

## (ANALYSIS OF THE EFFECT OF WORK STRESS AND MOTIVATION ON EMPLOYEE PERFORMANCE AND JOB SATISFACTION AS AN INTERVENING VARIABLE IN PT PERTAMINA (PERSERO) MOR I MEDAN)

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Received : 01 March 2026

Accepted : 30 March 2026

Revised : 10 March 2026

Published : 08 April 2026

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### Abstract

Based under law no. 22/2001, Pertamina's monopoly business rights revoked, in other words the Pertamina had the same position with another company. It has certainly spurred the entire marketing units of Pertamina such as Marketing Operation Region (MOR) I to improve the quality of companies, one of them by improving the performance of employees. Many factors can influence the performance of the employee, but in this study used a variable work stress and motivation to analyze the influence of the performance of employees with job satisfaction as an intervening variable. As for the purpose of this research was to analyze the effect of work stress and motivation on performance of employees both directly and through job satisfaction as well as to formulate a policy to improve the performance of the employees of PT Pertamina (Persero) MOR I. This research used a survey approach by spreading the questionnaire directly to the 105 respondents. Furthermore, the data were analyzed by using statistical modeling techniques of SEM (Structural Equation Modeling) using AMOS 22. Based on the results obtained work stress had a negative effect on the performance of employees both directly and through the variable job satisfaction, while the influence of motivation was positive on the performance of employees both directly and through job satisfaction. In other words, the motivation is the most influential factor in improving employee performance, while the work stress is a factor that can degrade the performance of the employee. Therefore, it is necessary to make real efforts to improve employees' performance by evaluating and improving the system of career development and assessment of work achievement, improving relations between superiors and subordinates, doing a relaxation, providing a container to accommodate ideas either advice or criticism, as well as creating a work environment that is safe and comfortable. With performed all of activities are expected performance will be increased.

**Keywords:** *Job stress, motivation, job satisfaction, and employee performance*

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### INTRODUCTION

PT Pertamina (Persero) is a State-Owned Enterprise (BUMN) engaged in the energy sector, including oil, gas, and new and renewable energy. However, in its current implementation, Pertamina has the same status as other oil companies as stipulated in the latest regulation, namely Law No. 22/2001. In other words, Pertamina's monopoly business rights have been revoked so that Pertamina is expected to become a company that is able to compete. This regulation certainly affects Pertamina's marketing units spread across several regions, such as Marketing Operation Region (MOR) I in Medan, to improve quality in various ways, one of which is improving employee performance. PT Pertamina has undertaken various efforts to improve or maintain optimal employee performance. One such approach is performance assessment using Key Performance Indicators (KPIs), which establish baseline and stretch targets as benchmarks for performance achievement. The baseline target is the minimum performance target that

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must be achieved (100%). Stretch targets, on the other hand, require a high level of performance, achieving 20% above the baseline target.

**Table 1.** KPI of PT Pertamina (Persero) MOR I Medan

Year	Quarterly	Target		Realization
		Base	Stretch	
2013	II	100%	120%	104%
	III	100%	120%	106.26%
	IV	100%	120%	105.31%
2014	I	100%	120%	97.9%
	II	100%	120%	96.39%
	III	100%	120%	104%
	IV	100%	120%	105.1%
2015	I	100%	120%	107.25%
	II	100%	120%	100.97%

Based on the data in Table 1 KPI PT Pertamina (Persero) MOR I Medan in the second quarter of 2013 to the second quarter of 2015, the performance of PT Pertamina (Persero) MOR I employees has not reached the maximum where it has never reached the high performance target (stretch) even in the second trimester of 2015 the performance achieved was only slightly (100.97%) above the minimum performance target (100%). This indicates that employee performance has not been optimal so it needs to get attention from the company to find a solution so that the company gets maximum performance from its employees.

Many factors influence employee performance. Researchers have studied various factors that influence employee performance. One factor highlighted in performance measurement is motivation. Stimulating employee motivation is expected to drive better performance. By gaining motivation, employee satisfaction will increase and automatically improve performance. Motivation not only influences employee performance but also influences job satisfaction. According to Suwardi (2011), both partially and simultaneously, the variables of work motivation, job satisfaction, and organizational commitment have a positive and significant effect on employee performance. However, research conducted by Murti (2013) stated that motivation has a significant effect on job satisfaction, job satisfaction has a significant effect on employee performance, but motivation does not significantly influence employee performance. The findings also indicate that job satisfaction is a mediating variable between motivation and employee performance.

