

Analysis of Work Ability, Work Quality, and Workload on Employee Performance at PT Belawan New Container Terminal

Riza Nugraha, Suwarno, Husni Muharram Ritonga

Abstract

This study aimed to analyze the effect of work ability, work quality, and workload on employee performance at PT Belawan New Container Terminal. The study used a quantitative approach with an associative method to determine the relationships and influences among variables. The population in this study consisted of all permanent employees of the company, totaling 210 individuals. The sample size was determined using the Slovin formula, resulting in 68 respondents selected through purposive sampling. Data were collected through questionnaires using a Likert scale. The data analysis methods included descriptive analysis, classical assumption tests, multiple linear regression analysis, t-test, F-test, and coefficient of determination. Data processing was conducted using SPSS version 24.0. The study was conducted in 2026. The results showed that partially work ability, work quality, and workload had a positive and significant effect on employee performance. Simultaneously, these three variables also had a positive and significant effect on employee performance. The coefficient of determination analysis indicated that work ability, work quality, and workload explained 94.1% of the variation in employee performance, while the remaining 5.9% was influenced by other variables outside the research model, indicating a very strong relationship between the independent variables and the dependent variable. In addition, work ability was found to be the most dominant variable influencing employee performance. These findings indicated that improving employee competence, implementing high work quality standards, and managing workload proportionally were important factors in enhancing employee performance within the company's operational environment.

Keywords: Work Ability, Work Quality, Workload, Employee Performance.

Riza Nugraha¹

¹ Master of Management, Universitas Pembangunan Panca Budi, Indonesia
e-mail: lestariningrum43@gmail.com¹

Suwarno², Husni Muharram Ritonga³

^{2,3} Master of Management, Universitas Pembangunan Panca Budi, Indonesia
e-mail: suwarnoaltaf@gmail.com², husnimuharram@dosen.pancabudi.ac.id³

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Introduction

The development of the maritime logistics sector has played a strategic role in supporting both domestic and international trade activities [1]. Container terminals, as part of the port system, have held an important function in ensuring the smooth flow of goods, particularly through loading and unloading activities, container yard management, and the regulation of container distribution [2]. PT Belawan New Container Terminal has been one of the companies performing this function within the Belawan Port area [3]. The company has supported export and import activities through the provision of container terminal services that emphasize operational speed, accuracy, and safety [2]. To maintain service quality, the company has implemented a modern operational management system supported by mechanical equipment and the digitalization of service processes in order to improve the effectiveness of cargo flow management [1].

In container terminal operations, employee performance has become an important factor influencing the continuity of company activities. Employee performance has not only been related to individual ability in completing tasks but has also reflected timeliness, the utilization of working time, and efficiency in the use of available resources [4]. Good performance has helped companies achieve established terminal service standards such as equipment productivity, ship service speed, and the smooth flow of container movements. Conversely, when employee performance has not been optimal, operational processes have faced potential obstacles that may have affected the effectiveness of terminal services.

Based on preliminary observations and interviews with several employees, it was found that work implementation within PT Belawan New Container Terminal still faced several challenges related to the quality of work results, the timeliness of task completion, the utilization of working time, and work efficiency in operational processes. In terms of work result quality, variations were still observed in the accuracy of cargo flow recording, the precision of operational reports, and the consistency of work outcomes, particularly during periods of high activity volume. In addition, regarding timeliness, some operational tasks occasionally required longer completion times than the predetermined schedule. These conditions indicated that the stability of work target achievement in several operational units still required further attention.

These findings were reinforced by the results of a pre survey conducted with twenty employees. The results showed that seventy percent of respondents stated that work outcomes had not fully met the quality standards established by the company. In addition, sixty five percent of respondents indicated that task completion had not always been carried out according to the scheduled working time. Regarding the utilization of working time, sixty percent of respondents assessed that working time had not been used effectively, while sixty five percent of respondents stated that the use of work resources had not been fully optimal. These findings indicated that employee performance still had room for improvement in order to support company operations more effectively.

According to Ahmadi, employee performance has been influenced by various factors including work ability, work quality, and workload [5]. Work ability has reflected the level of knowledge, skills, and individual capability in carrying out tasks effectively [6]. Work quality has been related to accuracy, thoroughness, and the ability of employees to produce work that meets the standards established by the organization [7]. Workload has been associated with the amount of work, time pressure, and the physical and mental demands faced by employees in performing their duties [8].

