

**The Effect Of Work Discipline And Knowledge Sharing On Employee
Performance With Motivation As An Intervening Variable At PT Pelindo
Regional I Belawan**

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Abstract

In the era of globalization, commercial competition forces corporate entities to be equipped with a superior workforce to improve performance and competitiveness. The challenges faced by PT Pelindo Regional I Belawan include low employee performance, which is suspected to be caused by deficiencies in work discipline and knowledge sharing practices, coupled with suboptimal work motivation. This study is designed to identify the impact of work discipline on employee performance, the impact of knowledge sharing on employee performance, the impact of motivation on employee performance, the impact of work discipline on motivation, the impact of knowledge sharing on motivation, the impact of work discipline on employee performance through motivation as an intervening variable, and the impact of knowledge sharing on employee performance through motivation as an intervening variable. This study was conducted on all employees of PT Pelindo Regional I Belawan, totaling 45 individuals. Data were obtained through a survey instrument and then processed with quantitative analysis. The study findings revealed that work discipline has a positive and significant influence on employee performance, knowledge sharing has a positive and significant influence on employee performance, motivation has a positive and significant influence on employee performance, work discipline has a positive and significant influence on motivation, knowledge sharing has a positive and significant influence on motivation, work discipline has an influence on employee performance through motivation as an intervening variable, and knowledge sharing has an influence on employee performance through motivation as an intervening variable.

Keywords: Work Discipline; Employee Performance; Knowledge Sharing; Motivation.

INTRODUCTION

In the context of internationalization that triggers intense commercial competition, competitive advantage needs to be developed by business entities through competent personnel. Human resource management—which includes improving employee work discipline, knowledge sharing, and motivation—is considered essential to achieving institutional goals (Ndari et al., 2018; Sinambela, 2018). The evolution of communication technology has transformed the work environment into a knowledge-based era, where intellect and skills dominate physical strength, so education and training in staff management are necessary to optimize productivity (Kawiana et al., 2023; Rahayu & Dahlia, 2023). Work discipline is crucial for encouraging task efficiency, while knowledge sharing—including skills, thinking patterns, and intellect—influences responsibility and problem resolution (Febrisky, 2022; Nurhayana, 2021; Rahayu & Dahlia, 2023).

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Work discipline directly impacts employee performance by emphasizing individual awareness of regulations, which increases work efficiency. Knowledge sharing is enhanced through strategic abilities and domain mastery, while its exchange drives innovation and efficiency through shared experiences (Adha et al., 2019; Dewi & Trihudyatmanto, 2020; Suriyanto, 2020). Motivation, as an internal trigger, makes employees enthusiastic and satisfied, positively impacting employee performance (Firmaiansyah, 2018), arising from unmet needs and encouraging goal achievement (Darmilisani et al., 2024). PT Pelindo Regional I Belawan, a state-owned enterprise in the port sector, faces low employee performance due to work discipline deficiencies such as delays and non-compliance, as well as reluctance to share intellectual knowledge to prevent repeat errors.

Previous research has confirmed motivation as a mediator between knowledge sharing and employee performance (Yudatama and Ahcmad, 2023), as well as the positive influence of motivation directly on employee performance (Nugraha and Sukiman, 2023; Fikri and Laily, 2022), but has not yet examined work discipline through motivation in-depth in the port context. This study offers innovation by integrating work discipline and knowledge sharing as independent variables and motivation as an intervening variable, providing a specific empirical contribution to PT Pelindo Regional I Belawan (Isili et al., 2022; Kawiana et al., 2023; Nadiroh & Rijanti, 2022; Nugraha & Sukiman, 2023).

The aim is to examine the influence of work discipline, knowledge sharing, and motivation on employee performance, including the mediation of motivation, with benefits for the business entity—although limited to employees and not covering other aspects such as leadership style—to improve optimal service. While this study provides valuable insights, it is intentionally delimited to specific boundaries (Adha et al., 2019; Dewi & Trihudyatmanto, 2020; Miranda, 2019; Rahayu & Dahlia, 2023; Yohanis Deo, 2024). The research focuses exclusively on employee-level variables (work discipline, knowledge sharing, motivation, and employee performance) and does not encompass other potentially influential factors such as leadership style, organizational structure, compensation systems, or technological infrastructure. This delimitation allows for in-depth analysis of the selected variables while maintaining methodological parsimony. However, future research should consider expanding the model to incorporate these additional organizational and contextual factors to provide a more comprehensive understanding of performance determinants in port organizations. Additionally, the study is cross-sectional in nature, capturing relationships at a single point in time, which limits causal inference despite the use of path analysis. Longitudinal research designs would strengthen the validity of causal claims regarding these relationships.

