



The Effect of Transformational Leadership Style and Teamwork Solidity on Employee Performance

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Abstract

This study aims to determine the effect of transformational leadership style and teamwork solidarity on employee performance at the Makassar Harbormaster and Main Port Authority Office. This research was conducted at the Makassar Harbormaster and Main Port Authority Office. The design used in this study was a causality study. Data were collected through questionnaires, observations, and literature review. Data were analyzed using research instrument testing, classical assumption testing with multiple linear regression analysis, and hypothesis testing. The results of this study found and showed that the results of partial statistical tests (*t*-test) transformational leadership style has a positive and significant effect on employee performance, teamwork solidarity has a positive and significant effect on employee performance. The results of simultaneous statistical tests (*F*-test) showed that transformational leadership style and teamwork solidarity have a positive and significant effect on employee performance at the Makassar Harbormaster and Main Port Authority Office. Transformational leadership style and teamwork solidarity have a very strong influence on employee performance of 84.7%. These results provide an illustration that the transformational leadership style and teamwork solidarity that have been implemented at the Makassar Harbormaster and Main Port Authority Office have been very good and have made a major contribution to improving organizational performance.

Introduction

The Makassar Harbormaster and Main Port Authority Office is a strategic institution with a vital role in managing and overseeing the activities of the main port in South Sulawesi. As a gateway to the maritime economy in Eastern Indonesia, this port not only serves as a national logistics hub but also drives the regional economy, connecting domestic and international trade routes (Aritonang et al., 2025; Widyanti, 2025; Snekubun & Supriyadi, 2025). With its high volume of activity and increasing operational complexity, this institution is required to provide excellent public services, maintain shipping safety, and ensure the smooth and efficient flow of goods and passengers (Nasution et al., 2024; zteleuova et al., 2024; Suparman et al., 2026). Organizational performance depends heavily on the quality of its human resources, particularly the ability of employees to carry out their duties and responsibilities according to established service standards (Sun et al., 2007; Anwar & Abdulllah, 2021; Nugroho, 2022).

With a staff of 280 employees spread across various organizational fields and functions, the Makassar Harbormaster and Main Port Authority Office faces complex challenges in optimally managing these human resources. Performance and coordination among employees are crucial

factors in determining service effectiveness and achieving organizational goals. However, in recent years, this agency has experienced frequent leadership changes, both at the office head level and at the lower levels. This regular change in leadership creates organizational dynamics that are not always conducive to leadership stability and consistent policy direction. Each new leader tends to bring a different vision, leadership style, and work priorities, requiring employees to continually adapt to these changes. This situation not only impacts the decision-making process, making it less stable but also potentially impacts employee motivation, commitment, and job satisfaction (Susanto et al., 2026; Indrati et al., 2026; Elhag et al., 2026).

This frequent change in leadership raises fundamental questions about how leadership styles can remain effective in situations of ongoing transition (Awashreh, 2025; Abukalusa & Oosthuizen, 2025). On the one hand, organizations need leaders who can provide clear direction, motivate employees, and encourage high performance. On the other hand, leadership instability can lead to employee confusion, a decreased sense of ownership in the organization, and hinder the implementation of strategic programs that require long-term consistency (Domingues et al., 2026; Bertolini et al., 2026; Nabilla et al., 2025). In the context of public organizations with a strong bureaucratic and hierarchical culture, frequent leadership changes can also create uncertainty in employee career paths, performance appraisals, and the reward and punishment systems implemented. Therefore, a deeper understanding of leadership styles is needed that are not only effective under normal circumstances but also able to withstand and adapt to dynamic leadership changes (Boikanyo, 2025; Tariq, 2026; Tuyen, 2025).

In the management and leadership literature, transformational leadership has long been recognized as one of the most effective approaches to improving employee performance, particularly in organizations facing complex changes and challenges (Razali et al., 2024; Omowole et al., 2024; Rane et al., 2024). The concept of transformational leadership was first introduced by Burns (1978) and further developed by Bass (1985) and Bass and Avolio (1994), who defined transformational leadership as a leader's ability to inspire, motivate, and develop followers through four main dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Transformational leaders focus not only on achieving short-term targets but also strive to develop the overall potential of employees, build a shared vision, encourage innovation, and create a positive, learning-oriented organizational culture (Vo, 2025). Previous studies have shown that transformational leadership has a significant positive influence on various aspects of organizational performance, including work productivity, job satisfaction, organizational commitment, and organizational citizenship behavior. A meta-analysis of 87 studies conducted by Judge and Piccolo (2004) found that transformational leadership has a strong positive correlation with follower satisfaction and organizational performance. Similarly, research by Wang et al. (2011) showed that transformational leadership can improve team performance by increasing trust, cohesion, and motivation among team members. However, most research on transformational leadership has been conducted in the business sector or private organizations, while empirical evidence in the public sector, particularly in Indonesian government agencies, is relatively limited. Public organizations possess unique characteristics that differentiate them from business organizations, such as more rigid bureaucratic structures, more complex decision-making processes, a public service orientation, and different incentive systems. Therefore, there is a gap in research regarding the effectiveness of transformational leadership in the context of public organizations in Indonesia, particularly in agencies that experience regular leadership changes. Besides leadership, teamwork cohesion is another internal organizational variable that plays a crucial role in determining employee performance. Teamwork cohesion can be defined as the strength of cooperative relationships, communication, mutual trust, and

support among team members in achieving common goals. Katzenbach and Smith (1993) state that a strong team is one that shares a shared vision, complements each other's competencies, communicates openly, and is collectively accountable for work results. In the context of complex organizations such as the Harbormaster's Office and Port Authority, where operational tasks involve coordination across various departments, including shipping safety, ship services, port environmental management, and security oversight, strong teamwork is an absolute prerequisite for effective organizational performance.

Research on teamwork has shown that strong teams can increase productivity, reduce task completion time, minimize errors, and reduce internal conflict. A study by Kozlowski and Ilgen (2006) demonstrated that team effectiveness is influenced by factors such as trust among members, effective communication, role clarity, and organizational support. Similarly, research by Salas et al. (2005) identified five core components of effective teamwork: team leadership, mutual performance monitoring, backup behavior, adaptability, and team orientation. In the context of public services, teamwork is crucial given the nature of work that often requires rapid response, cross-functional coordination, and collaboration in dynamic and uncertain situations. However, research on the effect of teamwork on employee performance in government agencies, particularly in the port and transportation sectors, remains very limited. Most studies on teamwork have been conducted in the manufacturing, information technology, and healthcare sectors, leaving a gap in research regarding how teamwork plays a role in the context of public organizations with their distinctive hierarchical structures and bureaucratic cultures.

While transformational leadership and teamwork have been shown to have a positive effect on performance, few studies have examined both variables simultaneously within a single research model, particularly in the context of Indonesian public organizations. However, in practice, leadership and teamwork are interrelated and interacting factors that influence employee performance. Effective transformational leaders not only motivate employees individually but are also able to build and strengthen team cohesion by creating a shared vision, facilitating communication, and empowering team members. Conversely, strong teamwork can strengthen the effectiveness of transformational leadership by creating a conducive work environment where employees support each other and work together to achieve organizational goals. Therefore, research that integrates these two variables within a single analytical framework will provide a more comprehensive understanding of the factors influencing employee performance.

