

Maritime Industry Linkage, Strategic Policy and Work Culture as Drivers of Employee Performance

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ABSTRACT

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This study aims to analyze the effect of maritime industry link and match and strategic policy on employee performance and to examine the role of work culture as a moderating variable among employees of the PIP Semarang and Polteklpel Sumbang. This research employed a quantitative approach with an explanatory research design. The population consisted of 521 employees, with a pilot test sample of 53 respondents and a research sample of 468 respondents selected through total sampling. Data were collected using an online questionnaire via Google Form and analyzed using SEM-PLS with SmartPLS 3. The results show that maritime industry link and match and strategic policy contribute to employee performance, while work culture does not significantly moderate the effect of maritime industry link and match or strategic policy on employee performance. These findings indicate that policy clarity and the alignment with maritime industry needs are more dominant in explaining employee performance than work culture as a strengthening factor.

Keywords: Maritime Industry Linkage; Strategic Policy; Work Culture; Employee Performance; SEM-PLS

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INTRODUCTION

The development of maritime vocational education requires maritime higher education institutions to deliver institutional services that are adaptive, responsive, and aligned with industry needs (Baradziej et al., 2026). In this context, employees play a crucial role because the quality of their performance determines the effectiveness of governance, the quality of academic services, and the smooth implementation of institutional programs (Le et al., 2025). Employee performance is influenced not only by individual competence but also by organizational policy direction and the degree of alignment between educational institutions and the needs of the maritime industry (Serrano et al., 2025). The link and match between educational institutions and the maritime industry is an important strategy to ensure that all work processes, competency development, and service patterns are truly relevant to the demands of the shipping sector (Belabyad et al., 2026). At the same time, strategic policies formulated by institutional leaders serve as guidelines for employees to carry out their duties in a focused and measurable manner (Riyadi & Erliyani, 2025). Therefore, examining the influence of maritime industry linkage and strategic policy on employee performance is highly relevant for strengthening the competitiveness of maritime education institutions.

In practice, maritime educational institutions face increasing demands to adapt to regulatory changes, industry requirements, and advances in shipping technology. This condition requires strong synergy between institutions and industry so that work programs,

services, and human resource management do not operate separately from field needs (Yi et al., 2025). However, in practice, variations are still found in the implementation of internal policies, work discipline, and the quality of interdepartmental coordination, all of which may affect employee performance outcomes (Stanikzai & Mittal, 2025). In several institutions, a work culture that is not yet fully consistent may also lead to differences in work spirit, compliance with procedures, and results orientation (Lartey & Ampofo, 2025). In addition, the success of link and match is often not evenly accompanied by employees' understanding of the institution's strategic direction (Riyanto et al., 2026). This situation indicates that organizational and work culture factors need to be examined more deeply in relation to employee performance.

Previous studies have shown that institutional connectivity with industry can improve program relevance, work effectiveness, and organizational service quality (Khan et al., 2025). Other studies also confirm that clear, consistent, and communicative strategic policies have a positive effect on employee performance because they provide clearer work direction (Afrianty et al., 2025). On the other hand, work culture is often reported as an important factor that strengthens or weakens the influence of organizational policies and strategies on employees' work behavior (Bogale & Debela, 2024). A number of studies have also found that organizations with a strong work culture tend to have higher levels of collaboration, discipline, and responsibility (Kjeldsen et al., 2025). Nevertheless, most studies have been conducted in general sectors, non-maritime education, or organizations that do not specifically position link and match with industry as a key variable (Riyanto, et al., 2026). Thus, studies in the maritime education context still require stronger and more specific empirical evidence.

The research gap is evident in the limited number of studies that simultaneously analyze the influence of maritime industry linkage and strategic policy on employee performance within a single research model. In addition, few studies have positioned work culture as a moderating variable to test whether it strengthens the relationship among these variables (Huynh & Nguyen, 2025). Some previous studies have also tended to focus on students, curriculum, or graduate quality rather than employee performance as the main subject (Otermans et al., 2025). In the context of maritime education institutions, employees have distinctive work characteristics because they face professional demands, discipline, and high service standards (Ghosh & Emad, 2025). Therefore, findings from general institutions cannot necessarily be fully generalized to the environment of the Politeknik Ilmu Pelayaran Semarang (PIP Semaarang) and Politeknik Pelayaran Sumatera Barat (Poltekpel Sumbar). This gap highlights the need for research that is more contextual, focused, and grounded in the actual conditions of maritime education institutions in Indonesia.

The novelty of this study lies in the integration of three important aspects, namely maritime industry linkage, strategic policy, and work culture, within a single analytical model of employee performance. This study also offers a moderating approach to examine the role of work culture in strengthening or weakening the relationship between the independent variables and employee performance. In terms of context, the study was conducted in two maritime education institutions that have institutional characteristics and work environments relevant to the development of maritime human resources. The urgency of this study is further increased by the fact that improving employee performance is an essential requirement for successful institutional transformation amid the rapidly evolving demands of the maritime industry (Karahalil et al., 2025). The findings are expected to provide a basis for leaders in formulating policies that are more effective and aligned with industry needs (Mojafi & Westhuizen, 2025). In addition, the results may enrich the literature on maritime vocational education management with more specific empirical evidence.

This study aims to analyze the influence of maritime industry linkage and strategic policy on employee performance. It also aims to examine the role of work culture as a moderating variable in this relationship. Methodologically, the study uses a quantitative approach with a questionnaire distributed through Google Forms and analyzed using SEM-PLS. The results are expected to provide both theoretical and practical contributions to strengthening employee

performance in maritime education institutions. Based on the description above, this study seeks to test the following hypotheses:

Hypothesis 1 (H1): Maritime industry linkage has a positive and significant effect on employee performance.

