

TRANSFORMATIONAL LEADERSHIP, WORK DISCIPLINE, AND ORGANIZATIONAL CULTURE AS DETERMINANTS OF EMPLOYEE PERFORMANCE: EVIDENCE FROM THE DEPARTMENT OF TRANSPORTATION OF LABUHANBATU REGENCY

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Abstract. Employee performance is essential to the effectiveness and quality of public-service delivery, particularly in local government institutions. This study examines the relationships between transformational leadership, work discipline, organizational culture, and employee performance at the Department of Transportation of Labuhanbatu Regency, Indonesia. A quantitative explanatory approach was employed using a cross-sectional survey and census sampling involving 73 employees. Data were collected using a five-point Likert-scale questionnaire and analyzed through instrument validity and reliability tests, classical assumption tests, and multiple linear regression using SPSS. The results indicate positive regression coefficients for transformational leadership ($B = 0.348$), work discipline ($B = 0.266$), and organizational culture ($B = 0.264$). The simultaneous regression analysis yielded an F-statistic of 37.424 ($p < 0.001$), with an R^2 of 0.619 and an adjusted R^2 of 0.603. These results indicate that the three independent variables collectively explain 61.9% of the observed variation in employee performance. The findings highlight the importance of integrating transformational leadership, consistent work discipline, and a supportive organizational culture in public-sector human resource management. This study contributes empirical evidence from Indonesian local government administration and provides practical implications for strengthening leadership development, employee accountability, and service-oriented organizational practices. Future research should employ longitudinal designs and multisource performance measurements to further examine these relationships.

Keywords: transformational leadership; work discipline; organizational culture; employee performance; public sector

I. INTRODUCTION

Public organizations are increasingly expected to deliver services that are reliable, responsive, transparent, and capable of adapting to changing citizen needs. These expectations make employee performance a central management concern because policy and infrastructure only create public value when employees translate them into accurate decisions, timely service, safe operations, and accountable implementation. In transportation administration, the performance challenge is especially salient because operational routines, public safety responsibilities, regulatory compliance, and direct interaction with service users must be coordinated consistently. The source study is situated in the Department of Transportation of Labuhanbatu Regency, where 73 employees constitute the organizational population examined in the empirical model.

Individual work performance is not a single behavior. Contemporary measurement research distinguishes task performance, contextual performance, and counterproductive work behavior as related but distinct components of the broader performance domain (Koopmans et al., 2013, 2014). In a government agency, this multidimensional view implies that high performance involves not only completing assigned duties but also maintaining reliability, cooperating across units, complying with legitimate procedures, and supporting the public mission. Consequently, the search for performance antecedents should not be confined to technical competence. Managerial leadership, behavioral discipline, and the cultural environment can shape whether employees convert capability into consistent public-service outcomes.

Transformational leadership is relevant to this problem because it connects organizational purpose with employees' motivation and interpretation of their roles. Meta-analytic evidence shows that transformational leadership is positively associated with individual, team, and organizational performance across different criteria and levels of analysis (Wang et al., 2011), while Judge and Piccolo (2004)

demonstrate that transformational leadership has broad criterion-related validity across leadership outcomes. The public-sector literature further suggests that transformational leaders can improve performance by clarifying mission, increasing the salience of public values, encouraging stakeholder orientation, and strengthening employees' connection with organizational goals (Paarlborg & Lavigna, 2010; Wright et al., 2012; Sun & Henderson, 2017). These mechanisms are highly relevant to a transportation department, where employees must understand not only what procedures require but why those procedures support safety, order, and service quality.

Leadership, however, is insufficient if employees do not execute tasks with regularity and procedural consistency. The source study conceptualizes work discipline through rule compliance, punctuality, responsibility, adherence to procedures, and consistency in working behavior. These indicators represent observable behavioral reliability rather than a personality trait. Nevertheless, evidence from the broader work-performance literature provides a useful adjacent foundation: conscientiousness, which captures dependability, persistence, organization, and self-regulation, is one of the most robust personality predictors of job performance (Barrick & Mount, 1991; Dudley et al., 2006; Shaffer & Postlethwaite, 2013; Zell, 2022). The concepts should not be treated as identical, but this literature supports the behavioral proposition that consistent, dependable, rule-conscious action matters for performance, particularly in routinized and procedurally regulated work.

Organizational culture provides a third layer of explanation. Culture gives collective meaning to acceptable behavior by embedding shared values, norms, assumptions, and expectations in everyday work. Denison and Mishra (1995) link involvement, consistency, adaptability, and mission to organizational effectiveness, while Schneider et al. (2013) emphasize that culture and climate influence how employees interpret organizational priorities. Meta-analytic evidence further demonstrates that cultural configurations are systematically associated with employee

attitudes and operational effectiveness (Hartnell et al., 2011). Culture therefore matters because it can reinforce or weaken what leaders communicate and what formal rules prescribe. When shared norms favor cooperation, accountability, service, learning, and consistency, individual effort is more likely to be aligned with organizational objectives.

The relationships among leadership, culture, and performance are also interdependent rather than isolated. Ogbonna and Harris (2000) show that the effect of leadership on performance is closely connected to organizational culture, and Xenikou and Simosi (2006) report joint predictive relationships between transformational leadership, cultural orientations, and business-unit performance. More recent evidence from an emerging-country context similarly indicates that transformational leadership influences both organizational culture and organizational performance (Nguyen et al., 2023). These studies imply that leaders help shape the meaning system within which employees interpret discipline, collaboration, innovation, and service responsibilities.