Based on preliminary observations, employee work ability at PT Belawan New Container Terminal showed several challenges related to the understanding of work

procedures, technical skills in operating equipment, problem solving ability, and adaptability to changes in work systems. In several work units, employees were still found to require further adjustment in understanding operational procedures and in using the terminal information system. The pre survey results also indicated that sixty percent of respondents stated that employees had not fully understood work procedures and job responsibilities according to operational standards. In addition, sixty five percent of respondents stated that employees had not been fully capable of analyzing work obstacles and finding solutions independently, while sixty percent of respondents indicated that adaptability to changes in the work system still needed improvement.

Besides work ability, work quality has also become an important factor influencing employee performance. Observational results indicated that several employees still faced difficulties in maintaining the timeliness of work completion, accuracy in recording operational data, and effectiveness in utilizing work resources. The pre survey results revealed that seventy percent of respondents stated that employees had not always completed tasks within the specified time. Furthermore, seventy percent of respondents stated that rechecking work results had not been carried out consistently. In addition, sixty percent of respondents considered that the utilization of work resources had not been fully optimal and that initiative in providing ideas or improvements in work processes remained relatively limited.

Another factor suspected to influence employee performance has been workload. Workload has been associated with the balance between job demands and the abilities and resources possessed by employees. Based on observational results, several employees experienced relatively high work pressure both in terms of work volume and limited time for task completion. The pre survey results indicated that seventy percent of respondents stated that the amount of work received had not been fully balanced with the available capabilities and equipment. In addition, seventy percent of respondents stated that the time provided to complete tasks had not always been sufficient. Some respondents also stated that the work performed occasionally caused physical fatigue and mental pressure that could influence concentration and work comfort.

These various findings indicated that work ability, work quality, and workload have been factors that potentially influence employee performance within PT Belawan New Container Terminal. If these three factors are not managed optimally, they may affect the effectiveness of work implementation and the achievement of the company's operational targets. Therefore, this research has become important in order to obtain a clear understanding of the relationship between work ability, work quality, and workload and employee performance.

Research Methodology

This study used a quantitative approach with an associative design aimed at analyzing the relationships and influences between independent variables and the dependent variable both partially and simultaneously [9]. The quantitative approach was chosen because this study utilized numerical data obtained through the distribution of questionnaires to respondents [10]. The associative design was used to examine the causal relationships between work ability, work quality, and workload and employee performance [11]. The research was conducted at PT Belawan New Container Terminal located in Medan City, North Sumatra, as one of the companies engaged in container terminal management.

The population in this study consisted of all permanent employees of PT Belawan New Container Terminal totaling two hundred and ten individuals distributed across various operational and administrative divisions. The sample size was determined using the Slovin

formula with an error tolerance of ten percent, resulting in a total sample of sixty eight respondents [12]. The sampling technique used was purposive sampling, which refers to the selection of samples based on specific criteria to ensure that the selected respondents were relevant to the research objectives [12]. The criteria for respondents in this study included: first, permanent employee status; second, a minimum of one year of work experience; and third, not occupying managerial positions. These criteria ensured that respondents possessed sufficient work experience to provide accurate information regarding the research variables.

The type of data used in this study was primary data obtained directly from respondents through the distribution of questionnaires. The questionnaire was developed based on the indicators of the research variables established in the conceptual framework [13]. The research variables consisted of three independent variables. Work Ability (X1) was measured through indicators of work knowledge, technical skills, problem solving ability, adaptability, and communication ability [6]. Work Quality (X2) was measured through indicators of accuracy, thoroughness, effectiveness, and innovation [7]. Workload (X3) was measured through indicators of work load, time load, physical load, mental load, and psychological load [8]. Employee performance (Y) was measured using indicators of work results, timeliness, utilization of working time, and work efficiency [5]. The measurement of variables used a five level Likert scale ranging from strongly disagree to strongly agree to measure respondents' perceptions of each research indicator [14].

The research instrument was first tested through validity and reliability testing to ensure that each statement item accurately and consistently measured the variables [15]. The initial stage involved classical assumption tests including the normality test, multicollinearity test, and heteroscedasticity test to ensure that the regression model satisfied the required statistical assumptions [16]. After the model met the classical assumptions, the analysis proceeded using multiple linear regression analysis to determine the influence of work ability, work quality, and workload on employee performance [17].