Hypothesis 2 (H2): Strategic policy has a positive and significant effect on employee performance.

Hypothesis 3 (H3): Work culture has a positive effect on employee performance.

Hypothesis 4 (H4): Work culture moderates the effect of maritime industry linkage on employee performance.

Hypothesis 5 (H5): Work culture moderates the effect of strategic policy on employee performance.

METHOD

This study employed a quantitative approach with an explanatory research design. This design was chosen because the study aims to explain the relationships among variables, namely maritime industry linkage and strategic policy in relation to employee performance. The study also examines the role of work culture as a moderating variable in strengthening or weakening the relationships among the variables. Accordingly, the study focuses on empirical hypothesis testing based on numerical data.

The population of this study consisted of all employees of Politeknik Ilmu Pelayaran Semarang and Politeknik Pelayaran Sumatera Barat. Politeknik Ilmu Pelayaran Semarang has 375 employees, while Politeknik Pelayaran Sumatera Barat has 146 employees. Thus, the total population comprised 521 employees. The sampling technique used for the main study was total sampling, meaning that all members of the population were included as respondents after the trial sample had been separated. The questionnaire trial sample was set at 10% of 375 and 10% of 146, resulting in 38 respondents from Politeknik Ilmu Pelayaran Semarang and 15 respondents from Politeknik Pelayaran Sumatera Barat. Accordingly, the trial sample consisted of 53 respondents, while the main research sample comprised 468 respondents.

The research instrument used was a closed-ended questionnaire developed based on the indicators of the research variables, namely maritime industry linkage, strategic policy, work culture, and employee performance. Data were collected via Google Forms to make the distribution of the instrument more effective, efficient, and accessible to respondents. The questionnaire blueprint was systematically prepared and is presented in Table 1. All items were designed using a rating scale that allowed respondents to provide answers based on their actual conditions.

Table 1. Research Questionnaire Lay Out

No.	Variable	Questionnaire Statement
1	Maritime Industry Linkage (Phanphichit & Bartusevičienė, 2024) (X1 = MIL)	The institution regularly adjusts its work programs to the needs of the maritime industry The institution actively collaborates with maritime companies or institutions The institution's field practice programs support the application of competencies required by industry Learning activities at the institution are aligned with maritime industry competency standards Input from the maritime industry serves as the basis for improving institutional programs
2	Strategic Policy (Sundström & Svärdsten, 2026) (X2 = SP)	The institution's policy direction is communicated clearly to employees The policies established by the institution are implemented consistently The institution provides adequate support for implementing strategic policies

		Policy implementation at the institution is monitored and evaluated regularly The institution's strategic policies are easily adapted to changing organizational needs
3	Work Culture (Lartey & Ampofo, 2025) (M = WC)	In this institution, employees work professionally Employees in this institution comply well with rules and work discipline Employees in this institution are accustomed to working together to complete tasks Employees in this institution uphold integrity in their work Employees in this institution are encouraged to engage in continuous work improvement
4	Employee Performance (Desta & Mulie, 2024) (Y = EP)	I complete my work with good quality I am able to complete tasks according to the established targets I complete my work on time I am responsible for the tasks assigned to me I work carefully and show initiative in completing my work

Source: Research Instrument (2026)

The collected data were analyzed using SEM-PLS (Structural Equation Modeling–Partial Least Squares) with the assistance of SmartPLS 3. This analysis was selected because it is capable of testing relationships among variables simultaneously, including both direct and moderating effects. The analysis stages included evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The results of the analysis were then used to test the research hypotheses and interpret the magnitude of the relationships among variables empirically.

RESULT AND DISCUSSION

The instrument trial was conducted with 53 respondents who were not included in the main research sample. Accordingly, the Product Moment *r*-table value at a significance level of $\alpha = 0.05$ for $n = 53$ ($df = n - 2$) was 0.2706. The criterion for validity testing was that if the correlation coefficient of each item (*r*-count) was greater than or equal to the *r*-table value ($r\text{-count} \geq r\text{-table}$) at the 0.05 significance level, the item would be declared valid. The reliability criterion was that if Cronbach's Alpha was ≥ 0.70 , then all questionnaire items would be considered reliable. Validity and reliability testing in this study were conducted using SPSS 24.0. The results are presented in Table 2.

Table 2. Results of Validity and Reliability Testing of the Research Instrument

No	Variable	Indicator	r-count	Remark	Cronbach's Alpha	Remark
1	Maritime Industry Linkage (MIL)	MIL1	0,870	Valid	0,958	Reliable
		MIL2	0,767	Valid	0,960	Reliable
		MIL3	0,740	Valid	0,960	Reliable
		MIL4	0,369	Valid	0,966	Reliable
		MIL5	0,877	Valid	0,958	Reliable
2	Strategic Policy (SP)	SP1	0,822	Valid	0,959	Reliable
		SP2	0,786	Valid	0,960	Reliable
		SP3	0,806	Valid	0,959	Reliable
		SP4	0,764	Valid	0,960	Reliable
		SP5	0,703	Valid	0,961	Reliable
3	Work Culture (WC)	WC1	0,787	Valid	0,959	Reliable
		WC2	0,825	Valid	0,959	Reliable

		WC3	0,730	Valid	0,960	Reliable
		WC4	0,878	Valid	0,958	Reliable
		WC5	0,812	Valid	0,959	Reliable
4	Employee	EP1	0,489	Valid	0,963	Reliable
	Performance	EP2	0,635	Valid	0,961	Reliable
	(EP)	EP3	0,838	Valid	0,959	Reliable
		EP4	0,752	Valid	0,960	Reliable
		EP5	0,689	Valid	0,961	Reliable

Source: SPSS analysis results (2026)

Based on Table 2, all items in each variable met the validity criterion because the r-count values of all indicators were greater than the r-table value of 0.2706. All variables also showed Cronbach's Alpha values above 0.70, indicating that the research instrument was reliable and consistent for data collection. Thus, the questionnaire was suitable for use in the main study because it was able to measure each variable accurately and consistently.

