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The effect of safety leadership, safety culture, and safety behavior on safety performance after a company merger: a case study

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A B S T R A C T

After the merger of PT Pelindo, PT Pelindo Terminal Petikemas became one of the sub-holding companies in containers. In maintaining consistency with the implementation of Occupational Health and Safety (OHS) after the merger, PT Pelindo Terminal Petikemas needs to understand the importance of safety leadership, safety culture, safety behavior, and safety performance in the OHS program's success. The study aimed to determine the effect of safety leadership on safety culture and safety performance, the effect of safety culture and safety behavior on safety performance, and safety behavior to act as a mediation between safety leadership and safety performance, and safety culture on safety performance at PT Pelindo Terminal Petikemas. The samples of 130 employees are then analyzed using Structural Equation Modeling (SEM) with SmartPLS software. The results showed that safety leadership has a significant effect on safety culture and safety performance. Safety culture and safety behavior have a significant effect on safety performance. Safety behavior can mediate between safety culture and performance, while safety behavior cannot act as a mediation between safety leadership and performance. This research implies that PT Pelindo Terminal Petikemas's management can select several strong and trustworthy employees from each terminal who merge to lead initiatives regarding company safety and communicate with the central command.

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1. INTRODUCTION

The productivity of an industry depends on the human resources used, so a qualified workforce is needed [1]. One of the essential factors that affect the quality of the force is the guarantee of occupational health and safety of the company because this will make the workers feel safe [2].

Every year accidents resulting from lifting at the port occur. Based on data from the Tanjung Intan Cilacap Port TKBM Cooperative, in 2019, there were 29 cases of work accidents in the port loading and unloading appointment section [3]. Port operations contain many associated risks and hazards, such as oil spills, collisions, failures, truck accidents, injuries, and personnel leaving

ships. These risks will severely impact the environment, health, and the company's survival through financial losses and increased insurance costs [4].

Safety performance measures a company's success in preventing accidents by showing that the company is committed to preventing accidents and occupational diseases and can increase work productivity [5]. Safety performance is part of the company's overall performance, but safety performance focuses more on the frequency of accidents (frequency rate), accident rate (incident rate), and severity (severity rate) [6].

The International Labor Organization (ILO) has established the ILO Centenary Declaration for Future Work. This commitment focuses on Occupational Health and Safety. The responsibility aims to provide better handling, especially regarding occupational safety and health (K3) for workers [7]. Meanwhile, occupational health and safety (K3) in the work environment is defined as all activities carried out to ensure and protect the health and safety of workers through work control [8].

Various factors influence occupational safety, including human behavior, supervision, requirements, and organizational aspects. However, several studies have shown that corporate leaders are essential in promoting workplace safety-related effects [9], [10] and Zhao et al [11] said that safety leadership is a positive driver to improving safety performance in various industries and operations, where the better the safety leadership, the better the safety performance [12]. The behavior of leaders and the way they interact with their subordinates have been recognized as consistently having a significant influence on safety performance [13] and being an important indicator of safety defects in many hazardous industrial contexts [14].

Accidents in the work environment are preventable. Efforts to prevent work accidents consist of various ways, one of which is by creating a safe culture in the work environment. Smith and Wadsworth [15] stated that safety culture is consistently and independently related to employee commitment and improves organizational safety performance by reducing accidents and disasters. It is essential to firmly implement a safety culture in the company, especially for employees with a relatively high level of work risk. A high-safety culture will impact employee performance and help stress performance and employee safety [16].

Individual unsafe behavior or actions and human error are indicators of near-woe within the company [10]. They can cause injury at work [17]. Each workforce's perception of a safe or unsafe action can vary. Bird and Germain [18] argue that safety-related behaviors are more informative and can help identify a lack of safety at work before an injury or damage occurs.