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METHOD

This study employs a quantitative research design utilizing an ex post facto approach, wherein the researcher examines relationships among variables without experimental manipulation. The research was conducted in April at PT. Pelindo Regional I Belawan, located at Jl. Lingkar Pelabuhan No. 1, North Sumatra, to gather the necessary information. The population in this study involves all employees of PT. Pelindo Regional Belawan, with a total of 45 individuals. This study utilizes a saturated sample, meaning all employees will be involved, to investigate whether knowledge exchange and professional discipline affect employee performance directly or through the mediation of work motivation. Information will be obtained from respondents' responses to the distributed survey instrument.

The types of information utilized in this study are classified into two main categories. Quantitative information, in the form of countable numbers, is obtained from respondents' response scores on survey instruments related to the study variables. Meanwhile, qualitative information includes non-numerical data, such as the results of verbal interactions with company leaders and employees, as well as feedback from other relevant parties. As for the information sources, primary data was collected directly by the researcher through workers at PT. Pelindo Regional I Belawan completing the survey instrument.

Secondary data, on the other hand, was obtained indirectly from literature such as books, journals, and other documents relevant to the study topic. To gather accurate and valid information, a questionnaire technique will be used, which involves distributing a written list of questions to respondents. This questionnaire is designed to elicit their perspectives on professional discipline, knowledge exchange, employee performance, and work motivation, ensuring that the analysis does not deviate from the study's objectives.

Information analysis was conducted to answer the problem formulation and test the hypothesis, with the results then interpreted and concluded with the help of SPSS 26 software. First, the validity test ensures the questionnaire is suitable for use to measure variables, where items are declared valid if $r\text{-calculated} > r\text{-table}$ (Isma et al., 2023). Second, the reliability test assesses the consistency of the questionnaire, with the criteria of Cronbach's Alpha > 0.70 to be considered reliable (Sugiyono, 2017).

Furthermore, descriptive statistics provide an overview of information through the mean, standard deviation, and others. Path analysis, as a development of multiple linear regression, tests the contribution of variables such as $Z = a + b_1 X_1 + b_2 X_2 + e_1$ and $Y = a + b_1 X_1 + b_2 X_2 + b_2 Z + e_2$, where Y is worker performance, Z work motivation, X_1 professional discipline, and X_2 knowledge exchange. The Sobel test is used to test the mediation hypothesis to determine the indirect effect. Finally, the coefficient of determination (R^2) test indicates the fit of the regression model, while the partial t-test examines the individual effects of the independent variables with a significance level of < 0.05 .

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RESULT AND DISCUSSION

Descriptive Statistical Analysis

The following describes the results of descriptive statistical analysis from the research that has been carried out:

Table 1 Descriptive Statistics Obtained

| | | T | | | |
|--------------------|---------|--------------------|----------------------|-------------------------|--------------------|
| | | Work Discipline | Knowledge Sharing | Employee performance | Work motivation |
| N | Valid | 45 | 45 | 45 | 45 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 37.00 | 33.33 | 35.67 | 39.47 |
| Median | | 34.00 | 34.00 | 34.00 | 40.00 |
| Standard Deviation | | 4,843 | 2,671 | 4,553 | 4.121 |
| Variance | | 23,455 | 7,136 | 20,727 | 16,982 |
| Range | | 14 | 14 | 16 | 13 |
| Minimum | | 30 | 26 | 28 | 32 |
| Maximum | | 44 | 40 | 44 | 45 |
| Sum | | 1665 | 1500 | 1605 | 1776 |

The results of descriptive statistical analysis show that from a total of 45 respondents, all research variables show a constructive tendency towards improving employee performance. The work discipline variable has an average of 37.00 with a standard deviation of 4.843, reflecting that the level of employee discipline is classified as good although there are still slight differences between individuals. In the knowledge sharing variable, the average is 33.33 with relatively low variation indicating that knowledge sharing activities in the work environment have been running quite effectively, but have not been implemented comprehensively by all employees. The employee performance variable has an average of 35.67 which indicates consistent and adequate work performance, while the work motivation variable displays the highest average value, namely 39.47, which describes the enthusiasm and strong internal drive of employees in carrying out their duties. Overall, these results indicate that PT Pelindo Regional I Belawan employees have solid discipline and motivation as the main foundation for improving performance, while the knowledge sharing aspect still needs to be improved in order to strengthen synergy between individuals within the organization.

