

Analysis of Human Resource Information Systems (HRIS), Competence, and Work Discipline on Employee Performance at Pt Pelabuhan Indonesia (Persero) Regional 1 Tembilahan

Jubel Herman Sianipar, Suwarno, Ocdy Amelia

Abstract

This study was conducted to analyze the extent to which the Human Resource Information System (HRIS), competence, and work discipline contributed to employee performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan. The study employed a quantitative approach using primary data collected through questionnaire distribution to respondents. The research population consisted of all 182 employees of the company, while the sample size was determined using the Slovin formula, resulting in 65 respondents selected through a purposive sampling technique. Data collection was carried out in 2026 and subsequently analyzed using SPSS version 24.0 through multiple linear regression analysis. The findings revealed that the Human Resource Information System (HRIS), competence, and work discipline had positive and significant effects on employee performance, both partially and simultaneously. Among the three independent variables, competence demonstrated the greatest contribution to improving employee performance, as indicated by a regression coefficient of 0.340 and a beta coefficient of 0.363. The hypothesis testing results also confirmed that all proposed hypotheses (H1, H2, H3, and H4) were accepted and were consistent with the expected directions of the relationships. Furthermore, the coefficient of determination indicated that 90.1% of the variation in employee performance could be explained by the Human Resource Information System (HRIS), competence, and work discipline, while the remaining 9.9% was influenced by other factors beyond the research model. In addition, the correlation coefficient (R) of 0.952 suggested a very strong relationship between the three independent variables and employee performance.

Keywords: Human Resource Information System (HRIS), Competence, Work Discipline, Employee Performance.

Jubel Herman Sianipar¹

¹Management, Universitas Pembangunan Panca Budi, Indonesia
e-mail: jhsianipar@pelindo.co.id¹

Suwarno², Ocdy Amelia³

^{2,3}Management, Universitas Pembangunan Panca Budi, Indonesia
e-mail: suwarno@dosen.pancabudi.ac.id², ocdyamelia@dosen.pancabudi.ac.id³

2nd International Conference on Islamic Community Studies (ICICS)

Theme: History of Malay Civilisation and Islamic Human Capacity and Halal Hub in the Globalization Era

<https://proceeding.pancabudi.ac.id/index.php/ICIE/index>

Introduction

Human resources constitute a strategic asset that determines an organization's success in achieving both operational and long term objectives [1]. Within the port service sector, service effectiveness is highly dependent on employees' ability to perform their duties efficiently, accurately, and in accordance with established operational standards [2]. PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan, as one of the port service units, plays a vital role in supporting the smooth distribution of goods, vessel services, and logistics activities that drive regional economic development [3]. The implementation of these functions requires optimal employee performance to ensure the sustainability of service quality.

Employee performance refers to the work outcomes achieved by individuals based on the responsibilities assigned by the organization [4]. High levels of employee performance contribute to the achievement of organizational targets, increased productivity, and improved service quality for customers and service users [5]. Conversely, suboptimal performance may adversely affect work effectiveness and organizational goal attainment. Performance evaluation data at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan during the 2022–2024 period indicated that several performance indicators, including work quality, work quantity, time utilization, and work innovation, exhibited fluctuating achievements and had not consistently met the targets established by the company. These conditions suggested that there remained opportunities for improving employee performance.

The results of a preliminary survey involving 40 employees also revealed several performance related issues requiring attention. Approximately 65% of respondents stated that the quality of their work had not always met the standards established by the company. Furthermore, 60% reported that work targets were not consistently completed on schedule, 75% acknowledged that some tasks had to be continued on the following day, and 60% indicated that interdepartmental coordination had not functioned optimally. These findings suggested that improvements in work quality, productivity, time effectiveness, and work coordination remained important areas for further investigation.

One factor presumed to influence employee performance is the Human Resource Information System (HRIS) [6]. The implementation of HRIS enables organizations to manage employee related data more rapidly, accurately, and systematically, thereby supporting decision making processes associated with human resource management [7]. An effective HRIS can streamline administrative processes, improve data accuracy, and facilitate information accessibility for both employees and management [8]. Preliminary survey findings indicated that some employees perceived the accuracy of information within the system as not fully reflecting actual conditions. In addition, 70% of respondents reported difficulties in independently accessing the system, 70% believed that data processing procedures had not yet operated efficiently, and 75% stated that data security features still required improvement. These findings indicated that the effectiveness of HRIS implementation could be further optimized to provide greater support for employee performance enhancement.

Employee competence is another factor that exerts a substantial influence on performance [9]. Competence represents a combination of knowledge, skills, attitudes, and experience possessed by individuals in carrying out their responsibilities [10]. Competence levels that align with job requirements enable employees to complete tasks effectively, minimize work related errors, and enhance productivity [11]. The preliminary survey revealed that 55% of respondents considered understanding of operational standards to be uneven among employees, 60% believed that technological proficiency still required improvement, 75% indicated that adaptation to changes in work systems had not been optimal, and 65% stated that their work experience had not entirely matched current job demands. These findings demonstrated that competency development remained an essential aspect of improving employee performance.

In addition to HRIS and competence, work discipline is also considered an important determinant of successful job implementation [12]. Work discipline reflects employees' willingness to comply with organizational regulations, operational standards, and applicable

policies [13]. Strong work discipline contributes to orderly work processes, higher productivity, and smoother organizational operations [14]. The preliminary survey results indicated that 65% of respondents reported that attendance punctuality had not always been maintained, 60% believed that compliance with operational standards needed further strengthening, 65% stated that greater caution in carrying out work tasks was still necessary, and 70% perceived that professional utilization of working hours had not yet reached optimal levels. These findings suggested that work discipline remained a critical factor requiring attention in efforts to improve employee performance.

Conceptually, an effective HRIS provides accurate information to support job execution, adequate competence enables employees to perform professionally according to job requirements, and work discipline promotes consistency in carrying out organizational responsibilities [15]. These three factors are closely associated with employee performance levels [16]. Previous studies have also demonstrated that HRIS, competence, and work discipline contribute significantly to employee performance improvement [15][16][17]. Nevertheless, differences in organizational characteristics, work environments, and operational systems may result in varying research outcomes, thereby necessitating further investigation at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan.