The demographic distribution of respondents is presented based on institution, gender, age, education level, employment status, and work experience. The frequency and percentage of each category are shown in Table 3.

Table 3. Respondents Demography

Characteristics	Category	Frequency (n)	Percentage (%)
Institution	PIP Semarang	337	72 %
	Poltekpel Sumbar	131	28 %
Gender	Male	301	64,32 %
	Female	167	35,68 %
Age	< 25 years old	103	22 %
	25 - 45 years old	225	48,08 %
	> 45 Years old	140	29,92 %
Educational Level	Senior High School	91	19,44 %
	D-III	106	22,65 %
	D-IV / S1	167	35,68 %
	S2	79	16,88 %
	S3	25	5,35 %
Status	PNS	237	50,64%
	CPNS	7	1,49%
	PPPK Full Time	74	15,82%
	PPPK Part Time	50	10,68%
	NON PNS	100	21,37%
Work Experience	0 - 5 years	198	42,31 %
	5 - 10 years	176	37,61 %
	> 10 years	94	20,08 %
TOTAL		468	100 %

Source: Respondent Data 2026

Based on the sample distribution above, the respondents were dominated by employees from PIP Semarang, totaling 337 people (72%), male respondents totaling 301 people (64.32%), and respondents aged 25-45 years totaling 225 people (48.08%). In terms of education, most respondents held a D-IV/S1 degree, totaling 167 people (35.68%), and the most common employment status was PNS, totaling 237 people (50.64%). Based on work experience, most respondents had worked for 0-5 years, totaling 198 people (42.31%). These data indicate that the research sample was dominated by employees who were relatively productive and had diverse work experience.

Prior to testing the structural model, the PLS algorithm was run and outer loadings were examined. Outer loadings indicate how strongly each indicator reflects its latent construct and thus provide an initial assessment of indicator reliability and convergent validity. In practice, indicators with higher loadings are considered to measure the intended construct well, with

common acceptable thresholds generally ranging from 0.50 to 0.70. The outer loading values are shown in Table 4.

Table 4. Outer Loading Result

Indicator	Maritime Linkage (X1)	Industry Strategic Policy (X2)	Work Culture (M)	Employee Performance (Y)
MIL1	0.846			
MIL2	0.806			
MIL3	0.802			
MIL4	0.730			
MIL5	0.854			
SP1		0.860		
SP2		0.870		
SP3		0.808		
SP4		0.811		
SP5		0.835		
WC1			0.700	
WC2			0.755	
WC3			0.833	
WC4			0.818	
WC5			0.820	
EP1				0.879
EP2				0.755
EP3				0.822
EP4				0.841
EP5				0.824

Source: SEM-PLS Result Analysis

Table 4 shows that all indicators across all variables had outer loading values above the commonly used minimum threshold of 0.70. This indicates that each indicator adequately reflects the latent construct being measured, thereby meeting indicator reliability criteria and supporting convergent validity. Thus, all indicators were deemed appropriate for use in the measurement model analysis at the next stage. Composite reliability and AVE values are presented in Table 5.

Table 5. Reliability & Validity Result

Variable	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Maritime Linkage (X1)	0.867	0.871	0.904	0.655
Industry Strategic Policy (X2)	0.893	0.895	0.921	0.701
Work Culture (M)	0.847	0.864	0.890	0.620
Employee Performance (Y)	0.883	0.890	0.914	0.681

Source: SEM-PLS Result Analysis

Based on Table 5, all research variables had Cronbach's Alpha, rho_A, and Composite Reliability values above 0.70, indicating that the instrument was reliable and consistent. In addition, all AVE values were above 0.50, meaning that each construct met the criterion of convergent validity because it was able to explain more than half of the variance in its indicators. Therefore, the measurement model in this study met the criteria of reliability and validity and was suitable for subsequent structural analysis.

In addition, common method bias (CMB) can be assessed through collinearity diagnostics using VIF values. If $VIF < 5$, it indicates that CMB is unlikely to be a serious issue (Islam, 2023), suggesting that the findings are unlikely to be driven by method effects.

Table 6. Collinearity Statistics (VIF)

Indicator	VIF X1	VIF X2	VIF M	VIF Y
MIL1	2.391			
MIL2	2.146			
MIL3	1.994			
MIL4	1.539			
MIL5	2.275			
SP1		2.465		
SP2		2.841		
SP3		2.129		
SP4		2.025		
SP5		2.206		
WC1			1.583	
WC2			1.728	
WC3			1.985	
WC4			1.948	
WC5			1.853	
EP1				2.769
EP2				1.818
EP3				2.121
EP4				2.171
EP5				2.032

Source: SEM-PLS Result Analysis

Based on Table 6, all VIF values for the indicators were below 5, with values ranging from 1.539 to 2.841. This indicates that there was no serious multicollinearity among the indicators, so common method bias (CMB) in this study can be considered not to be a significant issue. An inner-model analysis was then conducted by examining the R-square (R^2) value to assess whether the structural relationships provided meaningful explanatory power and to evaluate model strength. The R-square values are shown in Table 7.