Hypothesis testing in this study was conducted using partial testing through the t test to determine the influence of each independent variable on the dependent variable individually and simultaneous testing through the F test to examine the combined influence of the three independent variables on employee performance [18]. This study also used the coefficient of determination R^2 to determine the extent to which work ability, work quality, and workload explained variations in employee performance [19]. All data processing and analysis procedures were conducted using the SPSS version 24.0 application.

Results

3.1 Characteristics of Respondents' Responses

Based on the results of the questionnaire distribution to 68 respondents, the characteristics of the respondents showed a relatively diverse composition. Based on gender, the majority of respondents were women with 36 individuals (52.9%), while men accounted for 32 individuals (47.1%). Based on age, the largest group was in the range of 41 to 45 years with 18 individuals (26.5%), followed by those aged 36 to 40 years with 14 individuals (20.6%), indicating that most respondents were within a productive and experienced age group. In terms of educational background, the majority of respondents held a Bachelor or Diploma Four degree with 41 individuals (60.3%), indicating a relatively high educational level. Based on years of service, the largest group of respondents had worked for 11 to 15 years with 15 individuals (22.1%). Meanwhile, based on marital status, most respondents were married with 61 individuals (89.7%). Overall, these characteristics indicated that the

respondents were dominated by well educated employees with relatively mature work experience.

Based on the analysis of the distribution of respondents' answers to the Work Ability variable (X1), which consisted of ten statements, most respondents provided positive assessments. In item X1.1, as many as 35 respondents (51.5%) agreed and 19 respondents (27.9%) strongly agreed with a mean value of 3.9559. Item X1.6 obtained the highest average score of 4.1324, with 30 respondents (44.1%) strongly agreeing and 25 respondents (36.8%) agreeing. Meanwhile, the lowest mean value was found in item X1.5 with a value of 3.8824, although it still fell within the good category. Overall, the average value of all items ranged from 3.8824 to 4.1324, which was categorized as good. Based on these results, it can be concluded that the work ability of employees at PT Belawan New Container Terminal was classified as good, as indicated by the high level of agreement among respondents regarding the indicators of work knowledge, technical skills, problem solving ability, adaptability, and communication.

Based on the distribution of respondents' answers to the Work Quality variable (X2), which consisted of eight statements, most respondents also provided positive assessments. In item X2.1, 30 respondents (44.1%) agreed and 23 respondents (33.8%) strongly agreed with a mean value of 4.0147. Item X2.6 also obtained an average value of 4.0147, with 29 respondents (42.6%) agreeing and 24 respondents (35.3%) strongly agreeing. The lowest average values were found in item X2.2 with 3.7206 and item X2.8 with 3.7647, although they still remained within the good category. Overall, the mean values ranged from 3.7206 to 4.0147, which were categorized as good. Based on these results, it can be concluded that the work quality of employees at PT Belawan New Container Terminal was also considered good, as reflected in the accuracy, precision, effectiveness, and innovative capability of employees in carrying out their duties.

Based on the distribution of respondents' answers to the Workload variable (X3), which consisted of ten statements, the majority of respondents provided positive assessments. In item X3.1, 29 respondents (42.6%) agreed and 23 respondents (33.8%) strongly agreed with a mean value of 3.9412. Item X3.6 also obtained an average value of 3.9412, with 31 respondents (45.6%) agreeing and 21 respondents (30.9%) strongly agreeing. The lowest mean values were found in item X3.5 with 3.7353 and item X3.10 with 3.7500, although both remained within the good category. Overall, the mean values ranged from 3.7353 to 3.9412, which according to the criteria of Sugiyono (2022) were classified as good. Based on these results, it can be concluded that the workload of employees at PT Belawan New Container Terminal remained at a good level and was relatively balanced with employee work ability.

Based on the distribution of respondents' answers to the Employee Performance variable (Y), which consisted of eight statements, most respondents also provided positive assessments. In item Y.1, 29 respondents (42.6%) agreed and 24 respondents (35.3%) strongly agreed with a mean value of 4.0294. The item with the highest average value was found in Y.7 with 4.0882, where 30 respondents (44.1%) strongly agreed and 22 respondents (32.4%) agreed. Meanwhile, the lowest mean values were found in item Y.5 with 3.7353 and item Y.3 with 3.7206, although both still fell within the good category. Overall, the average values ranged from 3.7206 to 4.0882, which were categorized as good. Based on these results, it can be concluded that the employee performance at PT Belawan New Container Terminal was considered good, as reflected in the quality of work outcomes, timeliness, utilization of working time, and efficiency in performing tasks.