At the Makassar Harbormaster and Main Port Authority Office, frequent leadership changes pose particular challenges in maintaining consistent leadership styles and teamwork. Each leadership change entails a transition period during which employees must adjust to the new leadership style, potentially different work priorities, and newly implemented policies. This transition period can create uncertainty, reduce work motivation, and even trigger internal conflict if not managed well. Furthermore, frequent leadership changes can disrupt established teamwork, as the dynamics of working relationships and communication patterns among employees may change with the arrival of a new leader. This situation presents an interesting practical gap to explore: how transformational leadership and teamwork can remain effective in an organization experiencing periodic leadership changes. As an initial overview of the human resources situation at the agency, the following section presents a table classifying employees based on their status and type of employment. This composition indicates that the majority of employees have relatively stable and long-term employment statuses, thus necessitating a leadership style capable of fostering commitment, loyalty, and sustainable performance. In this context, transformational leadership is crucial because it can inspire

employees to work beyond individual interests and orientate themselves toward organizational goals. Furthermore, differences in employment status also have the potential to influence work dynamics, so solid teamwork is necessary to build harmonious cooperation, effective communication, and mutual trust among employees. With strong transformational leadership and solid teamwork, it is hoped that employee performance will improve optimally and contribute positively to the achievement of organizational goals.

From a theoretical perspective, this research will contribute to filling the literature gap regarding the influence of transformational leadership and solid teamwork on employee performance in the public sector, particularly in Indonesia. Most theories of transformational leadership and teamwork were developed from research in Western countries and the business sector, so their validity needs to be tested in the context of Indonesian organizational culture, which strongly values collectivism, hierarchy, and harmony. Furthermore, this research will provide new insights into how leadership stability (or conversely, frequent leadership changes) can moderate the effectiveness of transformational leadership and teamwork in influencing employee performance. From a practical perspective, this research is expected to provide policy recommendations for the management of the Makassar Harbormaster's Office and Main Port Authority in developing more effective leadership strategies, strengthening teamwork, and improving overall employee performance, thereby optimally achieving the organization's goal of providing quality public services.

Based on the above explanation, there is an urgency to conduct comprehensive research on the influence of transformational leadership styles and teamwork on employee performance at the Makassar Harbormaster's Office and Main Port Authority. This research will not only contribute academically to enriching the literature on human resource management and leadership in the public sector, but also provide practical benefits for decision-making and policy improvement within the organization.

Methods

Research Design

According to Sugiyono (2020), a research method is a scientific approach used to obtain data for specific purposes and benefits. This study employs a quantitative associative research method, which aims to examine the relationship between two or more variables. Quantitative associative research enables researchers to analyze the magnitude and direction of relationships among variables and to test causal assumptions statistically. The data collected are numerical and analyzed using statistical procedures, allowing objective measurement and hypothesis testing.

This study adopts a causal research design, as it seeks to examine cause–effect relationships between independent variables and a dependent variable. In causal research, the researcher identifies and classifies independent variables (predictors) and dependent variables (outcomes) based on theoretical assumptions (Sugiyono, 2020). In this study, transformational leadership style (X1) and team work solidarity (X2) are treated as independent variables, while employee performance effectiveness (Y) is the dependent variable.

Research Location and Time

This research was conducted at the Main Harbormaster and Port Authority Office of Makassar (Kantor Kesyahbandaran dan Otoritas Pelabuhan Utama Makassar), located at Jl. Satando No. 55, Ujung Tanah District, Makassar City, South Sulawesi, Indonesia. The research was carried out over a three-month period, from November 2025 to January 2026.

Population and Sampling Technique

Population

Population refers to a generalized area consisting of objects or subjects with certain characteristics determined by the researcher for study and conclusion drawing (Sugiyono, 2020). The population in this study includes all civil servant employees (ASN) working at the Main Harbormaster and Port Authority Office of Makassar, totaling 285 employees.

Sampling Technique

Because it was not feasible to study the entire population due to time and resource limitations, a sample was selected to represent the population. The sampling size was determined using the Slovin formula, which is commonly applied when population size is known:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = population size (285)

e = margin of error

In this study, a margin of error of 10% (e = 0.10) was applied. The calculation is as follows:

$$n = \frac{285}{1 + 285(0.10)^2} = \frac{285}{1 + 28.5} = \frac{285}{29.5} = 9.67 \approx 10$$

Thus, the total sample used in this study consisted of 10 respondents.

Research Instrument

Data were collected using a structured questionnaire. A questionnaire is a data collection technique conducted by providing respondents with a set of written questions or statements to answer (Sugiyono, 2020). Due to limitations in time and resources, the questionnaire method was chosen as the primary data collection instrument.

The instrument employed a Likert scale to measure respondents' attitudes, perceptions, and opinions regarding the research variables. The Likert scale consists of five response categories:

1 = Strongly Disagree (SD)

2 = Disagree (D)

3 = Neutral (N)

4 = Agree (A)

5 = Strongly Agree (SA)

The Likert scale enables quantitative measurement of subjective perceptions and facilitates statistical analysis.

Types and Sources of Data

This study uses both primary and secondary data.

Primary data were obtained directly from respondents through questionnaire distribution and observation at the research site. These data include employees' perceptions regarding

transformational leadership style, team work solidarity, and employee performance effectiveness.

Secondary data were obtained from official documents of the institution, including organizational profiles, vision and mission statements, organizational structure, and employee demographic data. These data were collected from the Secretariat of the Main Harbormaster and Port Authority Office of Makassar.

Data Collection Technique

This research applies a quantitative approach; therefore, data must be structured, specific, and measurable. Data were collected through questionnaire distribution to selected respondents. The questionnaire contained structured statements representing each research variable and was designed to ensure clarity and consistency in responses.

Data Analysis Technique

Data were analyzed using multiple linear regression analysis with the assistance of SPSS (Statistical Package for the Social Sciences). This software enables statistical testing to determine the effect of independent variables on the dependent variable.

3.8 Instrument Testing

Validity Test

Validity testing aims to determine whether the instrument accurately measures the intended construct. The validity test was conducted using the Pearson Product-Moment correlation coefficient. An item is considered valid if the correlation coefficient (r) ≥ 0.30 and the significance value is less than 0.05.

Reliability Test

Reliability testing measures the consistency of responses. Reliability was assessed using Cronbach's Alpha. A variable is considered reliable if the Cronbach's Alpha value exceeds 0.60, indicating acceptable internal consistency.

Classical Assumption Tests

Before conducting regression analysis, classical assumption tests were performed to ensure that the regression model meets statistical requirements.

Normality Test

The normality test determines whether the data are normally distributed. The One-Sample Kolmogorov-Smirnov test was used with a significance level of 0.05. If the significance value is greater than 0.05, the data are considered normally distributed (Ghozali, 2018).

Multicollinearity Test

Multicollinearity testing aims to determine whether independent variables are highly correlated. This was assessed using Tolerance and Variance Inflation Factor (VIF) values. If Tolerance > 0.10 and VIF < 10 , the model is considered free from multicollinearity (Ghozali, 2018).

Heteroscedasticity Test

The heteroscedasticity test examines whether residual variance remains constant. This was analyzed using a scatterplot between standardized residuals (SRESID) and predicted values

(ZPRED). If no specific pattern appears and the points are randomly distributed around zero, the model is considered free from heteroscedasticity.