Table 7. R-Square Result

	R Square	R Square Adjusted
Students' Professional Mindset (Y)	0.855	0.853

Source: SEM-PLS Result Analysis

Based on Table 7, the R-square (R^2) value of 0.855 indicates that the independent variables in the model were able to explain 85.5% of the variation in the endogenous variable, meaning that the explanatory power of the model is very strong. The adjusted R-square value of 0.853 also confirms that the model retained a high predictive capacity after adjustment for the number of predictor variables. Thus, the structural model in this study has strong explanatory power and is suitable for further hypothesis testing. Furthermore, the F-square values are presented in Table 8.

Table 8. F-Square Result

Variable	Employee Performance (Y)
Maritime Industry Linkage (X1)	0.020
Strategic Policy (X2)	0.567
Work Culture (M)	0.047

Source: SEM-PLS Result Analysis

Based on Table 8 and Cohen's effect size thresholds (small ≈ 0.02 ; medium ≈ 0.15 ; large ≈ 0.35), Maritime Industry Linkage (X1) has a small effect on Employee Performance (Y) with a value of 0.020, while Work Culture (M) also shows a small effect with a value of 0.047. Meanwhile, Strategic Policy (X2) has a large effect on Employee Performance (Y) with a value of 0.567, making it the strongest predictor in the model. These findings indicate that the main contribution to employee performance comes from strategic policy, whereas link and match and

work culture provide smaller additional effects. The next step was to assess discriminant validity before evaluating the structural model and testing the hypotheses. The Fornell–Larcker results are shown in Table 9.

Table 9. Fornell-Larcker Result

Variable	EP (Y)	MIL (X1)	SP (X2)	WC (M)
Employee Performance (Y)	0.837			
Maritime Industry Linkage (X1)		0.825		
Strategic Policy (X2)			0.809	
Work Culture (M)				0.787

Source: SEM-PLS Result Analysis

The Fornell–Larcker results show that the square root of AVE for each construct; Employee Performance (0.837), Maritime Industry Linkage (0.825), Strategic Policy (0.809), and Work Culture (0.787) met the criterion for discriminant validity. This means that each construct had a better ability to explain its own indicators than those of the other constructs in the model. Therefore, the measurement model is considered acceptable because the latent variables can be adequately distinguished from one another. The path model clearly represents the hypothesized structure and provides statistical evidence supporting the proposed theoretical relationships. Figure 1 presents the research path model.

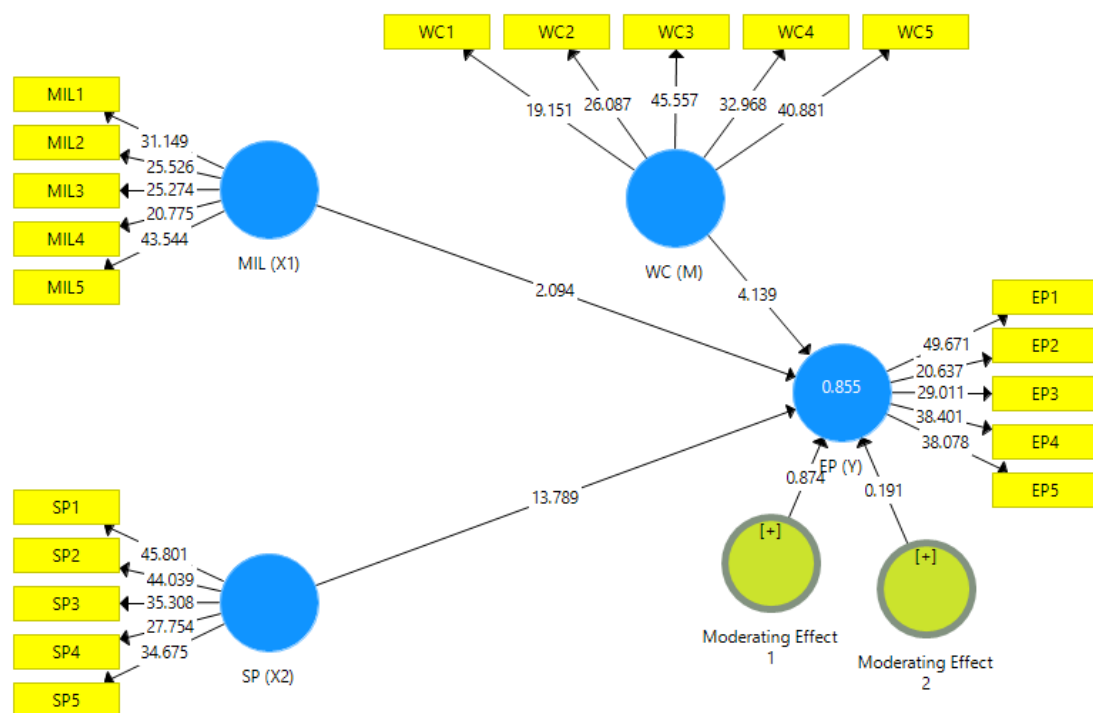


Figure 1. Research Path Model

Figure 1 shows that the research path model illustrates the structural relationships among Maritime Industry Linkage (X1), Strategic Policy (X2), and Work Culture (M) on Employee Performance (Y) in accordance with the proposed hypotheses. The figure also indicates that the effect of Strategic Policy on Employee Performance appears to be the strongest compared with the other variables, while Maritime Industry Linkage and Work Culture make smaller but still directed direct contributions. In addition, the model also includes two moderating effect paths that examine the role of Work Culture in strengthening or weakening the relationships among the main variables.