PT Pelindo III is a company that runs its core business as a port service provider and has a leading role in ensuring the continuity and smooth running of sea transportation. PT Pelindo III is responsible for the safety and security of the maritime environment, so a safety model oriented towards leadership and commitment is needed to provide a sense of security to its subordinates. Therefore, PT Pelindo III implements the KPI (Key Performance Indicator) of the Occupational Safety and Health program in the form of work accident rates or safety performance in the work environment. To achieve this target, PT Pelindo III, through safety leadership, builds a safety culture and safety behavior in the work environment.

However, currently, new challenges arise because, on October 1, 2021, four State-owned ports were integrated into one company, namely PT Pelindo. PT Pelindo has four regional operating areas: regional 1, regional 2, regional 3, and regional 4. PT Pelindo Regional 2 will act as the holding company, and PT Pelindo Regional 1, 3, and 4 will serve as sub-holdings. The establishment of this sub-holding will manage business clusters. PT Pelindo Regional 3 will contain a group or sub-holding in the container sector, which was formerly a company resulting from a consortium between PT Pelindo 1, 2, 3, and 4 under the name PT Terminal Petikemas Indonesia (PT TPI). However, along with the integration of Pelindo, PT TPI changed its name to PT Pelindo Terminal Petikemas or Sub-holding Pelindo Terminal Petikemas (SPTP) and will manage all subsidiaries of PT Pelindo in the container sector.

In a merger, differences in corporate culture can be understood as differences in trust, values, and practices between the expropriated company and the expropriated company [19]. A merger involves merging two or more companies with different values, cultures, and styles into one unified unit [20]. Change is something that cannot be avoided in a merger. Mergers have rules for determining which leadership style to use after the

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merger. So, this is a consequence for companies that carry out mergers to be able to face the leadership style, culture, and environment that will be encountered.

Changes and adjustments in policies, changes in leadership styles, cultural changes, to environmental changes that can affect behavior will be a challenge for SPTP in maintaining its consistency in implementing Occupational Safety and Health programs in the company environment. Because with these changes and adjustments, it will affect safety leadership, safety culture, and safety behavior and, of course, affect the company's safety performance. SPTP needs to understand the safety leadership that has been implemented. Its direct influence on safety culture and safety performance, the immediate effect of safety culture and safety behavior on safety performance, and the impact of safety leadership and safety culture on company safety performance if mediated or bridged by safety behavior.

Previous research by Supardi et al. [21], located in the production sector of coal mining contracting companies, found that safety leadership, safety culture, and safety behavior positively impact safety performance. The direct effect of safety leadership and safety culture on safety performance is more significant than when mediated by safety behavior. The research is located at a container company.

According to Lu and Yang [10], safety at container terminals begins with safety leadership, as the actions of leaders can help expand safety awareness throughout the organization. Port labor is the key to a safe environment in the maritime industry, so safety culture should be considered a proactive safety indicator. Organizations should take timely precautions by assessing the company's safety culture [22]. Lu and Kuo [12] argues that the safety behavior of container terminal workers is essential because it influences the incidence of workplace injuries. Container terminal operations are hazardous since stevedores are involved in various risky workplace activities, including cranes, lashing, electrical repairs, tally operations and truck driving. So safety leadership, safety culture, and safety behavior are applied to affect the safety performance of container terminals.

Based on previous research, this research will analyze the direct role of safety leadership on safety culture and safety performance, also safety culture on safety performance. Then the role of safety behavior mediation on the relationship between safety leadership and safety culture in safety performance (Fig. 1). In addition, it provides recommendations so that SPTP can maintain consistency in implementing Occupational Safety and Health.