For public organizations, the importance of these relationships extends beyond generic organizational efficiency. Public employees work within formal accountability systems and must reconcile rule following with responsiveness and mission achievement. Schwarz et al. (2020) show that several forms of public leadership are positively related to public service motivation and individual job performance, while Caillier (2014) demonstrates that transformational leadership and mission valence contribute to employee evaluations in government settings. Such evidence suggests that public-sector performance is strengthened when managerial practices communicate clear purpose and create conditions in which employees can act reliably and meaningfully.

Despite extensive research on leadership, discipline-related behavior, culture, and performance, three gaps motivate the present study. First, many studies examine these antecedents independently, even though organizational performance is produced by a configuration of managerial and behavioral mechanisms. Second, much of the strongest international evidence comes from corporations, schools, or central-government samples; local transportation agencies in Indonesia are less represented. Third, discipline is frequently treated as an administrative compliance issue, whereas its relationship with leadership and culture can be interpreted more productively as part of an integrated performance system. The Department of Transportation context is therefore useful for testing whether inspirational leadership, dependable execution, and shared organizational norms make independent contributions to employee performance within one local public organization.

This study accordingly examines the effects of transformational leadership, work discipline, and organizational culture on employee performance at the Department of Transportation of Labuhanbatu Regency. It contributes by integrating the three predictors in one multiple-regression model, retaining the source study's census design, and interpreting the findings against established international evidence on leadership, culture, public management, behavioral reliability, and individual work performance. Practically, the study is intended to inform human-resource and managerial interventions that move beyond a single lever: leadership development, discipline systems, and culture-building practices should be mutually reinforcing if performance improvements are to be sustained.

II. LITERATURE REVIEW

2.1 Transformational Leadership and Public-Sector Performance

Transformational leadership describes a pattern of influence in which leaders elevate the meaning of work, articulate an attractive future, stimulate employees to question ineffective routines, and

provide individualized developmental attention. The source questionnaire operationalizes the construct through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. These dimensions represent complementary processes: role modeling builds credibility, inspirational communication gives employees direction, intellectual stimulation legitimizes problem solving, and individualized consideration supports employee growth.

The performance logic of transformational leadership is well established. Judge and Piccolo's (2004) meta-analysis found that transformational leadership is consistently related to several leadership criteria, and Wang et al. (2011), synthesizing more than a hundred primary studies, found positive relationships with follower performance at individual, team, and organizational levels. Banks et al. (2016) further show that transformational leadership retains substantial predictive relevance when compared with closely related positive-leadership constructs. This body of evidence suggests that transformational leadership is not merely an attitudinal phenomenon: it can influence how people allocate effort, interpret goals, and coordinate behavior.

Public organizations create a distinctive setting because performance is connected to mission and accountability rather than profit alone. Paarlberg and Lavigna (2010) argue that transformational leadership can activate public service motivation by linking individual work to public values. Wright et al. (2012) similarly show that transformational leadership increases mission valence by clarifying organizational goals and strengthening public service motivation. Caillier (2014) reports positive relationships between transformational leadership and employee evaluations in government samples, while Sun and Henderson (2017) demonstrate that transformational leadership can influence public performance through performance-information use and stakeholder engagement. Together, these findings support the expectation that leadership matters in a transportation agency because leaders help employees see the connection between routine work and broader public outcomes.

The Department of Transportation also requires adaptation. Traffic patterns, technology, service demands, administrative regulations, and interagency coordination can create situations in which fixed routines need to be interpreted intelligently. Intellectual stimulation is relevant because employees may need to improve processes without violating formal responsibilities. Individualized consideration is likewise relevant because work units can differ in technical demands and employee experience. Transformational leadership can therefore strengthen performance not by replacing rules, but by helping employees understand priorities and improve the quality with which legitimate rules are enacted.

2.2 Work Discipline as Behavioral Reliability

Work discipline in the source study is defined behaviorally through compliance with organizational rules, punctuality, responsibility for assigned work, adherence to operating procedures, and consistency. This operationalization is appropriate for a public transportation organization because service processes depend on coordination and predictable execution. When one unit does not follow schedules or procedures, the effects can cascade to other activities. Discipline therefore has both an individual and a systems function: it reduces preventable variation in the execution of interdependent tasks.

The international literature often studies related behavioral tendencies under conscientiousness, dependability, and self-regulation rather than using the Indonesian administrative label 'work discipline.' The distinction is important: conscientiousness is a relatively stable individual difference, whereas organizational discipline is also shaped by rules, supervision, incentives, and norms. Even so, the performance evidence is informative. Barrick and Mount (1991) identified conscientiousness as a consistent predictor

of job proficiency across occupational groups. Dudley et al. (2006) showed that narrower conscientiousness facets add useful explanatory information for job performance, and Shaffer and Postlethwaite (2013) found that conscientiousness becomes particularly predictive in highly routinized work. Zell's (2022) synthesis of more than 50 meta-analyses again identified conscientiousness as the strongest Big Five correlate of performance.

These findings are relevant to the present construct because punctuality, compliance, responsibility, and consistency are manifestations of dependable work behavior. In public administration, rule following is not merely a personal preference; it is embedded in accountability structures. Schwarz et al. (2020) show that rule-following leadership and accountability-oriented public leadership are positively associated with job performance. Consequently, work discipline can be understood as the employee-level behavioral counterpart of an accountability system: formal expectations are translated into timely, reliable, and responsible action.

