

Variables	Original Sample (O)	T Statistics (O/STDEV)	P Values	Information
Direct Influence				
X1 -> Z	0.321	2,484	0.013	Significant Positive Impact
X2 -> Z	0.062	0.554	0.580	No effect
X1 -> Y	0.677	11,160	0.001	Significant Positive Impact
X2 -> Y	0.442	5,098	0.005	Significant Positive Impact

Y -> Z	0.565	4.129	0.002	Significant Positive Impact
Indirect Influence				
X1 -> Y -> Z	0.383	4,206	0.002	Significant Positive Impact
X2 -> Y -> Z	0.249	3,386	0.001	Significant Positive Impact

Source: SmartPLS Data Processing Results for 2025

Table 5 shows that transformational leadership has both a direct and indirect effect on performance. The work environment has no direct but indirect effect on performance, and intrinsic motivation has a direct effect on performance.

The Influence of Transformational Leadership on Performance

The Original Sample value of transformational leadership on performance is 0.321, indicating a positive relationship between transformational leadership and performance. The t-statistics value is 2.484 (> 1.96) and the P-value is $0.013 < 0.05$, indicating that transformational leadership has a significant effect on performance.

The Influence of Work Environment on Performance

The original sample value for the work environment on performance was 0.062, indicating a positive but weak relationship. The t-statistics value was 0.554 (< 1.96) and the p-values were $0.580 > 0.05$, indicating that the work environment had no effect on performance.

The Influence of Transformational Leadership on Intrinsic Motivation

Transformational leadership on intrinsic motivation has an Original Sample value of 0.667, meaning that the direction of the relationship between transformational leadership and intrinsic motivation is positive. Meanwhile, the t-statistic value of 11.160 (> 1.96) and P-value of $0.001 < 0.05$ mean that transformational leadership has a significant effect on intrinsic motivation.

The Influence of Work Environment on Intrinsic Motivation

The work environment on intrinsic motivation has an Original Sample value of 0.442, meaning that the direction of the relationship between the work environment and intrinsic motivation is positive. Meanwhile, the t-statistic value is 5.098 (> 1.96) and the P value is $0.005 < 0.05$, meaning that the work environment has a significant effect on intrinsic motivation.

The Influence of Intrinsic Motivation on Performance

The original sample value of intrinsic motivation on performance is 0.565, indicating a positive relationship between intrinsic motivation and performance. The t-statistics value is 4.129 (> 1.96) and the p-value is $0.002 < 0.05$, indicating that intrinsic motivation has a significant effect on performance.

The Influence of Transformational Leadership on Performance with Intrinsic Motivation as an Intervening Factor

Transformational leadership on performance through intrinsic motivation has an Original Sample value of 0.383, meaning that the direction of the relationship between leadership and performance through intrinsic motivation is positive. Meanwhile, the t-statistic value of 4.206 (< 1.96) and P-values of $0.002 > 0.05$ mean that transformational leadership has a positive and significant effect on performance through intrinsic motivation.

The Influence of Work Environment on Performance with Intrinsic Motivation as an Intervening Factor

The work environment on performance through intrinsic motivation has an Original Sample value of 0.249, meaning that the direction of the relationship between the work environment and performance through intrinsic motivation is positive. Meanwhile, the t-statistic value of 3.386 (> 1.96) and P-values of $0.001 < 0.05$ mean that the work environment has a significant effect on performance through intrinsic motivation.

CONCLUSION

This study investigates the influence of transformational leadership and the work environment on employee performance, with intrinsic motivation as an intervening variable. The findings reveal that transformational leadership has a positive impact on performance, both directly and indirectly, through intrinsic motivation. The work environment, on the other hand, does not show a direct influence on performance but does affect performance indirectly via intrinsic motivation. Additionally, intrinsic motivation is shown to have a significant direct effect on employee performance. These results highlight the pivotal role of transformational leadership in enhancing employee performance and emphasize the importance of intrinsic motivation in mediating the relationship between leadership, the work environment, and performance.

To enhance employee performance, organizations should focus on strengthening transformational leadership practices, particularly those that foster inspiration and intellectual stimulation. Leaders should be encouraged to develop skills that motivate and intellectually challenge their employees. In addition, while the work environment did not directly influence performance, its indirect effect through intrinsic motivation suggests that improving both the physical and non-physical aspects of the work environment could foster greater intrinsic motivation. By doing so, employees' sense of autonomy, competence, and connection could be enhanced, leading to better performance outcomes.

Furthermore, organizations should prioritize initiatives aimed at boosting intrinsic motivation, such as providing recognition for achievements and offering opportunities for professional growth. Such efforts are likely to result in increased employee engagement and, ultimately, improved performance. Finally, future research could examine additional variables that may influence employee performance, such as work-life balance or organizational culture. Comparative studies across different sectors, including both public and private organizations, would also provide deeper insights into how leadership and motivation interact in various contexts.

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