

Research Article

The Effect of Transformational Leadership Style and Career Development on Organizational Performance With Work Motivation as An Intervening Variable at PT. PLN (Persero) UP3 Jember

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Abstract: PT. PLN (Persero) UP3 Jember has a strategic role in maintaining the reliability of electricity supply and service quality. However, in 2024 there was a gap between the target and the realization of network maintenance without blackouts, which indicates fluctuations in organizational performance. This study aims to analyze the effect of transformational leadership style and career development on organizational performance, both directly and through work motivation as an intervening variable. The study used a quantitative approach with a survey method of 33 employees in managerial positions using a saturated sampling technique. Data were collected through a five-point Likert scale questionnaire and analyzed using multiple linear regression and the Baron and Kenny mediation model. The results showed that transformational leadership and career development had a positive and significant effect on work motivation and organizational performance. In addition, work motivation was proven to have a significant effect on performance and acted as a partial mediator. In conclusion, improving leadership quality and a transparent career development system can encourage work motivation and improve organizational performance at PT. PLN (Persero) UP3 Jember.

Keywords: Career Development; Human Resource Management; Organizational Performance; Transformational Leadership Style; Work Motivation.

1. Introduction

Organizational performance is one of the main indicators of a company's success in achieving strategic goals and maintaining competitiveness in the market. Good performance reflects the effectiveness of the entire process, from planning and implementation to controlling operational activities. In a dynamic and competitive work environment, companies must be able to continuously improve productivity, service quality, and customer satisfaction. Therefore, understanding the factors that influence organizational performance is crucial for management to design appropriate strategies, ensure that all human resources perform optimally, and create sustainable results for the company.

Organizational performance reflects the extent to which a company is able to achieve its strategic goals effectively and efficiently. In practice, many organizations face a gap between planned goals and actual achievement, which can be influenced by various internal factors such as weak coordination between work units, suboptimal oversight functions, and ineffective utilization of existing resources.(Guterman, 2023) This condition shows that organizational performance does not stand alone, but is the result of the accumulation of various managerial processes and work behaviors that occur within the organization.

In the context of increasingly fierce business competition, organizational performance plays a strategic role because it not only reflects internal success but also determines the organization's reputation, stakeholder trust, and sustainability in the market. Companies with good performance tend to be better able to attract investor interest, maintain customer

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loyalty, and create sustainable competitive advantage through improved service quality and operational efficiency.(Farida & Setiawan, 2022)Conversely, low performance can result in reduced competitiveness and public trust in the organization. In line with this, a number of empirical studies show that organizational performance is influenced by human resource factors, such as transformational leadership, career development, and work motivation (Jannah et al, 2025; Nurtini & Hermina, 2025; Rasaili et al., 2022).Based on this framework of thought, this study then links the concept of organizational performance with the empirical conditions that occur in one of the state-owned enterprises that has a strategic role in providing public services, namely PT..PLN (Persero).

In 2024, PT. PLN (Persero) UP3 Jember experienced a decline in maintenance performance without outages, where the set targets were often not achieved. This condition necessitated a more in-depth evaluation of various factors influencing maintenance effectiveness, including planning, team coordination, and resource management. This situation provides an important basis for presenting maintenance performance data without outages in tabular form, so that it can be analyzed systematically and become a reference for more appropriate managerial decisions.

Realization of PLN UP3 Jember's No-Outage Maintenance in 2024, it can be seen that the target and realization of no-outage maintenance work points fluctuate from month to month, where in some periods the realization is able to exceed the set target, such as in February, March, June, July, August, September, and December, while in other months the realization has not fully reached the target, such as January, April, May, October, and November. This difference indicates that the performance of no-outage maintenance is influenced by operational dynamics that occur in the field.The work point target is an indicator set by the management of PLN East Java Main Distribution Unit for PLN UP3 Jember and is expected to be achieved every month.Target changes every monthis the authority of PLN UID East Java, the target isThe maintenance time is not set in stone, but is adjusted to work plans based on distribution network conditions, maintenance priority levels, potential disruptions, human resource and equipment availability, and external factors such as weather conditions and the need to handle incidental disruptions. Furthermore, the presence of other urgent operational activities, such as new connections, disruption recovery, or network reliability improvement projects, also influences the determination of the maintenance target for each period.

Difference between target and realizationallegedlydue in early January 2024inPLN UP3 Jember experienced a change in leadership. This change of leadership created a disconnect between the new leadership and subordinates, which led to apathy among some employees toward established performance targets. Meanwhile, during the same period,early January 2024, in terms of career development, there is still a transition period from the old regulations which differentiate between employees who can career and unable to pursue a career towards new regulations that provide equal career opportunities for all employees. The leadership transition and career development policies also influenced employee work motivation and organizational performance achievements in early 2024. Thus, the fluctuations in targets and realization of maintenance without blackouts throughout 2024 reflect the dynamics of PLN UP3 Jember's operational performance, while also indicating that organizational performance achievements can be influenced by leadership style,career development And employee work motivation.

Organizational performance was chosen as the dependent variable in this study because it is a key indicator of a company's success in achieving strategic objectives, maintaining operational sustainability, and maintaining customer and stakeholder trust. In the context of PLN UP3 Jember, as a strategic public service provider, organizational performance not only reflects internal effectiveness but also directly impacts the quality of electricity services to the public. Therefore, improving organizational performance is a crucial issue that requires in-depth study through a human resources approach.