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Validity and Reliability Test

The following are the results of the instrument validity test which are listed in the following table:

Table 2 Validity Test Results

| Variables | Statement Items | R-Count | R-Table | Information |
|--------------------------|------------------------|----------------|----------------|--------------------|
| Work Discipline (X1) | X1.1 | 0.602 | 0,2907 | Valid |
| | X1.2 | 0.809 | 0,2907 | Valid |
| | X1.3 | 0.784 | 0,2907 | Valid |
| | X1.4 | 0.859 | 0,2907 | Valid |
| | X1.5 | 0.484 | 0,2907 | Valid |
| | X1.6 | 0.522 | 0,2907 | Valid |
| | X1.7 | 0.717 | 0,2907 | Valid |
| | X1.8 | 0.660 | 0,2907 | Valid |
| Knowledge Sharing (X2) | X2.1 | 0.883 | 0,2907 | Valid |
| | X2.2 | 0.855 | 0,2907 | Valid |
| | X2.3 | 0.886 | 0,2907 | Valid |
| | X2.4 | 0.886 | 0,2907 | Valid |
| | X2.5 | 0.904 | 0,2907 | Valid |
| | X2.6 | 0.842 | 0,2907 | Valid |
| | X2.7 | 0.729 | 0,2907 | Valid |
| | X2.8 | 0.806 | 0,2907 | Valid |
| Employee Performance (Y) | Y.1 | 0.805 | 0,2907 | Valid |
| | Y.2 | 0.722 | 0,2907 | Valid |
| | Y.3 | 0.829 | 0,2907 | Valid |
| | Y.4 | 0.515 | 0,2907 | Valid |
| | Y.5 | 0.621 | 0,2907 | Valid |
| | Y.6 | 0.707 | 0,2907 | Valid |
| | Y.7 | 0.754 | 0,2907 | Valid |
| | Y.8 | 0.830 | 0,2907 | Valid |
| Motivation (Z) | Z.1 | 0.748 | 0,2907 | Valid |
| | Z.2 | 0.852 | 0,2907 | Valid |
| | Z.3 | 0.618 | 0,2907 | Valid |
| | Z.4 | 0.529 | 0,2907 | Valid |
| | Z.5 | 0.791 | 0,2907 | Valid |
| | Z.6 | 0.700 | 0,2907 | Valid |
| | Z.7 | 0.782 | 0,2907 | Valid |
| | Z.8 | 0.850 | 0,2907 | Valid |
| | Z.9 | 0.867 | 0,2907 | Valid |
| | Z.10 | 0.881 | 0,2907 | Valid |

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Referring to the validity test results presented in Table 2, it was found that all statement items in the variables of work discipline, knowledge sharing, employee performance, and motivation had a higher r- value than the r-table of 0.2907. Thus, each question item was declared to have been able to measure the intended variable accurately and consistently. These results indicate that all research instruments have been declared valid and can be used in the next analysis stage. In addition, it can be concluded that the measuring instrument used has met the validity criteria, so that the data obtained can be trusted and considered representative in describing the actual conditions of respondents at PT Pelindo Regional I Belawan.

Next, the results of the reliability testing are listed in the table below:

Table 3 Reliability Test Results

| Variables | Cronbach Alpha | Decision |
|--------------------------|----------------|----------|
| Work Discipline (X1) | 0.868 | Reliable |
| Knowledge Sharing (X2) | 0.960 | Reliable |
| Employee Performance (Y) | 0.914 | Reliable |
| Motivation (Z) | 0.940 | Reliable |

In the table above, it appears that the Cronbach alpha points for the variables of work discipline, knowledge sharing, employee performance and motivation are greater than 0.60 so they are deemed reliable.

Hypothesis Testing

a. Test of the Influence of X1, X2 on Z (Model 1)

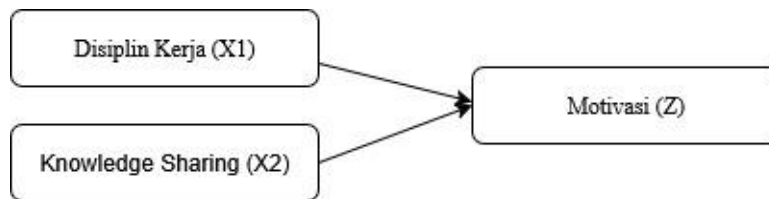


Figure 1 Structure of Model 1

Before proceeding to the hypothesis test, it is necessary to carry out a classical assumption test which includes a normality test and a multicollinearity test.