H1 : Safety leadership affects safety culture [10]
H2 : Safety leadership affects safety performance [20]
H3 : Safety culture affects safety performance [20]
H4 : Safety behavior affects safety performance [12]
H5 : Safety leadership affects safety performance when mediated with safety behavior [20]
H6 : Safety culture affects safety performance when mediated with safety behavior [20], [21]

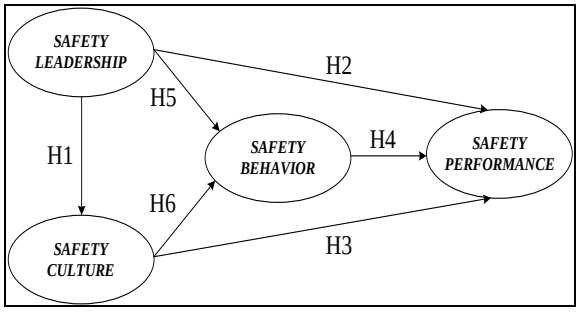

Fig. 1. The research model and hypotheses developed

2. RESEARCH METHODS

A survey was conducted to test the research hypotheses. The population of this study is all employees who work in the Sub-holding of PT Pelindo Terminal Petikemas (SPTP) with the criteria of having a minimum service period of one year, aged 20-50 years, and the last education is at least High/Vocational School. These criteria are applied to limit respondents from being able to reflect employees who are targeted for security and can adequately interpret questionnaire statements.

The population in this study used a sampling method with probability sampling. Data collection was carried out by simple random sampling by providing equal opportunities for each member of the population to become the research sample. Members who are not willing to be respondents will not be forced to fill out the questionnaire. The questionnaire was distributed offline for one week

and obtained 130 respondents.

The data was analyzed based on the respondent's feedback using the Structural Equation Modeling (SEM) technique using SmartPLS 3. Chin et al. [23] recommended that PLS-SEM was an operative analytical tool to decline error. PLS-SEM can be a powerful analysis method because of the minimal demands on sample size, measurement scales, and residual distributions. PLS-SEM can also be used to suggest where relationships might or might not exist and to suggest propositions for later testing, beside can be used for theory confirmation. Testing consists of three stages, namely the measurement model test, structural model test, and fit model test.

The data collection technique is carried out through a questionnaire to collect primary data in three parts. The first part is respondent demographics data, the second part is a questionnaire developed based on safety-related literature, and the third part focuses on respondents' opinions on the application of safety in the company. The first part of the questionnaire is measured using a nominal scale (gender), an ordinal scale (education and position), and an interval scale (age and length of work). While the second part is a questionnaire developed based on safety-related literature. This second part is measured on a 5-point Likert scale with a scale of 1, "strongly disagree", to a scale of 5 ", strongly agree". The third part focuses on respondents' opinions on the application of safety in the company. Due to time constraints, the pilot study was replaced with a focus group discussion involving several experts to validate the questionnaire based on previous research.

In mediation testing, it can only be done if the conditions that and have determined are fulfilled [24], [25] and [26]. The first is the independent variable must significantly affect the mediator variable. Second, independent variables must significantly affect the dependent variables. Third, the mediator variable must significantly affect the dependent variable. Fourth, mediation occurs if the influence of an independent variable on the dependent is lower or becomes zero.

Meanwhile, to calculate the magnitude of the influence of mediation on the model, the relative size value can be calculated through the variance account for (VAF) value, using the coefficient value (outer loading). The formula of the VAF [27] is as follows:

$$VAF = \frac{(a \times b)}{(a \times b)+c} \quad (1)$$

Where, a is the value of an independent variable with a mediation variable, b is the value of the mediation variable with a dependent variable, and c is the value of an independent variable with a dependent variable.

Safety leadership (SL) is defining the desired state of affairs, preparing the team to succeed, and engaging in discretionary efforts that drive the value of equality [28]. The operational definition of safety leadership refers to the process of the leader to his subordinates in providing influence in the context of safety work on companies and individuals [29]. Safety leadership is measured by three dimensions developed by Lu and Yang [10], who found that safety motivation, safety concern, and safety policy affect safety performance. These dimensions are the development of a safety leadership scale in container terminal operations that considers experimental conditions and different aspects of two types of leadership, namely transformational and transactional leadership. Safety motivation and concerns are aspects of transformational leadership, while safety policy is an aspect of transactional leadership.

