



The Effect Of Job Stress, Non-Physical Work Environment, And Job Satisfaction On Employee Performance At PT. Pertamina Hulu Rokan Supply Chain Management (SCM) Division, General Services Zone 4 Prabumulih

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ABSTRACT

This study was conducted to determine the analysis of the Influence of Job Stress, Non-Physical Work Environment, and Job Satisfaction on Employee Performance at PT Pertamina Hulu Rokan (PHR) Supply Chain Management (SCM) Function General Services Division Zone 4 Prabumulih. The research collection technique was with a questionnaire. The data collection technique used in the study was qualitative analysis in the form of questionnaire statements that were quantified using a Likert scale. The research population was 150 people. The sampling technique for this study used the saturated sample technique method. Data analysis techniques with Data collection using questionnaires as a research tool must meet two criteria, namely validity and reliability. Then with the classical assumption test, namely the normality test, multicollinearity test, and heteroscedasticity test. Then the correlation coefficient (r) and determination coefficient (R^2) test and multiple linear regression analysis. The results of the study showed that job stress had a significant negative effect, while the non-physical work environment and job satisfaction had a significant positive effect on employee performance.

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1. INTRODUCTION

Human resources (HR) represent the central factor in an organization, both in public institutions and corporate entities. HR consists of individuals who serve as drivers, thinkers, and planners in order to achieve organizational goals. To ensure sustainable success, organizations require competent employees with strong loyalty. A common organizational issue is that a decline in employee performance leads to reduced achievement of organizational objectives.

According to Rosmaini & Tanjung [6], performance is the evaluation of results accomplished by

employees in comparison to predetermined standards. It reflects the achievements of an individual within an organization, both in quality and quantity, aligned with the responsibilities given. According to Diprose & Azca [12], factors that influence employee performance include the non-physical work environment, job stress, ability, knowledge, work design, personality, leadership, motivation, organizational culture, job satisfaction, loyalty, discipline, and commitment. One factor that has a significant impact is job stress. According to Habibah & Kusumastuti [13], job stress can affect employee productivity, as indicated by various symptoms such as emotional instability, anxiety, difficulty.

Baxi dan Atre [14] stated that job satisfaction is “the degree of satisfaction felt by employees towards their work” (the level of satisfaction felt by employees towards their work). This is in line with Hasibuan's definition which emphasizes the emotional aspects and positive feelings towards work. This attitude is reflected in work morale. Individual characteristics have a significant influence on the level of job satisfaction, which supports the view that job satisfaction is influenced by individual differences [15].

PT Pertamina Hulu Rokan (PHR), established on December 20, 2018, serves as an operator of the Rokan Working Area (WK) for 20 years, from August 9, 2021 to August 8, 2041. PHR operates under the Subholding Upstream Pertamina to manage upstream oil and gas operations in Regional 1 - Sumatra. Through this role, PHR stands as one of Indonesia's primary oil and gas producers, contributing to national energy fulfilment. This study addresses job stress, particularly overtime workloads and additional tasks experienced in PT Pertamina Zone 4 Prabumulih in the SCM function, resulting in reduced employee performance.

PT Pertamina Asset 2 Zone 4, located in Prabumulih, has a Supply Chain Management (SCM) function. Supply Chain Management (SCM) includes planning, procurement, distribution, and the return of products/services to ensure efficiency, quality, and customer satisfaction. In Pertamina Hulu Rokan Asset 2 Zone 4 Prabumulih, SCM consists of several divisions, namely Procurement, General Services, and Warehouse. The Procurement Division is responsible for the contracting process for all products and services required by the company. The General Services Division carries out all work in accordance with procurement contracts, such as housing development, office facilities, and distribution of company logistical needs. Meanwhile, the Warehouse Division is responsible for the distribution of oil production materials to third parties.

Based on the initial pre-survey conducted at PT Pertamina Hulu Rokan within the Supply Chain Management function under the General Services Division, it was found that employee performance has not yet been realized optimally in accordance with the established performance standards. This is reflected in the gap between the targeted and actual employee performance within the General Services Division. Job satisfaction is also one of the determining variables of performance. According to Robbins & Judge [1], job satisfaction is a positive feeling about one's job, resulting from evaluation of its characteristics. Contributing factors include the work itself, salary, promotion opportunities, and co-worker relations. According to Robbins & Judge [1], job stress is a dynamic condition in which an individual is faced with demands or opportunities associated with desired outcomes that are uncertain yet important. Highlight that stress can occur physically due to unhealthy routines and psychologically due to economic or emotional burdens. According to Eshnaf & Alawi [2], non-physical work environment encompasses social relations and interactions with colleagues and superiors. Sedarmayanti [7] outlines indicators: work procedures, work atmosphere, supervision, and employee relationships. Afghah et al. [3] define performance as the implementation achievement level of organizational goals. Robbins & Judge [1] identify indicators: work quality, work quantity, timeliness, effectiveness, and independence.

