

Analysis of Human Resource Development, Leadership, and Bonuses on Employee Performance at PT Belawan New Container Terminal

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Abstract

This study aimed to analyze the effect of Human Resource Development, Leadership, and Bonuses on employee performance at PT Belawan New Container Terminal. The study used a quantitative approach with an associative method. The population consisted of 210 employees, with a sample of 68 respondents determined using the Slovin formula through purposive sampling technique. Primary data were obtained through questionnaires and were analyzed using SPSS version 24. The data analysis technique used was multiple linear regression to examine the partial and simultaneous effects of independent variables on the dependent variable. The results showed that partially, Human Resource Development had a positive and significant effect on employee performance with a regression coefficient of 0.210, a t-value of 3.034, and a significance value of 0.003. Leadership had a positive and significant effect with a regression coefficient of 0.417, a t-value of 4.474, and a significance value of 0.000. Bonuses also had a positive and significant effect with a regression coefficient of 0.289, a t-value of 2.853, and a significance value of 0.006. Simultaneously, the F-value was 115.158 with a significance value of 0.000. Leadership was the most dominant variable because it had the highest regression coefficient and t-value. The adjusted R² value of 0.836 indicated that 83.6% of the variation in employee performance was explained by the three variables, while the correlation coefficient (R) of 0.919 indicated a very strong relationship.

Keywords: Human Resource Development, Leadership, Bonus, Employee Performance.

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Introduction

PT Belawan New Container Terminal was a company managing container terminal operations in the Belawan Port area and played a strategic role in supporting the smooth flow of export and import activities [1]. The company provided loading and unloading services, cargo flow management, as well as berth and container yard operations with service standards emphasizing speed, accuracy, and occupational safety [2]. Support from a modern operational management system through the utilization of mechanical equipment and the digitalization of service processes was implemented to enhance the effectiveness and efficiency of container handling activities [2]. Continuous optimization of terminal capacity was essential to maintain service stability and ensure supply chain continuity for both domestic and international business actors [2][3].

Employee Performance held a central role in determining the operational success of the company [4]. Terminal productivity was strongly influenced by employees' competence, accuracy, discipline, and team coordination in executing work procedures [5]. Accuracy in documentation, vessel service speed, and efficiency in equipment utilization became key indicators in maintaining service quality. Theoretically, performance was influenced by various factors such as Human Resource Development, Leadership, training, compensation, bonuses, and organizational culture [6]. Previous studies also indicated that Human Resource Development, Leadership, and bonuses had a positive and significant effect on improving Employee Performance [7].

However, observational findings indicated discrepancies between operational standards and actual work achievements, particularly in aspects of quality, quantity, time efficiency, and creativity. Errors in documentation, delays in task completion, and variations in productivity during peak cargo flows became operational constraints. In addition, time management issues and low innovative initiative affected performance consistency, indicating the need for continuous organizational improvement.

Table 1. Pre Survey Results for the Employee Performance Variable

No	Statments	Agree		Disagree		Total	
		Amount	Percent	Amount	Percent	Amount	Percent
1	Employees consistently completed their tasks in accordance with company standards each day.	6	30,0%	14	70,0%	20	100,0%
2	Employees consistently achieved the work targets set by the company within one working day.	7	35,0%	13	65,0%	20	100,0%
3	Employees consistently used working time effectively to complete tasks according to the established schedule.	8	40,0%	12	60,0%	20	100,0%
4	Employees consistently generated new ideas to improve work processes within the company.	6	30,0%	14	70,0%	20	100,0%

The results of the pre survey conducted among 20 employees indicated that Employee Performance at PT Belawan New Container Terminal had not yet reached an optimal level. As many as 70 percent of respondents assessed that work quality did not meet established standards, 65 percent stated that quantitative targets had not been achieved, 60 percent perceived low time efficiency, and 70 percent indicated limited creativity. These findings suggested that Employee Performance had not yet fulfilled company expectations.

