

The Effects of Occupational Health and Safety on Employee Performance Through Work Satisfaction

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Abstract—Many companies which are less concerned about the health and safety of employees can cause workplace accidents and health problems to employees. Accidents are undesirable and unpredictable when they occur, but they can be anticipated. The creation of safe conditions from the possibility of accidents will facilitate the performance of the company. This study aims to determine the effect of occupational health and safety on employee performance and test the role of job satisfaction as a mediator between occupational health and safety, and employee performance. This is an explanatory research in which data were collected by questionnaire and analyzed by using path analysis. The sample consisted of 50 respondents. The study found that occupational health and safety had no effect on employee performance, and job satisfaction could mediate the relationships between occupational health and safety on employee performance.

Keywords—Occupational Health and Safety (OHS), Job Satisfaction, Employee Performance

I. INTRODUCTION

PT. PLN (Persero) in Kediri is a company engaged in the field of electricity that serves the payment of electricity, complaints electrical disruption, severance pension employees etc. For all workers in the field are required to use properly and completely safety equipment provided by PT. PLN in accordance with the work. However, in the field, those are not entirely implemented, there are still many employees who do not pay attention to their safety by not using equipment in accordance to Standard Operating Procedure. Accidents are undesirable and unpredictable but can be anticipated. The creation of safe conditions from the possibility of accidents will facilitate the performance of the company. There are several ways to reduce the occurrence of work accidents. One of them is by increasing the frequency of the use of personal protective equipment in the production [1].

Occupational Health and Safety (OHS) indicate the physiological and psychological conditions of labor causing from the work environment provided by the company. If the company carries out effective safety and health measures, fewer workers suffer short or long-term injuries or illnesses as a result of their work [2]. A good understanding of OHS can increase labor attention in avoiding workplace injury hazards. The introduction of work and the dangers of accidents is very important for safety. Therefore, the introduction of workplace safety to the workforce should start early and it is provided in order to implement OHS in the workplace.

The Company is obliged to provide maintenance work which includes efforts to promote, preventive, curative, and rehabilitative in order to achieve optimal worker health as a productive potential for development. The company must provide health care insurance to the workforce to increase the productivity of the company [3]. The use of Personal Protective Equipment (PPE) is the final stage of work accident or occupational disease control. Although the use of personal protective equipment is important to the worker, in reality, there are still many workers who do not use it. It is caused by many factors that influence workers' behavior [4].

According to Hasibuan [2] job satisfaction is a pleasant emotional attitude and love the work that has been given. This attitude is reflected by work morale, work discipline. Job satisfaction in work is the job satisfaction enjoyed in the job by measuring the praise of the work, placement, treatment, equipment, and atmosphere of a good working environment. Robbins [5] states that job satisfaction can improve performance. Employee performance is the organization's effort in managing employees' competency systematically and continuously so that employees have expected performance level, able to give an optimal result, and able to achieve organizational goals [6].

Some studies related to OHS include Lin [7] that loyalty has a positive effect on safety rules and individual safety responsibilities through safety culture. In addition, safety culture also has a positive effect on performance. Similarly, Subramaniam [8] showed the impact of OHS on employee performance. Chaughey [9] states that OHS has an effect on job satisfaction. Jalalkamali [10] shows that job satisfaction affects employee performance. Different findings can be seen in Walters [11] he found that work safety has no direct effect on performance but through a conducive working environment.

This study aims to examine the effect of occupational health and safety on employee performance, to test job satisfaction as a mediator of the relationship between occupational health and safety, and employee performance.

II. RESEARCH HYPOTHESIS

Mondy [12] states that safety is the protection of employees from work-related injuries. Included in the safety coverage are factors related to injury, repetitive stress, workplace, and household violence. Meanwhile, health is a freedom from both physical and emotional.

Job satisfaction is a positive emotional state of evaluating work experience. Job dissatisfaction will arise when expectations are not met [13]. Job satisfaction has many dimensions and each dimension will produce a feeling of satisfaction as a whole with the work itself, but the work also has a different meaning for others. There are several indicators of job satisfaction according to As'ad [14] : (a) financial satisfaction, (b) physical satisfaction, (c) social satisfaction, (d) psychological satisfaction.

Performance is the result of a person as a whole in the course of performing tasks, such as standards of work, targets or goals and criteria that predetermined and agreed [15]. There are several indicators according to Dharma [16], namely: (a) quantity, (b) quality, and (c) timing. Good performance is a step toward achieving individual goals. Performance is therefore, a decisive goal in achieving individual goals both materially and non-material or in other words to meet the needs both physically and spiritually.