3.2 Data Quality Test (Validity and Reliability)

Table 1. Validity and Reliability

Variable	Item	<i>r_{count}</i>	<i>Cronbach's Alpha</i>	Valid	Reliable
Work Ability (X ₁)	1	0,684	0,934	✓	✓
	2	0,635	0,936	✓	✓
	3	0,822	0,927	✓	✓
	4	0,690	0,934	✓	✓
	5	0,749	0,931	✓	✓
	6	0,749	0,931	✓	✓
	7	0,814	0,928	✓	✓
	8	0,882	0,924	✓	✓
	9	0,706	0,933	✓	✓
	10	0,770	0,930	✓	✓
Work Quality (X ₂)	1	0,806	0,864	✓	✓
	2	0,544	0,889	✓	✓
	3	0,690	0,874	✓	✓
	4	0,833	0,861	✓	✓
	5	0,598	0,883	✓	✓
	6	0,701	0,873	✓	✓
	7	0,745	0,870	✓	✓
	8	0,471	0,897	✓	✓
Workload (X ₃)	1	0,858	0,922	✓	✓
	2	0,703	0,930	✓	✓
	3	0,648	0,933	✓	✓
	4	0,848	0,922	✓	✓
	5	0,695	0,930	✓	✓
	6	0,662	0,932	✓	✓
	7	0,555	0,937	✓	✓
	8	0,889	0,921	✓	✓
	9	0,684	0,931	✓	✓
	10	0,878	0,921	✓	✓
Employee Performance (Y)	1	0,820	0,868	✓	✓
	2	0,570	0,891	✓	✓
	3	0,650	0,884	✓	✓
	4	0,657	0,883	✓	✓
	5	0,584	0,892	✓	✓
	6	0,825	0,868	✓	✓
	7	0,553	0,893	✓	✓
	8	0,792	0,870	✓	✓

The results of the research instrument testing indicated that the calculated *r* value was greater than the critical *r* value of 0.3, which suggested that the data obtained were valid [20]. In addition, the Cronbach Alpha value for each item exceeded 0.7, indicating that the data and instruments were reliable [19].

3.3 Normality Test

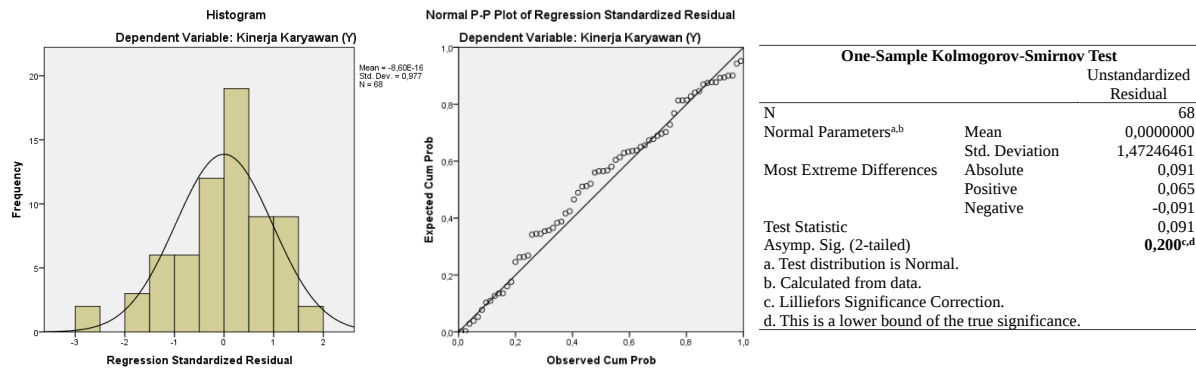


Figure 1. Histogram, P–P Plot, and Kolmogorov–Smirnov Significance

The histogram graph showed a convex or bell shaped curve, which indicated that the data were normally distributed [18]. The p p plot graph also showed that the data points followed the diagonal line, which further indicated that the data were normally distributed [18]. This result was strengthened by the Kolmogorov Smirnov test, which showed that the significance value was greater than 0.05, confirming that the data were normally distributed [17].