Organizational performance is not only influenced by structural and operational factors, but also significantly influenced by the leadership style adopted by management. One leadership style that has been widely studied and proven to play a role in improving organizational performance is transformational leadership, a leadership style that emphasizes the leader's ability to inspire, motivate, and empower employees to achieve their full potential. Transformational leaders are able to create a clear vision, foster a sense of responsibility, and build a positive work culture, thereby encouraging employees to work more productively and commit to achieving organizational goals. This finding is in line with research by Jannah et al. (2025) which shows that transformational leadership has a positive and significant effect on organizational performance. However, research by Siwyanti et al. (2022) shows that the influence

of leadership on organizational performance is conditional, where not all dimensions of leadership have a significant effect partially. These differences in findings indicate inconsistencies in research results regarding the influence of leadership on organizational performance, thus opening up space for further research to re-examine the role of transformational leadership in different organizational contexts and with different human resource characteristics.

The implementation of a transformational leadership style can have a direct impact on operational effectiveness, including network maintenance and customer service. Leaders who can inspire and motivate their teams will encourage employees to be more proactive in solving problems, innovating, and improving reliability.(Karimi et al., 2023). Thus, transformational leadership is a key factor in improving overall organizational performance, both operationally and in achieving strategic targets.

In addition to leadership style, career development is also a crucial factor influencing organizational performance because it relates to the company's efforts to improve employee competency, abilities, and experience through training, mentoring, promotions, and job rotation. Employees who receive career development opportunities tend to have higher work motivation, feel valued, and have a clear sense of direction and purpose in their work, enabling them to work more effectively and productively.(Junaini & Rizky, 2024). This is in line with research by Nurtini & Hermina (2024).025 which states that career development has a positive and significant effect on organizational performance, both directly and indirectly through work motivation as a partial mediating variable, thus showing that career development has a strategic role in improving organizational performance.

However, research by Anwar et al. (2021) shows that career development does not significantly impact organizational performance in the context of government agencies characterized by bureaucracy and a rigid organizational culture. These findings indicate that the influence of career development on organizational performance is not universal but is influenced by the context and characteristics of the organization. This discrepancy in research results indicates a research gap and reinforces the urgency to reexamine the relationship between career development and organizational performance by incorporating work motivation as an intervening variable in the research model, as was done in this study.

Work motivation is an important mediator between leadership style and career development on organizational performance. Work motivation is the drive or energy, both internal and external, that drives individuals to act and complete tasks optimally. This motivation encompasses employees' desires to achieve personal and organizational goals, gain recognition, improve their skills, or achieve well-being through good work results. Factors influencing work motivation include recognition, career development opportunities, effective leadership, a conducive work environment, and a sense of responsibility for their work.(Ramadhan et al., 2024).

Effective leadership and career development opportunities can motivate employees to be more productive, creative, and responsible, but their impact on organizational performance will be more optimal if employees have high work motivation. Work motivation serves as an internal driver that increases employee commitment, discipline and enthusiasm in carrying out their duties(Soegiarto et al., 2024)With work motivation as a mediator, the positive influence of transformational leadership style and career development on the achievement of targets and operational efficiency of the organization becomes more apparent, because motivated employees not only carry out routine tasks, but also take the initiative to innovate and solve problems in order to achieve organizational goals.(Hermawan & Panjaitan, 2024).

Based on empirical phenomena and theoretical studies, organizational performance is influenced by various human resource factors, particularly transformational leadership and career development. Transformational leadership plays a role in shaping vision, increasing engagement, and motivating employees, while career development provides direction and certainty for future work for employees. These two factors are believed to not only have a direct impact on organizational performance but also indirectly through increased employee work motivation. Work motivation is an important mechanism that bridges the influence of leadership and career development on organizational performance, because motivated employees tend to work more effectively, productively, and oriented towards achieving organizational targets. There are inconsistent findings regarding the influence of transformational leadership and career development on organizational performance. Some studies show a positive and significant influence, while others find that both variables do not directly influence organizational performance. These differences in results indicate the possible role of other variables mediating the relationship, one of which is work motivation. Furthermore, research on the relationship between transformational leadership, career development, work

motivation, and organizational performance is still limited to certain public sectors and is rarely studied specifically in electricity service units such as PT PLN (Persero) UP3 Jember. Therefore, this study is novel in examining the role of work motivation as an intervening variable in the context of an electricity service provider organization. Therefore, this study is entitled "The Effect of Transformational Leadership Style and Career Development on Organizational Performance with Work Motivation as an Intervening Variable at PT. PLN (Persero) UP3 Jember."

2. Literature Review

Resource-Based View Theory (RBV)

Resource-Based View (RBV) Theory explains that competitive advantage and organizational performance are primarily determined by the organization's ability to manage its internal resources (Chung et al., 2019). Only resources that are valuable, rare, inimitable, and non-substitutable (VRIN) are able to provide sustainable competitive advantage (Freeman et al., 2021). Internal resources include tangible and intangible assets such as knowledge, skills, organizational culture, managerial systems, and human resources quality. Organizations that are able to manage and develop these resources effectively will have greater opportunities to achieve superior performance. In this research, RBV is used to explain the strategic role of human resources in improving organizational performance, where transformational leadership and career development are viewed as intangible organizational capabilities, while work motivation acts as an internal mechanism that connects these capabilities with performance outcomes.

Organizational Performance

Performance reflects the level of achievement in implementing organizational tasks to realize goals, mission, and vision (Gibson et al., 2019) and the degree of achievement of predetermined goals (Kumar, 2012). Performance represents the result of cooperation among organizational members and can be viewed as the output of processes utilizing organizational resources. An organization is a structured system of cooperation and division of labor aimed at achieving common goals (Kotler & Keller, 2015; Keuper & Hogenschurz, 2008), coordinating resources, roles, and responsibilities to create sustainable performance (Gutterman, 2023). Organizational performance reflects the organization's ability to implement strategies, optimize resources, and create competitive advantage (Irawan & Ie, 2022; Farida & Setiawan, 2022), including aspects of input, output, outcome, benefit, and impact (Guerola-Navarro et al., 2024). Performance indicators include output, outcome, efficiency between resources and results, and explanatory information (Syaafriadi et al., 2023). Organizational performance is influenced by technology, input quality, physical environment, organizational culture, leadership, and human resource management (Prayuda et al., 2025), as well as ability and motivation, which encompass intellectual capacity, skills, work environment, leadership style, and facilities (Damilola Ayi & Korang, 2024).