The results of observations, interviews, and the pre survey involving 20 employees indicated that Human Resource Development at PT Belawan New Container Terminal had not been optimally implemented. Approximately 65 percent of respondents expressed dissatisfaction with training programs, 70 percent considered performance evaluations to be insufficiently objective, 70 percent perceived rewards as inadequate, and 75 percent stated that career paths were unclear. Employees also reported that training materials lacked relevance, feedback was limited, and promotional support had not been maximized. These conditions indicated that the Human Resource Development system had not effectively enhanced employee competence, motivation, and readiness to address increasingly complex job demands.

Furthermore, the results of observations, interviews, and the pre survey involving 20 employees revealed that Leadership practices at PT Belawan New Container Terminal had not functioned effectively. Around 70 percent of respondents reported the absence of clear two way communication, 65 percent did not perceive leaders as supportive and motivating, and 70 percent did not receive clear direction in completing tasks. In addition, 60 percent of employees considered opportunities for self development to be limited. Decision making tended to follow a top down approach, guidance was insufficiently systematic, and responses to operational situations were not optimal. These conditions reflected weaknesses in communication, direction, motivation, and competency development support, thereby limiting the development of effective working relationships and productivity.

The results of observations, interviews, and the pre survey involving 20 employees also indicated that the bonus system at PT Belawan New Container Terminal faced several challenges. Approximately 65 percent of respondents stated that bonus distribution had not been implemented fairly in accordance with work contributions. In addition, 70 percent of employees perceived that bonuses were not fully based on individual and team performance achievements. Regarding timeliness, 60 percent of respondents stated that bonuses were not consistently distributed according to the predetermined schedule. Meanwhile, 75 percent of employees considered the bonus amount to be disproportionate to their workload and responsibilities. These findings demonstrated that the bonus system had not been effective in enhancing motivation and Employee Performance.

Research Methodology

This study applied a quantitative approach with an explanatory or associative research design aimed at examining relationships and identifying the magnitude of the influence of independent variables on the dependent variable based on numerical data [8]. Primary data were collected through the distribution of questionnaires to predetermined respondents [9]. The research was conducted at PT Belawan New Container Terminal, located on Jalan Raya Pelabuhan Gabion, Medan City, North Sumatra Province.

The population consisted of all permanent employees of the company, totaling 210 individuals. The sample size was determined using the Slovin formula, resulting in 68 respondents representing the population [10].

$$n = \frac{N}{1 + N e^2} = \frac{210}{1 + 210(0,10^2)} = \frac{210}{1 + 210(0,01)} = \frac{210}{3,10} = 67,74 = 68 \text{ (rounded)}$$

The sampling technique employed was purposive sampling, with criteria including permanent employee status, a minimum tenure of one year, and non managerial or non supervisory positions.

Data processing and analysis were conducted using SPSS version 24. The stages of analysis included instrument quality testing comprising validity and reliability tests, classical assumption testing, and hypothesis testing using multiple linear regression analysis. The regression analysis was complemented by the t test for partial effects, the F test for simultaneous effects, and the coefficient of determination to measure the contribution of independent variables to the dependent variable [11][12].

Table 2. Variable Penelitian

No	Variable	Operational Definition	Indicator	Scale
1	Human Resource Development (X ₁)	A systematic process aimed at enhancing employee competence, skills, knowledge, and potential within an organization [13].	1. Satisfaction Training Programs 2. Perception Performance Management 3. Reward and Recognition 4. Career Development [13]	with <i>Liker t</i> of
2	Leadership (X ₂)	A process of influencing in determining organizational direction, motivating follower behavior to achieve objectives, and influencing improvement of groups and organizational culture [14].	1. Communication 2. Behavior 3. Ability 4. Self Development [14]	
3	Bonus (X ₃)	Additional compensation beyond basic salary provided by the company to employees based on performance achievement, specific targets, or contributions as a form of reward and work motivation [15].	1. Fairness of Bonus Distribution 2. Alignment of Bonus with Performance 3. Timeliness of Bonus Distribution 4. Adequacy or Value of Bonus [15]	<i>Liker t</i>
4	Employee Performance (Y)	Work results achieved by an individual or group within an organization in accordance with their respective authority and responsibilities in order to attain organizational objectives legally, without violating laws, and in accordance with moral and ethical standards [6].	1. Work Quality 2. Work Quantity 3. Work Time Efficiency 4. Work Creativity [6]	<i>Liker t</i>