1) Normality Test Results

Table 4 Results of Normality Test for Model 1

| Sig. Value | Criteria | Information |
|------------|----------|------------------------------|
| 0.200 | 0.05 | Data is normally distributed |

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Based on the table, the significance value of the normality test was 0.200, which means it is above the 0.05 significance limit. Therefore, it can be concluded that the data used in this study met the assumption of normality and was normally distributed.

2) Multicollinearity Test Results

Table 5 Multicollinearity Test Results for Model 1

| Model | Collinearity Statistics | |
|-------|-------------------------|------------|
| | Tolerance | VIF |
| 1 | (Constant) | |
| | Work Discipline | .796 1,256 |
| | Knowledge Sharing | .796 1,256 |

From the table above, it is known that the tolerance value for this research variable is higher than 0.10 and the VIF value is less than 10.00. Therefore, it can be concluded that this study does not exhibit symptoms of multicollinearity.

3) Hypothesis Analysis using Partial T Test

The following are the results of the hypothesis test using the partial t-test:

Table 6 of Model 1 Analysis

| | | Coefficients ^a | | | | |
|-------|-------------------|-----------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | | |
| Model | | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 41,054 | 7,519 | | 5,460 | .000 |
| | Work Discipline | .339 | .137 | .399 | 2,479 | .017 |
| | Knowledge Sharing | .424 | .148 | .275 | 1,910 | .027 |

a. Dependent Variable: Work Motivation

From the partial test data presented in Table 6, the work discipline factor shows a significance level of 0.017, with a calculated t-score of 2.479, exceeding the t-table value of 1.680. This finding implies a positive and meaningful impact of work discipline on work motivation. In other words, an increase in employee discipline will be followed by an increase in their motivation to perform better.

In addition, the knowledge sharing variable recorded a significance level of 0.027, accompanied by a t-count score of 1.910, which also exceeds the t-table of 1.680. These results indicate that knowledge exchange activities among staff have a positive and significant influence on increasing work motivation. Therefore, it can be concluded that both discipline and knowledge sharing practices make a real contribution in raising the enthusiasm and intrinsic drive of employees at PT Pelindo Regional I Belawan to work more effectively.

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b. Test of the Influence of X1, X2, Z on Y (Model 2)

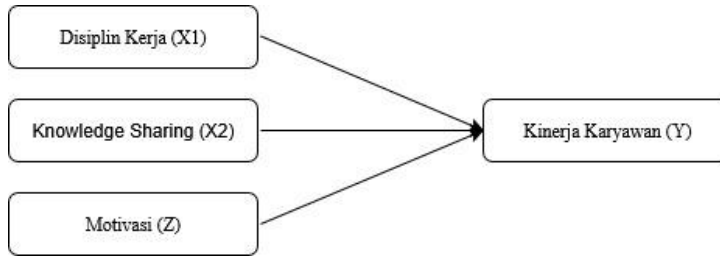


Figure 2 Structure of Model 2

Before proceeding to the hypothesis test, it is necessary to carry out a classical assumption test which includes a normality test and a multicollinearity test.

1) Normality Test Results

Table 7 Results of Normality Test for Model 2

| Sig. Value | Criteria | Information |
|------------|----------|------------------------------|
| 0.200 | 0.05 | Data is normally distributed |

From the table above, we can see that the significance value for the normality test is 0.200. This significance value is higher than 0.05. Therefore, it was concluded that the data used in this study was normally distributed.

2) Multicollinearity Test Results

Table 8 Multicollinearity Test Results for Model 2

| Model | Collinearity Statistics | |
|-------------------|-------------------------|-------|
| | Tolerance | VIF |
| 1 (Constant) | | |
| Work Discipline | .695 | 1,440 |
| Knowledge Sharing | .744 | 1,343 |
| Work motivation | .865 | 1,157 |

From the table above, it is known that the *tolerance value* for this research variable is higher than 0.10 and the VIF value is less than 10.00. Therefore, it can be concluded that this study does not exhibit symptoms of multicollinearity.

