



The Influence of Work Stress on Employee Performance at PT. Pungkook Indonesia One

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ABSTRACT: Employees have an important role in a company. However, the demands of production targets to maintain customer satisfaction create an increased workload at any given time, causing stress on employees to meet production quality and quantity. This research paper aimed to determine the effects of psychological stress, physiological stress, and behavioral stress on employee performance at PT Pungkook Indonesia One. The sample used in this quantitative research was 70 employees. A questionnaire was used to collect the data. The questionnaire consisted of 20 closed-ended questions. The data analysis method in this study used instrument testing, prerequisite testing, and statistical testing. The instrument test used validity and reliability tests, the data prerequisite tests used normality tests, and the statistical tests used multiple regression equations and coefficient of determination tests. The results showed that psychological stress and behavioral stress had positive and significant influences on employee performance. In contrast, another result also showed that physiological stress had a negative and significant influence on employee performance. Based on the results of this research, it can be concluded that when employees experience psychological and behavioral stress, they may feel more compelled to work harder to overcome the stress, thereby increasing their productivity and performance. On the other hand, when employees feel physically burdened, they may have difficulty in performing tasks and maintaining their focus, which can reduce their productivity and performance.

Keywords: psychological stress, physiological stress, behavioral stress, employee performance.

I. INTRODUCTION

Stress is a widespread component that affects employees around the world. According to Robbins (2003, p. 376), stress is a condition of comparison between expectations and reality that does not match what is desired. The stress factor has become a growing source of confusion and has had an unpleasant impact on the implementation of work in the association. Stress is a universal component that affects employees all over the world because of today's basic living needs and expensive conditions that will result in a decline in the way of life. Stress is becoming a recognizable component in the association, and today, the work environment and mood are becoming more of a confounder that brings more detrimental consequences to representatives compared to positive effects (Ong et al., 2018). Stress can be seen more deeply as a condition that occurs when a person understands that the factors that pressure them, or the needs of a situation, are greater than what they recognize they can handle.

Stress occurs because of the inability of an employee to accept the work given to him. This happens because the work is something new that the employee has never done before. On the other hand, stress can also occur due to the limited time or deadline given to complete a given job. Humans are not robots that can work continuously; there are times when humans rest to restore energy during their activities. Meeting

production targets to keep customers satisfied can put pressure on employees, leading to a heavier workload at certain times and causing stress as they strive to maintain both quality and quantity of production. Hart and Staveland (1998) identified workload indicators as task demands, effort, and performance factors. This constant pressure can cause physical and mental exhaustion, resulting in reduced employee productivity. This drop in productivity can, in turn, affect the achievement of production targets.

PT Pungkook Indonesia One is a South Korean investor-owned company that officially started operations on December 7, 2016 in Grobogan, more precisely Tanjungrejo village, Wirosari sub-district, and Grobogan district. Located just north of Purwodadi-Blora Highway Km 18, the company has thousands of employees. PT Pungkook Indonesia One is a company that produces well-known brand bags for export purposes. Currently, the company is experiencing problems in the form of decreased employee performance, as evidenced by not achieving production targets from year to year. Based on the background above, the researchers were interested in examining the effect of work stress variables on employee performance at PT Pungkook Indonesia One.

II. MATERIAL AND METHODS

2.1 Stress in general

According to Kundaragi & Kadakol (2015), stress is the way humans react both physically and mentally to changes, events, and situations in their lives. Work stress is a common occurrence in many work environments and is often described as the physical and emotional strain that an individual experiences as a result of their work. Work stress can be caused by a variety of factors, including excessive workload, lack of control over job tasks, conflicts with co-workers or supervisors, and job insecurity. When stress is present for extended periods of time, it can lead to negative health outcomes for employees. According to Robbins (2009), stress affects emotions and mood. The effects of work stress on employees can be significant and long-lasting. Physically, work stress can lead to a variety of health problems, such as headaches, fatigue, and muscle tension. Additionally, chronic stress can weaken the immune system, making individuals more susceptible to illnesses. Emotionally, work stress can lead to anxiety, depression, and burnout, which can affect an individual's relationships and overall quality of life. Finally, work stress can also impact an employee's job performance, leading to decreased productivity and job satisfaction.