Results

Characteristics of Respondents

The characteristics of respondents indicated a relatively balanced gender composition, consisting of 51.5 percent female and 48.5 percent male employees. The majority of respondents were aged between 36 and 40 years at 26.5 percent and between 41 and 45 years at 22.1 percent, reflecting the dominance of mature and productive age groups. In terms of educational background, most respondents held a Bachelor degree at 64.7 percent and a Master degree at 22.1 percent. The highest proportion of tenure was within the range of 11 to 15 years at 30.9 percent and 16 to 20 years at 26.5 percent. Most respondents were married at 88.2 percent. These findings indicated that respondents were predominantly well educated, experienced, and within a mature productive age range.

Analysis of Respondents' Answers on Human Resource Development Variable (X₁)

The analysis indicated that the majority of respondents provided positive assessments of the Human Resource Development variable. Regarding training satisfaction indicators X1.1 and X1.2, more than 70 percent of respondents agreed and strongly agreed that training materials and methods supported their work. In the performance management aspect X1.3 and X1.4, approximately 65 to 69 percent agreed and strongly agreed regarding transparency and feedback in performance appraisal. Reward and recognition indicators X1.5 and X1.6 were also

dominated by agreement responses exceeding 67 percent. Meanwhile, career development indicators X1.7 and X1.8 obtained agreement levels ranging from approximately 61 to 72 percent, although the proportion of disagreement responses was relatively higher compared to other indicators. These findings suggested that overall Human Resource Development was categorized as good, yet career opportunity aspects still required improvement.

Analysis of Respondents’ Answers on Leadership Variable (X₂)

The distribution of responses indicated that the Leadership variable received very positive evaluations. In communication indicators X2.1 and X2.2, more than 75 percent of respondents agreed and strongly agreed that leaders conveyed information clearly and provided opportunities for discussion. In behavioral aspects X2.3 and X2.4, approximately 73 to 81 percent assessed that leaders provided recognition and work motivation. Ability indicators X2.5 and X2.6 showed the highest agreement levels exceeding 76 percent, particularly regarding direction and decision making accuracy. Self development indicators X2.7 and X2.8 were also dominated by positive responses above 69 percent, although a small proportion of neutral and disagree responses remained. These findings indicated that Leadership was categorized as very good and effective in supporting Employee Performance.

Analysis of Respondents’ Answers on Bonus Variable (X₃)

The results indicated that the Bonus variable received positive evaluations. For fairness indicators X3.1 and X3.2, approximately 75 to 86 percent of respondents agreed and strongly agreed that bonuses were distributed fairly and objectively. Regarding alignment with performance X3.3 and X3.4, agreement levels ranged from 76 to 81 percent, indicating that bonuses were perceived as consistent with work achievements. Timeliness indicators X3.5 and X3.6 were also dominated by positive responses exceeding 76 percent. Meanwhile, adequacy indicators X3.7 and X3.8 received agreement levels of approximately 74 to 80 percent, although neutral responses were relatively higher in relation to statements concerning increased work enthusiasm. These findings indicated that the bonus system was categorized as good and sufficiently effective in supporting motivation and Employee Performance.

Analysis of Respondents’ Answers on Employee Performance Variable (Y)

The responses indicated that the Employee Performance variable was categorized as good. For work quality indicators Y1 and Y2, approximately 69 to 72 percent of respondents agreed and strongly agreed that employees worked according to quality standards and produced accurate results. Work quantity indicators Y3 and Y4 showed that the majority of respondents, approximately 67 to 71 percent, assessed that employees achieved targets without reducing quality. Work time efficiency indicators Y5 and Y6 obtained high agreement levels, particularly in prioritization ability at 73.5 percent. Meanwhile, work creativity indicators Y7 and Y8 were also positively evaluated, although neutral responses were still noticeable. These findings indicated that Employee Performance was relatively good and reflected optimal productivity and work effectiveness.