Multiple Linear Regression Analysis

Multiple linear regression is used to examine the influence of more than one independent variable on a dependent variable. The regression equation is formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Where:

Y = Employee Performance Effectiveness

α = Constant

β_1, β_2 = Regression coefficients

X1 = Transformational Leadership Style

X2 = Team Work Solidarity

e = Error term

Correlation Coefficient (R)

The correlation coefficient (R) measures the strength and direction of the linear relationship between variables. The value of R ranges from -1 to +1. A value closer to +1 indicates a strong positive relationship, while a value closer to 0 indicates a weak relationship (Ghozali, 2018).

Coefficient of Determination (R²)

The coefficient of determination (R²) measures how well the independent variables explain variations in the dependent variable. The value ranges from 0 to 1. A higher R² indicates stronger explanatory power of the regression model.

Hypothesis Testing

Partial Test (t-test)

The t-test is used to examine the effect of each independent variable individually on the dependent variable. If the calculated t-value is greater than the t-table value and the significance level is less than 0.05, the hypothesis is accepted, indicating a significant effect.

Simultaneous Test (F-test)

The F-test examines whether all independent variables simultaneously influence the dependent variable. If the significance value of F is less than 0.05, the independent variables collectively have a significant effect on the dependent variable.

Result and Discussion

Table 1. Descriptive Variables of Transformational Leadership Style (X1)

Statement	Strongly Agree (SA) f	Strongly Agree (SA) %	Agree (A) f	Agree (A) %	Quite Agree (QA) f	Quite Agree (QA) %	Disagree (D) f	Disagree (D) %	Strongly Disagree (SD) f	Strongly Disagree (SD) %	Mean
P.1	34	45.9	35	47.3	5	6.8	–	–	–	–	4.39
P.2	34	45.9	33	44.6	6	8.1	1	1.4	–	–	4.35
P.3	35	47.3	34	45.9	5	6.8	–	–	–	–	4.41
P.4	39	52.7	31	41.9	4	5.4	–	–	–	–	4.47
P.5	37	50.0	33	44.6	4	5.4	–	–	–	–	4.45
P.6	36	48.6	29	39.2	9	12.2	–	–	–	–	4.36
Overall Mean											4.41

Source: Primary Data, 2026

Based on Table 4.10, a descriptive analysis of transformational leadership style variables at the Makassar Harbormaster and Main Port Authority Office indicates a very positive perception from respondents, with an overall average score of 4.41, which is in the high category. Of the six indicators measured, the indicator with the highest score was "leadership encourages employees to think creatively and seek new solutions to solve work problems," with an average score of 4.47, with 52.7% of respondents responding strongly agreeing (S) and 41.9% agreeing (S). This indicates that leadership has successfully implemented the intellectual stimulation dimension of transformational leadership, which encourages employees to innovate, think critically, and develop alternative approaches to address port operational challenges. The next indicator with the highest score was "leadership is open to employee ideas and input in an effort to improve organizational performance effectiveness," with an average score of 4.45, indicating that leadership implements two-way communication and provides a participatory space for employees in the organizational decision-making process. Meanwhile, the indicator "leadership attitudes and behaviors serve as role models that encourage employees to work with greater discipline and responsibility" achieved an average of 4.35, and "leadership pays attention to the needs and development of each employee's abilities individually" achieved the lowest average of 4.36. Although still in the high category, the relatively lower scores on these two indicators suggest room for improvement in the aspects of exemplary leadership and individualized consideration for employee development. These findings have important practical implications, as effective transformational leadership requires a balance between inspiring vision, intellectual stimulation, moral example, and personal attention to the development needs of each employee. Overall, these data confirm that the transformational leadership style has been well implemented in the organization, which has the potential to create an innovative work climate, increase employee intrinsic motivation, and ultimately contribute positively to teamwork solidarity and improved employee performance in carrying out complex and dynamic port service functions.

Table 2. Descriptive Variable of Teamwork Solidity (X2)

Statement	Strongly Agree (SA) f	Strongly Agree (SA) %	Agree (A) f	Agree (A) %	Quite Agree (QA) f	Quite Agree (QA) %	Disagree (D) f	Disagree (D) %	Strongly Disagree (SD) f	Strongly Disagree (SD) %	Mean
P.1	36	48.6	32	43.2	6	8.1	–	–	–	–	4.41
P.2	41	55.4	29	39.2	4	5.4	–	–	–	–	4.50
P.3	39	52.7	33	44.6	2	2.7	–	–	–	–	4.50
P.4	39	52.7	31	41.9	4	5.4	–	–	–	–	4.47
P.5	38	51.4	33	44.6	3	4.1	–	–	–	–	4.47
P.6	34	45.9	32	43.2	8	10.8	–	–	–	–	4.35
P.7	41	55.4	30	40.5	3	4.1	–	–	–	–	4.51
P.8	34	45.9	30	40.5	10	13.5	–	–	–	–	4.32
P.9	26	35.1	38	51.4	10	13.5	–	–	–	–	4.22
Overall Mean											4.42

Source: Primary Data, 2026

A descriptive analysis of the teamwork solidarity variable at the Makassar Harbormaster and Main Port Authority Office indicates a very positive perception, with an overall average score of 4.42, which is in the high category. Of the nine indicators measured, the highest-scoring indicator was "team members demonstrate discipline and comply with applicable work regulations," with an average score of 4.51, with 55.4% of respondents strongly agreeing (S) and 40.5% agreeing (S). This finding indicates that work teams in port organizations demonstrate a high level of collective discipline and adherence to standard operating

procedures, which are crucial foundations for building solid and structured teamwork. The next highest-scoring indicators were "differences of opinion within the team are handled professionally and with mutual respect" and "work-related information is delivered in a timely manner and is easily understood by all team members," both with an average score of 4.50. This reflects that effective communication and constructive conflict management have become integral parts of teamwork dynamics, where differences in perspective are not obstacles but rather seen as enriching the collective decision-making process.

Meanwhile, several indicators showed relatively lower scores, although still in the high category, such as "the team is open and responsive to changes aimed at improving performance effectiveness" with an average of 4.22, and "team members support each other to improve performance and collective achievement" with an average of 4.32. Lower scores on the openness-to-change indicator suggest a certain resistance or anxiety in the face of innovation and organizational transformation, which can be challenging in the context of ports facing the dynamics of maritime technology and evolving port regulations. These findings have significant theoretical and practical implications, as effective teamwork requires not only internal cohesion and good communication, but also the adaptive capacity to respond quickly and in a coordinated manner to external changes. Overall, these data confirm that teamwork solidity has been well established through the implementation of a transformational leadership style that creates a collaborative climate, interpersonal trust, and collective commitment to organizational goals, which in turn becomes a strong mediating mechanism in improving the performance of port employees in a comprehensive and sustainable manner.

Table 3. Descriptive Variables of Employee Performance (Y)

Statement	Strongly Agree (SA)		Agree (A)		Quite Agree (QA)		Disagree (D)		Strongly Disagree (SD)		Mean
	f	%	f	%	f	%	f	%	f	%	
P.1	44	59.5	29	39.2	1	1.4	–	–	–	–	4.58
P.2	42	56.8	29	39.2	3	4.1	–	–	–	–	4.53
P.3	36	48.6	34	45.9	4	5.4	–	–	–	–	4.43
P.4	43	58.1	30	40.5	1	1.4	–	–	–	–	4.57
P.5	33	44.6	35	47.3	6	8.1	–	–	–	–	4.36
P.6	39	52.7	29	39.2	6	8.1	–	–	–	–	4.45
											4.49

Source: Primary Data, 2026

A descriptive analysis of employee performance variables at the Makassar Harbormaster and Main Port Authority Office shows very satisfactory performance, with an overall average score of 4.49, which falls within the very high category. Of the six indicators measured, the highest-scoring indicator was "I complete my work with results that meet the quality standards set by the organization," with an average score of 4.58, with 59.5% of respondents strongly agreeing (S) and 39.2% agreeing (S). This finding indicates that employees are highly committed to achieving work quality standards and are excellence-oriented in carrying out port duties that require high precision and accuracy. The next highest-scoring indicator was "I adhere to working hours and applicable organizational regulations," with an average score of 4.57, reflecting employee discipline and professionalism in carrying out port operational duties that require punctuality and compliance with regulations. The indicator "I am able to complete the work volume according to the set target" achieved an average score of 4.53, indicating that employees have high productivity and are able to meet the quantitative expectations set by the organization.

