

Analysis of employee's work stress as an intervening variable on employee performance effect of PT. UTB uses path analysis method

Denis Firda Khoiriyah, Muhamad Imron Zamzani, Mochamad Sulaiman*

* Industrial Engineering Study Program, Kalimantan Institute of Technology, East Kalimantan, Indonesia, Jl. Soekarno Hatta KM 15, Karang Joang, North Balikpapan, 76127

*✉ mochamad.sulaiman@lecturer.itk.ac.id

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ABSTRACT

The use of human resources is crucial to every business and organizational activity. Companies have a variety of options for enhancing the quality of their human resources, including raising staff productivity. Employee performance is the work that they do, and the outcomes they produce are in line with the objectives of the business or organization. Employee performance is affected by a number of variables, including workload and job motivation. Additionally, job stress has an impact on how well employees perform. Because of an imbalance between workload and aptitude, someone experiences work stress. Based on this, this study seeks to ascertain the impact of workload and work motivation on employee performance as well as the impact of these factors on employee performance as it relates to work stress at PT.UTB. route analysis or route analysis is the research methodology employed. The extent of the independent factors' impact on the dependent variable through the intermediary variables can be seen using path analysis. The information was gathered from 39 respondents across 50 populations. The analysis's findings indicate that while work motivation has a direct, significant positive impact on employee performance, workload has a direct, significant negative impact. Employee performance is impacted by workload through employee work stress at a PT.UTB of 0.51 and by work motivation through employee work stress at a PT.UTB of 0.83.

Keywords: Workload; work motivation; work stress; performance; path analysis.

1. INTRODUCTION

The organization's or company's human resources are a crucial element and actively participate in its operations. Human resources are not like machines or other passive materials that may be handled to meet corporate or organizational goals since they have various thoughts, feelings, desires, backgrounds, ages, and genders [1]. For the business, human resources are the top priority. Companies can use a variety of approaches, including training, fair compensation, fostering a positive work atmosphere, and limiting workload, to improve the quality of their human resources [2]. Employee performance will grow if human resource quality does as well [3].

Employee performance refers to each person's behavior or specific actions taken as part of their work performance. Employee performance is defined as employee activities and results that are in line with corporate or organizational objectives [4]. The corporation must take into account employee performance because it can impact the accomplishment of company goals [5]. Workload, employee motivation, skills, knowledge, education, experience, work environment, personality traits, and physical requirements of employees are some factors that influence employee performance [6].

Workload determines a person's suitability for their profession or level of skill [7]. The amount of work assigned must correspond to the employees' ability [8]. Employees will become bored if their skills exceed the demands of the activities they are performing, which may result in an overpayment of workers on the part of the employer. Workplace stress or physical exhaustion will develop if the



employee's skill level is below that of the task being performed. Work motivation, in addition to employee workload, is another performance component. Work motivation is a state that motivates someone to perform their responsibilities [9].

Job stress is also a factor that affects employee performance [10]. Someone experiences work stress as a result of strain brought on by an imbalance between their workload and their capacity [11]. Employee performance can be impacted by the amount of work stress they experience, as can their workload [12]. Job stress is a suitable intervening variable to explain the relationship between workload and employee performance since workload and job stress are interrelated and have an impact on a firm or organization [13]. The intervening variable is a factor that exists in between the independent and dependent variables that either directly or indirectly affects the dependent variable [14].

The corporation or organization continues to work to improve employee performance despite the impact of increased workload and workplace stress. PT. UTB is one business that keeps raising employee performance standards. PT. UTB is divided into four departments: Parts, Administration, Environment and Social Responsibility, and Product Support. Here is a graph showing the working hours of PT. UTB staff members:

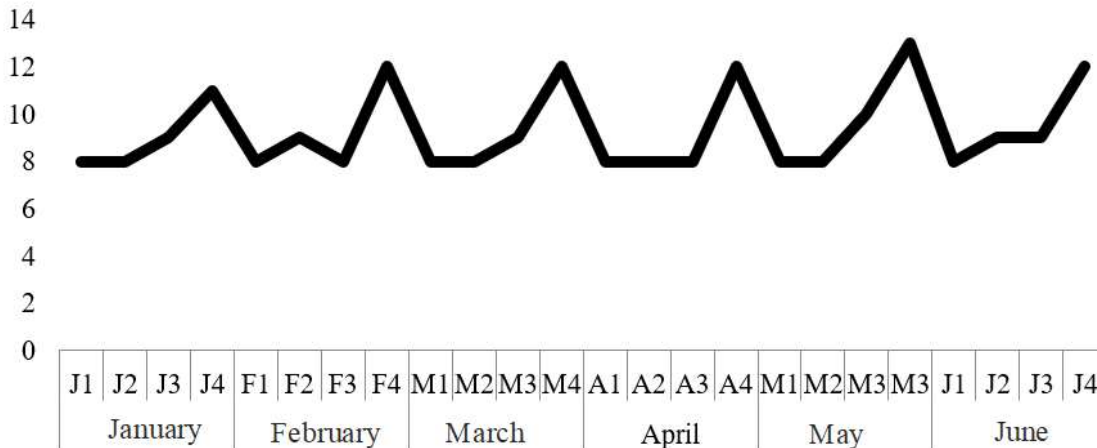


Figure 1. Pattern of working hours of PT. UTB Employees.

Figure 1 At the conclusion of each month, the pattern of working hours for PT. UTB personnel grows. However, in February, the number of hours worked increased in the second week by nine, reduced in the third week by eight, and then increased once more in the fourth week by twelve. It may be claimed that PT. UTB employees' working hours are flexible. Employees need to put in more hours since they have a lot of work to do, like completing monthly reports and achieving goals, so that workers' workloads increase. At the end of the month, employee working hours may exceed eight hours per day because they have to finish their work. According to the findings of the employee interviews conducted there, the extra working hours may increase costs for the business because overtime pay is required. Employees who have a heavy workload become exhausted quickly and may experience work-related stress. Due to feeling overwhelmed, job stress is an uncomfortable condition for someone. In order to finish the assignment within the allocated time, this burdened sensation necessitates great excitement.

Based on the foregoing, path analysis methodologies or path analysis can be used to estimate the extent of the influence of workload and employee motivation. Problems involving cause and effect are addressed by path analysis. Through the use of intermediary variables, path analysis seeks to ascertain how independent variables affect the dependent variable. Employee work stress is the study's intervening variable [15].

UTB conducted this study to ascertain the impact of workload and work motivation on employee performance by introducing work stress as an intervening variable at PT based on the existing issues.

2. METHODS

2.1. Types of research

This study used a quantitative research method, which measures research variables as numerical data that would then be examined using statistical techniques with the use of the SPSS statistical analysis program. A questionnaire served as the measuring device for this study, and the data was collected in the form of answers to the questions posed.

2.2. Research variables

2 independent variables, 1 intervening variable, and 1 dependent variable total 4 variables in the study. Workload (X1) and motivation at work (X2) are the first and second independent variables, respectively. For the dependent variable, performance (Y), and for the intervening variable, job stress (Z).

2.3. Data collection methods

A questionnaire was used as a data collection technique throughout the conduct of this study at PT. UTB. It is a closed questionnaire, meaning that responders must select one of the options from the list of possible replies. The survey uses a Likert scale with a range of 1 to 5.

2.4. Data analysis

Path analysis is the type of data analysis employed in this study. Path analysis is useful for determining the extent to which the independent factors have an impact on the dependent variable via the intermediary variables [6]. In this study, workload (X1) and work motivation (X2) are the independent factors. Employee performance is the dependent variable, and job stress (Z) is the intervening variable. Path diagrams are used in path analysis to determine whether there is direct or indirect influence [7]. The path diagram for this investigation is as follows.