Based on the foregoing discussion, the research problem addressed in this study was whether the Human Resource Information System (HRIS), competence, and work discipline influenced employee performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan, either partially or simultaneously. Therefore, this study aimed to analyze the effects of the Human Resource Information System (HRIS), competence, and work discipline on employee performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan. The findings were expected to provide empirical contributions to the development of human resource management knowledge and serve as a reference for enhancing the effectiveness of human resource management practices within the company.

Research Methodology

This study employed a quantitative approach with an associative research design aimed at analyzing the relationships and influences between independent and dependent variables [18]. This approach was selected because it was capable of explaining the relationships among the Human Resource Information System (HRIS), Competence, and Work Discipline toward Employee Performance through objective and structured measurements. The research was conducted at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan, located in Indragiri Hilir Regency, Riau Province.

The population consisted of all employees of PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan, totaling 182 individuals. The sample size was determined using the Slovin formula with an error tolerance level of 10%, resulting in 65 respondents [5]. The sampling technique applied was purposive sampling, which involved selecting respondents based on specific criteria relevant to the research objectives [19]. The criteria included permanent employees who did not occupy managerial positions and had worked for at least one year, as they were considered to possess sufficient understanding of the organizational conditions and work systems within the company.

The data sources consisted of primary data obtained directly from respondents through questionnaire distribution. Data collection techniques included questionnaires, interviews, and documentation. The questionnaire served as the primary research instrument and employed a five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Interviews and documentation were conducted to obtain supporting information regarding company conditions and to strengthen the interpretation of research findings.

The independent variables in this study consisted of the Human Resource Information System (HRIS) (X_1), Competence (X_2), and Work Discipline (X_3), while the dependent variable was Employee Performance (Y). The Human Resource Information System (HRIS) was

measured using indicators of data accuracy, accessibility, information processing speed, data security, and feature suitability for human resource needs [10]. Competence was measured through indicators of knowledge, skills, attitudes, and experience [13]. Work Discipline was measured through indicators of attendance, compliance with regulations and work standards, level of vigilance, and ethical behavior at work [4]. Employee Performance was measured through indicators of work quality, work quantity, time utilization, and teamwork [4].

Data analysis was conducted using SPSS version 24.0. Prior to hypothesis testing, the research instrument was examined through validity and reliability tests to ensure the adequacy and consistency of the measurement tools [20]. Subsequently, classical assumption tests, including normality, multicollinearity, and heteroscedasticity tests, were performed to ensure that the regression model satisfied statistical requirements [21]. Hypothesis testing was conducted using multiple linear regression analysis to determine the influence of each independent variable on the dependent variable [22]. Partial effects were analyzed through the t test, while simultaneous effects were examined using the F test at a significance level of 5% [23]. The coefficient of determination (R^2) was used to measure the ability of the Human Resource Information System (HRIS), Competence, and Work Discipline variables to explain variations in Employee Performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan [24].

Results

Overview of Respondent Characteristics

The results of the questionnaire distributed to 65 respondents indicated that the majority of respondents were male, totaling 47 individuals (72.3%), while female respondents accounted for 18 individuals (27.7%). Based on age, the largest group was within the range of 35 to 40 years, consisting of 15 respondents (23.1%), followed by those aged 31 to 35 years with 14 respondents (21.5%). In terms of educational background, most respondents held a bachelor's degree, totaling 50 individuals (76.9%). Based on length of service, the majority had worked for 13 to 15 years, totaling 17 respondents (26.2%). Regarding marital status, most respondents were married, accounting for 59 individuals (90.8%). These findings indicate that the respondents were predominantly male employees of productive age, possessing relatively high educational qualifications, extensive work experience, and family responsibilities, thereby suggesting a strong understanding of organizational conditions and work activities within the company.

Analysis of Respondents' Answers on the Human Resource Information System (X_1)

The questionnaire results from 65 respondents revealed that the majority provided agree and strongly agree responses across all indicators of the Human Resource Information System (HRIS) variable. The percentage of agree and strongly agree responses ranged from 66.1% to 84.6%, with mean indicator values ranging from 3.8769 to 4.3385, indicating a high category. The highest level of agreement was found in indicator X1.1, with a mean score of 4.3385, where 52.3% of respondents selected strongly agree and 32.3% selected agree. However, a small proportion of respondents expressed uncertainty, ranging from 6.2% to 23.1%, while 1.5% to 15.4% selected disagree or strongly disagree on several indicators. These findings indicate that the implementation of HRIS has been perceived as sufficiently effective in supporting human resource management activities by most employees. Based on these results, it can be concluded that the Human Resource Information System (HRIS) at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan has been positively perceived by the majority of employees, particularly in terms of data accuracy, accessibility, information speed, data security, and feature suitability, thereby supporting work execution and human resource management within the organization.

Analysis of Respondents' Answers on the Competence (X₂)

The questionnaire results obtained from 65 respondents showed that most respondents selected agree and strongly agree across all competence indicators. The percentage of agree and strongly agree responses ranged from 61.5% to 86.1%, with average scores ranging from 3.7692 to 4.2000, indicating a high category. The highest average scores were found in indicators X2.5 and X2.8, both with a mean value of 4.2000, while the lowest average score was recorded for indicator X2.3 at 3.7692. Nevertheless, a small number of respondents selected uncertain responses ranging from 6.2% to 13.8%, while 5.0% to 24.6% selected disagree or strongly disagree on several indicators. Based on these findings, it can be concluded that employee competence at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan is generally considered good, as reflected in the levels of knowledge, skills, attitudes, and work experience perceived as adequate by the majority of respondents in supporting the execution of work duties and responsibilities.