Data Quality Testing including Validity and Reliability

Table 3. Results of Validity and Reliability Tests

Human Resource Development (X ₁)		Leadership (X ₂)		Bonus (X ₃)		Employee Performance (Y)		r _{kritis}	Conclusion
Simbol	r _{hitung}	Simbol	r _{hitung}	Simbol	r _{hitung}	Simbol	r _{hitung}		
X _{1-1,1}	0,695	X _{2-1,1}	0,541	X _{3-1,1}	0,628	Y _{1-1,1}	0,434	0,3	Valid
X _{1-1,2}	0,640	X _{2-1,2}	0,626	X _{3-1,2}	0,607	Y _{1-1,2}	0,519	0,3	Valid

Human Resource Development (X ₁)		Leadership (X ₂)		Bonus (X ₃)		Employee Performance (Y)		r _{kritis}	Conclusion
Simbol	r _{hitung}	Simbol	r _{hitung}	Simbol	r _{hitung}	Simbol	r _{hitung}		
X _{1-2,1}	0,682	X _{2-2,1}	0,704	X _{3-2,1}	0,562	Y _{1-2,1}	0,584	0,3	Valid
X _{1-2,2}	0,571	X _{2-2,2}	0,680	X _{3-2,2}	0,701	Y _{1-2,2}	0,564	0,3	Valid
X _{1-3,1}	0,740	X _{2-3,1}	0,730	X _{3-3,1}	0,829	Y _{1-3,1}	0,643	0,3	Valid
X _{1-3,2}	0,658	X _{2-3,2}	0,782	X _{3-3,2}	0,784	Y _{1-3,2}	0,658	0,3	Valid
X _{1-4,1}	0,672	X _{2-4,1}	0,556	X _{3-4,1}	0,812	Y _{1-4,1}	0,583	0,3	Valid
X _{1-4,2}	0,610	X _{2-4,2}	0,809	X _{3-4,2}	0,590	Y _{1-4,2}	0,551	0,3	Valid
Cronbach's Alpha		Cronbach's Alpha		Cronbach's Alpha		Cronbach's Alpha		Conclusion	
0,886		0,894		0,900		0,836		Reliable	

The results of the validity test indicated that all statement items for each variable obtained a calculated r value exceeding the critical r value of 0.30. These findings demonstrated that each item was able to accurately measure the intended construct, and therefore the research instrument was declared valid [10].

The reliability test showed that the Cronbach Alpha value for all variables exceeded 0.70. This value reflected a high level of internal consistency, indicating that the research instrument was reliable and appropriate for data collection purposes [4].

Classical Assumption Tests comprising Normality, Multicollinearity, and Heteroskedasticity

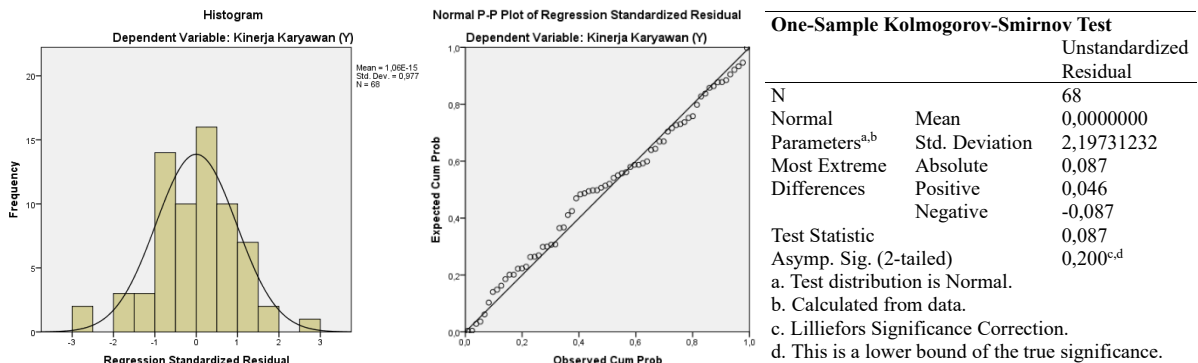


Figure 1. Normality Test using Histogram Graph, P P Plot, and Kolmogorov Smirnov Test

Based on the normality test through the histogram graph, the residual distribution formed a pattern resembling a bell shaped curve. The mean residual value that approached zero and the relatively small standard deviation indicated that the data were symmetrically distributed around the mean. This condition confirmed that the normality assumption in the regression model had been fulfilled [5].