A strong discipline system should nevertheless distinguish constructive reliability from rigid compliance. High performance can require employees to follow safety and administrative procedures while still using judgment, communicating problems, and contributing improvements. Discipline becomes performance-enhancing when expectations are clear, legitimate, consistently applied, and connected to service objectives. Where discipline is experienced only as punishment, it may generate minimal compliance rather than ownership. This point links discipline to transformational leadership and organizational culture: leaders explain why standards matter, while culture determines whether responsible adherence is socially reinforced.

2.3 Organizational Culture and Employee Performance

Organizational culture concerns shared assumptions, values, norms, and practices that guide how members interpret situations and decide what behavior is appropriate. The source instrument emphasizes organizational values, norms, cooperation, support for work behavior, and shared patterns of conduct. These dimensions capture the idea that culture acts as a social control system: employees learn not only from formal procedures but from what colleagues and leaders repeatedly recognize, tolerate, reward, or challenge.

Research has long connected culture with effectiveness. Denison and Mishra (1995) proposed that involvement, consistency, adaptability, and mission are central cultural traits associated with organizational outcomes. Ogbonna and Harris (2000) found that organizational culture helps explain relationships between leadership style and performance. Xenikou and Simosi (2006) likewise showed that transformational leadership and cultural orientations jointly predict business-unit performance. Hartnell et al. (2011), using meta-analytic evidence across 84 studies, found that clan, adhocracy, and market cultures are differentially related to employee attitudes and effectiveness outcomes. These findings indicate that culture is not a decorative statement of values; it is a performance-relevant coordination mechanism.

Schneider et al. (2013) emphasize the close relationship between culture and climate: shared assumptions at deeper levels are expressed through employees' perceptions of policies, practices, and routines. This matters for local government because employees encounter multiple signals about what counts as good work. A formal service standard may emphasize speed and accuracy, but if everyday norms tolerate delays or weak coordination, the enacted culture can undermine the formal goal. Conversely, a culture that prizes service, mutual support, accountability, and learning can make high-quality behavior more self-reinforcing.

Transformational leadership and culture can also develop together. Leaders influence culture by allocating attention,

modeling behavior, framing events, and reinforcing priorities, while culture shapes which leadership messages employees consider credible. Nguyen et al. (2023) provide contemporary evidence that transformational leadership influences organizational culture and performance in an emerging-country setting. The implication for the current study is that organizational culture should have an independent positive relationship with employee performance even when leadership and work discipline are entered simultaneously in the regression model.

2.4 Employee Performance as a Multidimensional Outcome

Employee performance is the degree to which work behavior contributes to organizational goals. The source questionnaire represents performance through work quality, quantity, timeliness, adherence to procedures, initiative, and contribution to organizational objectives. This operationalization overlaps with the broader performance literature, which distinguishes task performance from contextual performance and counterproductive behavior. Koopmans et al. (2013) developed the Individual Work Performance Questionnaire around these dimensions, and subsequent construct-validity testing supported a generic multidimensional approach across occupational groups (Koopmans et al., 2014).

A multidimensional perspective is useful in a public transportation agency. Task performance includes executing assigned operational and administrative duties accurately and on time. Contextual performance includes cooperation, initiative, and behaviors that support the organizational environment. Procedural reliability ensures that task accomplishment does not come at the cost of safety, legality, or accountability. Performance therefore emerges from both capability and behavioral alignment. Leadership can strengthen purpose and effort; discipline can stabilize reliable execution; and culture can establish shared expectations about how performance should be achieved.

The broader organizational-behavior literature also demonstrates that motivation and engagement are linked with performance. Christian et al. (2011) report meta-analytic relationships between work engagement and both task and contextual performance, while Rich et al. (2010) show that engagement predicts job performance beyond several established attitudinal variables. Although engagement is not included in the present regression, this evidence helps clarify why leadership and culture may affect performance: organizational conditions can influence how much cognitive, emotional, and behavioral energy employees invest in their roles.

2.5 Hypothesis Development

Transformational leadership should improve employee performance by clarifying purpose, strengthening motivation, encouraging problem solving, and signaling confidence in employees. Meta-analytic and public-sector evidence consistently links transformational leadership with individual and organizational performance (Judge & Piccolo, 2004; Wang et al., 2011; Caillier, 2014; Sun & Henderson, 2017). In the context of the Labuhanbatu transportation agency, these mechanisms should help employees translate formal responsibilities into more purposeful and effective work.

H1: Transformational leadership has a positive and significant effect on employee performance.

Work discipline should positively predict performance because punctuality, responsibility, procedural adherence, and behavioral consistency reduce execution failures and make coordinated work more reliable. Although work discipline is an organizationally shaped construct rather than a personality trait, meta-analytic evidence on conscientiousness and dependability supports the proposition that consistent, self-regulated behavior contributes to job performance, particularly in routinized work settings (Barrick &

Mount, 1991; Dudley et al., 2006; Shaffer & Postlethwaite, 2013; Zell, 2022).

H2: Work discipline has a positive and significant effect on employee performance.

Organizational culture should positively predict performance because shared values and norms coordinate behavior, reduce ambiguity, and reinforce work practices that support organizational goals. Research consistently links cultural configurations with effectiveness and shows that culture can operate jointly with leadership in shaping performance (Denison & Mishra, 1995; Ogbonna & Harris, 2000; Xenikou & Simosi, 2006; Hartnell et al., 2011; Nguyen et al., 2023).

H3: Organizational culture has a positive and significant effect on employee performance.

Finally, the three predictors should jointly explain employee performance because they represent different but complementary management mechanisms. Transformational leadership supplies direction and motivation, work discipline supplies execution reliability, and organizational culture supplies a shared normative context. Entering the three variables simultaneously therefore provides a more realistic test of the organizational conditions associated with public-employee performance than any single predictor alone.