Analysis of Respondents' Answers on the Work Discipline (X₃)

The results of the questionnaire distributed to 65 respondents indicated that most respondents selected agree and strongly agree for all indicators of the Work Discipline variable. The percentage of agree and strongly agree responses ranged from 70.8% to 83.1%, with average scores between 3.9077 and 4.2308, indicating a high category. The highest average score was found in indicator X3.5 with a value of 4.2308, while the lowest average score was recorded in indicator X3.6 with a value of 3.9077. However, some respondents still expressed uncertainty, ranging from 6.2% to 20.0%, while 4.6% to 18.4% selected disagree or strongly disagree on several statements. This condition indicates that employee work discipline has generally been implemented effectively, although certain aspects still offer opportunities for further improvement. Based on these findings, it can be concluded that employee work discipline at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan is categorized as good, as reflected in attendance levels, compliance with regulations and work standards, vigilance at work, and ethical behavior, all of which were positively perceived by the majority of respondents in supporting effective and responsible job performance.

Analysis of Respondents' Answers on the Employee Performance (Y)

The questionnaire results from 65 respondents indicated that the majority selected agree and strongly agree responses across all indicators of the Employee Performance variable. The percentage of agree and strongly agree responses ranged from 78.5% to 87.7%, with average scores ranging from 3.9692 to 4.3846, indicating a high category. The highest average score was found in indicator Y.5 with a value of 4.3846, while the lowest average score was recorded in indicator Y.1 with a value of 3.9692. On the other hand, a small proportion of respondents expressed uncertainty, ranging from 4.6% to 15.4%, while 3.1% to 10.8% selected disagree or strongly disagree on several statements. These findings indicate that work quality, work quantity, time utilization, and teamwork have generally been perceived positively by most respondents. Based on these results, it can be concluded that employee performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan is categorized as good, as reflected in employees' ability to produce quality work, complete tasks according to established targets, utilize working time effectively, and develop teamwork that supports smooth work implementation and organizational goal achievement.

Research Instrument Testing

Data Quality Testing (Validity and Reliability)

Table 1. Validity and Reliability Test Results

Variable	Item	Corrected Item-Total Correlation (r_{value})	Validity Criteria	Cronbach's Alpha	Reliability Criteria
	X1.1	0,671	Valid	0,854	Reliabel

Variable	Item	Corrected Item-Total Correlation (r_{value})	Validity Criteria	Cronbach's Alpha	Reliability Criteria	
Human Resource Information System (X ₁)	X1.2	0,515	Valid	0,809	Reliabel	
	X1.3	0,400	Valid			
	X1.4	0,708	Valid			
	X1.5	0,453	Valid			
	X1.6	0,659	Valid			
	X1.7	0,519	Valid			
	X1.8	0,574	Valid			
	X1.9	0,416	Valid			
	X1.10	0,713	Valid			
	Competence (X ₂)	X2.1	0,535			Valid
X2.2		0,572	Valid			
X2.3		0,531	Valid			
X2.4		0,537	Valid			
X2.5		0,545	Valid			
X2.6		0,498	Valid			
X2.7		0,309	Valid			
X2.8		0,727	Valid			
X3.1		0,572	Valid			
Work Discipline (X ₃)		X3.2	0,680	Valid	0,862	Reliabel
	X3.3	0,431	Valid			
	X3.4	0,721	Valid			
	X3.5	0,362	Valid			
	X3.6	0,461	Valid			
	X3.7	0,477	Valid			
	X3.8	0,622	Valid			
	Y.1	0,551	Valid			
	Employee Performance (Y)	Y.2	0,755	Valid		
		Y.3	0,390	Valid		
Y.4		0,769	Valid			
Y.5		0,473	Valid			
Y.6		0,543	Valid			
Y.7		0,663	Valid			
Y.8		0,765	Valid			

The testing results indicated that all statement items obtained Corrected Item Total Correlation values exceeding 0.30, demonstrating that every indicator met the validity requirement and was capable of accurately measuring the intended construct [1]. In addition, the Cronbach's Alpha values for each variable exceeded the minimum threshold of 0.70, namely HRIS (0.854), Competence (0.809), Work Discipline (0.818), and Employee Performance (0.862) [19]. These findings confirmed that the research instrument possessed satisfactory levels of accuracy and internal consistency, making it appropriate for use in subsequent statistical analyses.

Classical Assumption Testing (Normality, Multicollinearity, and Heteroscedasticity)

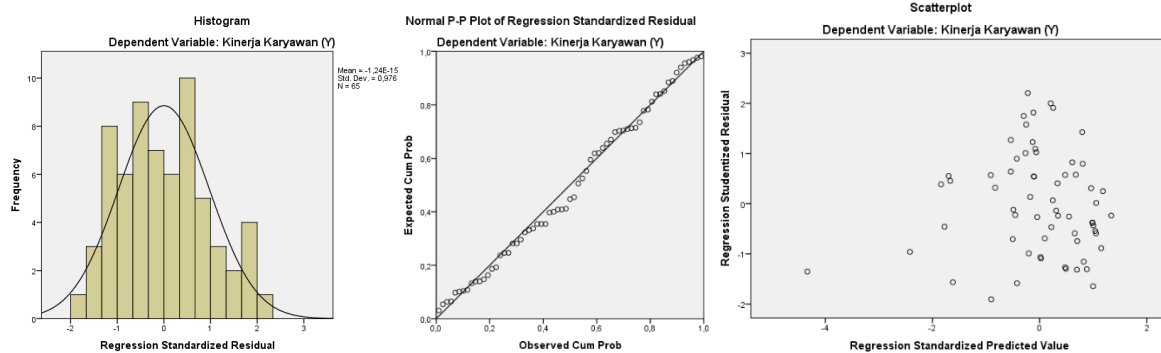


Figure 1. Histogram, P-P Plot, and Scatterplot Graphs

The residual histogram visualization demonstrated a distribution pattern that closely resembled a bell shaped curve, indicating that the data were distributed relatively evenly around the central value. This condition was supported by a residual mean that was very close to zero and a relatively small level of deviation. Such characteristics suggested that the residuals were normally distributed and did not exhibit substantial distributional imbalance [25].

Observation of the Normal Probability Plot (P-P Plot) revealed that the plotted points generally followed and clustered around the diagonal reference line. The absence of substantial deviations from the diagonal line indicated a strong conformity between the residual distribution and the normal distribution. Therefore, the normality assumption required in the regression model was considered adequately satisfied [26].