Safety culture (SC) is considered the values, perceptions, attitudes, and behaviors of individuals and groups that evaluate commitment to health and safety management [30]. Several merged companies do not necessarily have an equivalent safety culture so that safety culture is interesting to analyze in this research. The operational definition of safety culture refers to all elements of organizational culture that have behavioral and attitude influences associated with increasing and decreasing risk [31]. Safety culture is measured by four dimensions developed by Antonsen [32], namely managers' prioritization of safety, safety communication, individual risk assessment, and supportive environment and safety rules and procedures

Neal et al. [33] state that safety behavior (SB) refers to individual actions performed for self-protection, such as safety regulations to avoid harm. The operational definition of safety behavior refers to safety compliance and participation dimensions [34]. Safety behavior is measured by two dimensions developed by Neal et al. [33], safety compliance and safety participation. In some previous research, the normal company condition and safety behavior became a mediator in influencing safety performance. Therefore, in the case of this company merger, the relationship between these influences is interesting to be tested.

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Table 1. Description of operationalization

Construct	Dimensions	Code	Items
Safety Leadership/ SL [10]	Safety motivation	X11	Safety motivation system readiness
		X12	Encouraging workers in the provision of advice
	Safety policy	X21	Emphasis on safety in the workplace
		X22	Clear safety goal setting
	Safety concern	X31	Use of personal protective equipment
		X32	Act on safety policies
Safety Culture/ SC [32]	Managers' prioritization of safety	Y11	The actions of the leader to be a role model
		Y12	Follow up on actions from the inspection
	Safety communication	Y13	Termination of work operations when security is not guaranteed
	Individual risk assessment	Y14	Risk considerations
		Y15	Operation following the rules and regulations
	Supportive environment and safety rules and procedures	Y16	Future precautions
Safety Behavior/ SB [10], [31]	Safety compliance	Y21	
		Y22	Work safety as a priority
		Y23	Comply with rules and regulations
	Safety participation	Y24	Using personal protective equipment
		Y25	Participation in safety meetings
		Y26	Voluntary in performing duties
	Self-discipline management	Y31	Helping colleagues
		Y32	Have self-control over safety
Safety Performance /SP [35], [36]	Reactive measures of performance		Ability to identify safety performance
		Y33	
	Safety compliance	Y34	Carry out the work safely
		Y35	Ensuring security
	Safety participation	Y36	Gives extra effort
			Gives impetus to safe work

Safety performance (SP) is the global performance of safety management systems operated and measured by safety organizations, safety management, safety equipment, safety training practices, safety training evaluations, accident investigations, and accident statistical measures [29]. The operational definition of safety performance refers to employee compliance in carrying out procedures, regulations, and initiatives to maintain occupational safety [37]. Safety performance is measured by four dimensions developed by Wu et al. [35] and Vinodkumar and Bhasi [36], self-discipline management, reactive measures of performance, safety compliance, and safety participation. In the case of a company merger, safety performance may decrease due to certain policies or actual conditions after the merger. Thus safety performance will be analyzed as a dependent variable in this research.

3. RESULTS AND DISCUSSION

It can be seen in Table 2 that most of the respondents were men (62.6%), with the age group of 30 – 40 years (87.7%) dominating the respondents. The majority of respondents had a recent undergraduate education (69.2%) with a staff position (92.3%) and a period of work, the majority for 6 – 10 years (80%).

