

# The Role of Employee Retention in Strengthening Leadership and Performance Relationships in the Port Industry

M. Aulia Arsyad, M. Chaerul Rizky, Kiki Farida Ferine

## Abstract

The port industry has a strategic role in supporting national logistics and trade activities, so that employee performance is the main factor in ensuring operational efficiency and sustainability. However, the high rate of labor turnover in this sector often hinders the stability of organizational performance. This study aims to analyze the influence of leadership on employee performance and the role of employee retention in strengthening these relationships within PT Pelabuhan Indonesia (Persero) Regional I Dumai Branch. The research uses an explanatory quantitative approach with a survey method. Data is collected through a Likert scale questionnaire, then data processing is carried out with SmartPLS to test the measurement model (outer model) and structural model (inner model). The results of the study show that leadership has a positive and significant effect on employee performance and retention, which means that the better the leadership style, the higher the performance and retention rate of employees. However, employee retention has no significant effect on performance, which indicates that the length of time employees stay with the company does not necessarily have an impact on their performance improvement. The R-Square value shows that the leadership variable is able to explain 66.2% of the variation in employee retention and 21% variation in performance. These findings confirm the importance of effective leadership roles in creating a productive work environment and employee loyalty at PT Pelindo Regional I Dumai Branch.

**Keywords:** Leadership, Employee Retention, Employee Performance.

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## Introduction

The port industry is one of the strategic sectors that has a vital role in supporting international trade activities and economic growth of a country. As the main gateway for the distribution of goods and services, ports require human resource management to ensure that operations run optimally. Without humans, it is difficult for companies to achieve their established missions and goals. No matter how sophisticated the equipment and devices in the company are, if they are not supported by the human resources that control and operate them, they will not be able to function as they should (Dwipayana et al., 2023). Employee performance is a crucial factor that determines the overall efficiency and productivity of the port. Employee performance can be defined as the result of work in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Mangkunegara, 2017). According to Robbins dan Judge (2017), Performance is a function of the interaction between abilities, motivation, and opportunities, which is reflected in the achievement of organizational targets. In a port industry that operates 24 hours a day with a high level of complexity, employee performance not only impacts internal efficiency, but also on customer satisfaction and port competitiveness at the regional and global levels.

The success of an organization is also inseparable from the quality of its leaders, because a qualified leader is able to utilize the resources in the company, has the ability to direct the activities of the subordinates he leads, anticipate all changes that occur suddenly can correct all existing weaknesses, and is able to lead the organization to the agreed goals within a predetermined period of time (Nasution & Rizky, 2024; Suhanta et al., 2022). Leadership is defined as a person's ability to influence, motivate, and direct others to achieve organizational goals (Northouse, 2017). Leaders who are able to manage human resources well will be able to form a work environment that encourages new ideas and creative solutions (Manullang & Rizky, M., 2024). (Yukl, 2013) emphasizes that effective leadership is not only related to task management, but also to the development of positive interpersonal relationships with subordinates. In the context of the port industry, leaders are required to be able to manage diverse teams, address complex operational challenges, and create a conducive work environment. Various studies have proven a positive relationship between leadership and employee performance. (Bass & Riggio, 2016) in his research showed that transformational leadership styles can increase employees' intrinsic motivation, which in turn impacts improved performance. Research by Khan et al. (2020) found that leadership quality has a direct and significant influence on employee performance. Meanwhile, Wang et al. (2011) identified that transformational leadership not only improves individual performance, but also strengthens employees' organizational commitment.

Employee retention is an important issue given the high costs and negative impact of employee turnover (Gunawan & Rizky, 2024). One of the factors that is getting more and more attention in the human resource management literature is employee retention. Employee retention is defined as an organization's ability to retain qualified employees to remain employed within the organization for a certain period of time (Das & Baruah, 2013). According to (Mathis & Jackson, 2019), employee retention reflects the stability of the workforce and shows the level of satisfaction and loyalty of employees to the organization. Retaining employees in the port industry is increasing along with high turnover rates that can disrupt operational continuity. Samuel and Chipunza (2009) stated that the high turnover rate can result in loss of organizational knowledge, decreased productivity, and increased costs of recruitment and training. The loss of experienced employees can have a serious impact on operational efficiency and safety.