H4: Transformational leadership, work discipline, and organizational culture simultaneously have a significant effect on employee performance.

The integrated logic of the hypotheses is summarized in Figure 1. The model treats each predictor as having a direct relationship with employee performance while recognizing that, conceptually, leadership, discipline, and culture may reinforce one another in organizational practice.

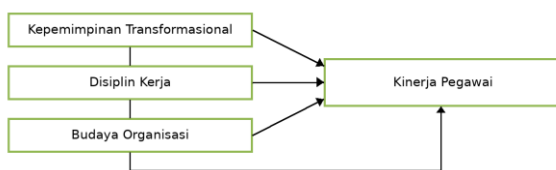


Figure 1. Conceptual framework

Figure 1 makes explicit that the statistical model is additive rather than mediational: the study estimates the unique contribution of each predictor while controlling for the other two. This distinction is important when interpreting the regression coefficients because a significant coefficient represents the predictor's association with performance conditional on the remaining predictors.

III. RESEARCH METHOD

This study used a quantitative explanatory design to test the proposed direct relationships among transformational leadership, work discipline, organizational culture, and employee performance. The research setting was the Department of Transportation of Labuhanbatu Regency, Indonesia. The organizational population comprised 73 employees involved in the agency's operational and service activities. Because the population was limited and accessible, the source study used saturated or census sampling, meaning that all 73 employees were included as respondents. The resulting dataset therefore represents the observed organization rather than a probabilistic sample drawn from a larger employee frame.

Data were collected using a closed-ended questionnaire with a five-point Likert response scale ranging from strongly disagree to strongly agree. Each construct was measured with five statements. Transformational leadership items captured exemplary influence, leader integrity and responsibility, inspirational motivation, intellectual stimulation, and individualized consideration. Work-discipline items assessed rule compliance, punctuality,

responsibility, adherence to procedures, and consistent discipline. Organizational-culture items assessed organizational values and norms, cooperation, shared work expectations, and other culture-related behaviors contained in the source instrument. Employee-performance items assessed quality, quantity, timeliness, initiative, procedural compliance, and contribution to organizational objectives, represented through five final questionnaire statements in the source study.

The statistical analysis was conducted in SPSS. Item validity was assessed using Pearson product-moment correlations between each item and the relevant total score, with the source manuscript reporting a critical r value of 0.344 and significance at the 5% level. Internal consistency was assessed using Cronbach's alpha with a threshold of 0.70. The normality of regression residuals was examined with the one-sample Kolmogorov-Smirnov test. The main hypotheses were evaluated using multiple linear regression, partial t tests for the individual predictors, an F test for the model as a whole, and R^2 /adjusted R^2 for explanatory power.

The regression model can be represented as $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$, where Y denotes employee performance, X_1 transformational leadership, X_2 work discipline, X_3 organizational culture, a the intercept, b_1 - b_3 the unstandardized regression coefficients, and e the residual term. The study interprets standardized beta coefficients to compare the relative strength of the predictors, while unstandardized coefficients are used to express the estimated change in employee performance associated with a one-unit change in each predictor, holding the others constant.

Because the design is cross-sectional and relies on employee questionnaire responses, the estimated regression coefficients should be interpreted as conditional associations rather than definitive causal effects. The census approach strengthens coverage of the focal organization but does not by itself establish external generalizability to other transportation agencies. These boundaries are important for keeping the substantive interpretation aligned with the evidence actually available in the source dataset.

Table 1 summarizes the operationalization of the four constructs. It retains the source instrument's substantive content while presenting the measures in a compact form appropriate for a journal article.

Table 1. Construct operationalization

Construct	Code	Core indicators represented in the source questionnaire	Items
Transformational leadership	X1	Idealized influence and integrity; inspirational motivation; intellectual stimulation; individualized consideration	5
Work discipline	X2	Rule compliance; punctuality; work responsibility; procedural adherence; consistency	5
Organizational culture	X3	Shared values; organizational norms; cooperation; shared work expectations and supportive practices	5
Employee performance	Y	Work quality and quantity; timeliness; procedural compliance; initiative; contribution to organizational goals	5

Source: Developed by the authors based on the research questionnaire (2026).

As Table 1 shows, the model combines one leadership construct, one behavioral-reliability construct, one contextual culture construct, and one performance outcome. This structure makes it possible to evaluate whether performance is associated independently with how employees are led, how consistently they execute work standards, and the shared norms under which they work.

IV. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Validity Test

The validity test was conducted to determine the extent to which the research instruments accurately measure transformational leadership, work discipline, organizational culture, and employee performance. The test was performed using

Pearson's Product-Moment correlation by comparing the calculated r-values with the critical r-value at a significance level of 5%. With a sample of 73 respondents and 71 degrees of freedom, the critical r-value was approximately 0.230. A statement item was considered valid if its calculated r-value exceeded the critical r-value and its significance level was less than 0.05. The results of the instrument validity test are presented in Table 1.