Transformational Leadership Style

Transformational leadership emphasizes a leader's ability to communicate vision and mission clearly to motivate subordinates and foster a sense of ownership toward organizational goals (Rivai, 2020). This leadership style involves individualized consideration and intellectual stimulation that builds trust, admiration, loyalty, and respect, encouraging employees to perform beyond expectations (Fitriani, 2020). Transformational leaders generally possess charisma and play a strategic role in aligning organizational vision with employee needs (Rafsanjani, 2019; Ernita & Adriansyah, 2023). Leadership style is influenced by personality, experience, expectations, subordinate characteristics, organizational climate, and task demands (Harsoyo, 2022), as well as values, beliefs, personality traits, and leadership context (Halawa et al., 2024). Charismatic leadership, characterized by personal appeal and strong conviction, is closely associated with transformational leadership (Pratiwi & Rizky, 2020; Kalatasik et al., 2023). Transformational leadership is measured through charisma, inspirational motivation, intellectual stimulation, and individual attention (Halawa et al., 2024).

Career Development

Career development is a planned and continuous process of self-improvement aimed at aligning individual career goals with organizational needs (Akhmal et al., 2019; Nurtini & Hermina, 2025). This process focuses on improving employee competency, experience, and readiness through organizational systems such as training, rotation, challenging assignments, and promotions. Career development is influenced by work performance, loyalty to the organization, mentors and sponsors, subordinate support, and opportunities to grow (Jena & Nayak, 2023). The effectiveness of career development is assessed through organizational policies, work performance, educational background, training, work experience, loyalty, and interpersonal flexibility, reflecting synergy between fair policies, individual readiness, and systemic organizational support (Ananda, 2019).

Work Motivation

Work motivation plays a crucial role in maintaining employee performance and job satisfaction as part of effective human resource management. Motivation is defined as the process of encouraging individuals or groups to perform activities to achieve predetermined goals (Khaerunisa et al., 2023; Nazara & Yuliana, 2024; Kaesang et al., 2021). Motivation varies among individuals and directly affects employee performance and organizational productivity. Motivational factors consist of internal factors such as the desire to live, possess, gain recognition, and power, as well as external factors including work environment, compensation, supervision, job security, status, responsibility, and flexible regulations (Armadita & Sitohang, 2021). Employee motivation can be measured through the need for achievement, affiliation, and power, which help organizations design effective motivational strategies aligned with employee needs (Yuliani, 2023).

3. Materials and Method

Research Approach

This research uses a quantitative approach with a survey method to obtain numerical data for statistically analyzing relationships between variables (Sugiyono, 2019). This study aims to examine the effect of transformational leadership style and career development on organizational performance, with work motivation as an intervening variable at PT. PLN (Persero) UP3 Jember. This research is categorized as associative research, as it analyzes direct and indirect relationships among variables, where Transformational Leadership Style (X1) and Career Development (X2) act as independent variables, Work Motivation (Z) as an intervening variable, and Organizational Performance (Y) as the dependent variable. Data were collected through questionnaires distributed to employees in managerial and equivalent positions.

Place and Time of Research

This research was conducted at PT. PLN (Persero) Customer Service Implementation Unit (UP3) Jember, located at Jl. Gajah Mada No. 198, Kaliwates, Jember Regency, East Java. The selection of this location was based on organizational performance issues identified in 2024, particularly the imbalance between maintenance targets and realization, which indicated challenges related to leadership effectiveness, career development, and employee motivation. The research was carried out over a two-month period, from September to November 2025, covering planning, instrument development, data collection, analysis, and report preparation.

Population and Sampling Method

The population of this study consisted of employees of PT. PLN (Persero) UP3 Jember in managerial positions and equivalent performance experts, totaling 33 respondents. The sampling technique used was saturated sampling, where all members of the population were used as research respondents (Sugiyono, 2019). This technique was chosen due to the relatively small and homogeneous population, allowing comprehensive data collection and reducing sampling bias.

Data Collection Method

Data were collected using a questionnaire survey method. The questionnaire was structured using a five-point Likert scale, ranging from Strongly Agree (5) to Strongly Disagree (1), to measure transformational leadership style, career development, work motivation, and organizational performance (Sugiyono, 2019).

4. Results and Discussion

Result

Validity Test

Table 1. Results of the Validity Test of Transformational Leadership Style.

Variables	Item	Calculated	Sig	Table r	Information
		r value		value	
Transformational Leadership Style (X1)	X11	0.743	0,000	0.344	
	X12	0.712	0,000	0.344	
	X13	0.619	0,000	0.344	
	X14	0.674	0,000	0.344	Valid
	X15	0.655	0,000	0.344	
	X16	0.602	0,000	0.344	
	X17	0.560	0,000	0.344	
	X18	0.668	0,000	0.344	

Based on Table 1, all items in the Transformational Leadership Style variable (X1) are declared valid, because each has a calculated r value greater than the r table of 0.344 and a significance value (Sig.) of 0.000, which means it is smaller than 0.05. Items X11 to X18 show calculated r values ranging from 0.560 to 0.795, so all items meet the validity criteria. Thus, all statement items in the transformational leadership style variable are suitable for use in research analysis.

Table 2. Career Development Validity Test Results.