These results were supported by the Normal P P Plot, where all 68 observation points were distributed around and followed the diagonal line. This pattern indicated that the residuals were normally distributed without significant deviation [16].

The Kolmogorov Smirnov test produced a significance value greater than 0.05, indicating that the data were normally distributed [16].

Table 4. Results of Multicollinearity Test and Glejser Test

Model	Coefficients ^a			Sig.	Conclusion
	Collinearity Statistics		Toleranc e		
	VIF				
1 (Constant)				0,005	There are no multicollinearity problems and no symptoms of heteroscedasticity.
Human Resource Development (X ₁)	0,363	2,751	0,115		
Leadership (X ₂)	0,270	3,701	0,767		
Bonus (X ₃)	0,202	4,959	0,907		
a. Dependent Variable: Employee Performance (Y)				a. Dependent Variable: Absolute Residual	

The multicollinearity test indicated that all independent variables had tolerance values above 0.10 and Variance Inflation Factor values below 10. These results confirmed the absence of high correlation among independent variables, meaning that the regression model was free from multicollinearity problems [17].

The Glejser test results showed that the significance values of each independent variable were greater than 0.05, indicating that heteroskedasticity was not present in the model [16].

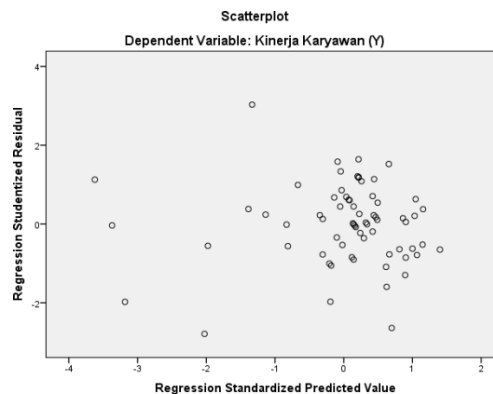


Figure 2. Heteroskedasticity Test using Scatterplot Graph

The scatterplot graph displayed 68 residual points distributed randomly without forming a specific pattern. This random distribution indicated that the residual variance was constant and that the regression model satisfied the assumptions of homoskedasticity and linearity among variables [18].

Table 5. Multiple Linear Regression Analysis and t Test

Model	Coefficients ^a			t _{hitung}	t _{Table}	Sig.	Syarat Sig.	Conclusion Pengaruh
	Unstandardized Coefficients	Standardized Coefficients						
	B	Std. Error	Beta					
1 (Constant)	1,085	1,615		0,672		0,504		
Human Resource Development (X ₁)	0,210	0,069	0,249	3,034	1,998	0,003	Sig < 0,05	Positif & Signifikan
Leadership (X ₂)	0,417	0,093	0,425	4,474	1,998	0,000	Sig < 0,05	Positif & Signifikan
Bonus (X ₃)	0,289	0,101	0,314	2,853	1,998	0,006	Sig < 0,05	Positif & Signifikan

a. *Dependent Variable*: Employee Performance (Y)

Multiple Linear Regression Analysis

Based on the analysis results, the multiple linear regression equation was formulated as follows [10]:

$$Y = 1.085 + 0.210X_1 + 0.417X_2 + 0.289X_3$$

The constant value of 1.085 indicated that when the variables Human Resource Development X₁, Leadership X₂, and Bonus X₃ were assumed to be constant or equal to zero, Employee Performance Y still had a value of 1.085 [19]. This finding suggested that other factors outside the model also influenced Employee Performance.