2.2 Psychological Stress

Psychological stress refers to the emotional and mental strain experienced by an individual due to various work-related factors. According to Robbins (in Ivancevich, 2008), psychological impacts include work-related stress. It may arise from job dissatisfaction, interpersonal conflicts, workplace harassment, job insecurity, and long work hours, among others. When employees face psychological stress, they may experience anxiety, depression, or burnout, which can lead to reduced productivity, absenteeism, and high turnover rates. Additionally, psychological stress can have adverse effects on the employee's physical and mental health, which can further impact their work performance.

2.3 Physiological Stress

Physiological stress is the body's response to physical or environmental factors that may pose a threat to an individual's well-being. According to Robbins (in Ivancevich, 2008), physiological impacts include such things as changes in metabolism, increased heart and respiratory rates. These factors may include exposure to noise, extreme temperatures, chemicals, or physical exertion. When employees face physiological stress, their bodies produce stress hormones such as cortisol and adrenaline, which can have adverse effects on their health. Chronic exposure to physiological stress can lead to conditions such as high blood pressure, heart disease, and diabetes, which can further impact an employee's productivity and work performance.

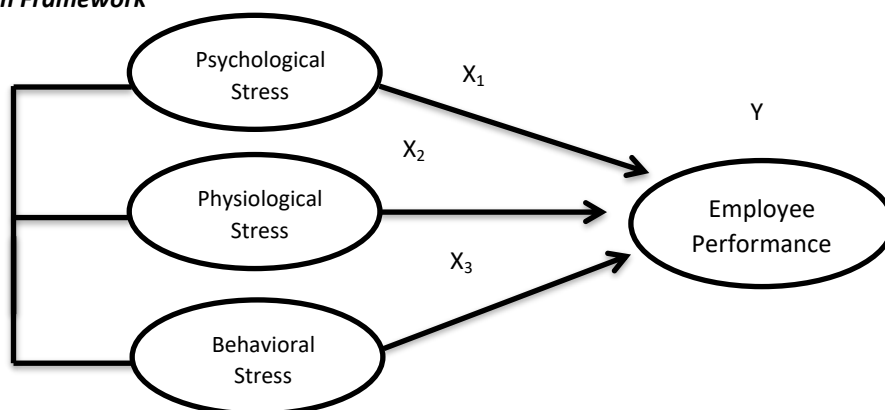
2.4 Behavioral Stress

The acts and behaviors a person exhibits in response to stress are referred to as behavioral stress. When employees are under a great deal of stress, they may participate in unhealthy behaviors such as smoking, overeating, and excessive drinking, which can have negative consequences on their health and productivity. According to the International Labour Organization (2016), behavioral stress symptoms include an increase in sick days or absenteeism, aggression, decreased creativity and initiative, decreased work performance, difficulties with interpersonal relationships, mood swings and irritability, a lower tolerance for frustration and impatience, and apathy. In addition, individuals may display negative behaviors such as hostility, withdrawal, or diminished motivation, which can negatively affect their work performance and interpersonal interactions with coworkers.

2.5 Employee Performance

The performance of an employee is the quality and quantity of work performed by an individual inside an organization. Dessler (2010) described performance as the outcome of work that meets specific standards, and the quality of work done by individuals or groups in an organization while carrying out their tasks and functions according to established procedures and protocols. According to Aguinis (2009), employee performance refers to their behavior rather than the outcomes of that behavior. It is the employees' actions and contributions to the success of the organization that determine their perceived performance. Performance can be enhanced by factors like declarative knowledge, procedural knowledge, and motivation, as explained by Mien and Thao (2015). A variety of factors, including the person's talents, motivation, work environment, and stress level, can influence employee performance. Stress can have negative consequences on work performance, such as decreased productivity, increased absenteeism, and decreased job satisfaction. In addition, prolonged stress can result in burnout, which can have a negative impact on an employee's motivation and engagement. In contrast, firms that promote employee wellness and provide stress management support can enhance employee performance and retention.