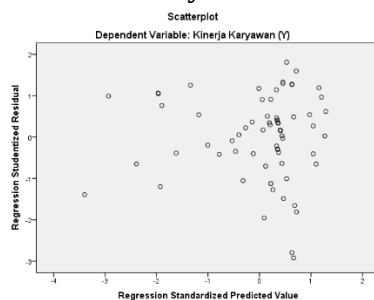
Multicollinearity Test

Table 2. Multicollinearity Test

Coefficients ^a					
Model	Collinearity Statistics Tolerance	VIF	Tolerance Requir.	VIF Requir.	Conclusion
1 (Constant)					
Work Ability (X ₁)	0,132	7,569	Tolerance > 0,10	VIF < 10	No Multicollinearity Problems
Work Quality (X ₂)	0,164	6,097			
Workload (X ₃)	0,189	5,292			
a. Dependent Variable: Employee Performance (Y)					

The tolerance values obtained were greater than 0.10 and the Variance Inflation Factor values were less than 10 for each independent variable, indicating that there was no multicollinearity problem among the independent variables [12].

3.4 Heteroskedasticity Test



Coefficients ^a	
Model	Sig.
1 (Constant)	0,087
Work Ability (X ₁)	0,749
Work Quality (X ₂)	0,982
Workload (X ₃)	0,748
a. Dependent Variable: Absolute_Residual	

Figure 2. Scatterplot and Glejser Test Significance

The scatterplot graph showed that the distribution of data points spread randomly without forming a specific pattern and were distributed both above and below the zero point, indicating that there was no heteroscedasticity problem [17]. This result was supported by the Glejser test, which showed that each independent variable had a significance value greater than 0.05, confirming that the regression model exhibited homoscedasticity [19].

4.5 Multiple Linear Regression Analysis

Table 3. Multiple Linear Regression Analysis and t-Test (Partial)

Coefficients ^a	
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Model	Unstandardized Coefficients		Standardized Coefficients	t_{hitung}	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,169	0,951		1,229	0,223
Work Ability (X_1)	0,325	0,063	0,424	5,188	0,000
Work Quality (X_2)	0,310	0,073	0,311	4,245	0,000
Workload (X_3)	0,200	0,050	0,273	4,004	0,000

a. Dependent Variable: Employee Performance (Y)

Based on the results of the multiple linear regression analysis, the regression equation obtained was as follows [21]:

$$Y = 1.169 + 0.325X_1 + 0.310X_2 + 0.200X_3$$

The equation indicated the relationship between Work Ability (X_1), Work Quality (X_2), and Workload (X_3) on Employee Performance (Y). The constant value of 1.169 indicated that if the variables of work ability, work quality, and workload were assumed to be constant or equal to zero, the baseline value of employee performance would be 1.169. This value illustrated that even without improvements in the independent variables, employee performance would still maintain a certain baseline level influenced by other factors outside the research model [22].

The regression coefficient of Work Ability (X_1) of 0.325 indicated that every one unit increase in work ability would increase employee performance by 0.325 units, assuming other variables remained constant. The positive direction of the influence indicated that the better the work ability of employees, the higher the level of performance produced. This condition could occur because strong work ability, including knowledge, skills, and problem solving capability, enabled employees to perform tasks more effectively and efficiently [23].

The regression coefficient of Work Quality (X_2) of 0.310 also indicated a positive influence on employee performance. This meant that every one unit increase in work quality would increase employee performance by 0.310 units. This situation occurred because high work quality, such as accuracy, timeliness, and effectiveness in work execution, produced more optimal work outputs and contributed to overall performance improvement [24].

Furthermore, the regression coefficient of Workload (X_3) of 0.200 also showed a positive direction of influence on employee performance. This indicated that an increase in workload that remained within the capacity of employees could increase performance by 0.200 units. A proportional workload could encourage employees to work more focused, disciplined, and productive in completing assigned tasks [25].

Based on the Standardized Beta values, the variable that had the most dominant influence on employee performance was Work Ability with a beta value of 0.424. This indicated that work ability was the primary factor determining improvements in employee performance. This condition occurred because work ability served as the fundamental basis for employees to understand their tasks, complete work effectively, and adapt to the operational demands of the company [26].