According to Siagian (2011), stress is a condition of tension that affects a person's emotions, thought processes, and physical condition, resulting in low job satisfaction and ultimately decreasing employee performance. This is in line with Noviansyah's (2011) research that simultaneously stress and work motivation have a positive effect on employee performance, and partially work stress has an effect on performance, and motivation has no effect on performance. Similarly, Afrizal's (2014) research indicates that simultaneously work conflict and work stress have a significant effect on job satisfaction, while partially work conflict and work stress have a negative and significant effect on employee performance. However, Dewi's (2014) research shows that simultaneously work stress and job satisfaction have a positive effect on employee performance, while partially work stress has a negative and significant effect on job satisfaction and employee performance, and there is a positive and significant effect of job satisfaction on employee performance.

Job satisfaction is also a factor consistently linked to employee performance. Therefore, to improve employee performance, companies must be able to increase employee satisfaction. Research conducted by Hakim (2012) found a significant relationship and influence between job satisfaction and employee performance. The aim of this research is to analyze the influence of work stress and motivation on employee performance both directly and through job satisfaction and to formulate policies to improve employee performance at PT Pertamina (Persero) MOR I.

## METHOD

This type of research is correlational research using a survey approach. The purpose of correlational research is to detect the extent to which variations in a factor are related (correlated) with variations in one or more other factors based on the correlation coefficient (Sinulingga, 2013). The survey approach, meanwhile, involves distributing questionnaires directly to respondents. The data obtained from the questionnaires are then analyzed using the statistical modeling technique SEM (Structural Equation Modeling) to meet the research objectives.

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This research was conducted at PT Pertamina (Persero) MOR I, Jl. Yos Sudarso 8-10, Silalas Village, West Medan District, Medan. The research and preparation of the work plan were carried out from May 2015. The number of employees recorded until the end of 2014 reached 202 people. According to Ferdinand (2006), the appropriate sample size for SEM analysis is between 100 and 200. Malhotra (2010) determines the minimum sample size to be 4 or 5 times the number of variable indicators used in the study. The indicators used in this study were 21, so the minimum sample size taken in this study was 105 samples. This number is in accordance with the sample size for SEM analysis. The sampling technique used is the probability sampling technique with the proportionate stratified random sampling technique, namely taking samples from a population that tends to be heterogeneous by determining the strata used as a basis before carrying out random selection. The SEM data analysis technique used in this study was assisted by AMOS software version 22. This analysis technique was chosen because it can simultaneously test the structural model (the relationship between independent and dependent constructs) – abbreviated as structural equation, and the equation for the measurement model (the relationship between indicators and constructs/latents) – abbreviated as measurement equation (Haryono and Parwoto, 2013). The combination of structural model testing with the measurement allows researchers to:

1. Testing for measurement error is an integral part of SEM.
2. Conduct factor analysis simultaneously with hypothesis testing.

According to Hair et al. (2010), there are seven steps that must be taken in using SEM, namely:

1. Building a Theory-Based Model.
2. Building a Path Diagram.
3. Convert Flowchart to Equation.
4. Selecting Input Matrix and Model Estimation.
5. Model Identification and Evaluation.
6. Goodness Of Fit Evaluation.
7. Performing Model Interpretation and Modification.

**RESULTS AND DISCUSSION**

In interpreting the results of the measurement model test, what needs to be looked at is:

1. Validity (load factor value > 0.5);
2. Reliability (Construct Reliability (CR) ≥0.7; Variance Extracted (VE) ≥ 0.5);
3. The overall model fit test results for 21 indicators have met the required cut-off value limits.