The scatterplot graph showed that the residual points were randomly dispersed around the zero line without forming any specific pattern, such as funnel shaped, widening, or wave like formations. This random distribution indicated that the residual variance remained relatively stable across all predicted values. Consequently, the regression model did not exhibit symptoms of unequal residual variance, allowing the relationships among variables to be analyzed more accurately [27].

Table 2. Multicollinearity and Glejser Test Results

<i>Model</i>	<i>Coefficients^a</i>		<i>Sig.</i>	<i>Conclusion</i>
	<i>Collinearity Statistics</i>			
	<i>Toleranc</i>	<i>VIF</i>		
	<i>e</i>			
1 (<i>Constant</i>)			0,003	No multicollinearity problem and no indication of heteroscedasticity.
Human Resource Information System (<i>X₁</i>)	0,216	4,622	0,658	
Competence (<i>X₂</i>)	0,192	5,206	0,164	
Work Discipline (<i>X₃</i>)	0,223	4,493	0,112	
a. <i>Dependent Variable:</i> Employee Performance (<i>Y</i>)			a. <i>Dependent Variable:</i> Absolute Residual	

The multicollinearity test produced tolerance values above the minimum threshold of 0.10 for all independent variables, while the Variance Inflation Factor (VIF) values remained below 10. These results indicated that the correlations among the independent variables were within acceptable limits and did not create overlapping information that could distort the regression estimates [5].

The Glejser test results showed that all independent variables had significance values greater than 0.05. This finding confirmed the absence of heteroscedasticity in the research model [1]. In other words, the residuals exhibited relatively constant variance across all prediction levels, indicating that the regression model satisfied the homoscedasticity assumption and was suitable for hypothesis testing [12].

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

<i>Model</i>	Coefficients^a			<i>T</i> _{value}	<i>t</i> _{table}	<i>Sig.</i>	<i>Rule of Sig.</i>	Conclusion
	<i>Unstandardized Coefficients</i>	<i>Standardized Coefficients</i>						
	B	Std. Error	Beta					
1 (<i>Constant</i>)	2,415	1,325		1,822		0,073		
Human Resource Information System (<i>X</i> ₁)	0,271	0,067	0,340	4,020	2,000	0,000	Sig < 0,05	Positive and Significant
Competence (<i>X</i> ₂)	0,340	0,084	0,363	4,046	2,000	0,000	Sig < 0,05	Positive and Significant
Work Discipline (<i>X</i> ₃)	0,284	0,080	0,297	3,561	2,000	0,001	Sig < 0,05	Positive and Significant

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

Multiple Linear Regression Analysis

Based on the results of the multiple linear regression analysis, the following regression equation was obtained [17]:

$$Y = 2.415 + 0.271X_1 + 0.340X_2 + 0.284X_3$$

The equation illustrated the relationship between the Human Resource Information System (*X*₁), Competence (*X*₂), and Work Discipline (*X*₃) on Employee Performance (Y). The constant value of 2.415 indicated that when the Human Resource Information System, Competence, and Work Discipline variables were assumed to remain constant or experienced no change, Employee Performance would still maintain a baseline value of 2.415 units [15]. This value reflected the contribution of other factors outside the research model that continued to influence employee performance [16].

The regression coefficient of 0.271 for the Human Resource Information System indicated a positive relationship with employee performance. This means that every one unit increase in the quality of the Human Resource Information System would increase employee performance by 0.271 units, assuming other variables remained constant [28]. This relationship may occur because a more effective HRIS enhances information accessibility, improves data accuracy, and supports administrative processes and managerial decision making, thereby enabling employees to perform their duties more efficiently [29].

The competence regression coefficient of 0.340 also indicated a positive effect on employee performance. This result implied that every one unit increase in competence would improve employee performance by 0.340 units [30]. The finding suggested that higher levels of knowledge, skills, attitudes, and experience enabled employees to complete tasks more effectively, accurately, and in accordance with organizational performance targets [31].

The work discipline regression coefficient of 0.284 demonstrated a positive relationship with employee performance. This indicated that a one unit increase in work discipline would improve employee performance by 0.284 units [32]. Such a condition reflected that compliance with organizational regulations, punctuality, work vigilance, and ethical behavior contributed to smoother task execution and ultimately resulted in better performance outcomes [33].

Based on both the regression coefficient and the standardized beta coefficient, Competence emerged as the most dominant variable influencing Employee Performance, with a regression coefficient of 0.340 and a standardized beta value of 0.363 [5]. This finding indicated that improvements in employee competence generated a greater contribution than the other variables because competence represented the fundamental capability that directly

determined work quality, task completion accuracy, and adaptability to increasingly dynamic job demands [34].

Partial Hypothesis Testing (t Test)

Partial hypothesis testing was conducted by comparing the calculated t value (tcount) with the critical t value (ttable) and examining the significance level at a 5% error rate ($\alpha = 0.05$). The ttable value of 2.000 was obtained from the t distribution table using a degree of freedom of $df = n - k - 1 = 65 - 3 - 1 = 61$ [1].

The Human Resource Information System variable produced a tcount value of 4.020, which was greater than ttable = 2.000, with a significance value of $0.000 < 0.05$. These results indicated that the Human Resource Information System had a positive and significant effect on employee performance [6]. A significant effect means that improvements in HRIS quality are followed by actual changes in employee performance, suggesting that the relationship is not attributable to chance [7].

The Competence variable obtained a tcount value of 4.046, exceeding ttable = 2.000, with a significance value of $0.000 < 0.05$. This finding demonstrated that competence had a positive and significant influence on employee performance [35]. The better the competence possessed by employees, the greater their ability to achieve organizational targets and produce high quality work outcomes [11].

The Work Discipline variable recorded a tcount value of 3.561, which was greater than ttable = 2.000, with a significance value of $0.001 < 0.05$. These results confirmed that work discipline had a positive and significant effect on employee performance [12]. This implies that greater discipline in carrying out duties and complying with organizational rules contributes directly to measurable improvements in employee performance [14]. Therefore, hypotheses H1, H2, and H3 were accepted.