Variables	Item	Calculated	Sig	Table r	Information
		r value		value	
Career Development (X2)	X21	0.390	0,000	0.344	
	X22	0.575	0,000	0.344	
	X23	0.636	0,000	0.344	
	X24	0.707	0,000	0.344	
	X25	0.606	0,000	0.344	
	X26	0.594	0,000	0.344	Valid
	X27	0.605	0,000	0.344	
	X28	0.629	0,000	0.344	
	X29	0.552	0,000	0.344	
	X210	0.663	0,000	0.344	
	X211	0.691	0,000	0.344	
	X212	0.516	0,000	0.344	
	X213	0.449	0,000	0.344	
	X214	0.383	0,000	0.344	

Based on the validity test table for the Career Development variable (X2), all statement items from X21 to X214 are declared valid. This is evidenced by the calculated r value of each item which is greater than the r table of 0.344, as well as all significance values (Sig) of 0.000 < 0.05. Thus, each statement item is able to measure the Career Development construct accurately and consistently, so that all items are suitable for use in further research analysis.

Table 3. Results of the Work Motivation Validity Test.

Variables	Item	Calculated r	Sig	Table r	Information
		value	value		
Work Motivation (Z)	Z1	0.624	0,000	0.344	
	Z2	0.806	0,000	0.344	
	Z3	0.741	0,000	0.344	Valid
	Z4	0.865	0,000	0.344	
	Z5	0.847	0,000	0.344	
	Z6	0.788	0,000	0.344	

Based on Table 3, all items in the Work Motivation (Z) variable are declared valid, because the calculated r value of each item is greater than the r table of 0.344 and has a significance value (Sig.) of 0.000 which is smaller than 0.05. The calculated r value for items Z1 to Z6 is in the range of 0.624 to 0.865, which indicates that each statement item has a strong correlation with the total construct score. Thus, all items in the work motivation variable are suitable for use as research instruments because they are able to measure the intended variables accurately and consistently.

Table 4. Results of Organizational Performance Validity Test.

Variables	Item	Calculated	Sig	Table r	Information
		r value	value		
Organizational Performance (Y)	Y1	0.842	0,000	0.344	
	Y2	0.772	0,000	0.344	
	Y3	0.729	0,000	0.344	
	Y4	0.761	0,000	0.344	Valid
	Y5	0.752	0,000	0.344	
	Y6	0.795	0,000	0.344	
	Y7	0.730	0,000	0.344	
	Y8	0.787	0,000	0.344	

Based on Table 4, all items in the Organizational Performance (Y) variable are declared valid, because each item has a calculated r value greater than the r table of 0.344 and a significance value (Sig.) of 0.000 which is smaller than 0.05. The calculated r value ranges from 0.729 to 0.842, which indicates that all items have a strong correlation with the total score of the organizational performance construct. Thus, all statement items in this variable are suitable for use as research instruments because they have met the validity criteria and are able to measure organizational performance variables accurately.

Reliability Test

Table 5. Reliability Test Results.

Variables	Cronbach's Alpha	Statement	Information
		Items	
Leadership Style Transformational	0.808	8	Reliable
Career Development	0.850	14	Reliable
Work motivation	0.870	6	Reliable
Organizational Performance	0.903	8	Reliable

Based on the reliability test results presented in Table 5.14, all research variables showed Cronbach's Alpha values above 0.60, thus it can be concluded that each variable has a good level of internal consistency. The Transformational Leadership Style variable obtained a reliability value of 0.808, Career Development of 0.850, Work Motivation of 0.870, and Organizational Performance of 0.903. These values indicate that the instrument used was able to

produce stable and consistent data, making it suitable for use in measuring the constructs studied. Thus, all questions used in each variable can be said to be reliable and do not require deletion or revision.

Furthermore, the relatively high range of reliability values across all variables indicates that respondents provided fairly consistent answers to each item within the same variable. This reinforces the belief that the questionnaire used in the study was well-designed and accurately captured the characteristics of each construct. By meeting these reliability criteria, the research instrument can proceed to the next stage of analysis, such as hypothesis testing or regression analysis, without raising doubts about the quality and consistency of the resulting data.

Classical Assumption Test

Table 6. Normality Test Results.

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized
		Residual
N		33
Normal Parameters ^{a,b}	Mean	.0000000
	Standard	1.27258902
	Deviation	
Most Extreme Differences	Absolute	.125
	Positive	.072
	Negative	-.125
Test Statistics		.125
Asymp. Sig. (2-tailed)		.200c,d

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Based on the One-Sample Kolmogorov-Smirnov Test output on the Unstandardized Residual value, it is known that the number of samples used is 33 respondents. The residual mean value is 0.0000000, which indicates that the residuals are balanced and do not show systematic bias. The residual standard deviation is 1.27258902, describing the level of residual dispersion from the mean.

The Kolmogorov-Smirnov Test Statistic value is 0.125, with a significance value (Asymp. Sig. 2-tailed) of 0.200, which is greater than the limit of $\alpha = 0.05$. Thus, based on the decision-making criteria, H_0 is accepted, which means the distribution of residuals in the regression model is declared normally distributed. This indicates that the regression model used has met the assumption of normality, so the model is suitable for use in further analysis. Overall, the results of this test indicate that there are no significant deviations from the assumption of normality, so the residual data can be said to follow a normal distribution statistically. This provides a strong basis that the regression analysis conducted has good validity and can be interpreted more accurately.

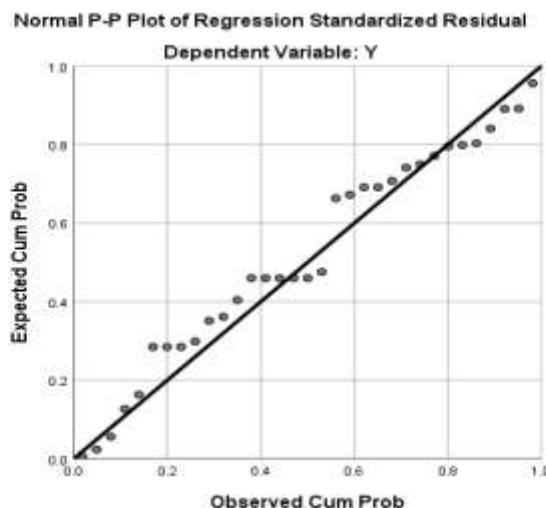


Figure 1. Normality Test Results.