The relationship between leadership and employee retention has been examined in various studies. High employee retention will affect the organization's performance in achieving an organization's goals and mission. A very important factor in improving employee

retention is the role of a leader and his leadership style that is able to increase employee retention and lead the business to achieve the vision and mission set (Astuti & Panggabean, 2014; Gunawan & Rizky, 2024; Nisa, 2018). Martin and Kaufman (2013) state that a supportive and participatory leadership style can increase employee satisfaction and desire to stay afloat. Alkahtani (2015) also asserted that leadership quality plays a significant role in employee retention, while Amankwaa and Anku-Tsedee (2015) found that positive perceptions of leadership effectiveness correlated with employees' intention to stay. In addition, employee retention has a direct effect on organizational performance, because long-term employees have a deeper understanding of the organization's work processes and culture (Ongori, 2007). This is in line with Griffith et al. (2000) who showed that high retention rates improve performance through workforce stability and operational efficiency.

## **Literature Review**

### **2.1 Leadership**

Leadership is one of the fundamental aspects in organizational management that has a significant influence on the success of achieving organizational goals. According to (Robbins & Judge, 2017), leadership is the ability to influence a group towards the achievement of a vision or set of goals. (Northouse, 2017) defines leadership as the process by which an individual influences a group of individuals to achieve a common goal, which includes four main components namely leadership as a process, leadership involves influence, leadership occurs in groups, and leadership involves the achievement of goals. (Bass & Riggio, 2016) differentiates leadership into two main approaches: transactional leadership that focuses on the exchange between leaders and followers, and transformational leadership that inspires followers to transcend their personal interests for the good of the organization. Good leaders focus on their personal strengths, organizational strengths, and company strengths (Ferine, 2023). Leadership can encourage increased creativity in producing quality products. However, this effort must also be supported by every company's resources that are superior and able to compete in the business world (Kholik et al., 2022).

### **2.2 Employee Retention**

Employee retention is an organization's ability to retain its employees for a certain period of time, which is an important indicator of organizational health and the effectiveness of human resource management. (Mathis & Jackson, 2019) defines employee retention as an organization's systematic effort to create and maintain a work environment that encourages employees to stay on the job by minimizing unwanted turnover rates. Das and Baruah (2013) explain that employee retention reflects the stability of the workforce and is the result of various organizational factors including compensation, career development, work environment, and leadership quality. (Armstrong & Taylor, 2017) emphasizes that an effective retention strategy should include practices such as competitive compensation, career development opportunities, work-life balance, and a positive organizational culture.

### **2.3 Employee Performance**

Employee performance is a multidimensional construct that reflects the effectiveness of individuals in carrying out their duties and responsibilities as well as their contribution to achieving organizational goals. (Mangkunegara, 2017) defines employee performance as the

result of work in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. According to (Pratiwi & Rizky, 2024; Rizky, M., 2022) that performance, which is the results achieved by a worker, can be seen from the quality and quantity that has been done by a worker in carrying out tasks and responsibilities in the company, workers who have had good performance will also provide good results for the company to be able to achieve maximum results for the business.

## Research Methodology

This study uses an explanatory quantitative approach that aims to explain the influence of leadership on employee performance and examine the role of employee retention as a moderation variable in the port industry, especially within PT Pelabuhan Indonesia (Persero) Regional I. The population in this study is 35 employees consisting of permanent and contract employees in the operational and administrative sections, so because the number is relatively small, The entire population was used as a research sample (census method). Primary data was collected through a five-point Likert scale questionnaire compiled based on indicators from each variable, while secondary data was obtained from internal company documents related to organizational structure and employee performance. This study utilizes Structural Equation Modeling (SEM) analysis based on Partial Least Squares (PLS) with the help of SmartPLS software version 4.0, because this method is able to test the direct and indirect relationships between latent variables simultaneously, albeit with a limited number of samples.