The regression coefficient of Human Resource Development X₁ was 0.210, indicating a positive direction of influence on Employee Performance. This meant that every one unit increase in Human Resource Development increased Employee Performance by 0.210 units [20]. The positive influence occurred because improvements in competence, training, and work capability encouraged employees to perform more effectively and productively.

The Leadership coefficient X₂ was 0.417, also indicating a positive direction. This meant that every improvement in Leadership quality increased Employee Performance by 0.417 units [21]. Effective Leadership provided direction, motivation, and supervision that encouraged employees to achieve work targets optimally.

The Bonus coefficient X₃ was 0.289, indicating a positive influence on Employee Performance. An increase in bonus provision increased performance by 0.289 units [22]. This occurred because bonuses served as a form of reward that enhanced motivation and work enthusiasm.

Based on the standardized Beta coefficient values, the most dominant variable was Leadership with a Beta value of 0.425 [10]. This indicated that Leadership contributed the greatest effect in improving performance, as the role of leaders directly influenced employee behavior, discipline, and work motivation [23].

t Test

The t table value of 1.998 was obtained from the t distribution with degrees of freedom df equal to n minus k minus 1, namely 68 minus 3 minus 1 equal to 64, at a significance level of 0.05 for a two tailed test [4]. This value served as the comparison for each calculated t value.

Human Resource Development had a calculated t value of 3.034 greater than 1.998 and a significance value of 0.003 less than 0.05, indicating a positive and significant effect on performance. This meant that partially Human Resource Development provided a measurable contribution to improving performance [24].

Leadership had a calculated t value of 4.474 greater than 1.998 and a significance value of 0.000 less than 0.05, indicating a positive and significant effect. This result implied that better Leadership significantly increased Employee Performance in a measurable manner [25].

Bonus had a calculated t value of 2.853 greater than 1.998 and a significance value of 0.006 less than 0.05, indicating a positive and significant effect. A significant effect meant that the relationship did not occur by chance but had a real impact on Employee Performance [26].

Table 6. Results of F Test and Coefficient of Determination

<i>Model</i>	<i>df</i>	ANOVA ^a				Model Summary ^b		
		<i>F_{hitung}</i>	<i>F_{Table}</i>	<i>Sig</i>	<i>Syarat Sig.</i>	<i>Conclusion</i>	<i>R</i>	<i>Adjusted R Square</i>
1 Regression	3							
Residual	64	115,158	2,748	0,000	< 0,05	Signifikan	0,919 ^a	0,836
Total	67							

a. *Dependent Variable*: Employee Performance (Y)

b. *Predictors*: (Constant), Human Resource Development (X₁), Leadership (X₂), Bonus (X₃)

F Test

The F table value of 2.748 was obtained from the F distribution with df1 equal to 3 and df2 equal to 64 at a significance level of 0.05 [5]. The results showed that the calculated F value of 115.158 was greater than 2.748 with a significance value of 0.000 less than 0.05, indicating that the regression model was simultaneously significant. This meant that Human Resource Development, Leadership, and Bonus simultaneously had a significant effect on Employee Performance [7].

Coefficient of Determination

The Adjusted R Square value of 0.836 indicated that 83.6 percent of the variation in Employee Performance was explained by the variables Human Resource Development, Leadership, and Bonus, while 16.4 percent was influenced by other factors outside the scope of this study [27]. The R value of 0.919 indicated a very strong relationship between the independent variables and the dependent variable [28].

Discussion

The Effect of Human Resource Development on Employee Performance

The regression test results indicated that Human Resource Development had a positive and significant effect on Employee Performance at PT Belawan New Container Terminal. In the operational context of a container terminal serving as one of the main logistics gateways in North Sumatra, the achievement of optimal Employee Performance was strongly influenced by the technical capability and competence of the company's human resources [1]. The terminal not only handled intensive container loading and unloading activities but also implemented various expansion and service enhancement programs to increase service volume and operational efficiency amid increasingly intense competition in the international port industry [2].