Table 2. Demographic description of the respondents

Description	Freq.	%
Gender		
Male	67	62.6
Female	40	37.4
Age		
20-30 years	8	6.2
31-40 years	114	87.7
41-50 years	8	6.2
Education		
High/Vocational School	4	3.1
Diploma	23	17.7
Bachelor	90	69.2
Postgraduate	13	10
Work		
1-5 years	10	7.7
6-10 years	104	80
>10 years	16	12.3
Position		
Manager	4	3.1
Supervisor	6	4.6
Staff	120	92.3

Table 3. Item descriptive statistic of the survey data

Items	Mean	Std. deviation
X11	4.785	0.411
X12	4.769	0.421
X21	4.823	0.382
X22	4.823	0.382
X31	4.831	0.375
X32	4.815	0.388
Y11	4.815	0.407
Y12	4.785	0.411
Y13	4.785	0.429
Y14	4.869	0.337
Y15	4.808	0.394
Y16	4.846	0.361
Y21	4.838	0.368
Y22	4.900	0.300
Y23	4.846	0.361
Y24	4.662	0.473
Y25	4.808	0.394
Y26	4.831	0.395
Y31	4.900	0.300
Y32	4.908	0.289
Y33	4.908	0.289
Y34	4.900	0.300
Y35	4.915	0.278
Y36	4.838	0.368

The results of the study's descriptive statistics, consisting of the mean and standard deviation, can be seen in Table 3. The standard deviation value expresses high conformity from the data obtained. Meanwhile, the mean of the data collected states a high degree of correlation between respondents.

Table 4. Item outer loading

Items	Outer loading	Outer loading (re-run)
X11	0.863	0.863
X12	0.83	0.83
X21	0.85	0.851
X22	0.859	0.859
X31	0.831	0.831
X32	0.808	0.807
Y11	0.852	0.852
Y12	0.784	0.783
Y13	0.778	0.778
Y14	0.867	0.868
Y15	0.803	0.803
Y16	0.911	0.911
Y21	0.779	0.775
Y22	0.859	0.877
Y23	0.753	0.775
Y24	0.591*	-
Y25	0.755	0.757
Y26	0.748	0.749
Y31	0.908	0.908
Y32	0.911	0.911
Y33	0.911	0.911
Y34	0.883	0.883
Y35	0.941	0.941
Y36	0.747	0.747

In the measurement model test, validity and reliability tests are carried out. There are two measurements in the validity test: convergent validity of the outer-loading value and AVE value and discriminant validity of the AVE and cross-loading square root values. The outer loading value is valid if it is > 0.7. All items produce values greater than 0.7 except for one, which is a Y24 item with an outer loading value of 0.591. It states that the Y24 item is invalid and should be deleted from the model and re-run. A valid indicator indicates that the statement corresponds to the object of study, while an invalid indicates that the statement does not correspond to the object. In other words, the statement cannot measure a variable (SB) in SPTP. After a re-run, an outer loading value greater than 0.7 was

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obtained for all items and was declared valid.

Removing invalid indicators in the model does not significantly impact other indicators. The results of the re-run can be seen in Table 4. The AVE value is valid if it has a value of > 0.5. It is recorded that all variables show results of 0.5 so that they meet the validity requirements. Furthermore, the discriminant validity test can be seen in the square root of the construct AVE and the cross-loading value. Based on the provisions, if the value of $\sqrt{AVE}$ > 0.7, and the value of cross-loading is > 0.7, it can be said to be valid. In the resulting $\sqrt{AVE}$ Root value was recorded that all variables showed results above 0.7 to meet the validity requirement (Table 5).

Table 5. The results of the measurement model

	AVE	$\sqrt{AVE}$	CA	CR
SL	0.706	0.842	0.917	0.935
SC	0.695	0.834	0.912	0.932
SB	0.621	0.788	0.847	0.891
SP	0.785	0.886	0.944	0.959

In the measurement model test, validity and reliability tests are carried out. There are two measurements in the validity test: convergent validity of the outer-loading value and AVE value and discriminant validity of the AVE and cross-loading square root values. The outer-loading value is valid if it is > 0.7. All items produce values greater than 0.7 except for one, an SB4 item with an outer loading value of 0.591. It states that the SB4 item is invalid and should be deleted from the model and re-run. After a re-run, an outer loading value greater than 0.7 was obtained for all items and was declared valid.