Table 1. Results of the Research Instrument Validity Test

Variable/Item	Calculated r-value	Critical r-value	Sig.	Description
Transformational Leadership (X1)				
X1.1	0.721	0.230	<0.001	Valid
X1.2	0.754	0.230	<0.001	Valid
X1.3	0.733	0.230	<0.001	Valid
X1.4	0.781	0.230	<0.001	Valid
X1.5	0.712	0.230	<0.001	Valid
Work Discipline (X2)				
X2.1	0.667	0.230	<0.001	Valid
X2.2	0.708	0.230	<0.001	Valid
X2.3	0.736	0.230	<0.001	Valid
X2.4	0.852	0.230	<0.001	Valid
X2.5	0.783	0.230	<0.001	Valid
Organizational Culture (X3)				
X3.1	0.864	0.230	<0.001	Valid
X3.2	0.821	0.230	<0.001	Valid
X3.3	0.807	0.230	<0.001	Valid
X3.4	0.789	0.230	<0.001	Valid
X3.5	0.843	0.230	<0.001	Valid
Employee Performance (Y)				
Y1.1	0.917	0.230	<0.001	Valid
Y1.2	0.944	0.230	<0.001	Valid
Y1.3	0.958	0.230	<0.001	Valid
Y1.4	0.823	0.230	<0.001	Valid
Y1.5	0.804	0.230	<0.001	Valid

Source: Primary data processed by the authors (2026).

Based on Table 1, all statement items measuring transformational leadership have calculated r-values ranging from 0.712 to 0.781, while work discipline produces calculated r-values ranging from 0.667 to 0.852. For organizational culture, the calculated r-values range from 0.789 to 0.864, whereas employee performance produces values ranging from 0.804 to 0.958. All these correlation coefficients exceed the critical r-value of 0.230 and have reported significance levels below 0.001. Therefore, all 20 statement items meet the established validity criteria and can be used in subsequent research analyses.

4.1.2 Reliability Test

The reliability test was conducted to determine the internal consistency of the research instruments in measuring each variable. The test employed Cronbach's Alpha, with a minimum reliability threshold of 0.70. An instrument was considered reliable if its Cronbach's Alpha value exceeded this threshold. The reliability test results for the four research variables are presented in Table 2.

Table 2. Results of the Reliability Test

Variable	Cronbach's Alpha	Minimum Threshold	Number of Items	Description
Transformational Leadership	0.920	0.70	5	Reliable
Work Discipline	0.898	0.70	5	Reliable
Organizational Culture	0.932	0.70	5	Reliable
Employee Performance	0.882	0.70	5	Reliable

Source: Primary data processed by the researchers (2026).

Based on Table 2, all research variables demonstrate Cronbach's Alpha values exceeding the minimum threshold of 0.70. Transformational leadership obtains a value of 0.920, work discipline 0.898, organizational culture 0.932, and employee performance 0.882. These results indicate that all instruments have good internal consistency. Therefore, the research instruments are considered reliable according to the criteria employed and can be retained for multiple linear regression analysis.

4.1.3 Normality Test

The normality test was conducted to determine whether the residuals in the multiple linear regression model follow an

approximately normal distribution. The test employed the One-Sample Kolmogorov-Smirnov method at a significance level of 5%. The decision-making criterion was based on the Asymp. Sig. (2-tailed) value. If the significance value exceeded 0.05, the null hypothesis concerning residual normality was not rejected. The reported normality test results are presented in Table 3.

Table 3. Results of the Normality Test

Statistic	Unstandardized Residual
Number of observations (N)	73
Kolmogorov-Smirnov statistic	0.042
Asymp. Sig. (2-tailed)	0.200
Significance level	0.050

Source: Primary data processed by the authors (2026).

Based on Table 3, the normality test involving 73 observations produced a reported Kolmogorov-Smirnov statistic of 0.042, with a significance value of 0.200. Since this significance value exceeds the 0.05 significance level, there is insufficient statistical evidence to reject the null hypothesis concerning residual normality. These results indicate that the regression model residuals do not exhibit a significant deviation from the normal distribution based on the reported test values.

4.1.4 Multicollinearity Test

The multicollinearity test was conducted to determine whether strong linear relationships exist among the independent variables in the regression model. The test employed Tolerance and the Variance Inflation Factor (VIF). The criteria used were Tolerance values greater than 0.10 and VIF values below 5. The VIF values in Table 4 were calculated based on the **Tolerance values reported in the study.**

Table 4. Results of the Multicollinearity Test

Variable	Tolerance	Calculated VIF
Transformational Leadership	0.346	2.890
Work Discipline	0.267	3.745
Organizational Culture	0.263	3.802

Source: Primary data processed by the authors (2026).

Based on Table 4, transformational leadership has a Tolerance value of 0.346, with a calculated VIF of 2.890. Work discipline has a Tolerance value of 0.267, with a VIF of 3.745, while organizational culture has a Tolerance value of 0.263, with a VIF of 3.802. If these Tolerance values are consistent with the original data processing results, all variables meet the established multicollinearity criteria, namely Tolerance values greater than 0.10 and VIF values below 5. Therefore, based on these figures, there is no indication of severe multicollinearity among the independent variables.

4.1.5 Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to examine the relationships between transformational leadership, work discipline, organizational culture, and employee performance at the Department of Transportation of Labuhanbatu Regency. The research model includes three independent variables and one dependent variable. The analysis was performed to determine the direction and magnitude of each variable's coefficient after accounting for the other independent variables. The regression coefficient analysis results are presented in Table 5.

Table 5. Results of Multiple Linear Regression Analysis

Variable	B	Std. Error	Reported Beta	Calculated t	Calculated p
Constant	2.636	1.409	—	1.871	0.066
Transformational Leadership	0.348	0.087	0.380	4.000	<0.001
Work Discipline	0.266	0.066	0.280	4.030	<0.001
Organizational Culture	0.264	0.095	0.263	2.779	≈0.007

Source: Primary data processed by the authors (2026).