Table 4. F Test (Simultaneous) and Coefficient of Determination Results

Model	df	ANOVA ^a				Conclusion	Model Summary ^b	
		F _{value}	F _{table}	Sig	Rule of Sig.		R	Adjusted R Square
1 Regression	3					Positive and Significant	0,952 ^a	0,901
Residual	61	194,816	2,755	0,000 ^b	< 0,05			
Total	64							

a. *Dependent Variable:* Employee Performance (Y)
 b. *Predictors:* (Constant), Human Resource Information System (X₁), Competence (X₂), Work Discipline (X₃)

Simultaneous Effect Test Analysis (F Test)

Simultaneous hypothesis testing was conducted by comparing the calculated F value (Fcount) with the critical F value (Ftable) at a significance level of 5 percent. The Ftable value of 2.755 was obtained from $df1 = k = 3$ and $df2 = n - k - 1 = 61$ [19]. The test results revealed that the Fcount value of 194.816 was substantially higher than the Ftable value of 2.755, with a significance level of $0.000 < 0.05$.

These findings indicated that the Human Resource Information System, Competence, and Work Discipline simultaneously exerted a positive and significant influence on Employee Performance [15]. The significant effect demonstrated that the three independent variables collectively made a substantial contribution to explaining variations in employee performance [17]. Therefore, hypothesis H4 was accepted.

Coefficient of Determination Analysis

The analysis produced an Adjusted R Square value of 0.901. This result indicated that 90.1 percent of the variation in Employee Performance could be explained by the Human Resource Information System, Competence, and Work Discipline variables included in this

study [16]. Meanwhile, the remaining 9.9 percent was attributable to other factors outside the research model that were not examined in the present study.

The R value of 0.952 reflected a very strong relationship between the Human Resource Information System, Competence, Work Discipline, and Employee Performance. A correlation coefficient approaching 1 indicated that improvements in these three independent variables were consistently and closely associated with increases in Employee Performance [12].

Discussion

The Effect of Human Resource Information System (X₁) on Employee Performance (Y)

The results of the multiple linear regression and partial t test analyses demonstrated that the Human Resource Information System (HRIS) had a positive and significant effect on Employee Performance. This finding indicated that the better the quality of human resource information management through HRIS, the higher the employees' ability to perform their duties and responsibilities effectively [8].

Within a port service environment that requires punctuality and coordination across multiple operational units, the availability of accurate personnel data enables employees to obtain necessary information more quickly, thereby supporting effective task completion and minimizing the likelihood of administrative errors. Tembilahan Port serves as one of the key ports facilitating maritime services and logistics distribution activities in the Riau region, requiring a well organized operational and human resource management system.

This positive influence may occur because HRIS functions not only as a repository for employee information but also as a strategic instrument supporting administrative processes, attendance monitoring, personnel information management, and the provision of data required for managerial decision making [28]. When information regarding attendance records, work schedules, training activities, and personnel data can be accessed conveniently, employees gain greater certainty and clarity in carrying out their responsibilities [29]. Such conditions contribute to improved productivity, greater accuracy in task execution, and enhanced service quality delivered to port users. Furthermore, the utilization of digital based systems enables administrative activities to be performed more efficiently than conventional manual methods, allowing employees to allocate more time to productive activities that generate greater value for the organization [6].

The improvement in employee performance attributable to HRIS also reflects the company's commitment to supporting digital transformation in human resource management. As part of Pelindo, which manages a national port network and continuously promotes logistics service efficiency, Regional 1 Tembilahan has implemented technology based work management systems to support operational continuity and service quality enhancement.

The implementation of HRIS enables the company to accelerate personnel administration processes, improve data accuracy, strengthen coordination among organizational units, and provide faster access to information for both employees and management. Through the enhancement of information systems, the company can create a more structured, responsive, and adaptive work environment capable of meeting operational requirements effectively. This condition explains why the Human Resource Information System contributes substantially to improving Employee Performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan.

The findings of this study are consistent with the view of Sutrisno, who stated that employee performance is influenced by various factors, one of which is the Human Resource Information System (HRIS) [4]. The results are also aligned with previous studies reporting that HRIS partially exerts a positive and significant influence on employee performance [6][7][8][28][29].

The Effect of Competence (X₂) on Employee Performance (Y)

The results of the multiple linear regression and partial t test analyses revealed that Competence had a positive and significant effect on Employee Performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan. This finding indicated that higher levels of employee competence were associated with better performance outcomes in carrying out job responsibilities [11]. Competence, which encompasses knowledge, skills, work attitudes, and experience, serves as a fundamental asset enabling employees to perform their duties effectively, efficiently, and in accordance with organizational standards [30].

In a port operational environment that demands precision, speed, and intensive coordination, adequate competence enables employees to make appropriate decisions, minimize work related errors, and improve service quality for port users. This condition is highly relevant to the operational characteristics of PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan as a provider of port and logistics services that plays an important role in supporting passenger mobility and goods distribution throughout the Indragiri Hilir region.

The positive influence of competence may occur because the company continuously undertakes various initiatives aimed at developing human resource capabilities [31]. The post merger transformation of Pelindo has encouraged improvements in service quality, operational efficiency, and port competitiveness, all of which require a workforce that is professional and adaptable to change. Employees possessing comprehensive knowledge of port procedures, occupational safety standards, customer service practices, and port operational management are more capable of completing tasks with a high degree of accuracy.

Work experience also enables employees to respond more effectively and efficiently to various operational situations, thereby enhancing productivity levels on a continuous basis [35]. The company's commitment to improving service quality and operational efficiency highlights the importance of competent human resources as a key determinant of organizational success [34].

Competence emerged as the most dominant variable influencing Employee Performance in this study, as reflected by the highest regression coefficient and standardized beta value among all independent variables. This finding suggests that employee success in achieving performance targets is largely determined by individual capabilities in understanding work responsibilities, mastering technical skills, and demonstrating professional attitudes in the workplace [35].

At PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan, competence enhancement is also reflected in strengthened cross functional coordination, the implementation of improved service standards, and active employee involvement in supporting port operations and public service delivery. As employee competence continues to improve, workers become more capable of producing higher quality outcomes, completing assignments on schedule, and making greater contributions toward achieving the company's overall objectives [9].