In addition to the Kolmogorov–Smirnov test, the normality of the residuals was also examined using a scatterplot. The scatterplot results showed that the residual points were randomly distributed and did not form a specific pattern. This random distribution indicates that the residuals have a distribution close to normal, as there were no curvatures, waves, or concentrations of points in specific areas. Thus, the scatterplot results also confirm that the normality assumption in the regression model has been met.

Table 7. Multicollinearity Test Results.

Independent Variables	Collinearity Statistics		Information
	Tolerance	VIF	
Transformational Leadership Style (X1)	0.273	3,666	Free from Multicollinearity Symptoms
Career Development (X2)	0.560	4,753	Free from Multicollinearity Symptoms
Work Motivation (Z)	0.455	2,199	Free from Multicollinearity Symptoms

Based on the results of the multicollinearity test in Table 7, it can be seen that all independent variables, namely Transformational Leadership Style (X1), Career Development (X2), and Work Motivation (Z), do not experience symptoms of multicollinearity. This is indicated by the Tolerance value of each variable being greater than 0.10 and the Variance Inflation Factor (VIF) value being below the limit of 10. Thus, it can be concluded that there is no too strong relationship between the independent variables, so that the regression model used is feasible and meets the multicollinearity assumptions for further analysis.

A tolerance value greater than 0.10 indicates that no independent variable has a strong linear relationship with the other independent variables. Similarly, a VIF value well below the critical limit of 10 indicates no indication of multicollinearity that could disrupt the stability of the regression model. Thus, all independent variables in this study are declared free of multicollinearity symptoms and are suitable for use in further regression analysis because they do not influence each other excessively.

Table 8. Heteroscedasticity Test Results.

Independent Variables	Sig.	Information
Transformational Leadership Style (X1)	0.890	Non-Heteroscedasticity
Career Development (X2)	0.537	Non-Heteroscedasticity

Independent Variables	Sig.	Information
Work Motivation (Z)	0.175	Non-Heteroscedasticity

Based on Table 8, the results of the heteroscedasticity test show that all independent variables, namely Transformational Leadership Style (X1), Career Development (X2), and Work Motivation (Z), have a significance value (Sig.) greater than 0.05. This indicates that there are no symptoms of heteroscedasticity in the regression model used. Thus, it can be concluded that the residual variance is constant and the regression model has met the heteroscedasticity assumption, making it suitable for further analysis.

These results indicate that the regression model used is free from heteroscedasticity, so the residual variance can be considered homogeneous or constant at all levels of the independent variable. This condition is important because it fulfills one of the classical assumptions of regression, which must be met for unbiased and efficient regression coefficient estimation. By fulfilling this assumption, the regression model is suitable for use in further analysis processes, such as t-tests, F-tests, and overall hypothesis testing.

Regression Analysis Test

Table 9. Results of the Determination Coefficient Test for Model 1.

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.912a	.833	.815	1,380

a. Predictors: (Constant), Leadership Style, Career Development, Work Motivation

b. Dependent Variable: Organizational Performance

Based on Table 9, the results of the determination coefficient test for Model 1, an R Square value of 0.833 was obtained, indicating that 83.3% of the variation in Organizational Performance can be explained by the variables Transformational Leadership Style, Career Development, and Work Motivation included in the regression model. Meanwhile, the Adjusted R Square value of 0.815 indicates that after adjusting for the number of independent variables used, the model's ability to explain variations in Organizational Performance remains high, namely 81.5%, while the remaining 18.5% is influenced by other variables outside the research model. The R value of 0.912 indicates a very strong relationship between the independent variables and the dependent variable, and the Std. Error of the Estimate value of 1.380 indicates a relatively small level of prediction error, so it can be concluded that the regression model used has a good level of accuracy and predictive ability in explaining Organizational Performance.

Table 10. Results of the Determination Coefficient Test for Model 2.

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.773a	.597	.556	1,749

a. Predictors: (Constant), Leadership Style, Career Development

b. Dependent Variable: Work Motivation

Based on Table 10, the R value of 0.773 indicates that there is a strong relationship between the variables of Transformational Leadership Style (X1), Career Development (X2) and Work Motivation (Z). The R Square value of 0.597 indicates that the model is able to explain 59.7% of the variation in Work Motivation, while the remaining 40.3% is influenced by other variables outside this research model. These variables theoretically can include individual employee factors such as job satisfaction, organizational commitment, and psychological conditions; organizational factors such as compensation systems, organizational culture, workload, and work climate; and work environment factors such as physical working conditions, work safety, and operational pressure. Meanwhile, the Adjusted R Square value of 0.556 indicates that after adjusting for the number of predictors, the model still has quite strong explanatory power. The Std. Error of the Estimate value of 1.749 indicates a level of prediction error that is still within reasonable limits, so this model can be said to be suitable for describing the influence of independent variables on Work Motivation.

Table 11. Results of the t-test for Model 1.