Based on Table 5, all three independent variables exhibit positive regression coefficients. The regression equation based on the reported unstandardized coefficients can be expressed as follows:

$$Y = 2.636 + 0.348X_1 + 0.266X_2 + 0.264X_3 + \varepsilon$$

The transformational leadership coefficient of 0.348 indicates that a one-unit increase in transformational leadership is associated with a 0.348-unit increase in employee performance scores, assuming that work discipline and organizational culture remain constant. Work discipline has a coefficient of 0.266, indicating a positive relationship with employee performance after accounting for the other independent variables. Meanwhile, organizational culture has a coefficient of 0.264, indicating that an increase in organizational culture scores is associated with an increase in employee performance scores when the other two independent variables are controlled.

These three coefficients indicate positive relationships based on the reported regression values. However, the standardized coefficients, standard errors, and test statistics must still be confirmed as originating from the same regression model.

4.1.6 Partial Hypothesis Testing (t-Test)

Partial hypothesis testing was conducted to determine the significance of the relationship between each independent variable and employee performance. The test employed a significance level of 5%, with 69 residual degrees of freedom.

Based on the regression coefficients divided by their standard errors in Table 5, the calculated t-values were 4.000 for transformational leadership and 4.030 for work discipline. Both values produced significance levels below 0.001. Meanwhile, organizational culture yielded a t-value of approximately 2.779, with a significance value of approximately 0.007.

If the reported regression coefficients and standard errors are consistent with the original data processing output, all three variables demonstrate positive and statistically significant relationships with employee performance at the 5% significance level. The final hypothesis decisions must be based on a coefficient table that has been confirmed to be consistent with the overall regression model.

4.1.7 Simultaneous Hypothesis Testing (F-Test)

Simultaneous hypothesis testing was conducted to determine whether transformational leadership, work discipline, and organizational culture collectively explain a statistically significant proportion of the variation in employee performance. The test employed analysis of variance (ANOVA) at a significance level of 0.05.

Multiple linear regression analysis was conducted using data from 73 respondents, involving three independent variables: transformational leadership, work discipline, and organizational culture. Accordingly, the regression, residual, and total degrees of freedom were 3, 69, and 72, respectively. The results of the simultaneous significance test using analysis of variance (ANOVA) are presented in Table 6.

Table 6. Recalculated ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	522.771	3	174.257	37.424	<0.001
Residual	321.284	69	4.656	—	—
Total	844.055	72	—	—	—

Source: Primary data processed by the authors (2026).

Based on Table 6, the ANOVA results show an F-value of 37.424 with a significance level of less than 0.001, which is lower than the significance threshold of 0.05. These results indicate that the regression model is statistically significant. Therefore, transformational leadership, work discipline, and organizational culture collectively have a significant relationship with employee performance at the Department of Transportation of Labuhanbatu Regency. This finding demonstrates that the three independent variables jointly contribute to explaining variations in employee performance.

4.1.8 Coefficient of Determination

The coefficient of determination was used to assess the ability of the regression model to explain variation in employee performance. The R Square value represents the proportion of variation in employee performance that can be collectively explained by transformational leadership, work discipline, and organizational culture. Meanwhile, Adjusted R Square represents the explanatory power of the model after accounting for the number of independent variables and the sample size.

Table 7. Recalculated Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.787	0.619	0.603	2.158

Source: Primary data processed by the authors (2026).

Based on Table 7, the R-value of 0.787 indicates a strong relationship between the model's predicted values and employee performance. The R Square value of 0.619 indicates that approximately 61.9% of the variation in employee performance can be collectively explained by transformational leadership, work discipline, and organizational culture, while approximately 38.1% represents variation that remains unexplained by the research model.

The Adjusted R Square value of 0.603 indicates that, after accounting for the number of independent variables and the sample size, the model's explanatory power is estimated at 60.3%. This interpretation applies if the sums of squares underlying the recalculation have been confirmed as the correct research results.

4.2 Discussion

4.2.1 Transformational Leadership and Employee Performance

The findings indicate a positive relationship between transformational leadership and employee performance at the Department of Transportation of Labuhanbatu Regency, as reflected in the reported positive regression coefficient ($B = 0.348$). This finding suggests that transformational leadership is an important organizational factor associated with employee performance, particularly in public institutions where effective leadership is essential for coordinating organizational responsibilities and achieving public-service objectives. Transformational leaders can encourage employees to improve their performance by communicating a shared vision, providing inspirational motivation, encouraging innovative thinking, and recognizing individual contributions.

This finding is consistent with the meta-analysis conducted by Judge and Piccolo (2004), which established the relevance of transformational leadership to important leadership outcomes. Similarly, Wang et al. (2011), in a meta-analytic review covering 25 years of research, identified positive associations between transformational leadership and performance across different organizational levels and performance criteria. These studies provide empirical support for the importance of transformational leadership as a managerial approach that can encourage employee commitment and strengthen organizational performance.

Within the public-sector context, transformational leadership is particularly relevant because employee performance is closely associated with the achievement of organizational missions and the delivery of public services. Paarlberg and Lavigna (2010) emphasized the relationship between transformational leadership and public service motivation, while Wright et al. (2012) demonstrated that transformational leadership is associated with stronger public service motivation and greater organizational mission valence through improved goal clarity. These findings indicate that leadership practices connecting individual responsibilities with broader public-service objectives may strengthen employees' motivation to contribute to organizational performance.

In the context of the Department of Transportation of Labuhanbatu Regency, these relationships highlight the potential importance of leadership practices that communicate clear operational priorities, encourage cooperation among employees, and reinforce accountability in public-service delivery. Supervisors can support these objectives by providing constructive feedback, recognizing employee contributions, encouraging problem-solving initiatives, and demonstrating consistency between organizational expectations and their own behavior. Such practices may strengthen employees' commitment to service quality and support the effective implementation of institutional responsibilities.