The positive effect of Human Resource Development occurred because the company consistently enhanced employee competence through training programs, workshops, and practical work activities aligned with operational needs [29]. Strengthening human resource capacity was essential given the complexity of terminal operations, including loading and unloading coordination, utilization of modern equipment, and adaptation to evolving international service standards. Through relevant training programs and structured competency development, employees acquired improved technical and administrative skills that directly contributed to higher work performance [30].

In addition, PT Belawan New Container Terminal implemented continuous improvement and lean management principles to enhance employee work quality. Initiatives such as LEAN and Kaizen programs supported the development of a productive work culture and improved process effectiveness in a sustainable manner. These initiatives not only strengthened individual competence but also promoted team collaboration in addressing operational challenges, thereby generating significant performance improvement within the organization.

These findings were consistent with the perspective of Prawirosentono and Primasari, who stated that Employee Performance was influenced by various interrelated factors, including Human Resource Development [6]. The results were further supported by previous studies concluding that Human Resource Development partially exerted a positive and significant effect on improving Employee Performance [20][24][29][30].

The Effect of Leadership on Employee Performance

The analysis results demonstrated that Leadership had a positive and significant effect on Employee Performance at PT Belawan New Container Terminal. As a modern container terminal operating in Belawan Port, Medan, the company functioned within a highly dynamic and competitive environment where effective human resource management and Leadership were essential to achieving high operational targets such as increased loading and unloading volumes [3]. The terminal sought to deliver efficient, safe, and high quality logistics services

to support regional economic growth, making the role of leadership crucial in guiding work processes and fostering team collaboration to ensure optimal employee performance [2].

This positive effect could be explained by the central role of leaders in communicating clear work information, providing strategic direction, and establishing effective communication between management and employees. Effective Leadership ensured that work standards were clearly understood, enhanced employee motivation, fostered responsibility, and strengthened team cohesion in responding to operational challenges such as increasing cargo targets [31]. Moreover, strong Leadership reinforced a culture of occupational safety, collaboration, and competency development across organizational levels [25].

PT Belawan New Container Terminal undertook systematic Leadership initiatives focused on organizational development to improve Employee Performance. The company actively implemented coaching, training, and performance evaluation programs that integrated operational and safety standards, ensuring that employees received clear direction and adequate support in completing their responsibilities. Leadership within the organization was also oriented toward target achievement and recognition of employee contributions, which were considered essential for maintaining long term productivity and service quality.

These findings aligned with the view of Prawirosentono and Primasari, who emphasized that Employee Performance was influenced by interconnected factors, including Leadership [6]. The results were further reinforced by prior studies concluding that Leadership partially had a positive and significant effect on enhancing Employee Performance [21][23][25][31].

The Effect of Bonus on Employee Performance

The regression analysis indicated that Bonus had a positive and significant effect on Employee Performance at PT Belawan New Container Terminal. As a modern container terminal located in Belawan Port, Medan, the company played a strategic role in managing domestic and international logistics flows with emphasis on service efficiency, occupational safety, and operational reliability [3]. The terminal recorded consistent growth in container handling volume, reflecting solid operational performance amid global trade challenges. Such achievements were closely related to the company's efforts in empowering its human resources through incentive systems designed to enhance productivity [2].

The positive influence of bonuses occurred because bonuses functioned as economic incentives that motivated employees to perform more productively and efficiently in their daily responsibilities [32]. With a transparent bonus structure directly linked to performance targets, employees felt appreciated and motivated to improve achievements such as completing tasks punctually, increasing accuracy, and meeting predetermined loading and unloading targets [33]. Bonus provision also fostered a sense of fairness and recognition for individual contributions, thereby strengthening employee loyalty and commitment to organizational objectives [26]. This impact was reflected in the frequent attainment of operational targets that exceeded expectations, highlighting the role of financial motivation in driving productivity.

To further enhance Employee Performance through bonuses, the company could implement an incentive system linked to both individual and team achievements, such as bonuses based on productivity, occupational safety performance, and operational efficiency targets. Establishing clear bonus indicators and transparent reporting mechanisms would enable employees to understand how their contributions were directly rewarded. Furthermore, integrating bonuses with continuous performance evaluation programs would ensure that each achievement generated constructive feedback and encouraged professional growth. In this manner, bonuses would serve not only as rewards but also as strategic instruments to strengthen a high performance work culture and support sustainable performance improvement within the organization.