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3) Hypothesis Analysis using Partial T-Test

The following are the results of the hypothesis test using the partial t-test:

Table 9 Results of Model 2 Analysis

| | | Coefficients ^a | | | | |
|-------|-------------------|-----------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| Model | | B | Std. Error | Beta | | |
| 1 | (Constant) | 14,364 | 11,224 | | 4,280 | .008 |
| | Work Discipline | .735 | .672 | .782 | 4,440 | .002 |
| | Knowledge Sharing | .584 | .293 | .342 | 1,993 | .003 |
| | Work motivation | .516 | .176 | .105 | 3,658 | .014 |

a. Dependent Variable: Employee Performance

From the results of the study presented in Table 9, the work discipline factor showed a significance level of 0.002, with a t-count score of 4.440 which exceeded the t-table value of 1.680. This indicates a positive and meaningful impact of work discipline on employee performance. In addition, the knowledge sharing variable recorded a significance level of 0.003, accompanied by a t-count score of 1.993 which also exceeded the t-table, thus indicating a positive and significant influence on employee performance. Similarly, the work motivation variable obtained a significance level of 0.014 with a t-count of 3.658 which exceeded the t-table, which can be interpreted as a meaningful contribution of motivation in increasing employee effectiveness.

Therefore, it can be concluded that employee performance at PT Pelindo Regional I Belawan is positively influenced by work discipline, knowledge sharing practices, and the existing level of motivation, where these three elements play a crucial role in driving work productivity and efficiency.

c. Path Analysis Test

Path analysis was applied to examine the impact of mediating variables. In this study, path analysis techniques were utilized to understand the interaction between work discipline, knowledge sharing, and work motivation on employee effectiveness, following the model framework presented below.

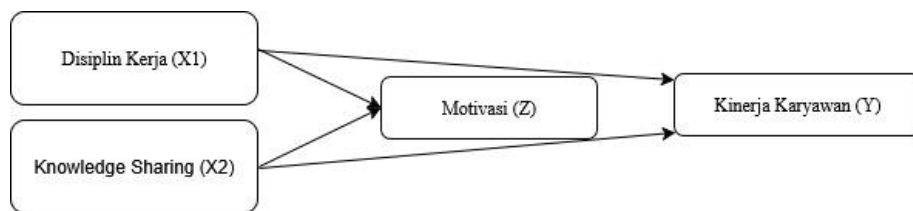


Figure 4 Path analysis

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According to the results of path analysis using the SPSS version 26 application, the results are:

Table 10 Results of Path Analysis of Regression Equation I

| | | Coefficients ^a | | | | |
|-------|-------------------|-----------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| Model | | B | Std. Error | Beta | | |
| 1 | (Constant) | 41,054 | 7,519 | | 5,460 | .000 |
| | Work Discipline | .339 | .137 | .399 | 2,479 | .017 |
| | Knowledge Sharing | .424 | .148 | .275 | 1,910 | .027 |

a. Dependent Variable: Work Motivation

From the table above, the results of the first regression equation are obtained , namely:

$$Z = a + b_1X_1 + b_2X_2 + e_1$$

$$Z = 41.054 + 0,339X_1 + 0,424X_2 + e_1$$

The value e_1 in the first regression equation is measured through the formula

$$e_1 = \sqrt{1 - RSquare} = \sqrt{1 - 0,878} = 0,349$$

$$\text{So: } Z = 41.054 + 0,339X_1 + 0,424X_2 + 0,349$$

In other words, a one-point increase in work discipline can increase work motivation by 0.339, with a margin of error of 0.349. Furthermore, a one-point increase in knowledge sharing can increase work motivation by 0.424, with a margin of error of 0.349.

Next, the findings from the evaluation of the equation path II, which examined the impact of work discipline, knowledge sharing, and work motivation on employee effectiveness:

Table 11 Results of Path Analysis of Regression Equation II

| | | Coefficients ^a | | | | |
|-------|-------------------|-----------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| Model | | B | Std. Error | Beta | | |
| 1 | (Constant) | 14,364 | 11,224 | | 4,280 | .008 |
| | Work Discipline | .735 | .672 | .782 | 4,440 | .002 |
| | Knowledge Sharing | .584 | .293 | .342 | 1,993 | .003 |
| | Work motivation | .516 | .176 | .105 | 3,658 | .014 |

a. Dependent Variable: Employee Performance

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Based on the results of the regression equation path test II, the results obtained are in the form of the equation:

$$Y = a + b_1X_1 + b_2X_2 + b_2Z + e_2$$

$$Y = 14,364 + 0,735X_1 + 0,584X_2 + 0,516Z + e_2$$

The value e_2 in the first regression equation is measured using the formula

$$e_2 = \sqrt{1 - RSquare} = \sqrt{1 - 0,630} = 0,6082$$

So that, $Y = 14,364 + 0,735X_1 + 0,584X_2 + 0,116Z + 0,6082$

This means that if the work discipline variable increases by 1 point, employee performance increases by 0.735 with an error of 0.6082. Furthermore, if the knowledge sharing variable increases by 1 point, employee performance increases by 0.584 with an error of 0.6082. If the motivation variable increases by 1 point, employee performance increases by 0.516 with an error of 0.6082.