According to Robbins & Judge [1], performance indicators are tools used to measure the extent of employee performance achievement. The following are several indicators for measuring

employee performance: quality of work, quantity of work, timeliness, effectiveness, and independence. Goal-setting theory, developed by Locke in 1968, has begun to attract interest in various organizational problems and issues. According to goal-setting theory, individuals have multiple goals, choose goals, and are motivated to achieve those goals Srimindarti. This theory assumes that the primary factor influencing an individual's choices is their goals. Goal setting theory has shown a significant influence on goal formulation.

2. METHOD

In this method, The study was conducted for six months within SCM Division, General Services Zone 4 PHR Prabumulih. The method uses a quantitative descriptive survey approach. The population comprises 150 employees. Data collection using questionnaires as a research instrument must meet two criteria, namely validity and reliability. Validity indicates the extent to which an instrument measures what it is intended to measure. A measurement is considered valid if it accurately and appropriately measures its intended objectives. Reliability indicates the accuracy and consistency of the measurement, and it can be said to be consistent if repeated measurements on the same subject produce relatively similar results [4]. Therefore, validity and reliability testing of the questionnaire must be conducted before it is distributed. All independent and dependent variables will be analyzed using IBM SPSS.

The validity test is intended to determine whether the instrument used truly measures what it is supposed to measure. In determining whether an item is feasible to be used, a significance test of the correlation coefficient is generally carried out at a significance level of 0.05, meaning that an item is considered valid if it shows a significant correlation with the total score. Reliability is an index that indicates the extent to which a measuring instrument can be relied upon. Reliability may also be defined as the dependability, trustworthiness, and consistency of a research instrument.

In this study, the results obtained from the questionnaire responses using a Likert scale are classified as ordinal data. To facilitate statistical analysis of the data, the data must be converted into interval form. According to Ghozali [8], the classical assumption test is used to determine the accuracy of the model; therefore, several assumption tests must be conducted. The tests commonly used include the normality test, multicollinearity test, and heteroscedasticity test.

The correlation coefficient analysis (r) is intended to determine the strength of the relationship between the influence of the independent variables and the dependent variable [4]. The obtained correlation coefficient (r) will then be interpreted based on the following criteria:

Tabel 1. Interpretation of the Correlation Coefficient (R)

Coefficient interval	Strength of relationship
0,00 – 0,19	Very Weak
0,20 – 0,39	Weak Fair
0,40 – 0,59	Strong
0,60 - 0,79	
0,80 – 1,00	Very Strong

To determine the direct influence between two or more independent variables and one dependent variable, the multiple linear regression analysis technique is used. In this study, the independent variables are Work Stress (X1), Non-Physical Work Environment (X2), and Job Satisfaction (X3), while the dependent variable is Employee Performance (Y).

$$Y = \alpha - \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

- Y = Employee Performance
- X₁ = Work Stress
- X₂ = Non-Physical Work Environment
- X₃ = Job Satisfaction
- α = Constant (Intercept)
- β₁, β₂, β₃ = Regression Coefficients
- e = Error term

3. RESULTS AND DISCUSSION

Validity and Reliability, All items across variables (job stress, non-physical work environment, job satisfaction, and performance) are valid ($r_{count} > r_{table}$). Cronbach's Alpha values exceed 0.60, thus questionnaires are reliable. Classical Assumption Tests, Normality: data distributed normally. Multicollinearity: $VIF < 10$, no multicollinearity detected. Heteroskedasticity: no pattern indicated, thus no heteroskedasticity. Multiple Regression Analysis Regression equation: $Y = 19.687 - 0.280X_1 + 0.348 X_2 + 0.373X_3$. Interpretation: Job stress negatively affects performance. Non-physical work environment positively affects performance. Job satisfaction positively affects performance. Coefficient of Determination $R=0.860$ indicates strong relationship. $R^2 = 0.740$ meaning 74% of performance variation is explained by stress, non-physical environment, and satisfaction; remaining 36% is influenced by other variables such as leadership, motivation, communication.

Effect of Job Stress on Performance, Excessive stress results in reduced productivity and inability to achieve organizational goals (Goal Setting Theory alignment). Findings align with Ilmiyah [9] and Bagoes [10] demonstrating negative effect. Effect of Non-Physical Environment on Performance, An open communication climate, supportive superiors, and harmonious relations enhance goal achievement [1]. Findings align with Hanafi [2]. Effect of Job Satisfaction on Performance, Employees with high satisfaction display stronger commitment to organizational goals (Goal Setting Theory). Findings align with Sutrisno [11] and Annisa [5].