Model		Coefficientsa			t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1,422	3,414		-.417	.680
	Leadership Style	.841	.158	.733	5,320	.000
	Career	.197	.076	.000	.004	.007
	Development					
	Work motivation	.278	.137	.227	2,027	.042

a. Dependent Variable: Organizational Performance

Based on Table 11 the results of the t-test of Model 1, it can be seen that partially the variables of Transformational Leadership Style, Career Development, and Work Motivation have an effect on Organizational Performance. The Transformational Leadership Style variable has a regression coefficient value of 0.841 with a calculated t value of 5.320 and a significance of $0.000 < 0.05$, so it can be concluded that Transformational Leadership Style has a positive and significant effect on Organizational Performance. The Career Development variable shows a regression coefficient of 0.197 with a significance value of $0.007 < 0.05$, which means that Career Development also has a positive and significant effect on Organizational Performance. Furthermore, the Work Motivation variable has a regression coefficient of 0.278, a calculated t value of 2.027, and a significance of $0.042 < 0.05$, so it can be concluded that Work Motivation has a positive and significant effect on Organizational Performance. Meanwhile, the constant value of -1.422 with a significance of $0.680 > 0.05$ indicates that the constant is insignificant, but this does not affect the significance of the relationship between the independent and dependent variables in the model. Thus, the t-test results indicate that the three independent variables partially contribute to improving Organizational Performance.

Table 12. Results of the t-test for Model 2.

Model		Coefficientsa			t	Sig.
		B	Std. Error	Standardized Coefficients		
1	(Constant)	2,621	4,312		.608	.548
	Leadership Style	.230	.278	.246	.828	.014
	Career	.002	.096	.003	.817	.006
	Development					

a. Dependent Variable: Work Motivation

Based on Table 12, the results of the t-test of Model 2 show that the Transformational Leadership Style and Career Development variables partially influence Work Motivation. The Transformational Leadership Style variable has a regression coefficient of 0.230 with a significance value of $0.014 < 0.05$, so it can be concluded that Transformational Leadership Style has a positive and significant effect on Work Motivation. Furthermore, the Career Development variable shows a regression coefficient of 0.002 with a significance value of $0.006 < 0.05$, which means that Career Development also has a positive and significant effect on Work Motivation, although the magnitude of the effect is relatively small. Thus, the results of the t-

test in Model 2 prove that Transformational Leadership Style and Career Development partially play a role in increasing Work Motivation.

Sobel Test

Table 13. Sobel Test Reference Results (Mediation $X_1 \rightarrow Y$ through Z).

	B	Std. Error
$X_1 \rightarrow Y$	0.841	0.158
$Z \rightarrow Y$	0.278	0.137

Based on Table 13, the regression coefficient and standard error values used as the basis for calculations in the Sobel test to test whether Work Motivation (Z) mediates the influence of Transformational Leadership Style (X_1) on Organizational Performance (Y) are shown. The path coefficient value of $X_1 \rightarrow Y$ is 0.841 with a standard error of 0.158, while the path coefficient of $Z \rightarrow Y$ is 0.278 with a standard error of 0.137. These coefficient and standard error values are used to calculate the magnitude of the indirect effect in the mediation model. The greater the regression coefficient value and the smaller the standard error value, the greater the possibility of a significant mediation effect in the relationship between the independent variable and the dependent variable through the mediating variable.

Table 14. Results of the Sobel Test Calculation (Mediation $X_1 \rightarrow Y$ through Z).

	Test Statistics	p-value	Conclusion
α	0.841		
b	0.278	1.9688	0.03794873
sa	0.158		
sb	0.137		

Based on Table 14, the results of the Sobel test calculation show that the test-statistic (Z) value is 1.9688 with a p-value of 0.0379, which is smaller than the significance level of 0.05. These results indicate that the indirect effect of Transformational Leadership Style (X_1) on Organizational Performance (Y) through Work Motivation (Z) is significant. Thus, it can be concluded that Work Motivation is able to mediate the effect of Transformational Leadership Style on Organizational Performance, so that the mediation hypothesis proposed in this study is accepted.

Table 15. Sobel Test Reference Results (Mediation $X_2 \rightarrow Y$ through Z).

	B	Std. Error
$X_2 \rightarrow Y$	0.197	0.076
$Z \rightarrow Y$	0.278	0.137

Based on Table 15, the results of the Sobel test reference show the regression coefficient and standard error values used as the basis for calculations in the Sobel test to test whether Work Motivation (Z) mediates the influence of Career Development (X_2) on Organizational Performance (Y). The path coefficient value of $X_2 \rightarrow Y$ is 0.197 with a standard error of 0.076, while the path coefficient of $Z \rightarrow Y$ is 0.278 with a standard error of 0.137. These coefficient and standard error values are used to calculate the magnitude of the indirect effect in the mediation model. The greater the regression coefficient value and the smaller the standard error value, the greater the opportunity for a significant mediation effect between Career Development on Organizational Performance through Work Motivation.

Table 16. Results of the Sobel Test Calculation (Mediation X2 → Y through Z).

		Test Statistics	p-value	Conclusion
α	0.197			
b	0.278	1.9644	0.01108183	Significant
sa	0.076			
sb	0.137			

Based on Table 16, the results of the Sobel test calculation show that the test-statistic (Z) value is 1.9644, which is at or slightly above the critical value of 1.96 at the significance level of $\alpha = 5\%$. This indicates that the indirect effect of Career Development (X2) on Organizational Performance (Y) through Work Motivation (Z) can be declared significant based on the Sobel statistic value. Although the p-value of 0.1101 is above 0.05, the test decision in this study refers to the Sobel Z value, so it can be concluded that Work Motivation is able to mediate the effect of Career Development on Organizational Performance. Thus, the mediation hypothesis stating that Work Motivation mediates the relationship between Career Development and Organizational Performance is accepted, although its significance is at the critical value limit.