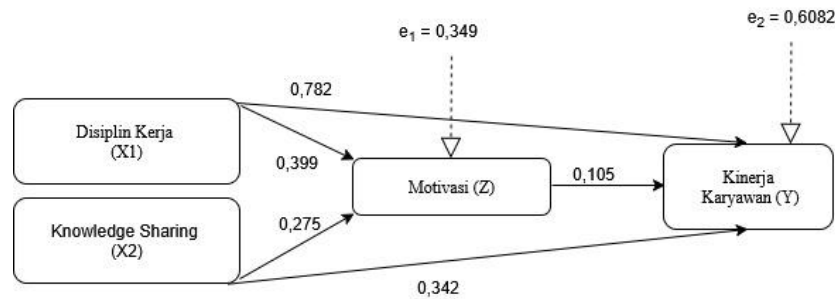


Figure 5 Conclusion of Path Analysis

The results of the path analysis are summarized in the following table:

Table 12 Path Analysis Results

| Direct Influence between Variables | Path Coefficient (Beta) | Standard Error (SBI) | T count | P- Value/sig | Conclusion | Adj. R2 |
|------------------------------------|-------------------------|----------------------|---------|--------------|-------------|---------|
| X1 against Z | 0.339 | 0.137 | 2,479 | 0.017 | Significant | 0.873 |
| X2 against Z | 0.424 | 0.148 | 1,910 | 0.027 | Significant | |
| X1 against Y | 0.735 | 0.672 | 4,440 | 0.002 | Significant | 0.611 |
| X2 against Y | 0.584 | 0.293 | 1,993 | 0.003 | Significant | |
| Z against Y | 0.516 | 0.176 | 3,658 | 0.014 | Significant | |

The path analysis results were then applied using the Sobel test. This test is used to calculate the indirect impact of work discipline and knowledge exchange on employee productivity through motivation. In the decision-making process using the Sobel test, the measured t-value and the reference t-value are compared. If the measured t-value exceeds the reference t-value, then there is a mediating effect. Testing of the intermediary variable can be done as described below:

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A. The influence of work discipline (X1) on employee performance (Y) through motivation (Z)

To show the indirect influence of the work discipline variable on employee performance through motivation, the standard error calculation for the indirect effect coefficient is carried out using the following formula:

$$sx1z = \sqrt{y^2sx^2 + x^2sy^2 + sx^2sy^2}$$

X1 = 0.339 (unstandardized B work discipline on motivation)

Y = 0.516 (understoodarized B motivation towards employee performance)

sx1= 0.137 (coefficient std error of work discipline on motivation)

sy = 0.176 (coefficient std error of motivation on employee performance)

$$sx1z = \sqrt{(0,516)^2(0,137)^2 + (0,339)^2(0,176)^2 + (0,137)^2(0,176)^2}$$

sx1z = 0,0955

Based on the results of sx1z, calculations were carried out by determining the statistical t value of the media influence using the formula below:

$$t = \frac{x1y}{sx1z} = \frac{0,1749}{0,0955} = 1,8316$$

The measured t-value in the Sobel test reached 1.8316, while the reference t-value at the 0.05 significance level was 1.680. This indicates that the measured t-value exceeds the reference t-value. Therefore, it can be concluded that motivation acts as a mediator between work discipline and employee productivity.

B. The influence of knowledge sharing (X2) on employee performance (Y) through motivation (Z)

To reveal the indirect impact of work discipline variables on employee productivity through motivation, the standard error calculation is carried out on the indirect effect coefficient using the formula below:

$$sx2z = \sqrt{y^2sx^2 + x^2sy^2 + sx^2sy^2}$$

X2 = 0.424 (unstandardized B knowledge sharing on motivation)

Y = 0.516 (understoodarized B motivation towards employee performance)

sx2= 0.148 (coefficient std error knowledge sharing on motivation)

sy = 0.176 (coefficient std error of motivation on employee performance)

$$sx2z = \sqrt{(0,516)^2(0,148)^2 + (0,424)^2(0,176)^2 + (0,148)^2(0,176)^2}$$

sx2z = 0,1099

Based on the results of sx1z, calculations were carried out by determining the statistical t value of the media influence using the formula below:

$$t = \frac{x2y}{sx2z} = \frac{0,2187}{0,1099} = 1,9907$$

The measured t-value in the Sobel test reached 1.9907, while the reference t-value at the 0.05 significance level was 1.680. This indicates that the measured t-value exceeds the reference t-value. Therefore, it can be concluded that motivation acts as a mediator between the knowledge exchange variable and employee productivity.