The findings of this study support the argument of Sutrisno, who emphasized that competence is one of the factors influencing employee performance [4]. Furthermore, the results are consistent with previous empirical studies demonstrating that competence partially exerts a positive and significant effect on employee performance [11][30][34][35].

The Effect of Work Discipline (X3) on Employee Performance (Y)

The results of the multiple linear regression analysis and t test indicated that Work Discipline had a positive and significant effect on Employee Performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan. These findings suggested that improvements in work discipline would be followed by enhanced employee performance in carrying out assigned duties and responsibilities [33].

Within the port service environment, work discipline is a crucial factor because all operational activities must be conducted in accordance with established schedules, procedures, and safety standards. Employees who possess a high level of discipline tend to demonstrate greater punctuality, stronger compliance with work regulations, and a higher ability to complete

assigned tasks according to predetermined targets [32]. This condition directly contributes to the smooth implementation of vessel services, cargo loading and unloading operations, passenger services, and logistics activities, which constitute the primary functions of PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan as one of the transportation and goods distribution hubs in the Indragiri Hilir region.

The positive influence of work discipline on employee performance may occur because the company consistently implements operational standards that require a high degree of compliance from all employees [12]. Daily port operations require structured coordination, timely service delivery, and continuous supervision of activities related to maritime safety and security.

Pelindo Regional 1 Tembilahan has also continuously strengthened coordination with various stakeholders, refined operational procedures, and evaluated service quality to ensure that all activities are conducted effectively and in accordance with applicable regulations. The company's efforts to improve efficiency, security, and service quality have encouraged the development of a more orderly and responsible work culture, enabling employees to perform their duties in compliance with established standards.

Effective work discipline also creates a more professional and productive work environment [14]. Employees who comply with working hours, maintain vigilance while performing their duties, and execute tasks according to established procedures are more capable of minimizing operational errors and improving service quality for port users.

This condition is consistent with the commitment of Pelindo Regional 1 Tembilahan to continuously improve service quality, operational efficiency, security, and customer convenience through various forms of synergy and continuous improvement initiatives. When work discipline becomes embedded within the organizational culture, employees not only focus on completing individual responsibilities but also contribute to maintaining the overall effectiveness of port operations.

Therefore, the higher the level of work discipline possessed by employees, the greater the employee performance achieved in supporting PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan in accomplishing its organizational objectives.

The findings of this study are consistent with the opinion of Sutrisno, who stated that employee performance is influenced by various factors, one of which is work discipline [4]. These findings are also in line with previous studies demonstrating that work discipline partially exerts a positive and significant influence on employee performance [12][14][32][33].

The Simultaneous Effect of the Three Variables on Employee Performance (Y)

The results of the F test revealed that the Human Resource Information System (HRIS), Competence, and Work Discipline simultaneously had a positive and significant effect on Employee Performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan. These findings indicated that improvements in employee performance were not influenced by a single factor but rather resulted from the interaction of multiple supporting aspects within the work environment [15].

In companies operating within the port service sector, operational success largely depends on the capability of human resources to perform their duties effectively, supported by adequate information systems and compliance with applicable work procedures. Consequently, when these three factors function harmoniously, employee productivity and work quality improve significantly [16].

This condition is highly relevant to the characteristics of PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan, which manages vessel services, cargo handling activities, passenger services, and various port facilities. Port operations require rapid coordination, accurate information, and precise decision making.

Under such circumstances, HRIS provides employee related information quickly and accurately, thereby supporting administrative processes and human resource management

activities. At the same time, employee competence enables tasks to be completed in accordance with established operational standards, while work discipline ensures that all activities are carried out in an orderly, timely, and procedural manner. The synergy among these three factors creates a work environment that supports both individual and organizational performance improvement [17].

The simultaneous effect may also occur because the company continuously implements various organizational development and improvement initiatives. As a state owned enterprise that has undergone a nationwide business transformation, Pelindo has encouraged the implementation of digitalization across various operational processes, including human resource management. Furthermore, the company continuously enhances employee competence through training programs, coaching activities, knowledge transfer initiatives, and the strengthening of technical and managerial capabilities required in port operations. Simultaneously, the implementation of Standard Operating Procedures (SOP), work supervision, safety culture programs, and periodic performance evaluations has reinforced employee work discipline, enabling all operational activities to be conducted effectively and efficiently.

The interrelationship among HRIS, competence, and work discipline ultimately produces greater performance improvements than when each factor operates independently. HRIS provides the information necessary to support work activities, competence enables employees to utilize that information effectively, and work discipline ensures that available capabilities and information are applied in accordance with organizational regulations. Consequently, the combination of these three variables enhances work quality, work quantity, timeliness in task completion, and collaboration among employees.

These findings indicate that improving employee performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan requires an integrated approach through strengthening information systems, developing employee competence, and fostering a sustainable culture of work discipline.

Competence emerged as the most dominant variable influencing employee performance because the operations of PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan are highly dependent on individual capabilities in performing technical, administrative, and service related duties. HRIS functions as a supporting tool, while work discipline serves as a mechanism for regulating work behavior. However, neither can generate optimal outcomes without adequate competence [29]. Employees possessing strong knowledge, skills, experience, and professional attitudes are better able to operate systems, understand port procedures, resolve operational issues, and make appropriate decisions under various working conditions [30]. Through higher competence levels, employees can produce work outcomes that are of better quality, completed more quickly, and executed with greater accuracy [31]. Therefore, compared with HRIS and work discipline, competence represents the primary factor that directly determines successful task execution and performance achievement at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan.

The findings of this study are consistent with the opinion of Sutrisno, who explained that employee performance is influenced by various factors, including competence, initiative, mental agility, career development schemes, loyalty, work discipline, rewards, work spirit, training, work environment, Human Resource Information Systems (HRIS), and leadership [4]. These findings are also consistent with previous studies demonstrating that HRIS, competence, and work discipline simultaneously exert positive and significant effects on employee performance [15][16][17].