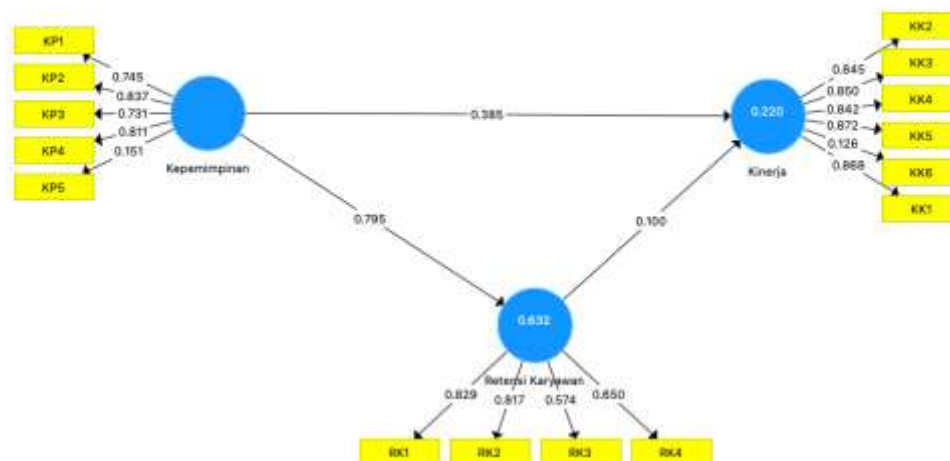
## Results

### 4.1 Description of Research Object

PT. The Port of Indonesia (Persero) Region I, hereinafter referred to as PT. Pelindo Regional I is an Indonesian state-owned port company that has operational responsibilities for several ports in the western part of Indonesia, including Dumai Port. Dumai Port, located in Dumai City, Riau Province, is one of the important ports in North Sumatra that serves as an international trade gateway for export-import commodities, especially crude oil and natural gas, as well as various non-oil and gas products such as plantations, mining, and manufacturing. Dumai Branch of PT. Pelindo Regional I manages port operational activities by serving cargo ships, tankers, and container vessels with a cargo handling capacity of millions of tons per year, as well as providing complete infrastructure including docks, warehouses, storage areas, and modern loading and unloading facilities.

### 4.2 Evaluasi Measurement Model (Outer Model)

The evaluation stage of the measurement model (outer model) functions to assess the extent to which the indicators in the model are able to accurately represent the latent constructs that are measured. At this stage, several main tests are carried out, namely convergent validity, discriminant validity, and construct reliability. Convergent validity is assessed through outer loading, Average Variance Extracted (AVE), and Composite Reliability (CR) values. According to Hair et al. (2017), the indicator is said to be valid if it has an outer loading value above 0.6. Indicators with an outer loading value below 0.6 are considered weak and need to be eliminated in order for the model to be more valid and reliable. Next, discriminant validity is tested to ensure that each construct is empirically different from another, usually through the Fornell-Larcker or Heterotrait-Monotrait Ratio (HTMT) criteria. Meanwhile, construct reliability is assessed based on Composite Reliability (CR) and Cronbach's Alpha to measure the internal consistency between indicators in constructs.



**Figure 1. Outer Model**

Based on Figure 1, most indicators have an outer loading value of  $>0.6$ , but there are four indicators with values below 0.6, namely KP5, KK6, RK3, and RK4. These four indicators need to be eliminated because they are not able to represent the construct optimally, so that the measurement model becomes more valid and reliable.

**Table 1. Outer Loading Value After Elimination**

	Kepemimpinan	Kinerja	Retensi Karyawan
KK2		0,844	
KK3		0,852	
KK4		0,846	
KK5		0,872	
KP1	0,730		
KP2	0,838		
KP3	0,743		
KP4	0,819		
RK1			0,866
RK2			0,863
KK1		0,865	

After eliminating invalid indicators, all outer loading values in the Leadership, Performance, and Employee Retention variables show results above 0.6. This means that all the remaining indicators are valid and able to describe their respective constructs well.