Discussions

The Influence of Transformational Leadership Style on Organizational Performance

The t-test results show that Transformational Leadership Style (X1) has a significant effect on Organizational Performance (Y) with a significance value of $0.000 < 0.05$. This indicates that transformational leadership implemented by managers and team leaders at PT PLN (Persero) UP3 Jember such as providing clear direction, motivation, and direct coaching through daily briefings, performance evaluations, and operational guidance positively contributes to organizational performance. These findings are consistent with Jannah et al. (2025) and Harinie et al. (2023), who confirm that inspirational, visionary, and communicative leadership improves teamwork effectiveness and organizational outcomes. However, this result is not fully aligned with Siwyanti et al. (2022), who found that leadership effectiveness requires the simultaneous implementation of leader–subordinate relations, task structure, and positional power. Based on the indicators, the integrated role of charisma, inspirational motivation, intellectual stimulation, and individual attention strengthens positive work behavior, teamwork effectiveness, and performance improvement at PT PLN UP3 Jember, supporting both statistical results and prior empirical evidence.

The Influence of Career Development on Organizational Performance

The t-test results show that Career Development (X2) has a significant effect on Organizational Performance (Y) with a significance value of $0.007 < 0.05$. This reflects the effectiveness of competency development programs, technical and service training, certification, job rotation, and promotion systems at PT PLN (Persero) UP3 Jember, which provide clear career paths and encourage employees to improve performance. These findings are in line with Nurtini & Hermina (2025) and Susanto et al. (2023), who state that career development improves organizational performance through increased competence and work effectiveness, but are not aligned with Anwar et al. (2021), who found no significant effect in a bureaucratic government context. Based on the indicators, organizational policies, performance-based promotions, training, work experience, loyalty, interpersonal relationships, and educational background collectively strengthen career development and contribute significantly to improved organizational performance, as supported by the statistical results.

The Influence of Work Motivation on Organizational Performance

Work Motivation (Z) shows a significant influence on Organizational Performance (Y) with a significance value of $0.042 < 0.05$. At PT PLN UP3 Jember, motivated employees demonstrate higher discipline, faster response to disruptions, and stronger commitment to service targets, particularly among technical and administrative teams. This finding is consistent with Rasaili et al. (2022), Reyaz & Patna (2024), and Sokolic et al. (2024), who confirm that motivation is a key determinant of productivity and performance quality. Based on the indicators, fulfillment of the needs for achievement, affiliation, and power encourages disciplined, responsive, and target-oriented work behavior, which directly supports improved organizational performance, as confirmed by the statistical test results.

The Influence of Transformational Leadership Style on Work Motivation

The t-test results show that Transformational Leadership Style (X1) has a significant effect on Work Motivation (Z) with a significance value of $0.014 < 0.05$. This indicates that leadership practices at PT PLN UP3 Jember—such as guidance, appreciation, coaching, and moral support—successfully enhance employee motivation, discipline, and enthusiasm. These findings align with Reyaz & Patna (2024), Jannah et al. (2025), and Sokolic et al. (2024), who emphasize the role of charismatic leadership and individual attention in fostering motivation. Based on the indicators, charisma, inspirational motivation, intellectual stimulation, and individual attention consistently strengthen employee work motivation, which subsequently supports improved individual and organizational performance.

The Influence of Career Development on Work Motivation

The t-test results show that Career Development (X2) has a significant effect on Work Motivation (Z) with a significance value of $0.006 < 0.05$. At PT PLN UP3 Jember, training opportunities, competency development, job rotation, and clear promotion systems increase employee motivation by providing security and future career prospects. This finding is consistent with Susanto et al. (2023), Nurtini & Hermina (2025), and Junaini & Rizky (2024), who state that career clarity and development opportunities enhance intrinsic motivation and commitment. Based on the indicators, clear career policies, training opportunities, work experience, recognition, and appropriate educational background collectively strengthen sustainable work motivation, as supported by the statistical results.

Work Motivation Mediates the Effect of Transformational Leadership Style on Organizational Performance

The Sobel test results show a p-value of $0.0379 < 0.05$, indicating that Work Motivation significantly mediates the relationship between Transformational Leadership Style (X1) and Organizational Performance (Y). This shows that transformational leadership at PT PLN UP3 Jember affects performance both directly and indirectly through increased work motivation, with motivation acting as a partial mediator. These findings are consistent with Nurtini & Hermina (2025), Jannah et al. (2025), and Soegiarto et al. (2024), who emphasize motivation as a key mechanism linking leadership and performance. The integration of leadership indicators and motivational needs explains how transformational leadership strengthens motivation and ultimately improves organizational performance.

Work Motivation Mediates the Effect of Career Development on Organizational Performance

The Sobel test results show a p-value of $0.0110 < 0.05$, indicating that Work Motivation significantly mediates the influence of Career Development (X2) on Organizational Performance (Y), with motivation acting as a partial mediator. This finding indicates that career development at PT PLN UP3 Jember improves performance both directly and indirectly through increased work motivation. These results are strengthened by Nurtini & Hermina (2025), Susanto et al. (2023), and Ramadhan et al. (2024), who confirm that motivation bridges career development and performance improvement. The integration of career development and motivational indicators explains how competency development, recognition, and clear career paths enhance motivation and contribute to improved organizational performance.

5. Comparison

The findings of this study are consistent with previous empirical research emphasizing the importance of transformational leadership and career development in enhancing organizational performance through work motivation. Prior studies by Nurtini and Hermina (2025), Jannah et al. (2025), and Soegiarto et al. (2024) reported that transformational leadership improves organizational performance by fostering higher employee motivation. This study confirms these findings by demonstrating that transformational leadership at PT PLN UP3 Jember influences organizational performance both directly and indirectly, with work motivation acting as a partial mediator. Similarly, the results related to career development align with Susanto et al. (2023) and Ramadhan et al. (2024), who found that clear career paths, competency development, training, and recognition enhance employee motivation and performance. This study strengthens existing evidence by validating the mediating role of work motivation in the relationship between career development and organizational performance. This research extends prior studies by integrating transformational leadership and career development into a single mediation model within a public utility organization. It provides contextual insights from the electricity distribution

sector, highlighting work motivation as a key mechanism linking leadership and human resource practices to organizational performance.