2.6 Research Framework



III. RESEARCH METHODS

This research is classified as quantitative research, which is based on the philosophical tenets of positivism. This means that the study aims to verify a hypothesis through the collection of data from certain populations or samples, which is then analyzed quantitatively or statistically. As stated by Sugiyono (2018), one of the main characteristics of quantitative research is the use of measured variables that are translated into indicators, each of which has sub-indicators. These sub-indicators serve as a starting point for formulating the items in the research instrument, which typically takes the form of a questionnaire. To elaborate further, quantitative research employs various statistical techniques to analyze data and test hypotheses. The indicators used in this study are specific to the research questions and the variables being measured. The indicators used for the preparation of the research questionnaire in detail can be seen as follows:

a. Independent Variable

1) Psychological Stress (X1)

Psychological stress may occur when individuals are given jobs with numerous and contradictory demands, or when there is a lack of clarity in terms of duties, authority, and responsibilities. According to Sula and Bunde (2005), psychological indicators of stress can include changes in mood, such as feelings of anxiety or depression, and cognitive changes, such as difficulty concentrating or making decisions. For example, research has shown that stress is associated with negative emotions, including anxiety and depression.

2) Physiological Stress (X2)

Physiological stress can cause changes in metabolism, increase heart rate and breathing, raise blood pressure, cause headaches, and trigger heart attacks. According to Dickerson & Kemeny (2004), physiological indicators of stress can include changes in heart rate, blood pressure, and cortisol levels. For example, research has shown that acute stress is associated with increases in cortisol levels.

3) Behavioral Stress (X3)

Behavioral stress is a change in productivity levels, employee absenteeism, and turnover, as well as changes in eating habits, smoking patterns, alcohol consumption, stuttering, and sleep irregularities. According to Keyes et al. (2012), behavioral indicators of stress can include changes in sleep patterns, changes in appetite, and increased substance use. For example, research has shown that stress is associated with increased alcohol consumption.

b. Dependent Variable (Y)

1) Employee performance

Employee performance is the result of the quality and quantity of work achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. According to DeNisi and Pritchard (2006), the indicators for employee performance are quantity of output, quality of output, efficiency, attendance and punctuality, communication, problem-solving, and decision-making.

In this study, the samples were not chosen at random but instead through a method called "purposive sampling." Purposive sampling was chosen because the researcher wanted to direct the sample toward the research objectives or problems. The selection of samples is based on certain criteria. The criteria were that the employees had occupied their positions for at least one year and were willing to become respondents. The sample used in this study was 70 employees who have been working for the company for one to three years. The data analysis method in this study used instrument testing, prerequisite testing, and statistical testing. The validity and reliability tests were used in the instrument test. Data prerequisite tests used a normality test. Meanwhile, statistical tests used multiple regression equations and coefficient of determination tests.

IV. RESULT AND DISCUSSION

4.1 Validity Test

The following were the results of the validity test conducted by the researcher:

Table 4.1

Table 4.1 Validity Test

No	Variable	Indicator	R _{count}	R _{table}	Description
1.	Psychological Stress (X1)	X1.1	0,756	0,235	Valid
		X1.2	0,801	0,235	Valid
		X1.3	0,685	0,235	Valid
		X1.4	0,847	0,235	Valid
		X1.5	0,851	0,235	Valid
2.	Physiological Stress (X2)	X2.1	0,607	0,235	Valid
		X2.2	0,717	0,235	Valid

		X2.3	0,660	0,235	Valid
		X2.4	0,466	0,235	Valid
		X2.5	0,676	0,235	Valid
3.	Behavioral Stress (X3)	X3.1	0,540	0,235	Valid
		X3.2	0,627	0,235	Valid
		X3.3	0,661	0,235	Valid
		X3.4	0,617	0,235	Valid
		X3.5	0,678	0,235	Valid
4.	Employee Performance (Y)	Y.1	0,764	0,235	Valid
		Y.2	0,824	0,235	Valid
		Y.3	0,748	0,235	Valid
		Y.4	0,877	0,235	Valid
		Y.5	0,864	0,235	Valid

Based on Table 4.1, it showed that all items of questions used to measure the variables used in the study had a r_{count} value greater than r_{table} , which can be interpreted as valid. This validity test obtained an r_{table} of 0.235 at a significance level of 0.05 or 5%.