**Table 2.** Results of the analysis of the validity and reliability of the measurement model

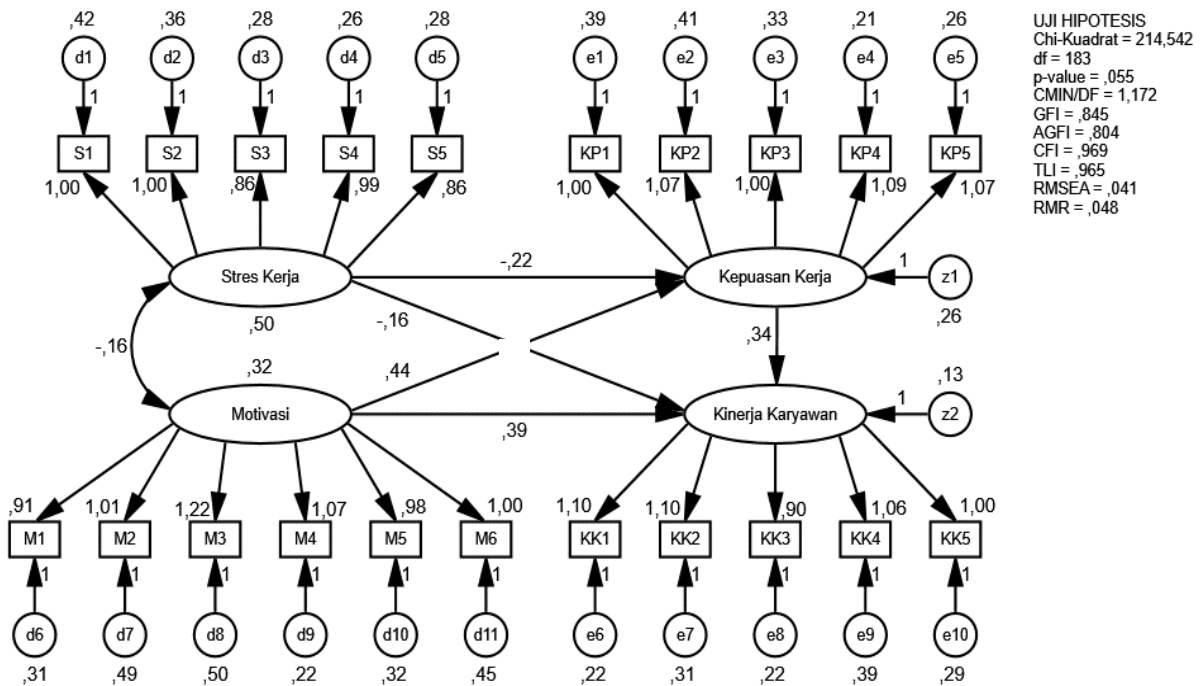
Latent	Indicator	Load Factor	CR	AVE
<b>Work Stress</b>	S1	0.74	0.875	0.584
	S2	0.76		
	S3	0.75		
	S4	0.81		
	S5	0.76		
<b>Motivation</b>	M1	0.68	0.847	0.481
	M2	0.63		
	M3	0.7		
	M4	0.79		
	M5	0.7		
	M6	0.65		
<b>Employee Satisfaction</b>	KP1	0.71	0.872	0.577
	KP2	0.72		
	KP3	0.73		
	KP4	0.83		
	KP5	0.8		
<b>Employee performance</b>	KK1	0.8	0.860	0.552
	KK2	0.75		
	KK3	0.74		
	KK4	0.69		
	KK5	0.73		

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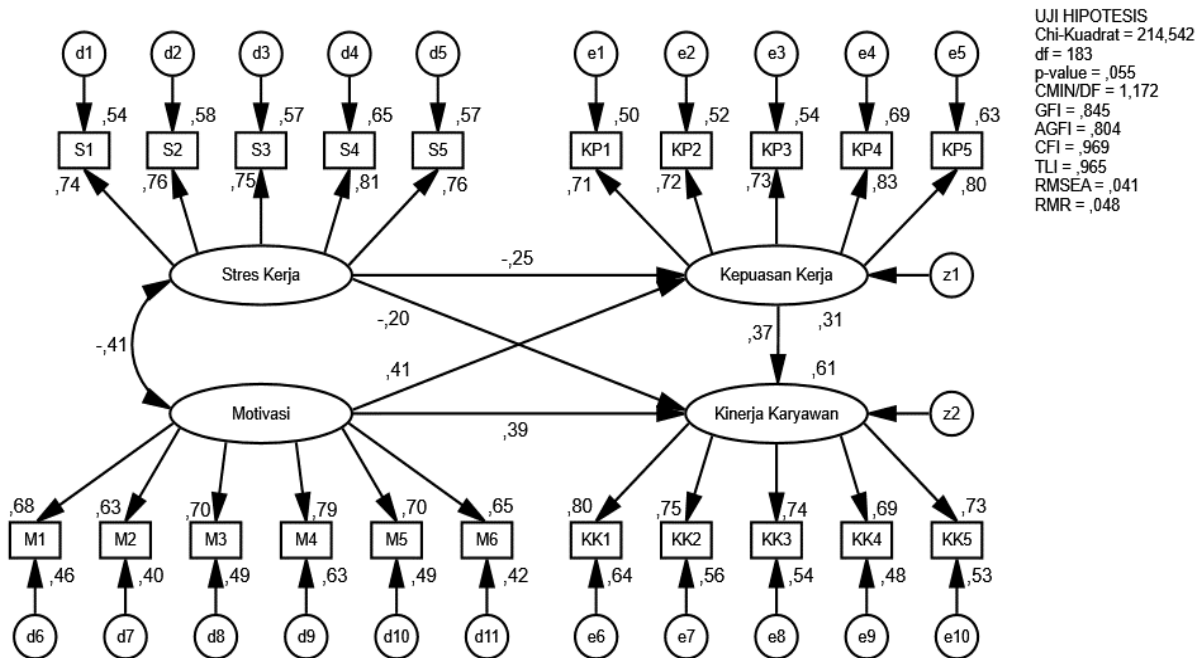
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Based on the results of validity and reliability analysis on Table 2 shows that all measurement instruments used in this study have passed the validity test (load factor value > 0.5) and reliability (Construct Reliability (CR) ≥ 0.7; Variance Extracted (VE) ≥ 0.5). The overall model fit test results for all indicators have met the required cut-off value.