Conclusion

Based on the findings of this study, it can be concluded that the Human Resource Information System (HRIS), Competence, and Work Discipline had positive and significant effects on Employee Performance at PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan,

both partially and simultaneously. Competence was identified as the most dominant variable influencing employee performance. The findings also revealed that these three variables collectively explained 90.1% of the variation in employee performance. Therefore, improving the quality of HRIS, strengthening employee competence, and consistently implementing work discipline represent essential factors in supporting work effectiveness and achieving organizational objectives optimally.

PT Pelabuhan Indonesia (Persero) Regional 1 Tembilahan is recommended to continuously enhance employee competence through technical training programs, professional certification initiatives, digital skill development, and continuous learning activities that align with port operational requirements. The company should also optimize the utilization of HRIS by improving feature quality, accessibility, and data integration to support faster and more accurate decision making processes. In addition, strengthening work discipline can be achieved through consistent supervision, periodic performance evaluations, recognition for high performing employees, and the fair enforcement of work regulations, thereby fostering a professional, productive, and performance oriented work culture.

References

- [1] C. D. Olivia, E. D. Yanti, and D. Arifin, "Analysis of Personality, Achievement Motivation, and Work Spirit on Employee Work Discipline at PT Sapta Sentosa Jaya Abadi," *Journal of Management, Economic, and Accounting*, vol. 5, no. 2, pp. 1345–1356, 2026.
- [2] D. Nasution, W. Suryani, and M. Y. Siregar, "Analysis of the Implementation of TOS Upgrade and the Use of VMT on Operational Performance with the Accuracy of Container Data as an Intervening Variable at Terminal B of PT Belawan New Container Terminal," *Journal of Applied Business Administration*, vol. 10, no. 1, pp. 160–172, 2026.
- [3] M. Umar, A. Pramukti, and A. Bakri, "Pengaruh Sistem Informasi Akuntansi, Good Corporate Governance dan Penggunaan Teknologi Informasi Terhadap Kinerja Karyawan Pada PT Pelindo (Persero) Regional 4 Makassar," *Paradoks: Jurnal Ilmu Ekonomi*, vol. 6, no. 1, pp. 27–39, 2023.
- [4] E. Sutrisno, *Manajemen Sumber Daya Manusia*. Jakarta, Indonesia: Kencana Prenada Media Group, 2022.
- [5] N. Azhari, A. Setiawan, and T. Wahyono, "Analysis of Work Facilities, Work Discipline, and Work Communication on the Performance of ASN Employees at the Ministry of Religion Office of North Sumatra Province," *Journal of Management, Economic, and Accounting*, vol. 5, no. 3, pp. 1521–1530, 2026.
- [6] P. A. Kinasih and R. M. Azhar, "Implementasi Human Resource Information System (HRIS) Terhadap Kinerja Pegawai Pada PT Swabina Gatra," *Economics and Digital Business Review*, vol. 6, no. 1, pp. 617–625, 2025.
- [7] N. Iriyanti, N. Setyorini, and N. K. Putri, "Pengaruh Penggunaan Human Resource Information System (HRIS) Terhadap Kinerja Pegawai dengan Job Involvement Sebagai Variabel Mediasi (Studi Kasus Badan Kepegawaian Pendidikan dan Pelatihan Kota Semarang)," *Journal of Indonesian Management*, vol. 5, no. 2, pp. 1–9, 2025.
- [8] I. Yantu, E. Rahman, and P. P. Lasimpala, "Pengaruh Human Resources Information System (HRIS) dan Budaya Organisasi Terhadap Kinerja Karyawan PT PLN (Persero) UP3 Gorontalo," *Innovative: Journal of Social Science Research*, vol. 4, no. 5, pp. 728–738, 2024.
- [9] S. Suwarno and S. Pratama, "The Influence of Work Abilities, Work Discipline, Work Motivation on Employee Achievement," *Prosiding Universitas Dharmawangsa*, vol. 3, no. 1, pp. 625–635, 2023.
- [10] Mikhriani, A. S. Wati, and N. I. H. Kunio, *Sistem Informasi Manajemen Sumber Daya Manusia: Manajemen Sumber Daya Manusia yang Terintegrasi, Produktif, dan Berdaya Saing dengan SIM SDM*. Bandung, Indonesia: Widina Media Utama, 2024.