**Table 2. Construct Reliability and Validity**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Kepemimpinan	0,793	0,818	0,864	0,614
Kinerja	0,909	0,909	0,932	0,732
Retensi Karyawan	0,685	0,750	0,824	0,616

Based on Table 2, the results of Construct Reliability and Validity show that all variables have Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE) values that meet the reliability and validity criteria. The Leadership, Performance, and Employee

Retention variables each showed good reliability values, with an AVE above 0.5 indicating the fulfillment of convergent validity.

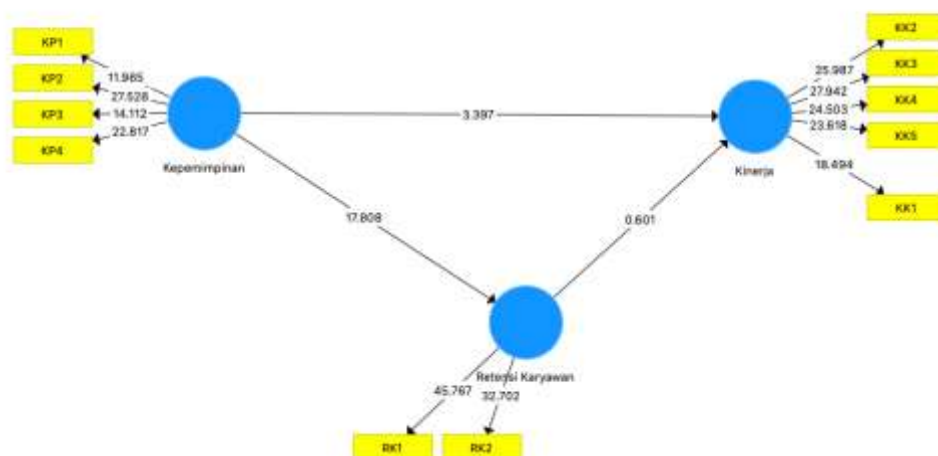
**Table 3. Fornell-Larcker Criterion**

	Kepemimpinan	Kinerja	Retensi Karyawan
Kepemimpinan	0,784		
Kinerja	0,458	0,856	
Retensi Karyawan	0,814	0,364	0,785

Based on Table 3, the results of the Fornell-Larcker Criterion show that the value of the square root of Average Variance Extracted (AVE) in each construct is higher than the correlation between other constructs. The diagonal values for Leadership (0.784), Performance (0.856), and Employee Retention (0.785) are each greater than the correlation values below them. This proves that each construct has a clear difference from each other and has met the discriminant validity, so that the measurement model can be declared well and can be proceeded to the structural analysis stage.

#### 4.3 Evaluasi Structural Model (Inner Model)

After obtaining a valid and reliable measurement model, the next stage is the evaluation of the structural model (structural model or inner model) to test the causal relationship between the variables in the research model.



**Figure 2. Inner Model**

**Table 5. Path Coefficients**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Kepemimpinan -> Kinerja	0,540	0,538	0,159	3,397	0,001
Kepemimpinan -> Retensi Karyawan	0,820	0,825	0,046	17,808	0,000
Retensi Karyawan -> Kinerja	-0,100	-0,094	0,167	0,601	0,548

Based on the results of the path coefficients analysis in Table 5, it can be seen that the Leadership variable has a significant effect on Employee Performance with an original sample value of 0.540 and a T-statistics value of 3.397 ( $>1.96$ ) and a P-value of 0.001 ( $<0.05$ ). These results show that the better the leadership style applied in the organization, the higher the employee performance will be. Furthermore, the Leadership variable also has a very significant effect on Employee Retention with an original sample value of 0.820, T-statistics of 17.808, and P-values of 0.000, which means that the relationship is very strong and statistically significant. This indicates that effective leadership is able to increase employee loyalty and desire to stay in the organization. However, different results were shown in the relationship between Employee Retention and Performance, where the original sample value was -0.100, the T-statistics were 0.601, and the P-values were 0.548 ( $>0.05$ ), suggesting that the effect was not significant. Thus, it can be concluded that employee retention does not make a real contribution to improving employee performance in the context of this study.