The results of the structural tests can be seen in Figures 1 and 2 below:



**Figure 1. Full Model (Unstandardized)**



**Figure 2. Full Model (Standardized)**

**Table 3.** Structural Model Analysis

Goodness of Fit Index	Cut off Value (Limit Value)	Analysis Results	Criteria
DF	> 0	183	Over Identified
Chi-Square	< $\alpha$ . df	214,542	Good Fit
Probability	> 0.05	0.055	
CMIN/DF	< 2	1,172	Good Fit
GFI	$\geq 0.90$	0.845	Marginal
AGFI	$\geq 0.90$	0.804	Marginal
CFI	$\geq 0.90$	0.969	Good Fit
TLI or NNFI	$\geq 0.90$	0.965	Good Fit
RMSEA	$\leq 0.08$	0.041	Good Fit
RMR	$\leq 0.05$	0.048	Good Fit

Based on the results in Figures 1 and 2 and Table 3, it shows that the Full Model diagram does not have any model identification problems and has met the established goodness of fit criteria, although there are still values that do not meet the criteria, namely GFI and AGFI.

The structural equations produced by the Fit Model on Standardized Regression Weights: (Group number 1 – Default Model), namely:

Structural Equation 1:

$$KP = 0.41 * M - 0.25 * S$$

Structural Equation 2:

$$KK = 0.37 * KP + 0.39 * M - 0.20 * S$$

Where:

S = Job Stress

M = Motivation

KP = Job Satisfaction

KK = Employee Performance

Hypothesis testing uses the Critical Ratio (CR) or probability (P) value. If the Critical Ratio (CR) value  $\geq \pm 1.967$  or the probability (P) value  $< 0.05$ , then H0 is rejected (the research hypothesis is accepted). The results of the SEM analysis for hypothesis testing can be seen in Table 4 as follows:

**Table 4.** Hypothesis Testing

Hypothesis	Relation	P	Information
H1	Job satisfaction <--- Work stress	0.030	accepted
H2	Job satisfaction <--- Motivation	0.001	accepted
H3	Employee performance <--- Work stress	0.048	accepted
H4	Employee performance <--- Motivation	0.001	accepted
H5	Employee performance <--- Job satisfaction	0.001	accepted

The following will explain the results of the direct, indirect, and total effects. The results of the direct effect analysis are shown in Table 5 as follows:

**Table 5.** Direct Influence

Variables	Motivation	Work stress	Job satisfaction
Job satisfaction	0.4069	-0.2536	0.0000
Employee performance	0.3941	-0.1971	0.3744

Based on Table 5. above, it can be seen that motivation with a value of 0.4069 has a greater direct influence on job satisfaction compared to job stress which contributes -0.2536. In improving employee performance, motivation (0.3941) also has a greater influence than job stress (-0.1971) and job satisfaction (0.3744).

The results of the indirect influence analysis can be seen in Table 6 as follows:

**Table 6.** Indirect Effects

Variables	Motivation	Work stress
Job satisfaction	0.0000	0.0000
Employee performance	0.1523	-0.0949

Based on Table 6, it can be seen that the results of the indirect calculation of motivation and work stress on performance through job satisfaction show that motivation has an indirect influence of 0.1523 compared to work stress of -0.0949.