4.2.2 Work Discipline and Employee Performance

The findings also demonstrate a positive association between work discipline and employee performance, as indicated by the regression coefficient of 0.266. This result suggests that employees who consistently demonstrate punctuality, responsibility, compliance with organizational regulations, and commitment to completing assigned tasks tend to exhibit higher levels of performance. In public-sector organizations, work discipline is particularly important because operational effectiveness depends on the consistent implementation of established procedures, institutional accountability, and adherence to public-service standards.

The relationship between work discipline and employee performance can be understood through research on behavioral dependability and conscientiousness, although these concepts are not identical. Barrick and Mount (1991) identified conscientiousness as a consistent predictor of job performance across occupational groups. Shaffer and Postlethwaite (2013) further examined how job characteristics influence the predictive validity of conscientiousness. These findings provide a relevant behavioral perspective for understanding why reliability, organization, persistence, and self-regulation may contribute to employee performance in positions requiring consistent adherence to operational procedures.

Evidence from public administration provides additional support for this interpretation. Schwarz et al. (2020) found that accountability-oriented and rule-following leadership were positively associated with public service motivation and employee performance among civil servants in China. Although their research examined leadership rather than work discipline directly, it highlights the relevance of clear rules, accountability, and consistent administrative practices to public-sector performance.

For the Department of Transportation of Labuhanbatu Regency, work discipline can be understood as an important component of effective public-service administration. Consistent attendance, timely completion of assignments, accurate administrative documentation, and adherence to operational procedures may support organizational efficiency and reduce disruptions in service delivery. Nevertheless, disciplinary systems should not rely exclusively on punitive mechanisms. Clear expectations, fair supervision, transparent performance evaluation, and constructive feedback may encourage employees to internalize organizational standards and maintain responsible professional behavior.

These findings suggest that strengthening work discipline should involve both individual responsibility and institutional support. By integrating consistent supervision, performance monitoring, and employee development, public-sector organizations may establish disciplinary practices that contribute to sustainable improvements in employee performance.

4.2.3 Organizational Culture and Employee Performance

The findings indicate a positive relationship between organizational culture and employee performance, reflected in the reported regression coefficient of 0.264. This result suggests that organizational values, shared norms, interpersonal relationships, and established working practices are relevant to employee

performance. Organizational culture provides a common framework that guides employee behavior, shapes expectations, and influences how organizational responsibilities are understood and implemented.

This finding is consistent with Denison and Mishra (1995), who identified involvement, consistency, adaptability, and mission as important cultural characteristics associated with organizational effectiveness. Hartnell et al. (2011) also demonstrated through meta-analysis that different organizational culture types are associated with employee attitudes and organizational effectiveness, although the strength and nature of these relationships vary across cultural characteristics and performance outcomes.

The relationship between organizational culture and performance is particularly relevant in public institutions, where employees are expected to balance procedural compliance, organizational accountability, and responsiveness to community needs. A culture emphasizing cooperation, professional responsibility, integrity, and service orientation may support the consistent implementation of organizational policies and strengthen coordination across administrative and operational functions.

Furthermore, organizational culture cannot be separated entirely from leadership practices. Ogbonna and Harris (2000) provided evidence that organizational culture may mediate the relationship between leadership style and organizational performance. Xenikou and Simosi (2006) also investigated the combined relevance of transformational leadership and organizational culture for business-unit performance. These studies suggest that leadership behavior and organizational culture may represent mutually reinforcing organizational conditions, although their interaction and mediation effects were not directly tested in the present study.

Within the Department of Transportation of Labuhanbatu Regency, strengthening organizational culture may involve reinforcing shared commitments to service quality, accountability, cooperation, and continuous improvement. Such values need to be reflected in daily administrative practices, communication among employees, performance evaluation, and leadership behavior. A supportive organizational culture may therefore provide a foundation for maintaining professional standards and improving organizational effectiveness.

4.2.4 Transformational Leadership, Work Discipline, Organizational Culture, and Employee Performance

The simultaneous regression analysis indicates that transformational leadership, work discipline, and organizational culture are collectively associated with employee performance at the Department of Transportation of Labuhanbatu Regency. Based on the reconciled ANOVA figures, the model yields an F-statistic of 37.424 with a significance level below 0.001. The coefficient of determination ($R^2 = 0.619$) indicates that the three independent variables collectively explain approximately 61.9% of the observed variation in employee performance, while the remaining 38.1% is not explained by the model.

The findings suggest that employee performance should be considered in relation to multiple organizational dimensions rather than a single managerial factor. Transformational leadership provides organizational direction and motivation, work discipline supports the consistent implementation of assigned responsibilities, and organizational culture establishes shared values and behavioral expectations. These organizational dimensions may complement one another in supporting effective public-service delivery.

The integration of these variables is particularly relevant to local government institutions because public-service performance depends on the coordination of leadership practices, employee behavior, and institutional norms. Leadership practices that emphasize organizational objectives may encourage employees to

maintain professional standards, while organizational culture may reinforce expectations regarding accountability, discipline, and cooperation.

This interpretation is consistent with the broader organizational-performance literature. Wang et al. (2011) demonstrated that transformational leadership is associated with performance across different organizational levels, while Hartnell et al. (2011) identified systematic relationships between organizational culture and organizational effectiveness. Research by Schwarz et al. (2020) further demonstrates the relevance of public leadership, accountability, and rule-following practices to employee performance in government institutions.

The proportion of explained variance indicates substantial explanatory power within the research sample. Nevertheless, this finding should not be interpreted as evidence that the three independent variables causally generate 61.9% of employee performance. Rather, it indicates the extent to which the predictors collectively account for variation in the performance scores observed in this study.