Cross-loading has the same value as the resulting outer loading value. In addition, the cross-loading value can also be determined through a cut-off value > 0.7. Based on the resulting cross-loading value, it was recorded that all variables showed results above 0.7, so they met the validity requirements.

Reliability tests can be done in two ways, through Cronbach Alpha (CA) and Composite Reliability (CR). Based on the provisions, if CA value > 0.7 and CR value > 0.7, then it can be said to be valid. In the CA value and the resulting CR value, , it was recorded that all variables showed results above 0.7, so they met the reliability requirements. The next stage is structural model testing which can be done using the method Confirmatory Factor Analysis (CFA) method through R-Square (R^2) values, effect size, and prediction relevance. The R-Square Adjusted (R^2 Adj.) value describes the variation of the exogenous variable against the endogenous variable with a value of 0.7 is a strong model, 0.33 is a moderate model, and 0.19 is a weak model (Table 6).

Table 6. The results of R-Square

	R^2	R^2 Adj.	Results
SC	0.721	0.719	Strong
SB	0.417	0.408	Moderate
SP	0.763	0.758	Strong

Then the assessment based on the effect size (f^2) value can be divided into three categories, namely, 0.02 in the small category, 0.15 in the medium category, and 0.35 in the large category (Table 7).

Table 7. The results of effect size

	SL	Results
SC	2.59	Large effect
SB	0.016	Small effect
SP	0.066	Small effect

Furthermore, the assessment is based on the value of Q^2, where $Q^2 > 0$ means that it has a predictive relevance model. The Q^2 value in this study was 0.585, indicating that the model has predictive relevance. In other words, the structural model compiled to explain the variables is proven to be good or relevant. Next is a hypothesis test or significance value which can be done by comparing the hypothesis accepted if the T-statistics value > 1.96 (Table 8).

Table 8. Structural model

Hypotheses/ Path	(t)	Results
H1: SL → SC	20.944	Significant
H2: SL → SP	2.486	Significant
H3: SC → SP	1.975	Significant
H4: SB → SP	3.486	Significant
H5: SL → SB → SP	1.171	Insignificant
H6: SC → SB → SP	2.175	Significant

The model fit test can be seen in the Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), and RMS_{theta} values. Based on the provisions, the SRMR value of < 0.08 is considered appropriate, and the SRMR value produced in this study is 0.061, so the model

fits. The closer the NFI value is to 1, the better the suitability. The NFI value obtained in the study was 0.778, so the model is said to be a marginal fit because the value is below 0.9 (Table 9).

RMS_{thetha}, with a value close to 0, indicates a suitable model, while a higher value indicates a lack of conformity. The RMS_{thetha} value obtained in the study was 0.172, so the model fits because the value is close to 0.

Table 9. The results of the fit model

	Score	Results
SRMR	0.061	Fit
NFI	0.778	Marginal
RMS_{theta}	0.172	Fit

H1 : Safety leadership affects safety culture

The results of hypothesis 1 obtained a T-statistics value of 20.944 (Table 8) to show that safety leadership (SL) has a significant effect on safety culture (SC), and H1 is accepted. These results indicate that safety leadership can encourage a safety culture in SPTP. Transformational leadership supports organizational safety programs by being a good role model of safe behavior and utilizing inspirational motivations that can progress on safety culture [38]. Transactional leadership explains in detail what must be done to achieve success in safety and exert its influence on attitudes toward safety promotion and incident prevention [39].

H2 : Safety leadership affects safety performance

The results of hypothesis 2 obtained a T-statistics value of 2,486 (Table 8) to show that safety leadership (SL) has a significant effect on safety performance (SP), and H2 is accepted. Safety leadership can encourage the formation of safety performance at SPTP. Under high-level transformational leadership, employees with high safety motivation will show high safety participation. But the role of motivation exists only when the employee's confidence in the leader is high [40]. Whereas transactional leadership does not affect safety compliance because transactional leadership involves active monitoring for the prevention and correction of errors that make employees choose to check due to the achievement of goals rather than about handling the task in a safe manner or in accordance with the safety rules [41].