Multiple regression analysis is a model used to determine the influence of independent variables, namely work stress (X₁), non-physical work environment (X₂), and job satisfaction (X₃) on the dependent variable, namely employee performance (Y). Hypothesis testing in this study was conducted using multiple regression analysis with the assistance of the computer program IBM SPSS Statistics 23. The regression coefficients obtained from the data processing are as follows:

Table 2. Multiple Linear Regression Results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Tol erance	VIF
		B	Std. Error	Beta				
1	(Constant)	19,687	,7,281		2,704	,000		
	Stres kerja (X1)	-,280	,114	-,197	-,2,455	,015	,278	3.598
	Ling. Kerja non fisik (X2)	,348	,089	,301	3,893	,000	,299	3.345
	Kepuasan Kerja (X3)	,373	,070	,423	5,304	,000	,281	3.563

a. Dependent Variable: Kinetja Karyawan (Y)

Sumber: Data kuesioner yang diolah menggunakan SPSS

From the regression equation above, it can be interpreted as follows:

- a = 19.687 is positive, indicating that if the values of X1, X2, and X3 remain constant (do not change), the constant value of Y will be 19.687.
- b1 = -0.280 is negative, indicating that if X1 (work stress) increases, Y (employee performance) will decrease by 0.280, assuming the constant values of X2 and X3 remain unchanged.
- b2 = 0.348 is positive, indicating that if X2 (non-physical work environment) increases, Y will increase by 0.348, assuming the constant values of X1 and X3 remain unchanged.
- b3 = 0.373 is positive, indicating that if X3 (job satisfaction) increases, Y will increase by 0.373, assuming the constant values of X1 and X2 remain unchanged.

Table 3. Results of t-Test Calculation

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	19,687	,7,281		2,704	,000		
	Stres kerja (X1)	-,280	,114	-,197	-,2,455	,015	,278	3.598
	Ling. Kerja non fisik (X2)	,348	,089	,301	3,893	,000	,299	3.345
	Kepuasan Kerja (X3)	,373	,070	,423	5,304	,000	,281	3.563

a. Dependent Variable: Kinerja Karyawan (Y)

Sumber: Data kuesioner yang diolah menggunakan SPSS

Based on the results of the partial test (t-test) in the table above, for the three independent variables — work stress, non-physical work environment, and job satisfaction — the explanation is as follows: Work Stress (X1) shows that the significance value of X1 toward Y is $0.001 < 0.05$ and the t- value of $-2.455 < \text{the t-table value of } 1.984$. Therefore, it can be concluded that H1 is accepted, meaning that work stress (X1) has a negative and significant effect on employee performance. This indicates that the higher the level of work stress experienced by employees, the lower their performance will be. [1]

Non-physical work environment (X2) shows that the significance value of X2 toward Y is $0.000 < 0.05$ and the t-value of $3.893 > \text{the t-table value of } 1.984$. Therefore, it can be concluded that H2 is accepted, meaning that the non-physical work environment (X2) has a positive and significant effect on employee performance. This indicates that the better the non-physical work environment, including interpersonal relationships, communication, work atmosphere, and supervisor support, the higher the employee performance will be.

Job satisfaction (X3) shows that the significance value of X3 toward Y is $0.000 < 0.05$ and the t-value of $5.304 > \text{the t-table value of } 1.984$. Therefore, it can be concluded that H3 is accepted, meaning that job satisfaction (X3) has a positive and significant effect on employee performance. This indicates that the higher the level of job satisfaction perceived by employees, including recognition, work comfort, career development opportunities, and appropriate compensation, the higher their performance will be.

4. CONCLUSION

The company needs to provide stress management programs, such as counseling, time management training, or group recreational activities, so that employee stress levels can be reduced and do not negatively affect performance. This will also enable employees to carry out work demands more

effectively.

Create a conducive non-physical work environment, including open communication, harmonious working relationships, participative leadership, and a fair reward system. Strengthening these aspects will help employees feel comfortable and motivated to perform better.

Improve job satisfaction, such as enhancing employee welfare, providing career development opportunities, offering fair compensation, and recognizing employee achievements. These efforts should be a priority, as job satisfaction has been proven to enhance employee performance.

To improve employee performance, tasks should be assigned according to individual expertise and job descriptions. Additionally, employees should be provided with training and development programs to enhance their technical skills.

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