3.6 t Test (Partial Hypothesis Testing)

Partial hypothesis testing was conducted using the t test to determine the influence of each independent variable on the dependent variable. The t table value of 1.998 was obtained from the t distribution with a significance level of $\alpha = 0.05$ and degrees of freedom $df = n$ minus k minus 1, namely 68 minus 3 minus 1 equal to 64 [19]. This value was then used as a comparison with the calculated t value of each research variable.

The results of the test showed that the Work Ability variable (X_1) had a calculated t value of 5.188, which was greater than the t table value of 1.998, with a significance value of

$0.000 < 0.05$. This result indicated that work ability had a positive and significant effect on employee performance. A significant influence means that changes in work ability would significantly improve employee performance [27].

The Work Quality variable (X_2) had a calculated t value of 4.245, which was also greater than the t table value of 1.998, with a significance value of $0.000 < 0.05$. This result indicated that work quality had a positive and significant effect on employee performance. In other words, the better the quality of employee work, the higher the level of performance produced [28].

The Workload variable (X_3) had a calculated t value of 4.004, which was also greater than the t table value of 1.998, with a significance value of $0.000 < 0.05$. This result indicated that workload had a positive and significant effect on employee performance. Therefore, a well managed workload could increase employee motivation and work productivity [29].

Based on these results, it can be concluded that work ability, work quality, and workload partially had a positive and significant influence on the employee performance of PT Belawan New Container Terminal.

3.7 F Test (Simultaneous Hypothesis Testing)

Table 4. F-Test Results (Simultaneous)

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2429,616	3	809,872	356,806	0,000^b
	Residual	145,266	64	2,270		
	Total	2574,882	67			

a. Dependent Variable: Employee Performance (Y)

b. Predictors: (Constant), Workload (X_3), Work Ability (X_1), Work Quality (X_2)

The F test was used to determine the simultaneous influence of the independent variables on the dependent variable. The F table value was obtained from the F distribution with a significance level of $\alpha = 0.05$, with df1 equal to k, representing the number of independent variables, which was 3, and df2 equal to n minus k minus 1, namely 68 minus 3 minus 1 equal to 64, resulting in an F table value of 2.745 [18].

The results of the analysis showed that the calculated F value was 356.806, which means that the calculated F value was greater than the F table value ($356.806 > 2.745$) with a significance value of $0.000 < 0.05$. This result indicated that work ability, work quality, and workload simultaneously had a significant effect on employee performance. Therefore, these three variables collectively were able to explain changes in employee performance.

3.8 Coefficient of Determination Test

Table 5. Determination Test

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,971^a	0,944	0,941	1,50658

a. Predictors: (Constant), Workload (X_3), Work Ability (X_1), Work Quality (X_2)

b. Dependent Variable: Employee Performance (Y)

The R value of 0.971 indicated that the relationship between the variables Work Ability (X_1), Work Quality (X_2), and Workload (X_3) and Employee Performance (Y) was in the very strong category because the value was greater than 0.8 [17]. This result indicated that the three independent variables had a very strong relationship with the improvement of employee performance in the company.

The Adjusted R Square value of 0.941 indicated that 94.1 percent of the variation in employee performance could be explained by the variables of work ability, work quality, and

workload included in the research model. Meanwhile, the remaining 5.9 percent was influenced by other factors outside the research model that were not examined in this study [20].

Discussion

4.1 The Effect of Work Ability on Employee Performance

The results of multiple linear regression analysis and the t test indicated that work ability had a positive and significant influence on employee performance at PT Belawan New Container Terminal (BNCT). This result indicated that the higher the level of ability possessed by employees, the better the performance produced in carrying out the company's operational tasks [30]. Work ability in container terminal operations is closely related to the mastery of work procedures, technical skills in operating port equipment, and the ability to understand the logistics flow of container loading and unloading activities. As a container terminal that plays an important role in international trade activities in the Sumatra region, BNCT is required to maintain operational efficiency and accuracy so that the distribution of goods can run smoothly. This condition makes employee work ability a key factor in determining the success of operational activities at the terminal [21].

The influence of work ability on employee performance at BNCT occurs because the company prioritizes the development of human resource competencies as part of its organizational values. The company implements work culture values that emphasize professionalism and competence, where employees are encouraged to continuously improve their capabilities and work skills. In addition, container terminal operations require strong coordination, accuracy, and technical capability in operating logistics systems and port equipment. Through training activities, employee development programs, and the implementation of clear operational standards, employees are able to understand their tasks more effectively and complete their work efficiently [22]. This condition directly contributes to improvements in productivity and terminal service quality.