To determine statistical significance of these relationships, t-statistics or p-values from the bootstrap must be examined. Table 10 presents the hypothesis testing results.

Table 10. Hypotheses Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 – Y	0.108	0.116	0.051	2.094	0.037
X2 – Y	0.640	0.636	0.046	0.874	0.000
M – Y	0.151	0.148	0.036	0.191	0.000
X1 – M – Y	-0.044	-0.057	0.051	13.789	0.382
X2 – M – Y	-0.009	0.005	0.049	4.139	0.849

Source: SEM-PLS Result Analysis

Based on these test results, Maritime Industry Linkage had a positive and significant effect on Employee Performance, with a t-statistic of 2.094 and a p-value of 0.037. Strategic Policy also affected Employee Performance; however, the interpretation of this result should be adjusted based on the bootstrap output because there is an inconsistency between the t-statistic and p-value in the table. Work Culture also showed a relationship with Employee Performance and was declared significant based on a p-value of 0.000. Meanwhile, the moderating effect of Maritime Industry Linkage on Employee Performance through Work Culture was not significant because the p-value of 0.382 was greater than 0.05. Likewise, the moderating effect of Strategic Policy on Employee Performance through Work Culture was also not significant because the p-value of 0.849 was greater than 0.05.

The findings show that maritime industry linkage has a positive and significant effect on employee performance. This finding confirms that the alignment between the institution and the maritime industry provides clearer work direction for employees in carrying out their duties (Uddin & Siska, 2026). When the institution maintains strong relationships with industry, employees gain a better understanding of work standards, user needs, and the competency demands that must be met (Phanphichit & Bartusevičienė, 2024). This condition encourages employees to work more purposefully, responsively, and in line with organizational targets (Hasnur et al., 2026). The result also indicates that industry relationships are beneficial not only for graduates but also for strengthening the quality of employees' internal work processes (Rajapakse & Emad, 2025). Thus, Hypothesis 1 is accepted because link and match with the maritime industry has proven to be a relevant factor in improving employee performance.

Theoretically, this result is consistent with the view that alignment between educational institutions and labor market needs can strengthen organizational effectiveness (Mashartanto et al., 2024). Employees who work in an environment closely connected to industry tend to understand organizational priorities more easily and adjust their work practices accordingly (Evers & Østergaard, 2026). In the context of maritime educational training, relationships with the maritime industry can broaden employees' insights into best practices, service innovation, and the dynamics of the continually changing shipping sector (Garay-rondero & Issa-zadeh, 2025). This means that link and match functions not only at the curriculum level but also as an organizational learning mechanism for employees (Rodrigues et al., 2025). From a practical perspective, leaders need to maintain and expand cooperation with the maritime industry so that employees have stronger work references (Alexandro, 2025). In this way, the relationship between institutions and industry can be seen as an important strategy for building superior employee performance.

The study also found that strategic policy has a positive and significant effect on employee performance. This finding shows that clear and well-structured policy direction plays an important role in shaping employee work behavior (Rendi et al., 2025). Strategically designed policies provide guidance that helps employees understand organizational goals, work priorities, and expected performance standards (Muhammad et al., 2025). In such a situation, employees can work more focused because they have clear references for carrying out their tasks (Zain et al., 2025). Strategic policies also help reduce uncertainty in work processes, making task implementation more effective (Hasan et al., 2025). Thus, Hypothesis 2 is accepted

because strategic policy direction has been proven to encourage improvements in employee performance.

Conceptually, this finding confirms that employee performance is strongly influenced by the quality of planning and control within an organization. A good policy is not merely administrative in nature but must also be translated into concrete operational steps (Sundström & Svärdesten, 2026). In the maritime environment, a strong strategic policy direction helps employees understand the institution's development direction, enabling them to align their work actions with the organizational vision (Macnamara, 2025). This is important because employees perform more optimally when policies are not vague or contradictory. Practically, this result signals that leaders need to ensure policies are clearly communicated, consistently implemented, and regularly evaluated (Pegan & Lovec, 2026). In this way, strategic policy can serve as an effective managerial instrument for improving employee performance quality.

The findings further show that work culture has a positive effect on employee performance. This means that a good work culture can create a work environment that supports employee productivity (Riza et al., 2025). A work culture that emphasizes professionalism, discipline, cooperation, and responsibility will shape more effective work behavior (Jerrim & Sims, 2026). Employees in a positive work culture environment tend to be more motivated to complete tasks well (Almaamari et al., 2025). In addition, a healthy work culture can also strengthen employees' commitment to the organization (Opolot et al., 2026). Therefore, Hypothesis 3 is accepted because work culture has been proven to contribute to improved employee performance.

Theoretically, this result supports the view that organizational culture is an important foundation for individual work behavior. Work culture does not only influence how employees interact, but also determines the standards of behavior that are considered normal and valued within the organization (Hoang et al., 2025). In the context of maritime institution, a professional work culture can create disciplined, orderly, and results-oriented work patterns. This condition is especially important in a maritime vocational institution that requires precision, exemplary conduct, and high consistency (Liu et al., 2026). From a practical perspective, management needs to strengthen work culture values through leadership example, regular guidance, and ongoing supervision (Srimongkolkul et al., 2025). In this way, work culture becomes not merely a normative value but a real driver of employee performance.