Although all indicators showed high scores, one indicator scored relatively lower: "I work meticulously and pay attention to detail in every task assigned," with an average score of 4.36. This score, while still in the high category, suggests the need for greater attention to meticulousness and detail-oriented aspects in carrying out port tasks, which are highly complex and critical to maritime safety. This finding has significant practical implications, given that even small errors in port operations can impact ship safety, loading and unloading efficiency, and even substantial economic losses. Overall, these data confirm the hypothesis that transformational leadership and solid teamwork contribute positively to employee performance, manifested in the achievement of high work quality, consistent discipline, optimal productivity, and maintained professional integrity. This high-performance achievement is the final output of an organizational process involving inspirational leadership, solid team collaboration, and intrinsic employee motivation to provide excellent port services in accordance with international standards in supporting the smooth flow of goods and national maritime trade.

Table 4. Data Validity Test Results

Variable	Item	r-count	r-table	Description
Transformational Leadership Style (X1)	X1. P1	0.826	0.270	Valid
	X1. P2	0.773	0.270	Valid
	X1. P3	0.836	0.270	Valid
	X1. P4	0.864	0.270	Valid
	X1. P5	0.850	0.270	Valid
	X1. P6	0.325	0.270	Valid
Teamwork Solidarity (X2)	X2. P1	0.405	0.270	Valid
	X2. P2	0.420	0.270	Valid
	X2. P3	0.373	0.270	Valid
	X2. P4	0.328	0.270	Valid
	X2. P5	0.471	0.270	Valid
	X2. P6	0.568	0.270	Valid
	X2. P7	0.516	0.270	Valid
	X2. P8	0.451	0.270	Valid
	X2. P9	0.660	0.270	Valid
Employee Performance (Y)	Y. P1	0.504	0.270	Valid
	Y. P2	0.768	0.270	Valid
	Y. P3	0.624	0.270	Valid
	Y. P4	0.572	0.270	Valid
	Y. P5	0.638	0.270	Valid
	Y. P6	0.517	0.270	Valid

Source: SPSS 26.0 Data Processing Results, 2026

The data validity test results indicate that all statement items from the three research variables transformational leadership style (X₁), teamwork solidarity (X₂), and employee performance (Y) are valid because they have calculated R values greater than the table R (0.270). For the transformational leadership style variable, the six statement items (X₁.P₁ to X₁.P₆) show calculated R values ranging from 0.325 to 0.864, with item X₁.P₄ obtaining the highest value (0.864), indicating a very strong correlation between this item and the total variable score. Meanwhile, for the teamwork solidarity variable, the nine statement items (X₂.P₁ to X₂.P₉) showed calculated R values ranging from 0.373 to 0.668, with item X₂.P₆ obtaining the highest

value (0.668). For the employee performance variable, the six statement items (Y.P₁ to Y.P₆) showed calculated R values ranging from 0.504 to 0.768, with item Y.P₂ obtaining the highest value (0.768). These findings confirm that the research instrument used has good construct validity, where each statement item is able to measure the intended theoretical concept accurately and consistently.

The proven instrument validity for all these items has crucial methodological implications for the credibility of the research, as it ensures that the collected data truly represent the constructs of transformational leadership style, teamwork solidity, and employee performance in accordance with the established theoretical framework. The consistent R value above the R table indicates that there are no ambiguous statement items or deviates from the concept of the measured variable, so that respondents understand and respond to each item according to the researcher's intent. The success of this validity test also indicates that the instrument adapted from Bass's transformational leadership theory, Robbins' teamwork theory, and Mangkunegara's performance theory has been well adapted to the context of port organizations in Indonesia, especially at the Harbormaster's Office and the Makassar Main Port Authority. Thus, the research results obtained from this valid instrument can be trusted as a basis for conducting further inferential analysis, including regression tests to identify the magnitude of the influence of transformational leadership style and teamwork solidity on employee performance, as well as providing evidence-based policy recommendations for improving human resource management in port organizations to increase the effectiveness of port services comprehensively and sustainably.

Table 5. Results of Data Reliability Test

Variable	Cronbach's Alpha	Alpha Threshold	Reliability Result
Transformational Leadership Style (X ₁)	0.830	0.60	Reliable
Teamwork Solidarity (X ₂)	0.742	0.60	Reliable
Employee Performance (Y)	0.727	0.60	Reliable

Source: SPSS 26.0 Data Processing Results, 2026

The data reliability test results indicate that all research variables have a very good level of internal consistency and are considered reliable, as the Cronbach's Alpha values for each variable exceed the minimum alpha value of 0.60. Transformational leadership style (X₁) achieved the highest Cronbach's Alpha value of 0.830, followed by teamwork solidarity (X₂) with a value of 0.742, and employee performance (Y) with a value of 0.727. These findings confirm that the research instrument has high reliability, with each item in the questionnaire measuring the same construct consistently and stably. The high reliability value, particularly for the transformational leadership style variable, indicates that respondents provided consistent answers to the various aspects of transformational leadership measured. This combination of proven instrument validity and reliability ensures that the research data is of sufficient methodological quality for further statistical analysis.

Table 6. Normality Test Results

Description	Standardized Predicted Value
N	74
Normal Parameters^{a,b}	
Mean	0.000000

Std. Deviation	1.00000000
Most Extreme Differences	
Absolute	0.071
Positive	0.071
Negative	-0.070
Test Statistic	0.071
Asymp. Sig. (2-tailed)	0.

Source: SPSS 26.0 Data Processing Results, 2026

The results of the data normality test using the One-Sample Kolmogorov-Smirnov Test indicate that the research data is normally distributed and meets the parametric assumptions for regression analysis. This is evidenced by the Asymp. Sig. (2-tailed) value of 0.200, which is greater than the alpha significance level of 0.05, thus accepting the null hypothesis stating that the data are normally distributed. The mean standardized predicted value of 0.000000 with a standard deviation of 1.00000000 indicates that the residuals of the regression model have a symmetric distribution centered on zero, which is characteristic of a perfectly normal distribution. The most extreme differences show an absolute value of 0.071, with a positive value of 0.071 and a negative value of -0.070, indicating minimal deviation from the theoretical normal distribution. Fulfillment of this normality assumption is very important in quantitative research because it ensures that the regression parameter estimates, hypothesis tests, and resulting confidence intervals have reliable statistical validity to analyze the influence of transformational leadership style and teamwork solidity on employee performance accurately and objectively.