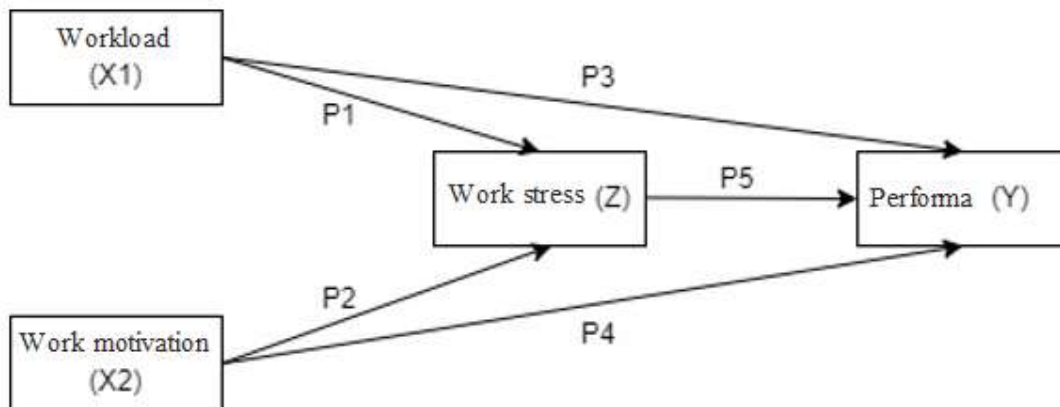


Figure 2. Path analysis diagram.

Figure 2 is explained in detail regarding the path analysis in this study with Table 1 as follows:

Table 1. Path analysis.

Code	Information
P1	= Workload (X1) against Work Stress (Z)
P2	= Work Motivation (X2) against Work Stress (Z)
P3	= Workload (X1) on Performance (Y)
P4	= Work Motivation (X2) on Performance (Y)
P5	= Work Stress (Z) on Performance (Y)

Path analysis in this study used SPSS version 16 software and the results obtained were used to determine hypotheses [8]. The hypotheses in this study are as follows:

- a. Hypothesis 1: There is an effect of workload (X1) on work stress (Z)
- b. Hypothesis 2: There is an influence of Work Motivation (X2) on Work Stress (Z)
- c. Hypothesis 3: There is an effect of workload (X1) on performance (Y)
- d. Hypothesis 4: There is an influence of work motivation (X2) on performance (Y)
- e. Hypothesis 5: There is an influence of Job Stress (Z) on Performance (Y)

- f. Hypothesis 6: There is an effect of workload (X1) on performance (Y) through work stress (Z)
- g. Hypothesis 7: There is an influence of Work Motivation (X2) on Performance (Y) through Work Stress (Z)

3. RESULTS AND DISCUSSION

3.1. Characteristics of respondents

Based on the results of the study, it was found that the majority of respondents were male. The male respondents were 32 people or 82% while the female respondents were 7 people or 18%. The majority of PT. UTB employees are 18-30 years old with a total of 22 respondents or 56%. For ages 31–40 years there were 16 respondents or 41% and for ages 41–50 years there were 1 respondent or 3%. The majority of respondents have worked for 2-5 years with a total of 25 respondents or 64%. Whereas for respondents who worked < 1 year there were 8 respondents or 21% and for respondents who worked > 5 years there were 6 respondents or 15%.

3.2. Test the validity and reliability

In this study there are validity and reliability tests to measure whether the data that has been processed after the questionnaire is valid data or not [9]. Table 2 results of validity and reliability tests.

3.2.1. Validity test

Table 2. Validity test.

No	R count				R table	Remarks
	X1	X2	Z	Y		
1	0,326	0,388	0,338	0,365	0,267	Valid
2	0,57	0,415	0,595	0,351	0,267	Valid
3	0,342	0,673	0,631	0,543	0,267	Valid
4	0,411	0,525	0,543	0,539	0,267	Valid
5	0,535	0,318	0,588	0,538	0,267	Valid
6	0,488	0,35	0,543	0,591	0,267	Valid
7	0,391	0,448	0,474	0,333	0,267	Valid
8	0,559	-	0,772	-	0,267	Valid
9	0,323	-	0,697	-	0,267	Valid
10	0,378	-	0,377	-	0,267	Valid
11	-	-	0,41	-	0,267	Valid
12	-	-	0,399	-	0,267	Valid

Based on Table 2, it can be seen that all items in the variable workload, work motivation, work stress and performance show valid results. It is proved that the value of the correlation coefficient is greater than the value of r table at a significant level of 10%. Thus, all question items from work stress variables can be used in this study to explain work stress on PT.UTB employees.

3.2.2. Reliability test

Table 3. Reliability test.