4.2 Reliability Test

The following were the results of the reliability test conducted by the researcher:

Table 4.2: Reliability Test Result

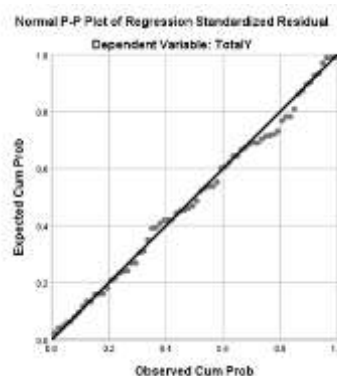
No	Variable	Cronbach alpha	Limit value of alpha	Description
1.	Psychological Stress (X1)	0,849	0,60	Reliable
2.	Physiological Stress (X2)	0,612	0,60	Reliable
3.	Behavioral Stress (X3)	0,608	0,60	Reliable
4.	Employee Performance (Y)	0,874	0,60	Reliable

Based on the reliability test results in Table 4.2 above using SPSS 25.0, it showed that all variables had a Cronbach alpha > 0.60. This meant that the questionnaire used to measure the variables of psychological stress, physiological stress, behavioral stress, and employee performance was reliable.

4.3 Normality Test

The following were the results of the normality test conducted by the researcher:

p-p plot of Regression's graph



The results of the normality test in the graphical approach showed that there was a normal distribution, because the points on the P-P plot regression graph ran parallel to the diagonal line between the X axis and the Y axis and did not run away. Apart from the graph, the researcher also proved it with the Kolmogorov-Smirnov approach in table 4.3 in the following explanation:

Table 4.3

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		70
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.27369321
Most Extreme Differences	Absolute	.064
	Positive	.064
	Negative	-.046
Test Statistic		.064
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

Based on the results of normality with the Kolmogorov-Smirnov approach, the asymp.sig (2-tailed) result was 0.200, which showed that the data was normally distributed. The criteria were said to be normal when the asymp.sig (2-tailed) of 0.200 > 0.05 and could be used in further testing.

4.4 Multiple Regression Analysis

The results of multiple regression analysis conducted by the researcher can be shown in the following table:

Table 4.4**Multiple Regression Test Results**Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.386	2.682		1.262	.211
	TotalX1	.830	.078	.771	10.669	.000
	TotalX2	-.231	.095	-.175	-2.425	.018
	TotalX3	.260	.093	.200	2.782	.007

a. Dependent Variable: Total Y

Based on the results above, the explanations were as follows:

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

$$Y = 3.386 + 0.830X_1 - 0.231X_2 + 0.260X_3 + e$$

Description:

Y = Employee Performance

α = Constant

X1 = Psychological Stress

X2 = Physiological Stress

X3 = Behavioral Stress

β = Regression Coefficient

e = Error

The following regression equation can be interpreted:

a) Constant value = 3.386

Stating if the magnitude of the independent variables used in the research model is as large as the constant. The magnitude of the constant value (α) indicated that the independent variables consisting of psychological stress, physiological stress, and behavioral stress had no increase or change, so the employee performance value is 3,386.

b) The regression coefficient of the psychological stress variable (β_1) was positive, which was equal to = 0.830.

c) The regression coefficient of the physiological stress variable (β_2) was negative, which is equal to = - 0.231

d) The regression coefficient of the behavioral stress variable (β_3) was positive, which is equal to = 0.260

4.5 t-tests

Table 4.5: The results of the t-test

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.386	2.682		1.262	.211
	TotalX1	.830	.078	.771	10.669	.000
	TotalX2	-.231	.095	-.175	-2.425	.018
	TotalX3	.260	.093	.200	2.782	.007