Table 7. Multicollinearity Test Results

Model	Variable	Tolerance	VIF
1	Transformational Leadership Style (X1)	0.964	1.038
	Teamwork Solidarity (X2)	0.964	1.038

Source: SPSS 26.0 Data Processing Results, 2026

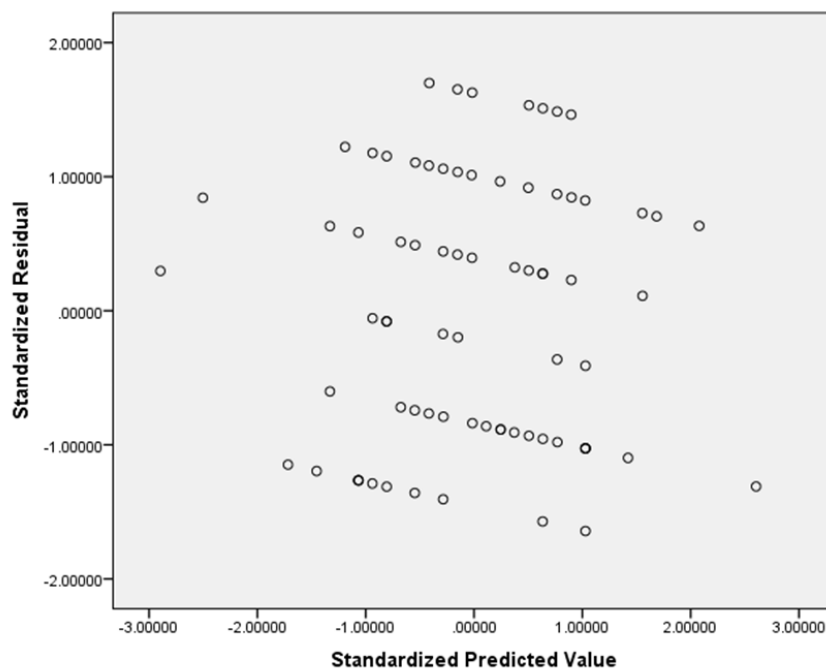
The absence of multicollinearity in this study strengthens the validity of the regression model used to examine the influence of transformational leadership style and teamwork solidarity on employee performance. This finding shows that both independent variables stand as distinct explanatory factors rather than measuring the same construct. In practical terms, transformational leadership reflects the leader's ability to inspire, motivate, provide intellectual stimulation, and give individual attention to employees, while teamwork solidarity reflects the quality of cooperation, mutual trust, shared responsibility, and cohesion among employees. Although both variables may support employee performance, the low VIF value indicates that each variable contributes through a different mechanism.

This result is important because high multicollinearity can distort the interpretation of regression coefficients by making it difficult to determine which independent variable actually has a stronger influence on the dependent variable. Since the VIF values in this study are close to 1, the regression analysis can proceed with greater confidence. The effects of transformational leadership style and teamwork solidarity can be interpreted independently, meaning that any significant influence found in the next regression stage can be attributed to each variable more reliably.

Furthermore, the results imply that leadership and teamwork should not be treated as overlapping managerial aspects. Transformational leadership is more closely related to

direction, motivation, vision, and employee development, whereas teamwork solidarity is more related to interpersonal relationships, collaboration, and collective commitment in completing work. Therefore, organizations need to strengthen both aspects simultaneously. Improving leadership quality alone may not be sufficient if teamwork among employees remains weak. Likewise, strong teamwork may not produce optimal performance if it is not supported by inspiring and adaptive leadership.

Thus, the fulfillment of the non-multicollinearity assumption provides a solid statistical basis for continuing the analysis to hypothesis testing. It also supports the argument that transformational leadership style and teamwork solidarity are relevant and independent predictors of employee performance. These findings provide an initial indication that organizational efforts to improve employee performance should be directed not only toward developing effective leadership practices but also toward building stronger team cohesion, communication, and solidarity among employees.



Source: SPSS 26.0 Data Processing Results, 2026

Figure 1. Heteroscedasticity Test Results

The results of the heteroscedasticity test using a scatterplot indicate that the research regression model is free from heteroscedasticity issues. This is evidenced by the distribution of residual points, which are randomly distributed and do not form a specific pattern around the zero line on the vertical axis (Standardized Residual). The data points are scattered both above and below zero on the Y-axis, and do not exhibit a systematic pattern of clustering, widening, or narrowing at a specific value on the X-axis (Standardized Predicted Value). This condition indicates that the residual variance is homogeneous (homoscedasticity) for each predicted value, which is an important classical assumption in multiple linear regression analysis. The fulfillment of the homoscedasticity assumption ensures that the regression estimator has the Best Linear Unbiased Estimator (BLUE) property, so that the hypothesis test results and the resulting confidence intervals are valid and reliable for analyzing the influence of transformational leadership style and teamwork solidity on employee performance with a high level of precision and accuracy in the context of port organizations.

Table 8. Multiple Linear Regression Coefficients

Variables	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	22.907	2.796	–	8.192	0.000
Transformational Leadership Style (X1)	0.377	0.069	0.133	3.117	0.003
Teamwork Solidarity (X2)	0.338	0.046	0.098	3.827	0.004

The constant (α) value of 22.907 indicates that if transformational leadership style and teamwork solidity are set at zero or assumed to remain unchanged, then the employee performance level at the Makassar Harbormaster and Main Port Authority Office will be 22.907 units. This constant represents the employee performance baseline, which is formed from factors outside the research model. The effect of transformational leadership style (X1) on employee performance (Y) shows a positive relationship with a regression coefficient of 0.377. This indicates that every one-unit increase in transformational leadership style will be followed by a 0.377-unit increase in employee performance, assuming the other independent variables remain constant. The effect of teamwork solidity (X2) on employee performance (Y) is also positive with a regression coefficient of 0.338. This means that every one-unit increase in teamwork solidity will increase employee performance by 0.338 units, assuming the other variables remain constant.

Table 9. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.920	0.847	0.829	1.83622

Source: SPSS 26.0 Data Processing Results, 2026

The Model Summary analysis results show the strength of the relationship and contribution of the independent variables to the dependent variable in this study. The correlation coefficient (R) of 0.920 indicates a very strong and positive relationship between transformational leadership style and solid teamwork simultaneously on employee performance at the Harbormaster's Office and Makassar Main Port Authority. An R value approaching 1 indicates that both independent variables are highly correlated with the dependent variable, meaning that increases or decreases in transformational leadership style and solid teamwork will be followed by significant, directional changes in employee performance. This finding confirms the theoretical proposition that transformational leadership and solid teamwork are strong predictors of optimal organizational performance, particularly in the context of port organizations that demand complex coordination and intensive collaboration between work units. The R Square (R^2) value of 0.847 or 84.7% indicates that the transformational leadership style and teamwork solidity variables together are able to explain 84.7% of the variation in employee performance, while the remaining 15.3% is explained by other factors outside this research model. This very substantial contribution indicates that the research model has excellent predictive power and high practical relevance.