The results of the total influence analysis can be seen in Table 7 as follows:

**Table 7.** Total Influence

Variables	Motivation	Work stress	Job satisfaction
Job satisfaction	0.4069	-0.2536	0.0000
Employee performance	0.5464	-0.2921	0.3744

From Table 7, the results of the calculation of the total influence of motivation and work stress on job satisfaction show that motivation has a greater total influence (0.4069) than work stress (-0.2536). Then the results of the calculation of the total influence of motivation, work stress, and job satisfaction on employee performance show that motivation has the greatest total influence (0.5464) on employee performance compared to work stress (-0.2921) and job satisfaction (0.3744).

Based on the analysis results obtained, the influence of one variable on another will be explained in detail.

**The Effect of Job Stress on Job Satisfaction.** Results The study shows that job stress has a negative and significant effect on job satisfaction. From the results of the direct effect estimation, it can be seen that if job stress increases by one unit, the level of job satisfaction will decrease by 0.25 units. Therefore, it is concluded that job stress is one of the factors that can affect the job satisfaction of PT Pertamina (Persero) MOR I Medan employees. Meanwhile, the most influential indicator in job stress is career development at 0.81. Therefore, improvements and improvements are needed in developing clear, fair, planned and well-run career development so that it can increase employee job satisfaction.

**The Influence of Motivation on Job Satisfaction.** Results The study shows that motivation has a positive and significant effect on job satisfaction. From the results of the direct effect estimation, it can be seen that if motivation increases by one unit, the level of job satisfaction will also increase by 0.41 units. It can be concluded that motivation is one of the factors that can influence the job satisfaction of employees of PT Pertamina (Persero) MOR I Medan. The most influential indicator in reducing motivation is the desire to receive recognition at 0.63. In order to increase this motivation, employees need to have an attitude of mutual respect for each other's work results so that it can increase employee job satisfaction.

**The Effect of Job Stress on Employee Performance.** Results The study showed that work stress had a negative and significant effect on employee performance. The direct effect estimation showed that if work stress increased by one unit, employee performance would decrease by 0.20 units. Therefore, it can be concluded that work stress is a factor that can affect employee performance at PT Pertamina (Persero) MOR I Medan.

**The Influence of Motivation on Employee Performance.** Results The study showed that motivation has a positive and significant effect on employee performance. The direct effect estimation results show that if motivation increases by one unit, job satisfaction levels will also increase by 0.39 units. Therefore, it can be concluded that motivation is one factor that can influence employee performance at PT Pertamina (Persero) MOR I Medan.

**The Influence of Job Satisfaction on Employee Performance.** Results The study shows that job satisfaction has a positive and significant effect on employee performance. From the results of the direct effect estimation, it can be seen that if job satisfaction increases by one unit, the level of job satisfaction will also increase by 0.37 units. Thus, it can be concluded that job satisfaction is one of the factors that can affect the performance of employees of PT Pertamina (Persero) MOR I Medan. The results also show that the most influential indicator in reducing job satisfaction is social interaction at 0.71. In increasing job satisfaction, it is necessary to create a conducive work climate so that each individual can cooperate with each other so that it can improve employee performance.

**Direct, Indirect, and Total Influences.** From the analysis conducted in this study, it can be concluded that to optimize employee performance, management at PT Pertamina (Persero) MOR I Medan must increase motivation. In addition to improving employee performance, motivation is also the most dominant factor in increasing job satisfaction.

## CONCLUSION

Based on the analysis of the results and discussion in the study, it is evident that increased work stress can decrease employee performance. This study also demonstrates that increasing motivation will improve employee performance. Motivation has a greater direct impact on employee performance than job satisfaction. Management can create or compile a policy priority scale as an effort to improve employee performance by paying attention to work environment conditions because they have the greatest value in increasing motivation.

## RECOMMENDATION

1. Because performance has not yet reached optimal levels, it is recommended to evaluate and improve the career development and performance appraisal systems, improve superior-subordinate relationships, implement relaxation techniques, provide a forum for ideas, both suggestions and criticism, and create a safe and comfortable work environment. These activities are expected to improve performance.
2. Policies to improve employee performance can be implemented by clarifying company targets to employees. Once programs are implemented, management needs to establish a regular monitoring and evaluation system so that performance can be identified early and adjusted to continuously improve performance and achieve the company's desired goals or targets.

## THANK-YOU NOTE

Writer would like to thank PT Pertamina (Persero) MOR I Medan for being willing to provide the information and data required by the researcher, and also thank you to the USU Master of Management and all parties who have helped a lot in carrying out this research.

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