**Table 6. R-Square**

	R Square	R Square Adjusted
Kinerja	0,210	0,193
Retensi Karyawan	0,662	0,659

Based on the results of R-Square in the table above, the R-Square Performance value is 0.210 and the R-Square Adjusted is 0.193. This value shows that the variables of Leadership and Employee Retention are able to explain 21.0% of the variation in changes in Employee Performance, while the remaining 79.0% is explained by other factors outside of this study model. This indicates that the model has a weak to moderate explanatory ability to the performance variables. Meanwhile, the R-Square value for Employee Retention of 0.662 with the R-Square Adjusted of 0.659 indicates that Leadership is able to explain 66.2% of the variation in Employee Retention, while the remaining 33.8% is influenced by other variables not examined in this model. Thus, it can be concluded that the ability of Leadership to explain Employee Retention is relatively strong, so the leadership role has a dominant influence on employees' decisions to stay in the organization.

**Table 7. F-Square**

	Kepemimpinan	Kinerja	Retensi Karyawan
Kepemimpinan		0,097	1,961
Kinerja			
Retensi Karyawan		0,000	

Based on the results of the F-Square analysis in the table above, it can be seen that the influence of Leadership on Performance has a value of 0.097, which is included in the category of small effects. This shows that the application of leadership in the work environment only makes a limited contribution to improving employee performance. However, the influence of Leadership on Employee Retention showed a value of 1.961, which was classified as a large effect. This means that the leadership style applied in the organization has a very strong role in retaining employees to remain loyal and stay in the agency. Meanwhile, the F-Square value of Employee Retention on Performance of 0.000 indicates that the employee retention rate has no real effect on improving employee performance. Thus, although employees tend to stay in the organization, it is not necessarily followed by increased productivity or better work outcomes.

The results of this study show that leadership has a significant role in employee performance and retention in the research object. Based on the results of the path coefficient, the influence of leadership on performance obtained a T-statistical value of 3.397 with a P-

value of 0.001, which means significant. This shows that the better the leadership style applied by the leader, the higher the level of employee performance. Leaders who are able to provide direction, motivation, and create a conducive work environment are proven to increase employee work productivity. In addition, the influence of leadership on employee retention showed a statistical T-value of 17,808 and a P-value of 0.000, which was also significant with a very strong influence. These findings confirm that effective leadership encourages employee loyalty and commitment to stay in the organization, as they feel valued, supported, and have positive interpersonal relationships with their bosses. In contrast, the effect of employee retention on performance showed a statistical T-value of 0.601 with a P-value of 0.548, which means it is insignificant. This indicates that although employee retention rates are high, they do not necessarily have an impact on performance improvement. Chances are, employees who stay are not necessarily motivated to work more productively, or other factors such as workload and job satisfaction are not optimal in influencing their performance.

The R-Square results also reinforce the findings, where the leadership and employee retention variables were able to explain 21% variation in performance ( $R^2 = 0.210$ ) and 66.2% in employee retention ( $R^2 = 0.662$ ). This means that leadership plays a dominant role in shaping retention, while employee performance improvement is still influenced by other factors outside of the research model. Furthermore, F-Square's results show that the influence of leadership on employee retention has a value of 1.961 (large effect), while on performance is only 0.097 (small effect). This confirms that leadership in the agency is more effective in maintaining employee loyalty than improving performance directly. Thus, it can be concluded that the success of leaders in retaining employees is the main strength of the organization, but it needs to be balanced with a motivation increase strategy and performance appraisal system so that high retention is also directly proportional to work productivity.

## Conclusion

Based on the research findings, it can be concluded that leadership plays a significant role in enhancing employee retention and performance in the study context. An effective leadership style that provides direction, motivation, and a conducive work environment has been shown to foster employee loyalty and strengthen their commitment to remain in the organization. However, employee retention itself does not significantly impact performance, indicating that employees who stay are not always motivated to increase productivity; other factors such as workload and job satisfaction also affect performance. The R-Square results show that leadership and retention explain 21% of performance variation and 66.2% of retention variation, highlighting that leadership is more dominant in shaping employee loyalty. Thus, the organization's main strength lies in the leader's ability to retain employees, but strategies to enhance motivation and performance appraisal systems are needed to ensure that high retention also directly improves work productivity.

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