In addition to competency development, the company also encourages the implementation of an adaptive and collaborative work culture so that employees are able to adjust to technological changes and the dynamic nature of port operations. The increasing volume of container loading and unloading activities at BNCT indicates that the company continues to improve operational efficiency to support the growth of logistics activities in Medan and its surrounding areas. Under these dynamic operational conditions, employees who possess high work ability are better able to complete tasks quickly, accurately, and in accordance with company standards. Improving work ability through training programs, skill development, and the implementation of clear work standards has become one of the important strategies implemented by the company to continuously improve employee performance [23].

The results of this study are consistent with the theory proposed by Ahmadi, which explains that employee performance is influenced by many factors, one of which is ability, including competence and skills [5]. The findings of this study are also supported by several previous studies that showed that work ability partially had a positive and significant influence on employee performance [22][23][26][27][30].

4.2 The Effect of Work Quality on Employee Performance

The results of the multiple linear regression analysis and the t test indicated that Work Quality had a positive and significant effect on Employee Performance at PT Belawan New Container Terminal (BNCT). This finding indicated that the better the work quality possessed by employees, the higher the level of performance achieved in carrying out the company's

operational tasks [31]. Work quality within the container terminal environment is closely related to accuracy, precision, effectiveness, and the ability to produce work outputs that comply with the company's operational standards. As a company that manages an international container terminal at Belawan Port, BNCT plays a strategic role in supporting the export and import logistics flow in the North Sumatra region. Therefore, the quality of employee work strongly determines the smooth implementation of container loading and unloading activities and the effectiveness of logistics services provided to port users.

The influence of work quality on employee performance at BNCT occurs because the company implements various efforts to improve operational standards and professional work practices. As a company that collaborates with global port operators, BNCT applies international operational practices to improve efficiency and service quality at the terminal. In port operations, work accuracy and precision are crucial because even minor errors in loading and unloading processes, container arrangement, or logistics system management may lead to delays in the distribution of goods. The company emphasizes the implementation of systematic work procedures and the use of integrated port operational technology to ensure that each work process is carried out accurately and in accordance with the established quality standards.

The company also conducts various programs to improve work quality through technical training and the strengthening of a professional work culture within the terminal environment. One of the initiatives implemented is the organization of safety and operational training programs for terminal workers to improve their skills and accuracy when performing tasks in a high risk work environment. These training programs not only enhance the technical competence of employees but also foster more disciplined, careful, and responsible work attitudes [32]. With improved work quality, employees are able to complete tasks in a timely, efficient, and standard compliant manner, which directly contributes to improved employee performance and operational effectiveness at PT Belawan New Container Terminal [33].

The results of this study are consistent with the theory proposed by Ahmadi, which explains that employee performance is influenced by various factors, one of which is work quality [5]. The findings are also supported by several previous studies that demonstrated that work quality partially has a positive and significant effect on improving employee performance [24][28][31][32][33].

4.3 The Effect of Workload on Employee Performance

The results of the multiple linear regression analysis and the t test indicated that Workload had a positive and significant effect on employee performance at PT Belawan New Container Terminal (BNCT). This finding indicated that workload managed proportionally could encourage increased employee productivity in carrying out operational tasks [34]. In container terminal operations, workload is associated with the volume of container loading and unloading activities, the management of logistics flows, and the continuous operation of terminal equipment. High operational activity requires employees to work in a structured and disciplined manner and to complete tasks according to predetermined time targets [35]. When workload remains balanced with employee capability, such conditions can increase work motivation and encourage employees to perform tasks with greater focus and productivity [36].

The positive influence of workload on employee performance at BNCT occurs because the company implements a well organized operational management system. In container terminal management, each work activity is regulated through clear standard operating procedures, structured task distribution, and systematic work scheduling. These arrangements

aim to ensure that each employee has clear work responsibilities and can complete tasks effectively without experiencing excessive work pressure. In addition, the use of port operational technology and integrated logistics systems also assists employees in completing their work more efficiently, allowing workload to be managed more optimally without hindering work productivity.