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This study shows that work discipline, knowledge exchange, and work motivation have a positive and meaningful impact on employee productivity, based on a significance level below 0.05 and a measured t-value exceeding the reference t-value. Work discipline influences productivity through Herzberg's hygiene elements, knowledge exchange fulfills Maslow's intellectual needs, while work motivation reflects McClelland's needs. These findings are supported by studies such as Hardhiyanti et al. (2022) and Mazidah & Laily (2020).

Furthermore, work discipline and knowledge exchange also significantly influence work motivation, with motivation acting as a mediator in its relationship to productivity, as evidenced by the Sobel test. Maslow and McClelland's theory explains increased motivation through discipline and knowledge exchange, which encourage optimal productivity, as supported by studies by Nugraha & Sukiman (2023) and Alia et al. (2023).

CONCLUSION

This study determined that the impact of workforce discipline, knowledge exchange, and intrinsic motivation on employee performance is positive and significant, with discipline and knowledge exchange also positively influencing intrinsic motivation, and both influencing performance through intrinsic motivation as an intermediary variable. The direct impact of discipline (0.735) and knowledge exchange (0.584) on performance is more prominent than the indirect impact through intrinsic motivation (0.175 and 0.219). Practical implications require the development of an organized discipline training program, a transparent reward system, explicit penalties, and facilitation of knowledge exchange via digital platforms and regular meetings by PT Pelindo Regional I Belawan. The author's suggestions include the implementation of an explicit reward-punishment system to stimulate discipline and the creation of regular meetings and the use of information technology to distribute knowledge among employees. For future research, a longitudinal study incorporating additional variables like leadership style and organizational culture could validate these causal relationships over time and enhance generalizability beyond the port sector.

REFERENCES

- Adha, R. N., Qomariah, N., & Hafidzi, A. H. (2019). Pengaruh Motivasi Kerja, Lingkungan Kerja, Budaya Kerja Terhadap Kinerja Karyawan Dinas Sosial Kabupaten Jember. *Jurnal Penelitian IPTEKS*, 4(1), 47
- Alia, R., Sawitri, N. N., & Fikri, A. W. N. (2023). Pengaruh Disiplin Kerja Terhadap Kinerja Karyawan Dengan Motivasi Kerja Sebagai Variabel Intervening Pada PT. XYX. *EKONOMIKA*, 12(1), 349-361.
- Darmilisani, D., Istiqamah, N. K., & Hasibuan, R. F. (2024). Analisis Disiplin Kerja, Aksebilitas dan Produktivitas terhadap Kinerja Guru Di Sman 4 Medan. *Jurnal Bina Bangsa Ekonomika*, 17(1), 585-598.

The Effect Of Work Discipline And Knowledge Sharing On Employee Performance With Motivation As An Intervening Variable At PT Pelindo Regional I Belawan