Table 10. Results of Partial Statistical Tests (t-Test)

Variable	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
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(Constant)	22.907	2.796	–	8.192	0.000
Transformational Leadership Style (X1)	0.377	0.069	0.133	3.117	0.003
Teamwork Solidarity (X2)	0.338	0.046	0.098	3.827	0.004

The first hypothesis using a significance level (α) = 0.05 and $df = (n-k-1) (74-2-1) = 71$ obtained 1 of 1.667. From the calculation results in Table 4.18, it is known that the t-value of the transformational leadership style variable is 3.117, which is > t-table 1.667 with a significance level of $0.003 < 0.05$. Therefore, it can be concluded that the hypothesis is accepted. Thus, it can be concluded that the transformational leadership style variable has a positive and significant effect on employee performance at the Makassar Harbormaster and Main Port Authority Office. These results indicate that the higher the implementation of the transformational leadership style owned by the leader in terms of providing inspiration, encouraging creativity, providing individual attention, being a role model, and opening up space for employee participation, the higher the level of employee performance that can be achieved. 2) The second hypothesis using a significance level (α) = 0.05 and $df = (n-k-1) (74-2-1) = 71$ obtained ttable of 1.667. From the calculation results in Table 4.18 it is known that the tcount value of the teamwork solidity variable is 3.827 which is > ttable 1.667 with a significance level of $0.004 < 0.05$. Therefore, it can be concluded that the hypothesis is accepted. Thus, it is proven that the teamwork solidity variable has a positive and significant effect on employee performance at the Harbormaster and Main Port Authority Office of Makassar. This finding confirms that strengthening teamwork solidity reflected in effective communication, coordination between units, collective discipline, professionalism in managing differences, openness to change, and mutual support between team members is a crucial determinant in improving employee performance in carrying out complex and integrated port service functions.

Table 11. ANOVA (F-Test Results)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	16.243	2	3.121	9.186	0.000
Residual	186.906	71	2.632		
Total	193.149	73			

Source: SPSS 26.0 Data Processing Results, 2026

The results of the ANOVA (Analysis of Variance) test indicate that this research's regression model is feasible and significant in simultaneously explaining the influence of transformational leadership style and teamwork solidarity on employee performance. This is evidenced by the calculated F-value of 9.186, which is greater than the F-table value with a significance level of 0.000 ($p < 0.05$), meaning the null hypothesis is rejected and the alternative hypothesis is accepted. The Sum of Squares for the regression is 16.243 with a Mean Square of 3.121, indicating that the variation in employee performance explained by the regression model is significantly greater than the unexplained variation (residual Sum of Squares of 136.906). These findings confirm that transformational leadership style and teamwork solidity together have a significant influence on employee performance at the Harbormaster's Office and the Makassar Main Port Authority, so that this research model can be used as a basis for predicting and formulating human resource development policies in port organizations.

The Effect of Transformational Leadership Style on Employee Performance at the Makassar Harbormaster and Main Port Authority Office

The results of this study indicate that transformational leadership style has a positive and significant effect on employee performance at the Makassar Harbormaster and Main Port Authority Office, with a calculated t-value of $3.117 > t\text{-table } 1.667$ and a significance level of $0.003 < 0.05$. This finding confirms the transformational leadership theory proposed by Bass and Avolio, which states that transformational leaders are able to improve the performance of their followers through four main dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. In the context of port organizations, the implementation of a transformational leadership style is highly relevant given the complexity of port operations, which require continuous innovation, adaptation to maritime technology developments, and effective cross-functional coordination. Research by Saputra and Mahaputra (2021) in the *Journal of Management and Business* demonstrated that transformational leadership significantly influences employee performance because it creates a conducive work environment, increases intrinsic motivation, and fosters high levels of organizational commitment.

One of the highest-scoring indicators of transformational leadership in this study was the statement "leaders encourage employees to think creatively and seek new solutions to solve work problems," with an average score of 4.47. This finding reflects the effective implementation of the intellectual stimulation dimension, where leaders successfully create a culture of innovation and encourage employees to step outside their comfort zones to address port operational challenges. According to Northouse (2021), intellectual stimulation is a leader's ability to stimulate followers' creativity and innovation by questioning assumptions, reframing problems, and approaching old situations in new ways. In the context of ports facing the dynamics of global maritime trade, evolving port regulations, and increasing demands for operational efficiency, employees' ability to think creatively and seek innovative solutions is a valuable strategic asset. Research by Hidayat and Rahman (2022) in the *Indonesian Journal of Business and Management* shows that intellectual stimulation from transformational leaders contributes significantly to improving employee innovative performance and the organization's ability to adapt to environmental changes.

The positive influence of a transformational leadership style on employee performance can also be explained through mechanisms that increase self-efficacy and organizational citizenship behavior. Robbins and Judge (2020) explain that transformational leaders can increase employee confidence in their ability to complete complex tasks through support, empowerment, and recognition of individual contributions. In port organizations, where employees face complex technical procedures, strict maritime regulations, and challenging multi-stakeholder coordination, transformational leadership support is a crucial factor in building employee confidence to perform optimally. Research by Wijaya et al. (2023) in the *Journal of Public Administration* demonstrates that a transformational leadership style in government agencies can improve employee performance by increasing work motivation, organizational commitment, and job satisfaction, which in turn impacts the quality of public services.

This research finding also aligns with the organizational context of the Makassar Harbormaster and Main Port Authority Office, which has unique characteristics as a government agency that carries out regulatory and port service functions. With the majority of employees having more than 10 years of service (86.5%) and undergraduate to postgraduate education levels (86.4%), the implementation of transformational leadership style finds strong resonance because employees have sufficient intellectual capacity and organizational experience to respond to intellectual stimulation, appreciate inspiring visions, and internalize the transformational values promoted by leaders. This strengthens the argument that the suitability between

leadership style and employee demographic and psychographic characteristics is an important determinant in the effectiveness of transformational leadership in improving the performance of port organizations.

The Effect of Teamwork Solidarity on Employee Performance at the Harbormaster's Office and Makassar Main Port Authority

The results of this study indicate that teamwork solidity has a positive and significant effect on employee performance at the Harbormaster's Office and Makassar Main Port Authority, with a calculated t-value of $3.827 > t\text{-table } 1.667$ and a significance level of $0.004 < 0.05$. This finding confirms the theory proposed by Robbins and Judge (2020), which states that effective teamwork is a crucial determinant of organizational performance, as it facilitates collective synergy, knowledge sharing, inter-functional coordination, and collaborative problem-solving. Teamwork solidity in the context of port organizations is crucial given that port operations involve various interdependent work units, ranging from ship operations and port administration to shipping safety and port services, which require high-precision coordination. Research by Pratama and Kusuma (2021) in the *Journal of Human Resource Management* demonstrated that teamwork has a significant impact on employee performance because it creates a supportive work environment, improves communication efficiency, and strengthens collective commitment to achieving organizational goals.

One indicator of teamwork that received the highest rating in this study was the statement "team members demonstrate discipline and comply with applicable work regulations," with an average score of 4.51. This finding reflects that the foundation of solid teamwork in port organizations is built through collective discipline and adherence to strict standard operating procedures. According to Katzenbach and Smith (2020), discipline is a fundamental element of team performance because it creates predictability, reliability, and consistency in the execution of team tasks. In the context of ports facing international maritime regulations such as the International Ship and Port Facility Security (ISPS) Code and stringent shipping safety standards, collective discipline is not only a matter of operational efficiency but also concerns aspects of safety, security, and the port's reputation internationally. Research by Nugroho et al. (2022) in the *Indonesian Journal of Public Administration* showed that teamwork discipline in public service organizations contributes significantly to improving service quality and user satisfaction by standardizing processes and minimizing operational errors.

The positive influence of teamwork solidarity on employee performance can also be explained through social facilitation and collective efficacy mechanisms. Luthans et al. (2021) explained that the presence of competent and supportive team members increases individual motivation to perform better through observational learning, constructive peer pressure, and mutual accountability. In port organizations, where tasks are often interdependent and require real-time coordination between units, such as during ship docking, loading and unloading, document inspection, and departure clearance, teamwork solidarity is a crucial mechanism that ensures each team member understands their roles and responsibilities and is committed to contributing optimally. Research by Sari and Wibowo (2023) in the *Journal of Business and Management* demonstrated that teamwork solidarity in highly complex organizations can improve collective performance through increased trust, effective communication, and constructive conflict management, which in turn impacts productivity and the quality of organizational output.