Variable	Reliability Coefficient	Remark
Workload (X1)	0,676	Reliabel
Work Motivation (X2)	0,656	Reliabel
Work Stress (Z)	0,73	Reliabel
Performance (Y)	0,665	Reliabel

Based on Table 3, all question items on the variable workload, work motivation, work stress and performance obtained a reliability coefficient value greater than 0.6, this shows that all question items are reliable so that further testing can be continued.

3.3. Classic assumption test

The classical assumption test is carried out to provide certainty that the equations obtained have accuracy in estimation, are consistent and are not biased [10].

3.3.1. Normality test

Based on the analysis performed, the Kolmogorov – Smirnov Z value was 0.469. This value indicates a number greater than 0.05. Thus it can be said that the regression model is normally distributed.

3.3.2. Multicollinearity test

Table 4. Multicollinearity test.

Variable	Collinearity Statistics	
	Tolerance	VIF
Workload (X1)	0,326	3,066
Work Motivation (X2)	0,37	2,702
Job Stress (Y)	0,301	3,319

Based on Table 4 of the results obtained, it can be said that the variables of workload (X1), work motivation (X2) and work stress (Y) do not occur multicollinearity.

3.3.3. Heteroscedasticity test

Table 5. Heteroscedasticity test.

Variable	Significance Value	Remark
Workload (X1)	0,832	Heteroscedasticity does not occur
Work Motivation (X2)	0,25	Heteroscedasticity does not occur
Job Stress (Z)	0,2	Heteroscedasticity does not occur
Performance (Y)	0,729	Heteroscedasticity does not occur

Based on Table 5 it can be said that the variable workload (X1), work motivation (X2), work stress (Z) and performance (Y) does not occur heteroscedasticity. This is because the significance value obtained is > 0.05 .

3.4. Path analysis

In this research, the data analysis technique used is path analysis. Path analysis is used to determine the influence of the independent variable on the dependent variable through the intervening variable [11]. In path analysis the analysis is carried out using a path diagram to see whether there is direct or indirect influence [12]. Following are the results of the path diagram in this study:

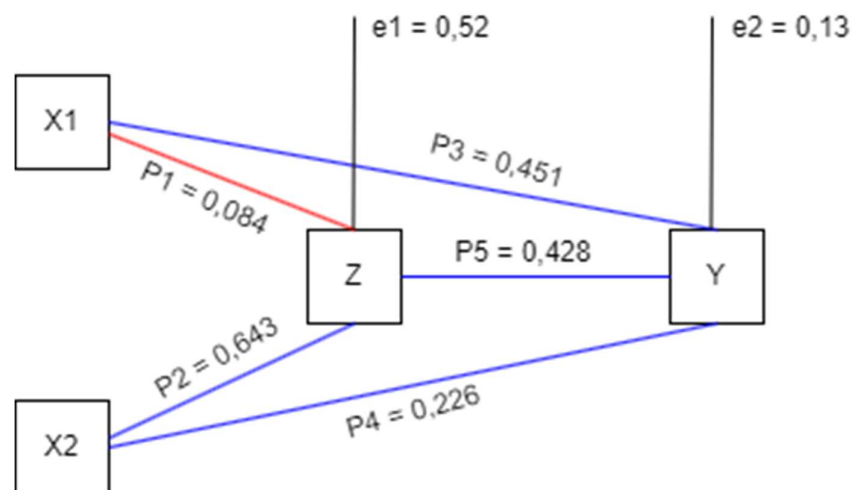


Figure 3. Path analysis results diagram.

From Figure 3. Path analysis results diagram. it is explained in detail the overall results of this study with Table 6 as follows:

Table 6. Path chart results.

No	Variable Influence	Line Score (β)	Remark
1	Workload (X1) to Work Stress (Z)	0,084	No effect
2	Work Motivation (X2) to Work Stress (Z)	0,643	Influential
3	Workload (X1) to Performance (Y)	0,451	Influential
4	Work Motivation (X2) on Performance (Y)	0,226	Influential
5	Work Stress (Z) on Performance (Y)	0,428	Influential
6	Workload (X1) on Performance (Y) through Work Stress (Z)	0,51	Influential
7	Work Motivation (X2) on Performance (Y) through Work Stress (Z)	0,83	Influential

3.4.1. There is an influence of workload (X1) on work stress (Z)

The results of path analysis showed that the direct effect of workload on employee stress was 0.084 with a significance value of $0.571 > 0.05$, so that employee workload did not have a direct effect on work stress. Thus hypothesis 1 which states that there is an effect of workload (X1) on work stress (Z) is rejected.