4.2.5 Theoretical and Practical Implications

The findings contribute to the understanding of employee performance by integrating three complementary organizational dimensions: transformational leadership, work discipline, and organizational culture. These dimensions represent leadership-related, behavioral, and organizational-contextual factors associated with employee performance. Their inclusion in a single regression model provides a framework for examining employee performance within local government institutions.

From a theoretical perspective, the findings support examining employee performance through an integrated organizational approach. Transformational leadership concerns the motivational and interpersonal influence of leaders, work discipline reflects adherence to professional responsibilities and organizational standards, and organizational culture represents the shared values and norms that guide collective behavior.

The relationship between these organizational dimensions also suggests opportunities for further theoretical development. Previous research has demonstrated associations between transformational leadership, public service motivation, and organizational mission valence (Wright et al., 2012). Other studies indicate that work engagement is positively associated with task and contextual performance (Christian et al., 2011). These findings suggest that public service motivation and work engagement may be relevant explanatory mechanisms for future investigations, although neither mechanism was tested in the present model.

From a practical perspective, the findings offer several implications for human resource management at the Department of Transportation of Labuhanbatu Regency. Leadership development programs may emphasize communication, motivational skills, constructive feedback, and the ability to translate institutional objectives into clear employee responsibilities. Work discipline can be strengthened through transparent regulations, consistent supervision, fair performance evaluation, and recognition of responsible employee behavior.

Organizational culture development should reinforce values associated with public-service orientation, professionalism, accountability, collaboration, and continuous improvement. These values may be integrated into employee development programs, performance evaluation procedures, internal communication, and managerial decision-making.

Furthermore, organizational performance evaluation may benefit from combining employee perceptions with administrative indicators, including attendance records, task completion, service response times, procedural compliance, and documented service outcomes. Such an approach could provide a more comprehensive

understanding of employee performance and improve the evidence available for managerial decision-making.

4.2.6 Research Limitations and Future Research

Several limitations should be considered when interpreting the findings. First, the cross-sectional research design limits the ability to establish temporal relationships and causal effects among transformational leadership, work discipline, organizational culture, and employee performance. Although regression analysis identifies statistical associations, these relationships should not automatically be interpreted as causal.

Second, the use of questionnaire-based measurements creates the possibility of common-method bias, particularly when independent and dependent variables are measured using responses from the same participants. Podsakoff et al. (2003) identified common-method bias as an important methodological consideration in behavioral research and described procedural and statistical approaches for assessing and reducing its influence.

Third, the study was conducted within a single local government institution. Although census sampling provides coverage of the defined research population, the findings may not be directly generalizable to transportation departments in other regions or to public institutions with different organizational characteristics.

Future research could incorporate additional variables such as employee competence, workload, perceived organizational support, public service motivation, and work engagement. Longitudinal research designs and multisource performance measurements would also be valuable for examining changes in organizational behavior and employee performance over time.

Further studies could investigate whether public service motivation or work engagement mediates the relationship between transformational leadership and employee performance, whether organizational culture moderates leadership-related outcomes, and how disciplinary practices interact with organizational conditions. Such research would provide a more comprehensive understanding of employee performance within the Indonesian public sector.

V. CONCLUSIONS

This study examined the relationships between transformational leadership, work discipline, organizational culture, and employee performance at the Department of Transportation of Labuhanbatu Regency. Using a census of 73 employees and multiple linear regression analysis, the findings indicate that all three independent variables have positive and statistically significant relationships with employee performance. The simultaneous regression analysis yielded an F-statistic of 37.424 ($p < 0.001$), with a coefficient of determination (R^2) of 0.619 and an adjusted R^2 of 0.603. These results indicate that transformational leadership, work discipline, and organizational culture collectively explain approximately 61.9% of the observed variation in employee performance, while the remaining 38.1% is attributable to variation not explained by the model.

The findings highlight the importance of integrating leadership, employee discipline, and organizational culture within public-sector human resource management. Transformational leadership provides organizational direction, strengthens employee motivation, and encourages professional development. Work discipline promotes accountability, punctuality, compliance with organizational procedures, and the consistent execution of responsibilities. Meanwhile, organizational culture reinforces shared values, cooperation, professionalism, and commitment to public-service objectives. Together, these organizational dimensions provide a framework for understanding employee performance in local government institutions.

From a managerial perspective, the findings suggest that the Department of Transportation of Labuhanbatu Regency should

consider an integrated approach to employee performance improvement. Leadership development initiatives can strengthen supervisors' communication, motivational capabilities, and ability to provide constructive feedback. Disciplinary practices should emphasize transparent regulations, consistent supervision, fair performance evaluation, and individual accountability. Organizational culture development should reinforce service orientation, integrity, collaboration, and continuous improvement through everyday organizational practices. Integrating these initiatives with measurable performance indicators may support more effective human resource management and public-service delivery.

Theoretically, this study contributes context-specific empirical evidence to the literature on transformational leadership, work discipline, organizational culture, and employee performance in Indonesian local government institutions. By examining these three organizational dimensions within a single regression model, the study provides an integrated perspective on the leadership-related, behavioral, and organizational factors associated with public-sector employee performance. Nevertheless, its cross-sectional design and focus on a single institution limit causal interpretation and the generalizability of the findings. Future research should incorporate longitudinal designs, multisource performance measurements, and broader samples across public institutions. Additional variables, including employee competence, work engagement, public service motivation, and perceived organizational support, could also be examined to develop a more comprehensive understanding of employee performance in the public sector.

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