H3 : Safety culture affects safety performance

The results of hypothesis 3 obtained a T-statistics value of 1,975 (Table 8) to show that safety culture (SC) has a significant effect on safety performance (SP), and H3 is accepted. So that safety culture can encourage the formation of safety performance at SPTP. A strong safety culture is essential in ensuring that the organization and its employees maintain high safety standards. A strong safety culture combined with proper management practices will be critical to reducing workplace injuries.

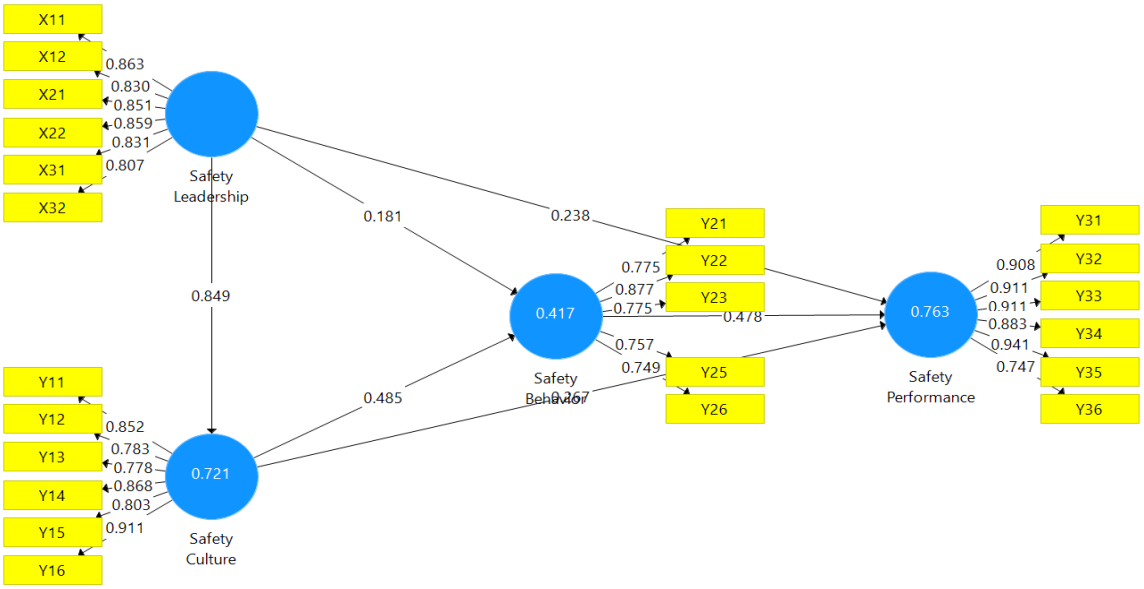

Fig. 2. Relationship between safety leadership, safety culture, safety behavior, and safety performance

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H4 : Safety behavior affects safety performance

The results of hypothesis 4 obtained a T-statistics value of 3,486 (Table 8) to show that safety behavior (SB) has a significant effect on safety performance (SP), and H4 is accepted. So, safety behavior can encourage safety performance in SPTP. The safety behavior used in this study consists of safety compliance and safety participation. Safety compliance requires workers to comply with safety rules, while safety participation is more of an act of discretion by workers regarding safety. Safety-related behavior is a critical element of accident prevention because it directly correlates with safety performance. The nature of values, norms, and attitudes related to safety will be connected to safety behavior in the workplace, which will ultimately affect safety outcomes [42].

H5 : Safety leadership affects safety performance when mediated with safety behavior

Mediation testing can only be carried out if the conditions have been determined by Baron and Kenny [24], Judd and Kenny [25], and James and Brett [26]. That the first is that the independent variable must significantly affect the mediator variable, the independent variable must significantly affect the dependent variable, the mediator variable must significantly affect the dependent variable, and mediation occurs if the independent variable's influence on the dependent variable is lower or to zero. This testing of the influence of mediation cannot be carried out because it does not meet the first and fourth requirements predetermined, where the independent variable must significantly affect the mediator variable and the independent variable against the lower dependent or become zero. Thus, H5 is rejected.