3.4.2. Effect of work motivation (X2) on work stress (Z)

Based on the results of the path analysis, the direct effect of work motivation on employee stress is 0.643 with a significance value of $0.00 < 0.05$, so work motivation has a direct effect on employee work stress. Thus hypothesis 2 which states that there is an influence of work motivation on work stress can be accepted.

3.4.3. Effect of workload (X1) on performance (Y)

Based on the results of the path analysis, the direct effect of workload on employee performance is 0.451 with a significance value of $0.00 < 0.05$, so workload has a positive effect on employee performance. Thus hypothesis 3 that there is an effect of workload on employee performance can be accepted.

3.4.4. Effect of Work Motivation (X2) on Performance (Y)

The results of path analysis obtained that the direct influence of work motivation on employee performance is 0.226 with a significance value of $0.021 < 0.05$, so work motivation has a direct effect on employee performance, meaning that if work motivation increases, employee performance also increases. Thus hypothesis 4 which states that there is an influence of work motivation on employee performance is acceptable [14] and [15].

3.4.5. Effect of Work Stress (Z) on Performance (Y)

The results of path analysis showed that the direct effect of work stress on employee performance was 0.428 with a significance value of $0.00 < 0.05$, so work stress had a direct effect on employee performance. Thus hypothesis 5 which states that there is an influence of workload on employee performance can be accepted.

3.4.6. Effect of workload (X1) on performance (Y) through work stress (Z).

In this case, the Sobel test is carried out by testing the strength of the indirect influence of variable X on variable Y through intervening variables [13]. The following is a calculation using the Sobel test for hypothesis 6 as follows:

$$a = 0,084$$

$$b = 0,428$$

$$SE1 = 0,52$$

$$SE2 = 0,13$$

$$Z = \frac{ab}{\sqrt{(a^2 SE_a^2) + (b^2 SE_b^2)}} \quad (1)$$

$$Z = \frac{0,084 \times 0,428}{\sqrt{((0,084^2 \times (0,52^2)) + ((0,428^2) + (0,13^2))}} \quad (2)$$

$$Z = 0,51$$

Based on calculations that can be seen direct effect < indirect effect, it can be said that workload indirectly affects employee performance. Thus hypothesis 5 which states that there is an effect of workload on employee performance through work stress can be accepted.

3.4.7. Effect of work motivation (X2) on Performance (Y) Through Work Stress (Z).

The following is a calculation using the Sobel test for hypothesis 7 as follows:

$$A = 0,643$$

$$B = 0,428$$

$$SE1 = 0,52$$

$$SE2 = 0,13$$

$$Z = \frac{ab}{\sqrt{(a^2 SE_a^2) + (b^2 SE_b^2)}} \quad (3)$$

$$Z = \frac{0,643 \times 0,428}{\sqrt{((0,643^2 \times (0,52^2)) + ((0,428^2) + (0,13^2))}} \quad (4)$$

$$Z = 0,83$$

Based on the calculations obtained, it is known that the direct effect < indirect effect, which is equal to 0.226 < 0.83, it can be said that indirectly work motivation does not affect employee performance. Thus hypothesis 7 is accepted.

4. CONCLUSION

Based on the research goals outlined in the previous chapter, it was determined that workload at PT.UTB exhibits a direct significant positive effect on employee performance, with a coefficient of 0.451 > 0.05, indicating that even with a high workload, employees still feel at ease with their work to prevent a decline in performance. At PT.UTB, work motivation has a direct, statistically significant beneficial impact on employee performance, with a 0.226 > 0.05 correlation between the two. Employees are motivated at work if the company shows appreciation for them and gives them the chance to develop their skills. Workload has a negative impact on employee performance through stress at work (PT.UTB = 0.51) and motivation at work has a positive impact on employee performance through stress at work (PT.UTB = 0.83). These findings vary from previous research, which has shown that an excessive workload hurts performance. Consequently, you might include work environment variables in additional study to acquire more precise results.

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