The findings of this study are also in line with the demographic characteristics of employees at the Harbormaster's Office and the Makassar Main Port Authority, the majority of whom have long tenure (86.5% over 10 years), indicating that teamwork solidity has been built through

long-term interaction, the accumulation of shared experience, and the formation of strong institutional memory. Long tenure facilitates the formation of psychological safety within the team, where members feel comfortable sharing ideas, admitting mistakes, and providing constructive feedback without fear of sanctions or negative assessments. This creates an adaptive and resilient learning organization in facing changes in the port's operational environment. With an organizational structure dominated by implementing employees (94.6%), teamwork solidity at the operational level is very determinant in ensuring the smooth process of efficient, responsive, and high-quality port services according to national and international standards.

The Simultaneous Effect of Transformational Leadership Style and Solid Teamwork on Employee Performance at the Makassar Harbormaster and Main Port Authority Office

The results of this study indicate that transformational leadership style and solid teamwork simultaneously have a positive and significant effect on employee performance at the Makassar Harbormaster and Main Port Authority Office, with a calculated F-value of 9.188 and a significance level of $0.000 < 0.05$. The R-square value of 0.847 indicates that 84.7% of the variation in employee performance can be explained by these two independent variables, indicating very high predictive power of the model. These findings confirm the integrative theory proposed by Yukl (2020), which states that leadership effectiveness depends not only on leader characteristics but also on how leaders are able to build and facilitate productive team dynamics to achieve organizational goals. In the complex context of port organizations, the combination of visionary transformational leadership and solid teamwork creates powerful organizational synergy that enhances collective performance. Research by Andrianto and Prasetyo (2021) in the Strategic Management Journal demonstrated that transformational leadership and teamwork quality collectively have a stronger influence on organizational performance than either variable alone, creating a work ecosystem conducive to innovation, collaboration, and the achievement of excellence.

The mechanism of the simultaneous influence of transformational leadership and teamwork on employee performance can be explained through the concepts of mediating effect and synergistic interaction. According to Bass and Riggio (2021), transformational leadership creates psychological and structural conditions that facilitate the formation of a cohesive team through the articulation of a shared vision, empowerment of team members, and the creation of a collaborative culture. When transformational leaders successfully build teamwork through intellectual stimulation, motivational inspiration, and individual attention, collective commitment and shared accountability are formed, encouraging each team member to contribute optimally to achieving organizational goals. In the context of the Makassar Harbormaster's Office and Main Port Authority, the synergy between leadership that encourages creativity and a disciplined and coordinating team results in efficient port service performance, responsiveness to maritime dynamics, and compliance with international regulatory standards. Research by Wijayanti et al. (2022) in the Indonesian Journal of Leadership and Organizational Studies showed that the positive interaction between transformational leadership and solid teamwork creates an organizational climate that supports a high-performance culture, where innovation and collaboration become internalized work norms.

The significant simultaneous contribution (84.7%) of both variables to employee performance can also be explained through the social exchange theory perspective proposed by Blau (2020). When leaders adopt a transformational style by providing inspiration, support, and development opportunities to employees, while simultaneously fostering solid teamwork

characterized by mutual trust, effective communication, and support between members, a positive reciprocity relationship is created where employees feel valued and motivated to contribute their best. In port organizations facing high operational pressures such as ship docking time targets, loading and unloading efficiency, and compliance with maritime safety protocols, the combination of empowering leadership and solid teamwork is a critical factor in enabling employees to cope with work stress, navigate task complexity, and maintain high performance standards. Research by Kurniawan and Susanti (2023) in the *Journal of Public Administration and Government* proves that in organizations with high task complexity, the synergistic effect of transformational leadership and strong teamwork results in more substantial performance improvements compared to organizations with low levels of complexity. The findings of this study have significant theoretical and practical implications in the context of human resource management in port organizations. Theoretically, these results strengthen the argument that a holistic approach that integrates leadership and team dimensions is superior in explaining variations in organizational performance compared to a partial approach that only focuses on one aspect. Practically, with the demographic characteristics of employees who are mostly experienced and highly educated, organizational investment in developing transformational leadership competencies for structural officials and strengthening teamwork solidity through team building, cross-functional collaboration, and shared learning is a very effective strategy to improve port performance comprehensively, respond to the dynamics of global maritime trade, and position the port of Makassar as a competitive logistics hub in Eastern Indonesia.

Conclusion

Transformational leadership style has a positive and significant impact on employee performance at the Harbormaster's Office and Makassar Main Port Authority. The results confirm that the effective implementation of transformational leadership through motivational inspiration, intellectual stimulation, idealized influence, and individualized consideration can improve employee work quality, productivity, discipline, and integrity in carrying out port duties. Teamwork solidarity has a positive and significant impact on employee performance at the Harbormaster's Office and Makassar Main Port Authority. These findings indicate that strengthening teamwork solidarity, reflected in effective communication, inter-unit coordination, collective discipline, mutual trust, and openness to change, contributes substantially to optimal and sustainable employee performance. Transformational leadership style and teamwork solidarity simultaneously have a positive and significant impact on employee performance at the Harbormaster's Office and Makassar Main Port Authority. Both variables significantly explain variations in employee performance, confirming that their synergistic effect creates an organizational ecosystem conducive to achieving performance excellence.

References

- Abukalusa, K., & Oosthuizen, R. (2025). An adaptive organisational leadership framework through systems thinking. *International Journal of Organizational Analysis*, 33(8), 2673-2703. <https://doi.org/10.1108/IJOA-07-2024-4635>
- Ali, H. K. (2021). *Rancangan percobaan: Teori & aplikasi*. USP.
- Andrianto, B., & Prasetyo, D. (2021). Synergy of transformational leadership and teamwork quality in improving organizational performance. *Jurnal Manajemen Strategis*, 17(2), 178–195.