- Dewi, S. A., & Trihudiyatmanto, M. (2020). Analisis pengaruh disiplin kerja, motivasi kerja dan lingkungan kerja terhadap kinerja pegawai. *Journal of Economic, Business and Engineering (JEBE)*, 2(1), 113-122.
- Febrisky, A. (2022). *Pengaruh Gaji dan Kepuasan Kerja Terhadap Kinerja Karyawan (Studi Pada Karyawan PT. Global Vision Impex)* (Doctoral dissertation, UIN SMH BANTEN).
- Fikri, F., & Laily, N. (2022). Pengaruh Knowledge Sharing dan Motivasi terhadap Kinerja Karyawan Melalui Perilaku Inovatif sebagai Variabel Intervening. *Jurnal Ilmu dan Riset Manajemen (JIRM)*, 11(7).
- Firmaiansyah, D. (2018). Pengaruh Berbagi Pengetahuan Terhadap Kinerja Karyawan Melalui Inovasi. *Jurnal Ilmu Manajemen*. 2(1): 128-139.
- Hardhiyanti, A. S., Setiadi, P. B., & Rahayu, S. (2022). Pengaruh Gaya Kepemimpinan Dan Disiplin Kerja Terhadap Kinerja Karyawan Pada Pt. Era Mulia Abadi Sejahtera. *Eqien-Jurnal Ekonomi Dan Bisnis*, 11(1), 118-127.
- Isili, A. Y., Tewal, B., & Trang, I. (2022). Pengaruh Knowledge Sharing, Human Relation Dan Semangat Kerja Terhadap Kinerja Pegawai Dinas Pemberdayaan Masyarakat Dan Desa Provinsi Sulut Di Masa Pandemi Covid-19. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 10(1), 1438-1448.
- Isma, S., Sobari, T., & Yuliani, W. (2023). Uji Validitas Dan Reliabilitas Angket Kemandirian Belajar. *FOKUS: Kajian Bimbingan dan Konseling dalam Pendidikan*, 6(6), 509-516.
- Kawiana, I. G. P., Cempaka, N. M. S., Supartha, W. G., & Dewi, L. K. C. (2023). Peran Komitmen Organisasi Pada Pengaruh Knowledge Management dan Motivasi Kerja Terhadap Kinerja Karyawan di PT Limajari Interbhuna Bali. *Jesya (Jurnal Ekonomi dan Ekonomi Syariah)*, 6(2), 2024-2040.
- Mazidah, A., & Laily, N. (2020). Pengaruh knowledge sharing terhadap perilaku inovatif dan kinerja karyawan. *Jurnal Ilmu dan Riset Manajemen (JIRM)*, 9(2).
- Miranda, A. (2019). Pengaruh Motivasi Terhadap Kinerja Tenaga Kesehatan Di Pusat Kesehatan Masyarakat Tengngalembang Kecamatan Sinjai Barat Kabupaten Sinjai. *Skripsi Ilmu Administrasi Negara*, 1-109.
- Nadiroh, L. K. A., & Rijanti, T. (2022). Pengaruh Kualitas Kehidupan Kerja, Kompetensi Kerja Dan Knowledge Sharing Terhadap Kinerja Karyawan. *Management Studies and Entrepreneurship Journal (MSEJ)*, 3(4), 2190-2199.
- Ndari, Susianty Selaras dkk. (2018). *Metode Perkembangan Sosial Emosi Anak Usia Dini*. Jawa Barat: Edu Publisher.
- Nugraha, J. S., & Sukiman, S. (2023). Pengaruh Knowledge Sharing Dan Individual Innovation Capability Terhadap Kinerja Karyawan Dengan Motivasi Kerja Sebagai Variabel Intervening di PT PLN (Persero) Unit Pelaksana Transmisi Gresik. *Soetomo Business Review*, 4, 230-249.
- Nugraha, J. S., & Sukiman, S. (2023). Pengaruh Knowledge Sharing Dan Individual Innovation Capability Terhadap Kinerja Karyawan Dengan Motivasi Kerja Sebagai Variabel

The Effect Of Work Discipline And Knowledge Sharing On Employee Performance With Motivation As An Intervening Variable At PT Pelindo Regional I Belawan

Intervening di PT PLN (Persero) Unit Pelaksana Transmisi Gresik. *Soetomo Business Review*, 4, 230-249.

Nurhayana, N. (2021). *Pengaruh Gaji dan Kondisi Kerja Terhadap Kepuasan Kerja Karyawan Pada PT. Perkebunan Milano Pks Pinang Awan* (Doctoral dissertation, Universitas Islam Riau).

Rahayu, S., & Dahlia, D. (2023). Pengaruh Disiplin Kerja, Motivasi Kerja Dan Komitmen Organisasi Terhadap Kepuasan Kerja dan Kinerja Pegawai. *Jesya (Jurnal Ekonomi dan Ekonomi Syariah)*, 6(1), 370-386.

Sinambela, L. P. (2018). *Manajemen Sumber Daya Manusia*. Jakarta: Bumi Aksara

Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Penerbit Alfabeta.

Surianto (2020). *Sinergitas Motivasi, Kompetensi, Dan Budaya Organisasi Terhadap Kinerja Pegawai Pada Sebuah Instansi*. Surabaya: Global Aksara Pres.

Yohanis Deo, Y. D. (2024). *Pengaruh Motivasi Ekstrinsik Terhadap Kinerja Pegawai Di Puskesmas Sumarorong Kabupaten Mamasa* (Doctoral Dissertation, Universitas Sulawesi Barat).

Yudatama, W. H., & Achmad, N. (2024). Analisis Pengaruh Knowledge Sharing Dan Disiplin Kerja Terhadap Kinerja UMKM Dengan Motivasi Sebagai Variabel Intervening. *Jurnal Ilmiah Edunomika*, 8(1).

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