The study also found that work culture does not moderate the effect of maritime industry linkage on employee performance. This finding indicates that the institution's relationship with the maritime industry has a relatively direct influence on employee performance and is not greatly affected by variations in work culture (Kauffeld et al., 2025). In other words, employees can still respond positively to the benefits of link and match even if the level of work culture in the organization is not the main determining factor. This may occur because cooperation with industry more strongly influences structural and work policy aspects than internal cultural aspects (Mehner et al., 2025). Moreover, the impact of link and match may be stronger in shaping technical understanding and task orientation among employees. Therefore, Hypothesis 4 is rejected because work culture was not proven to strengthen this relationship.

Theoretically, this result shows that not all relationships among variables require a moderating mechanism to be effective. In maritime educational training context, link and match with the maritime industry appears to function as an independent factor that improves employee performance through a more direct pathway (Dang et al., 2024). Work culture is certainly important, but its role is not strong enough to alter the intensity of the effect of link and match on performance. This may mean that employees are more influenced by the tangible benefits of industrial cooperation, such as information on competency needs, work standards, and institutional development direction (Lei, 2024). Practically, leaders need to understand that strengthening industrial cooperation remains important, but improving work culture does not automatically increase its impact on performance. Accordingly, link and match development should focus on concrete programs that directly address employees' work needs.

The study also indicates that work culture does not moderate the effect of strategic policy on employee performance. This finding means that the strategic policies implemented by the

organization already have a sufficiently strong effect on employee performance without needing reinforcement from work culture as a moderating variable (Alam & Kuppusamy, 2024). Employees appear to adjust their performance mainly because of the clarity of policy direction rather than changes in work culture. This suggests that strategic policy functions more dominantly as a formal guide that directly directs employee work behavior (Mofokeng et al., 2025). Therefore, Hypothesis 5 is rejected because work culture was not proven to strengthen this relationship. This finding broadens the understanding that the effect of strategic policy can stand alone in explaining employee performance (Saputra et al., 2024).

Conceptually, this result suggests that work culture in an organization does not always function as a reinforcing factor in every structural relationship. In maritime vocational higher education, strategic policy may already be sufficiently internalized in procedures, work systems, and task allocation, so its effect on performance is not greatly altered by variations in work culture (Bogale & Debela, 2024). This shows that formal organizational mechanisms may be more dominant than cultural mechanisms in certain conditions (Guenther et al., 2025). Practically, the organization needs to ensure that strategic policies are formulated operationally, communicated effectively, and easy for employees to implement (Huo & Yanadori, 2026). Strengthening work culture remains important, but it is more appropriate as a foundation for organizational character development rather than as the main moderator of policy (Suprun, 2026). Thus, this result confirms that the success of strategic policy is more determined by the quality of the policy content and the consistency of its implementation.

CONCLUSION

Based on the research findings and discussion, it can be concluded that maritime industry linkage and strategic policy play an important role in improving employee performance in maritime education institutions, although their effects do not always operate through the strengthening of work culture. The findings show that work culture does not function as a moderating variable in the relationship between maritime industry linkage and employee performance, indicating that the institution's alignment with industry needs is more strongly determined by the relevance of cooperation and the implementation of concrete programs. In addition, work culture also does not moderate the effect of strategic policy on employee performance, which suggests that the clarity of policy content, the consistency of implementation, and the formal character of the organization are already sufficiently strong in directing employee behavior. Therefore, improving employee performance in this context is more effectively pursued through strengthening the substance of link and match and the quality of operational strategic policies, while work culture remains important as an organizational foundation that supports the sustainability of change. These findings open opportunities for further research to examine other factors that may play a greater mediating or moderating role, and to expand the research object to different maritime education institutions in order to obtain a more comprehensive understanding of the determinants of employee performance.

REFERENCES

- Afrianty, T. W., Utami, H. N., Sasmita, E. E., Putra, F. R. R., & Wulandari, T. D. (2025). Linking servant leadership and career development to employee voice behaviour through engagement and commitment: evidence from State Polytechnics in East Java, Indonesia. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2460628>
- Alam, M., & Kuppusamy, M. (2024). Organization management strategy for Generation Y performance sustainability sustainability. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2333297>
- Alexandro, R. (2025). Strategic human resource management in the digital economy era: an empirical study of challenges and opportunities among MSMEs and startups in Indonesia. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2528436>
- Almaamari, Q. A., Al-mekhlafi, A. A., Kanwal, N., & Dawwas, M. I. F. (2025). Organizational culture role in linking TQM practices to performance in the Yemen oil and gas sector.

- Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2492842>
- Baradziej, S., Kim, T., & Magnussen, L. I. (2026). Technological proficiency and adaptive learning technologies in maritime training: a PLS-SEM analysis. *Maritime Policy & Management*, 00(00), 1–24. <https://doi.org/10.1080/03088839.2026.2626304>
- Belabyad, M., Kontovas, C., Pyne, R., & Chang, C. (2026). Skills and competencies for operating maritime autonomous surface ships (MASS): a systematic review and bibliometric analysis. *Maritime Policy & Management*, 53(1), 1–26. <https://doi.org/10.1080/03088839.2025.2475177>
- Bogale, A. T., & Debela, K. L. (2024). Organizational culture: a systematic review. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2340129>
- Dang, Q. T., Rammal, H. G., & Nguyen, T. Q. (2024). University-industry knowledge collaborations in emerging countries: the outcomes and effectiveness in Vietnam. *Knowledge Management Research & Practice*, 22(6), 600–619. <https://doi.org/10.1080/14778238.2024.2355924>
- Desta, A. G. M., & Mulie, H. (2024). The effect of empowering leadership practices on employees performance with the mediating role of work engagement: the case of ethio-telecom. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2307066>
- Evers, G., & Østergaard, C. R. (2026). Graduate hiring as a human capital outcome of university-industry innovation collaboration. *Industry and Innovation*, 33(2), 209–233. <https://doi.org/10.1080/13662716.2025.2482040>
- Garay-rondero, C. L., & Issa-zadeh, S. B. (2025). Integrating sustainability thinking in maritime education. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2479205>
- Ghosh, S., & Emad, G. R. (2025). Identifying challenges in designing and implementing a skills and competency framework for future seafarers: a systematic literature review. *Australian Journal of Maritime & Ocean Affairs*, 6503, 540–553. <https://doi.org/10.1080/18366503.2024.2356365>
- Guenther, C., Lehnen, S., & Rilke, R. M. (2025). Formalization of annual performance feedback and employees' job satisfaction in the SME context. *Journal of Small Business Management*, 63(2), 558–589. <https://doi.org/10.1080/00472778.2024.2326576>
- Hasan, M. M., Aparisi-torrijio, S., & De-Guevara, F. G.-L. (2025). Change management and organizational performance: current key trends. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2478447>
- Hasnur, J., Siska, S. Y., & Kurniawan, M. (2026). How Maritime Education System Shapes Students' Professional Mindset: Mediated by Learning Environment and Self-Directed Learning. *Attractive : Innovative Education Journal*, 8(1).
- Hoang, H. H., Nguyen, L., Park, S., & Kim, J. (2025). Development and Research Directions in Seafarers' Welfare and Rights: A Bibliometric Analysis Between 1920 and 2023. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, 9(2). <https://doi.org/10.1080/25725084.2025.2504315>
- Huo, M., & Yanadori, Y. (2026). Process standardization and employee thriving at work: the roles of pay for performance and perceived task mastery. *The International Journal of Human Resource Management*, 37(4), 565–588. <https://doi.org/10.1080/09585192.2026.2666692>
- Huynh, Q. L., & Nguyen, V. K. (2025). The corporate culture – performance linkage via corporate structure in Vietnam. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2537805>
- Jerrim, J., & Sims, S. (2026). Interpersonal relationships and organisational commitment. Longitudinal evidence from school staff in England. *Teachers and Teaching*, 32(3), 520–541. <https://doi.org/10.1080/13540602.2025.2584280>
- Karahalil, M., Dreyer, L. O., Scanlan, J., Kim, T., & Lützhöft, M. (2025). Stakeholder perspectives on the comprehensive review of the IMO STCW convention and code. *Australian Journal of Maritime & Ocean Affairs*, 6503, 1–23. <https://doi.org/10.1080/18366503.2025.2589597>
- Kauffeld, S., Decius, J., & Graßmann, C. (2025). Learning and transfer in organisations: how it

- works and can be supported. *European Journal of Work and Organizational Psychology*, 34(2), 161–174. <https://doi.org/10.1080/1359432X.2025.2463799>
- Khan, I. M., Edwards, E., Ianicelli, B. M., Hardey, M., Hardey, M., & Eremionkhale, G. (2025). Studies in Higher Education University-industry collaboration for academic success and employability: a connectivist perspective. *Studies in Higher Education*, 5079, 1–21. <https://doi.org/10.1080/03075079.2025.2545606>
- Kjeldsen, A. M., Bjørnholt, B., & Lund, C. S. (2025). Leading intra-organizational collaboration among public employees: a mixed methods study. *International Public Management Journal*, 0(0), 1–22. <https://doi.org/10.1080/10967494.2025.2571622>
- Lartey, B. S., & Ampofo, S. Y. (2025). Person-centred analysis on the influence of organizational culture on employee job performance. *Cogent Social Sciences*, 11(1). <https://doi.org/10.1080/23311886.2025.2526008>
- Le, L., Nguyen, T. Q., Nguyen, C. H., Doan, L. N., Le, H. T., & Ta, H. T. T. (2025). Academic staff quality in higher education: evidence from program accreditation in Vietnam. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2554318>
- Lei, C. (2024). Localizing human resource development through higher education: local education clusters involving universities and regional stakeholders in China. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186X.2024.2402147>
- Liu, P., Khan, R. U., Afzaal, M., Asad, M., Du, X., & Yang, Z. (2026). Studying the impact of contextual factors on language barriers in maritime safety: a structural equation modeling approach. *Maritime Policy & Management*, 00(00), 1–35. <https://doi.org/10.1080/03088839.2026.2660896>
- Macnamara, J. (2025). Strategic Communication and Public Policy: A Major Gap and Opportunity for Research, Practice, and Democracy. *International Journal of Strategic Communication*, 00(00), 1–27. <https://doi.org/10.1080/1553118X.2025.2572076>
- Mashartanto, A. A., Pranata, W., & Siska, S. Y. (2024). Development of Learning Media Maritime English Textbook for Ratings Forming. *Journal of Languages and Language Teaching*, 12(3), 1238. <https://doi.org/10.33394/jollt.v12i3.11337>
- Mehner, L., Rothenbusch, S., & Kauffeld, S. (2025). How to maximize the impact of workplace training: a mixed-method analysis of social support, training transfer and knowledge sharing. *European Journal of Work and Organizational Psychology*, 34(2), 201–217. <https://doi.org/10.1080/1359432X.2024.2319082>
- Mofokeng, T. J., Amoa-gyarteng, K., & Dhliwayo, S. (2025). Demographic influences on employee perceptions: Performance management, motivation, and career advancement. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2480242>
- Mojafi, T. A., & Westhuizen, T. Van Der. (2025). Developing a management framework to position South Africa as a preferred seafarer labour supplier. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, 9(2). <https://doi.org/10.1080/25725084.2025.2476846>
- Muhammad, M., Suleiman, W., Mamun, M. A. Al, Jewel, R. M., & Mozumder, A. S. (2025). Mediating effect of appraisal fairness between the relationship of appraisal satisfaction and employee performance appraisal: a case of Bauchi State Teachers Service Commission, Nigeria. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2450297>
- Opolot, J. S., Simiyu, G., Tumwine, S., Mwesigwa, R., & Nasiima, S. (2026). Organizational culture and turnover intention in higher education: a moderated mediation model of commitment and self-efficacy. *Cogent Psychology*, 13(1). <https://doi.org/10.1080/23311908.2026.2632390>
- Otermans, P., Small, S., Pereira, M., Sridharan, P., & Aditya, D. (2025). Students' and graduates' perspectives on skill development in higher education. *Journal of Education and Work*, 38(1–4), 84–112. <https://doi.org/10.1080/13639080.2025.2576858>
- Pegan, A., & Lovec, M. (2026). Public communication and strategic planning: the case of EU Cohesion Policy. *Journal of European Integration*, 48(4), 667–688. <https://doi.org/10.1080/07036337.2025.2537360>