6. Conclusion

Transformational leadership has a positive and significant impact on organizational performance. Inspirational leaders can increase work effectiveness and the achievement of organizational goals. Career development has a positive and significant impact on organizational performance. The better career management, the greater employee contributions to organizational performance. Work motivation has a positive and significant impact on organizational performance. Highly motivated employees are more productive, responsible, and results-oriented. Transformational leadership style has a positive and significant impact on work motivation. Leaders who are able to provide inspiration, direction, and individual attention have been shown to increase work motivation. Career development has a positive and significant impact on work motivation. A clear, transparent career system, along with training and development opportunities, can increase employee motivation. Work motivation mediates partially the influence of transformational leadership style on organizational performance. This shows that transformational leadership not only has a direct influence on organizational performance, but also indirectly through increasing employee work motivation. By increasing work motivation, the influence of transformational leadership on performance becomes stronger. Work motivation mediates partially the influence of career development on organizational performance. This shows that career development not only directly impacts organizational performance but also contributes indirectly by increasing employee work motivation. Career development increases motivation, and this motivation directly contributes to improved organizational performance.

References

Agazu, B. G., Kero, C. A., & Debela, K. L. (2025). Transformational leadership and firm performance: A systematic literature review. *Journal of Innovation and Entrepreneurship*, 14, Article 476. <https://doi.org/10.1186/s13731-025-00476-x>

Anwar, G., & Abdullah, N. N. (2021). The impact of human resource management practice on organizational performance. *International Journal of Engineering, Business and Management*, 5(1), 35–47.

Harinie, L. T., Raysharie, P. I., Saputra, A., & Wijaya, S. (2023). Analisis pengaruh kepemimpinan terhadap kinerja organisasi pada periode 2022–2023: Studi kasus HMJ Manajemen. *Jurnal Penelitian Ekonomi, Manajemen dan Bisnis*, 2(1), 233–243. <https://doi.org/10.55606/jeckombis.v2i2.1574>

Hermawan, E., & Panjaitan, H. (2024). The impact of transformational leadership on employee performance: Examining the mediating role of work motivation in organizational settings. *Jurnal Manajemen*, 10(4), 1039–1047.

Jannah, M., Rahmawati, S., Komara, A., & Belo, J. (2025). The effect of transformational leadership on organizational performance through organizational culture as mediation. *Journal of Accounting and Finance Management*, 6(3), 985–996.

Junaini, N., & Rizky, M. C. (2024). The influence of leadership style, career development, and competence on employee performance with job satisfaction as an intervening variable at PT Angkasa Pura Aviasi Bandara Kualanamu International. *Jurnal Manajemen Sumber Daya Manusia*.

Karimi, S., Malek, F. A., & Farani, A. Y. (2023). The role of transformational leadership in developing innovative work behaviors: The mediating role of employees' psychological capital. *Journal of Innovation and Knowledge*, 8(2).

Mark, L., & Nzulwa, J. (2018). Effect of career development programs on employee performance in Kenya: A case of National Hospital Insurance Fund. *International Journal of Social Sciences and Information Technology*, 4(5), 693–709.

Nandasinghe, G. (2020). Leadership and organizational performance: A review on theoretical and empirical perspectives. *Global Journal of Management and Business Research*, 20(4). <https://doi.org/10.34257/GJMBRAVOL20IS4PG25>

Nurtini, H., & Hermina, N. (2025). Pengaruh pengembangan karier dan kepemimpinan terhadap kinerja organisasi melalui motivasi sebagai mediasi. *JEMSI: Jurnal Ekonomi, Manajemen, dan Sistem Informasi*, 6(6), 3965–3975.

Rafsanjani, H. (2019). Kepemimpinan transformasional. *Jurnal Masharif Al-Syariah: Jurnal Ekonomi dan Perbankan Syariah*, 4(1), 1–27.

Ramadhon, G., Firdaus, V., & Sumartik. (2024). The mediating role of work motivation: The effect of leadership, workload, and reward on employee performance. *Jurnal Manajemen*, 14(2), 190–208.

Rasaili, W., Sa, N., & Aini, D. N. (2022). The effect of employee motivation on organizational performance at the regional development planning agency (Bappeda) Banyuwangi and Jember Regency. *Empiricism Journal*, 3(2), 238–245.

Reyaz, S., & Patna, T. (2024). The influence of leadership styles on employee motivation and job satisfaction. *International Research Journal on Advanced Engineering and Management*, 2, 339–344.

Siwiyanti, L., Amal, M. K., & Sudarma, A. (2022). The effect of leadership effectiveness on organizational performance. *International Journal of Management and Business Applied*, 1(2), 95–102.

Soegiarto, I., Arifah, N. J. A., Rahmadhani, M. V., & Ilham. (2024). Effects of leadership development programs, mentorship, and employee empowerment on organizational performance. *International Journal of Business and Leadership Excellence*, 5(2).
<https://doi.org/10.56442/ijble.v5i2.755>

Sokolic, D., Croitoru, G., Florea, N. V., Robescu, V. O., & Cosac, A. (2024). The effect of leadership styles on employee motivation and organizational performance in public sector organizations. *Valahian Journal of Economic Studies*, 15(1), 53–72.
<https://doi.org/10.2478/vjes-2024-0005>

Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.

Suryadi, Y. (2024). The impact of transformational leadership on organizational performance and employee motivation. *Jurnal Manajemen dan Organisasi*, 12, 65–76.

Susanto, P. C., Soehaditama, J. P., & Benned, M. (2023). Determination of motivation and career development: Analysis of training and competence. *Proceedings of the International Conference on Religion, Science, and Education*, 2(2), 273–279.