H6 : Safety culture affects safety performance when mediated with safety behavior

The results of hypothesis 6 obtained a T-statistics value of 2,175 (Table 8). it shows that safety culture (SC) has a significant effect on safety performance (SP) if mediated by safety behavior (SB) and has met all the conditions of mediation that have been determined by Baron and Kenny [24], Judd and Kenny [25], and James and Brett [26] then this test can be carried out and H6 is accepted (Table 10). Next is to calculate the magnitude of the influence of mediation on the model with the VAF formula (1).

$$\text{VAF} = \frac{(0.485 \times 0.478)}{(0.485 \times 0.478) + 0.267} = 0.465$$

Based on the calculation above, a VAF value of 46.5% can be considered partial mediation. Furthermore, safety behavior (SB) can act as a mediator in the relationship between safety culture (SC) and safety performance (SP).

Table 10. Path coefficient – original sample

Path	(O)
SL → SC	0.478
SC → SB	0.485
SC → SP	0.267

The application of safety culture is the relationship of three elements: organization, workers, and work done with all available resources. So, safety culture is essential to development because it can affect employee commitment in individual behavior to continue their membership in the organization. As part of organizational culture, safety culture influences the attitudes and behaviors of workers in the organization concerning safety behavior and safety or safety performance [42].

In terms of safety, the company has created a technology system to collect information, developed two-way communication channels, and encouraged employees in all elements to submit safety-related advice and report on any conditions to prevent potential company accidents. However, with the merger of companies, several conditions make the design quite challenging to apply to several newly operated terminals by SPTP. Companies also need to develop safety programs. It can be applied in all terminals, such as fit to work, safety induction, safety briefings, safety inspections and patrols, hazard reporting and follow-ups, making lessons learned from investigations, and safety management walkthroughs.

After the merger, the company's management needs to standardize the safety of all terminals that are newly operating under SPTP. This standardization process requires commitment from the company's top-level management. The standardization process can be done in several ways: sharing sessions, gap analysis, basic training, technical safety plan & control, safe on-the-job training, mentoring, and others. In addition,

standardization can also be done by checking the infrastructure, facilities, and tools that support the needs of operations at the terminal, as well as providing training skills on safety and competence to selected employees.

4. CONCLUSION

The study results can be concluded that safety leadership significantly affects the safety culture, so the better the safety leadership, the better the safety culture can be created. Safety leadership, safety culture, and safety behavior also significantly affect safety performance.

Safety behavior cannot be a mediating variable in the relationship between safety leadership and safety performance. However, the safety behavior variable can be a mediating variable in the relationship between safety culture and safety performance, where safety culture will have more influence on safety performance if mediated by safety behavior. Effective leadership through the implementation of transformational leadership concepts and transactional leadership related to safety can build a safety culture and behavior to produce and maintain good safety performance in the container terminal industry.

The company must ensure that the Occupational Safety and Health (K3) program is successfully integrated by inspiring employees in a shared vision of Occupational Safety and Health (K3) awareness and making it a focal point during the standardization process. Effective security standardization can begin with leaders demonstrating dedication to keeping their employees safe through actions and communication. Through safety, training leaders can pinpoint potential occupational hazards and encourage behaviors that can prevent employee injuries which is the highest priority. In addition, company management also needs to pay attention to issues of cultural differences that occur after the merger of companies.

This research is research on safety in merger companies, especially in the field of container terminals. However, this research was carried out when the company merger only lasted a few months, so in the following research, the subject and object of the study need to be compared to obtain generalized results. Research variables also need to be added, such as safety climate or safety knowledge. Changes in analysis methods also need to be carried out in subsequent studies.

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