These findings were consistent with the perspective of Prawirosentono and Primasari, who stated that Employee Performance was influenced by various interconnected factors, including bonuses [6]. The results were further supported by previous studies concluding that bonuses

partially exerted a positive and significant effect on improving Employee Performance [22][26][32][33].

The Simultaneous Influence of Human Resource Development, Leadership, and Bonus on Employee Performance

The results of the multiple linear regression analysis and F test indicated that Human Resource Development, Leadership, and Bonus simultaneously exerted a positive and significant influence on Employee Performance at PT Belawan New Container Terminal. These findings suggested that performance improvement was not determined by a single factor but resulted from the synergy among employee competence, effective Leadership, and the reward system implemented by the company [7]. In the port industry, which required speed, accuracy, and high occupational safety standards, the integration of these three variables became a fundamental basis for achieving operational targets.

As a modern container terminal operating in the strategic area of Belawan Port, the company faced fluctuating logistics flows and strict international service standards [1]. This condition required employees to possess adequate technical skills, adaptability to cargo handling technology, and effective work coordination. Through training programs, certifications, and continuous development initiatives, the company ensured that Human Resource Development aligned with operational demands. Furthermore, a performance based bonus system strengthened work motivation, particularly in encouraging the achievement of productivity targets and vessel service time efficiency.

The simultaneous influence occurred because the three variables complemented one another in shaping employee work behavior. Human Resource Development enhanced technical capacity and competence, Leadership provided direction and strategic supervision, while bonus functioned as an external motivational reinforcement [22][31][34]. When implemented harmoniously, these elements created a productive, disciplined, and result oriented work environment. The implementation of strict operational standards, a strong safety culture, and periodic performance evaluations demonstrated that the company had integrated these aspects into its management system.

Simultaneously, the contribution of the three variables was reflected in the consistent achievement of operational targets and the improvement of service quality. Supported by structured management, continuous competence development, and a clear reward system, the company successfully built a competitive and professional work culture. This finding aligned with the theory proposed by Prawirosentono and Primasari, which explained that Employee Performance was influenced by interrelated factors such as work motivation, discipline, ability including knowledge and skills, teamwork, creativity, training, human resource development, Leadership, compensation factors, bonus, psychological factors, organizational culture, work environment, organizational commitment, company support, and communication [6].

Leadership emerged as the most dominant variable because it played a direct role in coordinating Human Resource Development and implementing the bonus system [25]. In a high activity terminal environment, leaders were responsible for task allocation, ensuring compliance with safety standards, and providing prompt direction in dynamic operational situations [23]. Clear instructions and firm supervision directly affected employee discipline and productivity [4]. In addition, leaders provided feedback, motivation, and conflict resolution in the workplace [21]. Therefore, effective Leadership not only influenced technical aspects of work but also shaped organizational culture and employee commitment, resulting in a greater impact on performance compared to Human Resource Development and bonus.

Conclusion

Based on the research findings, it was concluded that Human Resource Development, Leadership, and Bonus had a positive and significant influence on Employee Performance at PT Belawan New Container Terminal, both partially and simultaneously. Leadership was

proven to be the most dominant variable affecting performance. This indicated that improved Employee Performance was influenced by adequate competence, effective managerial direction, and a reward system that supported work motivation. Therefore, the company success in achieving operational targets was strongly determined by integrated and strategic human resource management.

The company was recommended to strengthen its Human Resource Development programs through competence based training and technical certifications relevant to terminal operations. Management also needed to enhance Leadership quality through leadership training, coaching, and periodic leadership performance evaluations to ensure more effective communication and supervision. In addition, the bonus system should be designed to be more transparent and based on measurable Key Performance Indicators to sustainably increase work motivation. The consistent integration of these three aspects would assist the company in improving productivity, service efficiency, and maintaining competitiveness within the port industry.

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