- Anwar, G., & Abdullah, N. N. (2021). The impact of Human resource management practice on Organizational performance. *International journal of Engineering, Business and Management (IJEEM)*, 5.
- Aritonang, F. N. T., Arkady, J. C., Torindatu, L. A. R., & Silalahi, V. A. J. M. (2025). Indonesia's Position as a Maritime Axis in the Global Logistics Chain. *JIPower: Journal of Intellectual Power*, 2(1), 110-123. <https://doi.org/10.63786/jipower.v2i1.38>
- Awashreh, R. (2025). Leadership strategies for managing change and fostering innovation over private higher education: Academic institutions in Oman. In *Evolving strategies for organizational management and performance evaluation* (pp. 399-422). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-0149-5.ch018>
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Sage Publications.
- Bass, B. M., & Riggio, R. E. (2021). *Transformational leadership* (3rd ed.). Psychology Press.
- Bass, B. M., Avolio, B. J., Berson, Y., & Jung, D. I. (2017). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207–218.
- Bertolini, H., Corbière, M., Negrini, A., Larivière, N., Villotti, P., Prévost, D., ... & O'Hagan, F. (2026). Managing Complexity: Manager–Stakeholder Communication, Relational Dynamics, and the Dual Nature of RTW Communication. *Journal of Occupational Rehabilitation*, 1-25. <https://doi.org/10.1007/s10926-026-10391-x>
- Blau, P. M. (2020). *Exchange and power in social life*. Routledge.
- Boikanyo, D. H. (2025). Adaptive Leadership in Times of Organizational Change Driven by. *Contemporary perspectives on organizational behaviour*, 37.
- Domingues, L. C., Saltorato, P., & Sigahi, T. F. (2026). Cultural differences in lean employee engagement management programs: multiple case studies in Brazil and China. *International Journal of Lean Six Sigma*, 1-30. <https://doi.org/10.1108/IJLSS-01-2025-0019>
- Elhag, G. M., Mahar, S., Akram, M. W., & Khan, N. (2026). Employee participation, training, and performance appraisal as determinants of employee retention: An empirical analysis of KSA universities. *Journal of Management Practices, Humanities and Social Sciences*, 10(1), 31-42.
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Hidayat, R., & Rahman, A. (2022). The influence of transformational leadership on innovative employee performance: A study of Indonesian shipping companies. *Indonesian Journal of Business and Management*, 8(2), 145–162.
- Indrati, B., Susanti, E., Hermawan, A., Mubarak, H., & Fauzi, S. S. M. (2026). Teachers' Organizational Commitment: Effects of Support, Servant Leadership, Personality, and Job Satisfaction. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 131-152. <https://doi.org/10.23917/ijolae.v8i1.12388>

- Izteleuova, M., Arimbekova, P., Murzabekova, K., & Alik, A. (2024). Features of development and efficiency of transport logistics infrastructure. *Acta Commercii*, 24(1), 1-11. <https://doi.org/10.4102/ac.v24i1.1235>
- Katzenbach, J. R., & Smith, D. K. (2020). *The wisdom of teams: Creating the high-performance organization*. Harvard Business Review Press.
- Kurniawan, A., & Susanti, E. (2023). The synergistic effect of transformational leadership and teamwork on performance in complex organizations. *Jurnal Administrasi Publik dan Pemerintahan*, 10(1), 67–84.
- Luthans, F., Luthans, B. C., & Luthans, K. W. (2021). *Organizational behavior: An evidence-based approach* (14th ed.). Information Age Publishing.
- Mangkunegara, A. A. A. P., & Octored. (2015). Effect of work discipline and transformational leadership on job satisfaction and organizational commitment at PT Dada Indonesia. *Universal Journal of Management*.
- Nabilla, Z., Husen, A., Purwandari, D. A., Dwiana, B. D., & Dwiputri, L. J. (2025). Unraveling organizational behavior problems in startup agencies through analysis methods and literature studies. *Jurnal Syntax Admiration*, 6(7), 1511-1523.
- Nasution, S., Thamrin, M., Rahardjo, S., & Saputra, D. P. (2024). Guide Professionalism, Guide Services, Ship Security, and Shipping Safety for Smooth Ship Traffic at Indonesia's Main Ports. *Dinasti International Journal of Education Management & Social Science*, 6(2).
- Northouse, P. G. (2021). *Leadership: Theory and practice* (9th ed.). Sage Publications.
- Nugroho, S. H. (2022). The role of human resources management in organizational perspective. *Global Journal of Engineering and Technology Advances*, 10(3), 012-018.
- Omowole, B. M., Olufemi-Philips, A. Q., Ofadile, O. C., Eyo-Udo, N. L., & Ewim, S. E. (2024). Barriers and drivers of digital transformation in SMEs: A conceptual analysis. *International Journal of Frontline Research in Multidisciplinary Studies*, 5(2), 019-036.
- Pratama, D. A., & Kusuma, H. (2021). Teamwork solidarity and employee performance: A study at Indonesian logistics service companies. *Jurnal Manajemen Sumber Daya Manusia*, 15(2), 201–218.
- Rane, N., Choudhary, S. P., & Rane, J. (2024). Acceptance of artificial intelligence: key factors, challenges, and implementation strategies. *Journal of Applied Artificial Intelligence*, 5(2), 50-70. <https://doi.org/10.48185/jaai.v5i2.1017>
- Razali, M. A., Din, N., Rezo, K. H., Zainol, N., Akhir, I. M., & Saber, J. M. (2024). Enhancing management performance in rapidly changing organizations: a conceptual exploration. *Jurnal Intelek*, 19(2), 12-24.
- Robbins, S. P., & Judge, T. A. (2020). *Organizational behavior* (18th ed.). Pearson Education Limited.
- Saputra, I. G. N., & Mahaputra, I. N. K. A. (2021). The effect of transformational leadership on employee performance with work motivation as an intervening variable. *Jurnal Manajemen dan Bisnis*, 18(1), 78–95.

- Sari, N. P., & Wibowo, A. (2023). Teamwork solidarity as a predictor of collective performance in complex organizations: The mediating role of interpersonal trust. *Jurnal Bisnis dan Manajemen*, 19(1), 134–151.
- Snekubun, E., & Supriyadi, A. A. (2025). Hexa-Helix collaboration model for strengthening the maritime defense industry in eastern Indonesia: A strategic policy analysis. *Journal of Marine Problems and Threats*, 2(1), 47-62. <https://doi.org/10.61511/jmarpt.v2i1.2025.2085>
- Sugiyono. (2020). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.
- Sun, L. Y., Aryee, S., & Law, K. S. (2007). High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective. *Academy of management Journal*, 50(3), 558-577. <https://doi.org/10.5465/amj.2007.25525821>
- Suparman, S., Kasiono, R., Sugiyanto, S., Dormawaty, R., & Ridwan, M. E. (2026). Analysis of Security Management for Passenger Services at the Tanjung Priok Port Passenger Terminal. *Jurnal Ilmiah Multidisiplin Indonesia (JIM-ID)*, 5(04), 781-790.
- Susanto, P. C., Darwisman, S., & Widiyanto, P. (2026). Determination of employee job satisfaction and productivity of port loading and unloading workers: A literature review. *Jurnal Publikasi Sistem Informasi Dan Manajemen Bisnis*, 5(2), 38-61.
- Tariq, M. U. (2026). The influence of leadership styles on innovation: Driving change through effective leadership. In *The impact of innovation in leadership* (pp. 249-274). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-2402-9.ch010>
- Tuyen, N. C. B. (2025). Transformation of traditional to modern leaderships in the vuca environment. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 10(3), 7.
- Vo, T. T. D. (2025). Should performance-oriented organisational culture or learning-oriented organisational model be encouraged to employees: a context of Vietnam. *Human Resource Development International*, 1-11. <https://doi.org/10.1080/13678868.2025.2595926>
- Widyanti, A. A. (2025). BUSINESS LICENSING AND LOGISTICS IN INDONESIA: CHALLENGES AND IMPROVEMENTS. *Jurnal BPPK: Badan Pendidikan dan Pelatihan Keuangan*, 18(2), 1-26. <https://doi.org/10.48108/jurnalbppk.v18i2.917>
- Wijaya, C., Susanto, B., & Hermawan, D. (2023). Transformational leadership and employee performance in government institutions: The mediating role of organizational commitment. *Jurnal Administrasi Publik*, 14(1), 112–128.
- Wijayanti, R., Firmansyah, A., & Hidayah, N. (2022). Interaction of transformational leadership and team solidarity in shaping high-performance culture. *Indonesian Journal of Leadership and Organizational Studies*, 6(2), 145–163.
- Yukl, G. (2020). *Leadership in organizations* (9th ed.). Pearson Education.