In addition to structured work system management, the company also implements various efforts to maintain balance in employee workload. BNCT applies working hour arrangements, task rotation, and job distribution based on the competencies of each employee. This approach aims to ensure that the workload assigned to employees remains within their physical and mental capacity. Through effective workload management, employees are able to perform their tasks with greater focus, maintain concentration while working, and remain productive in responding to the dynamic operational demands of the terminal [25]. These conditions ultimately contribute to the overall improvement of employee performance at PT Belawan New Container Terminal.

The results of this study are consistent with the theory proposed by Ahmadi, which explains that employee performance is influenced by various factors, one of which is workload. The findings are also supported by several previous studies indicating that workload partially has a positive and significant influence on improving employee performance [25][29][34][35][36].

4.4 The Effect of Work Ability, Work Quality, and Workload on Employee Performance

The results of the multiple linear regression analysis and the F test indicated that work ability, work quality, and workload simultaneously had a positive and significant influence on employee performance at PT Belawan New Container Terminal. These findings indicated that improvements in employee performance are not influenced by a single factor but rather result from a combination of individual capability, the quality of work execution, and proper workload management [5]. In container terminal operations, these three factors are interconnected because container loading and unloading activities require technical skills, work accuracy, and the ability to manage tasks under dynamic operational conditions.

Within a container terminal work environment such as Belawan, operational activities take place continuously with relatively high work volumes. Employees are not only required to possess technical skills in operating port equipment but must also be able to work efficiently and comply with strict operational procedures. This condition makes work ability the fundamental basis for performing tasks, while work quality ensures that each activity is carried out accurately and appropriately [22][33]. At the same time, effective workload management helps maintain balance between job demands and employee work capacity so that productivity can be sustained [36].

The simultaneous influence of these three variables also reflects how the company manages human resources in an integrated manner. The company implements clear operational standards, technical training programs for employees, and structured work coordination systems in terminal operations. Through training and competency development programs, employees can improve their technical capability and understanding of work procedures [30]. At the same time, the company promotes the implementation of work discipline and accuracy in every operational activity to ensure that work quality is maintained [32]. The combination of competency development, operational supervision, and systematic task management ultimately encourages overall improvements in employee performance.

Furthermore, the company optimizes the use of operational technology and logistics systems to support employee work efficiency. Through integrated work systems and adequate operational facilities, employees are able to perform tasks in a more structured and productive

manner. These conditions enable work ability, work quality, and workload management to support each other in achieving optimal performance. The simultaneous influence demonstrates that the success of improving employee performance in the company is inseparable from well planned human resource management that is integrated with the company's operational system [37].

Based on the regression analysis results, work ability was identified as the most dominant variable influencing employee performance compared with work quality and workload. This occurred because operational activities at PT Belawan New Container Terminal depend heavily on the technical competence of employees in performing various processes within the container terminal. The operation of loading and unloading equipment, the management of container flows, and logistics coordination require strong procedural understanding and work skills. Employees with strong work ability are able to understand tasks more quickly, resolve operational problems effectively, and work more efficiently [27]. Therefore, work ability becomes the primary factor determining the success of task execution and contributes the greatest influence on improving employee performance [26].

The results of this study are consistent with the theory proposed by Ahmadi, which explains that employee performance is influenced by many factors including work quantity, work quality, work motivation, ability including competence and skills, work environment, management and leadership, work life balance, workload, work experience, and work discipline [5]. These findings indicate that simultaneous improvements in work ability, work quality, and workload management will also contribute to improving employee performance.

Conclusion

Based on the research results, it can be concluded that Work Ability, Work Quality, and Workload partially and simultaneously had a positive and significant influence on Employee Performance at PT Belawan New Container Terminal. The analysis results indicated that improvements in employee ability and work quality were able to encourage more optimal performance outcomes. In addition, proper workload management also contributed to the effectiveness of employee task implementation. Among these variables, Work Ability was identified as the most dominant factor in improving employee performance because it is directly related to technical competence, understanding of operational procedures, and the ability to complete tasks effectively.

Based on the findings of this study, the company is recommended to continuously improve employee work ability through technical training programs, operational competency development, and practice based learning that is relevant to container terminal activities at PT Belawan New Container Terminal. The company also needs to strengthen a work culture that emphasizes accuracy, discipline, and high work quality standards so that each operational process can run optimally. In addition, workload management should be implemented in a balanced manner by considering employee work capacity and task complexity so that employees can work productively without experiencing excessive work fatigue while maintaining optimal performance.

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