- [11] S. Aisyah and A. Priyadi, "Pengaruh Kompetensi dan Disiplin Kerja Terhadap Kinerja Karyawan Pada Hotel Ibis Styles Jakarta Airport," *Jurnal Intelek Insan Cendikia*, vol. 2, no. 2, pp. 2989–3006, 2025.
- [12] O. U. Enelis, Y. Anwar, and I. Malikhah, "The Influence of Work Environment, Organizational Culture, and Work Discipline on Employee Performance at PUD Pasar Kota Medan," *Journal of Management, Economic, and Accounting*, vol. 5, no. 2, pp. 1331–1344, 2026.
- [13] A. Wibowo, *Sumber Daya Manusia*. Jakarta, Indonesia: Rajawali Pers, 2020.
- [14] I. Gusnita, D. Arifin, and S. Samrin, "Analysis of Work Ability, Work Discipline, and Non-Physical Work Environment on the Performance of ASN Employees at the North Sumatra Provincial Manpower Office," *Journal of Management, Economic, and Accounting*, vol. 5, no. 2, pp. 993–1004, 2026.
- [15] H. Ubaidillah, "Meningkatkan Kinerja Karyawan di Indonesia: Dampak Sistem Informasi SDM, Kompetensi, dan Disiplin Kerja," *Jurnal Pemberdayaan Ekonomi dan Masyarakat*, vol. 1, no. 2, pp. 23–23, 2024.
- [16] A. Wulandari, S. Syarifuddin, and V. H. Mustari, "Pengaruh Sistem Informasi Sumber Daya Manusia, Kompetensi dan Disiplin Kerja Terhadap Kinerja Aparatur Sipil Negara Pada Dinas Pekerjaan Umum dan Perumahan Rakyat Nusa Tenggara Timur dengan Kepuasan sebagai Variabel Intervening," *Jurnal Manajemen*, vol. 8, no. 2, pp. 727–739, 2024.
- [17] H. Hidayati and A. Putri, "Pengaruh Sistem Informasi Sumber Daya Manusia, Kompetensi dan Disiplin Kerja Terhadap Kinerja Karyawan di Sekretariat DPRD Provinsi Sumatera Barat," *Jurnal Valuasi: Jurnal Ilmiah Ilmu Manajemen dan Kewirausahaan*, vol. 2, no. 2, pp. 1311–1320, 2022.
- [18] F. Firmansyah, S. S. Batubara, and R. Andika, "The Impact of Work Climate and Burnout on Employee Performance with Job Satisfaction as a Mediating Variable: Evidence from North Medan Samsat," *International Journal of Economic, Technology and Social Sciences (INJECTS)*, vol. 6, no. 1, pp. 222–232, 2025.
- [19] W. Y. Hulu, A. I. Faried, and S. Suhendi, "The Influence of People's Business Credit, Financial Literacy, and QRIS Use on the Income of Thrifting Traders at Medan's Melati Market," *Journal of Management, Economic, and Accounting*, vol. 5, no. 2, pp. 1171–1182, 2026.
- [20] H. R. Dewa, S. A. Sebayang, and D. Darmilisani, "Analysis of Compensation, Work Environment, and Company Culture on Employee Job Satisfaction at PT Adira Dinamika Multi Finance Medan Branch 3," *Journal of Management, Economic, and Accounting*, vol. 5, no. 2, pp. 665–676, 2026.
- [21] O. Amelia and I. T. Pratiwi, "Transforming Marketing Strategies Through Customer Experience Management to Improve Customer Loyalty," in *Proceedings of International Conference on Islamic Community Studies*, Oct. 2025, pp. 2198–2203.
- [22] O. Amelia, "Effect of Employee, Salary and Cooperatives on Employee Satisfaction Main Rains Chicken Noodles and Medan Coffee," *Enrichment: Journal of Management*, vol. 12, no. 1, pp. 874–881, 2021.
- [23] O. Amelia, I. Malikhah, and I. Muda, "An Analysis of Influencer Marketing and Social Media on Glad2Glow Brand Purchasing Decisions Among UNPAB Female Students," *Jurnal Fokus Manajemen*, vol. 5, no. 4, pp. 999–1008, 2025.
- [24] S. Suwarno, R. Andika, D. Arifin, and N. D. Lumbangaol, "Revitalization of Training and Education to Increase the Productivity of MSMEs in Kwala Sefragile Village, Langkat," in *Proceeding International Seminar of Islamic Studies*, Sep. 2024, no. 1, pp. 1608–1614.
- [25] S. Suwarno, Y. Riyanto, and E. Wuryani, "The Role of the Kelompok Kerja Guru (KKG) in Implementing Lesson Study to Improve the Performance of Elementary School

- Teachers," *International Journal for Educational and Vocational Studies*, vol. 2, no. 3, 2020.
- [26] F. Firmansyah, K. F. Ferine, and N. Nizamuddin, "Determinants of Performance of Development Universitas Pembangunan Panca Budi Medan," in *Proc. International Conference on Health Science, Green Economics, Educational Review and Technology*, vol. 5, no. 1, pp. 357–372, 2023.
- [27] F. Firmansyah, K. F. Ferine, and N. Nizamuddin, "Analysis of the Use of Information Technology and Organizational Culture on Employee Performance with Competence as an Intervening Variable at the Panca Budi Development University, Medan," *International Journal of Social Science, Education, Communication and Economics (SINOMICS Journal)*, vol. 2, no. 5, pp. 1435–1450, 2023.
- [28] P. Sribarokah and W. H. Adji, "Pengaruh Teknologi Human Resource Information System (HRIS) terhadap Kinerja Karyawan pada Kantor Cabang Utama Pos Bandung," *Ekonomis: Journal of Economics and Business*, vol. 8, no. 2, pp. 1324–1328, 2024.
- [29] M. Azhari, K. Atmojo, and F. Muimah, "Pengaruh Penggunaan Sistem Informasi Manajemen SDM terhadap Kinerja Pegawai PT Bank XYZ di Kota Depok," *Aliansi: Jurnal Manajemen dan Bisnis*, vol. 19, no. 1, 2024.
- [30] R. Vebianti, M. Idris, and F. Yamaly, "Pengaruh Kompetensi dan Kepemimpinan terhadap Kinerja Karyawan pada PT PP London Sumatra Indonesia Tbk Palembang," *Jurnal Kajian Ekonomi dan Manajemen Indonesia (JKEMI)*, vol. 2, no. 3, pp. 126–136, 2025.
- [31] T. Tauwi, M. Masyaili, and I. Pagala, "Pengaruh Disiplin Kerja, Kompetensi, Komitmen Organisasi dan Kepemimpinan terhadap Kinerja Pegawai Negeri Sipil Dinas Pendidikan dan Kebudayaan Kabupaten Konawe," *INNOVATIVE: Journal of Social Science Research*, vol. 4, no. 1, pp. 10407–10418, 2024.
- [32] A. Sarumaha, K. Kholik, and W. Robain, "The Influence of Human Resource Development, Leadership, and Work Discipline on the Performance of ASN Employees at the Regional Office of the Ministry of Religion of North Sumatra Province," *Jurnal Fokus Manajemen*, vol. 6, no. 2, pp. 483–494, 2026.
- [33] F. Firmansyah and R. Andika, "Determination of Motivation, Work Discipline, and Work Environment in Improving Employee Performance," in *Proc. International Conference on Islamic Community Studies*, pp. 555–570, Oct. 2025.
- [34] M. Tila, R. Setianingsih, and H. Zaki, "Pengaruh Kompetensi, Motivasi dan Disiplin Kerja terhadap Kinerja Pegawai Kantor Perwakilan BKKBN Provinsi Riau," *Jurnal Ilmiah Mahasiswa Merdeka EMBA*, vol. 2, no. 1, pp. 229–242, 2023.
- [35] Ira, A. Djalante, and Asniwati, "Pengaruh Pengawasan, Disiplin Kerja, Kompetensi terhadap Kinerja Aparatur Sipil Negara pada Badan Kesatuan Bangsa dan Politik Kabupaten Kepulauan Selayar," *Cendekia Akademika Indonesia (CAI)*, vol. 2, no. 1, pp. 1–14, 2023.