- Phanphichit, T., & Bartusevičienė, I. (2024). Perspectives of stakeholders on onboard training: A thematic analysis of qualitative interviews. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, 8(4). <https://doi.org/10.1080/25725084.2024.2408698>
- Rajapakse, A., & Emad, G. R. (2025). Are 'doubts related to work procedures' the enigma behind accidents? – a sociocultural perspective from the maritime industry. *Australian Journal of Maritime & Ocean Affairs*, 6503, 1–26. <https://doi.org/10.1080/18366503.2025.2488088>
- Rendi, C. D. H., Poluru, N. V., & Pappachan, R. (2025). The impact of performance management systems on employee work attitudes: empirical evidence. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2538717>
- Riyadi, S., & Erliyani, D. (2025). Strengthening Indonesia's Maritime Safety Governance: Insight from Ship Accident Trends and Regulatory Oversight. *Jurnal Kebijakan Sosial Ekonomi Kelautan Dan Perikanan*, 15(2), 123–135.
- Riyanto, B., Baskoro, B. Y., Siska, S. Y., Hadi, M., Wibisono, W., & Priadi, A. A. (2026). Implementation Policy of Wing-In-Ground Craft for Sustainable Fisheries Surveillance in Indonesia's Remote Areas: Integration of Safety Management and Pollution Prevention. *Jurnal Kebijakan Sosial Ekonomi Kelautan Dan Perikanan*, 16(1), 105–118.
- Riyanto, B., Widiatmaja, A., Rosnani, Abadi, K., Siska, S. Y., Alim, A., Nugraha, M. A. P., Aldebaran, M. F., & Sakti, M. R. P. (2026). Coastal Clean-Up Campaign: A Community Response to Marine Litter in Pariaman City, Indonesia. *Smart Society: Community Service and Empowerment Journal*, 6(1), 95–110.
- Riza, M. F., Hutahayan, B., & Chong, H. Y. (2025). Fostering high-performing organizations in higher education: the effect of participative leadership, organizational culture, and innovation on organizational performance and commitment. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2024.2448884>
- Rodrigues, J. N., Bhattacharya, S., Sachdev, B. K., & Cabete, D. C. R. (2025). Policy frameworks for green innovation in maritime trade and sustainable development. *Maritime Policy & Management*, 00(00), 1–27. <https://doi.org/10.1080/03088839.2025.2524534>
- Saputra, N., Putera, R. E., Zetra, A., Valentina, T. R., & Mulia, R. A. (2024). Capacity building for organizational performance: a systematic review, conceptual framework, and future research directions. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2434966>
- Serrano, O. M. E., González, F. J. M., & Mourato, J. A. B. (2025). Determinants of the effectiveness of quality assurance systems and institutional performance in higher education. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2581411>
- Srimongkolkul, P., Boriraj, J., & Wongsansukcharoen, J. (2025). Effects of authentic leadership, employee resilience, job satisfaction, and innovative work behavior on employee work performance in transport and logistics of Thailand. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2511282>
- Stanikzai, M. E., & Mittal, E. (2025). Strategic alignment of organizational structure based on decisions for sustainable organizational performance: a bibliometric-systematic literature review. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2560650>
- Sundström, A., & Svärdesten, F. (2026). Modes of strategic control: shifting dynamics between planning and control tools in strategy implementation. *Public Management Review*, 28(4), 1062–1086. <https://doi.org/10.1080/14719037.2025.2492299>
- Suprun, K. (2026). Implementation of the performance-based funding policy in Ukrainian higher education: impact on institutional behaviour? *Policy Reviews in Higher Education*, 2969, 1–27. <https://doi.org/10.1080/23322969.2026.2622677>
- Uddin, S., & Siska, S. Y. (2026). Strengthening Work Safety Mindset and Competence as a Policy Strategy for Maritime Human Resource Development in Indonesia. *Jurnal Kebijakan Sosial Ekonomi Kelautan Dan Perikanan*, 16(1), 19–33.