Dependent Variable: Total Y

Table 4.5 above showed that the results of each influence between the independent variables on the dependent variable that the researcher did with multiple regression analysis $Y = \alpha + \beta_1X_1 - \beta_2X_2 + \beta_3X_3$, were as follows:

a. The results of the psychological stress variable had a positive relationship and a significant effect on the employee performance variable, with a significant value of $0.000 < 0.05$. Furthermore, it was obtained from $T_{count} 669 > T_{table} 1.997$, which meant that there was also an influence of psychological stress on employee performance, so the hypothesis (H1) was accepted and the hypothesis (H0) was rejected. The value of β_1 is 0.830, which means that it increased by 1 time constantly. It can be concluded that the psychological stress of employees at PT Pungkook Indonesia One had a positive effect. There were employees who felt psychologically stressed, but it made them feel more motivated in terms of work. They were more encouraged to do their best and work harder to improve their performance and productivity because of psychological stress. However, the management of PT Pungkook Indonesia One still needs to consider the impact of work stress on its employees, so that they do not experience continuous stress.

b. The results of the physiological stress variable had a negative relationship and had a significant effect on the employee performance variable with a significant value of $0.018 < 0.05$. Furthermore, it was obtained from $T_{count} -2.425 > T_{table} 997$ which means that there was also an influence of physiological stress on employee performance, so the hypothesis (H1) was accepted and the hypothesis (H0) was rejected. The value of β_2 is - 0.231, which means that it increased by 1 time constantly. It can be concluded that physiological stress on employees at PT Pungkook Indonesia One had a negative effect, meaning that if the employee has experienced difficulties in physical terms, he will fail to focus on work and it will affect employee performance. The burden of physical work can reduce employee performance at work, so the management of PT Pungkook Indonesia One needs to provide adequate rest hours or days off work that are appropriate for its employees.

c. The results of the behavior stress variable had a positive relationship and a significant effect on the employee performance variable, with a significant value of $0.007 < 0.05$. Furthermore, it was obtained from

$T_{\text{count}} 782 > T_{\text{table}} 1.997$ which means that there was also an influence of behavioral stress on employee performance. The value of β_3 is 0.260, which means that it increased by 1 time constantly. It can be concluded that behavioral stress on employees at PT Pungkook Indonesia One also had a positive effect. This means that it also affects employee performance in a positive way. This can happen because employees who interact with each other have a tendency to want to handle challenging situations well, meaning that they will behave better in their performance, so that they can do their best for the company.

4.6 Coefficient of Determination (R Square)

Table 4.6: Coefficient of Determination (R Square)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813 ^a	.662	.646	2.461

a. Predictors: (Constant), TotalX3, TotalX2, TotalX1

b. Dependent Variable: totally

Based on Table 4.12 above, it revealed that the R Square (R^2) value was 0.662 or 66.2%, which meant the contribution or contribution of the independent variable in influencing the dependent variable and the remaining 33.8% ($100\% - 66.2\% = 33.8\%$) was influenced by other variables that the researcher did not do in this study.

V. CONCLUSION

Based on the results of the research, it can be concluded as follows:

- There is a positive and significant influence between psychological stress variables and employee performance variables. The analysis results show a T_{count} value of 10.669 $> T_{\text{table}} 1.997$ and a significance value of $0.000 < 0.05$. Variable X1 (psychological stress) shows that work stress related to psychological factors can have a positive impact on employee performance. This may be due to the fact that when employees face psychological stress, they may feel more compelled to work harder to overcome the stress, thus increasing their productivity and performance.
- There is a negative and significant influence between physiological stress variables and employee performance variables. The analysis results show a value of $T_{\text{count}} -2.425 > T_{\text{table}} 1.997$ and a significance value of $0.018 < 0.05$. Variable X2 (physiological stress) shows that work stress related to physiological factors such as fatigue or tension can have a negative impact on employee performance. This may be due to the fact that when employees feel physically burdened, they may have difficulty in carrying out tasks and maintaining focus, thus reducing their productivity and performance.
- There is a positive and significant influence between behavioral stress variables and employee performance variables. The analysis results show a value of $T_{\text{count}} 2.782 > T_{\text{table}} 1.997$ and a significance value of $0.000 < 0.05$. Variable X3 (behavioral stress) also affects employee performance in a positive way. This may be due to the fact that behavioral stress, such as social stress or interactions with coworkers, can motivate employees to try harder at work, as they may feel the need to show their best abilities and performance to handle challenging situations.

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