Subramaniam [8] states that occupational health and safety affects employee performance. The finding of Bronkhorst and Brenda [17] also stated that there occupational health effects on performance. Simamora [18] explains that by paying attention to the health and safety of employees, the company has implemented human resource management function, maintaining the physical condition, mental and employee attitude, as a result, they remain productive to achieve company goals.

H1: Occupational safety has a direct effect on employee performance.

H2: Occupational health has direct effect on employee performance.

Jalalkamali [10] found that job satisfaction affects employee performance. Similarly, Yousef [19] shows there is a positive and significant correlation between satisfaction with job security and performance. Kuswadi [20] explains that satisfied employees working with higher quality are more productive.

Caughey [9] in his research showed that OHS has an effect on job satisfaction. Kavanaugh [21] also found that OHS has an effect on job satisfaction. Handoko [22] stated that the condition of job satisfaction or dissatisfaction becomes the feedback that will affect the performance in the future. Thus, the relationship between performance and job satisfaction becomes a continuous system.

H3: Job satisfaction mediates the effect of occupational health on employee performance.

H4: Job satisfaction mediates the effect of occupational safety on employee performance.

III. METHOD

This type of research is explanatory. According to Supriyanto & Maharani [23] explanatory research is a study to test the hypothesized variables. This hypothesis describes a relationship between two variables, to determine whether the variables associated with or not with other variables. Population includes all employees of PT. PLN in Kediri Area, with sample number 50 people. Path analysis is used as a data analysis in this study. This is used to analyze the relationship pattern between the variables and to know the

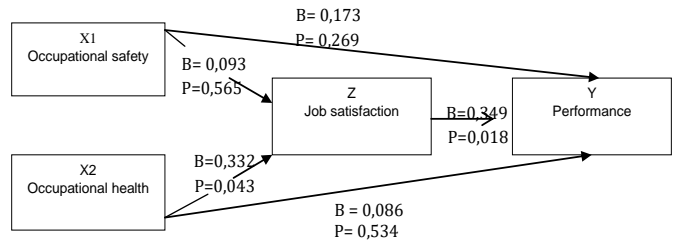
direct and indirect effect of the independent variable (exogenous) on the dependent variable (endogen).

IV. RESULT AND DISCUSSION

A. Path Diagram Development

Path analysis examines the effects among variables such as occupational safety, occupational health, job satisfaction, and employee performance. The development of the path diagram can be drawn as follows.

Figure 1. Path Diagram Development



B. Goodness of Fit Model

The measurement of goodness of fit used the total of the coefficient determinant (Rm^2) which shows the structural model formed able to represent data. The formula as follows:

$$Rm^2 = 1 - (1 - R_1^2) \times (1 - R_2^2)$$

$$Rm^2 = 1 - (1 - 0,151) \times (1 - 0,230)$$

$$Rm^2 = 1 - 0,0347$$

$$Rm^2 = 0,965$$

Based on these calculations, the total value of the determinant coefficient is equal to 0.965 or 96.5 %. This means that the structural model formed can explain about 96.5 % data variant. In other words, it can be said that the path model accuracy is 96.5 %.

C. Hypothesis Test

The basic assumption of decision making for hypothesis testing is by using the T-statistics, where the value of T statistic greater than the value of t table, 1.960 shows a significant influence. The hypothesis test result is as follow:

Table 1. The Result of Hypothesis Test

Hypothesis	Influence	Coefficient	T Statistic	Significance	Inf.
1	X1→Y	0.173	1.120	0.269	Non Sig
2	X2→Y	0.086	0.534	0.596	Non Sig
3	Z→Y	0.349	2.460	0.018	Sig
4	X2→Z→Y	0.300	2.180	0.034	Sig
5	X1→Z→Y	-0.206	-1.494	0.142	Non Sig

Based on the test results obtained coefficient value is 0.173 and t Statistics of 1.120, smaller than the value of t table 1.960. This means that work safety has no effect on

employee performance variable. The relationship between occupational safety and employee performance obtained coefficient value of 0.173 and T Statistics of 1.120, smaller than the value of T Table 1.960. This means that occupational safety has no effect on employee performance variable. Thus, hypothesis 1 is rejected. Meanwhile, for the relationship between occupational health and employee performance shows that the coefficient value is 0.086 and the value of statistic T is 0.534, smaller than the value of T Table 1.960. This means that occupational health has no effect on employee performance. Thus, hypothesis 2 is also rejected.

Based on the results of data analysis, the relationship between job satisfaction and employee performance found that the value of T Statistics is 2,460, greater than T Table 1.960. This means that job satisfaction affects employee performance. The coefficient value is 0.349 or in other words, indicates a positive influence between job satisfaction on employee performance. Thus, hypothesis 3 is accepted. Meanwhile, for the test result of the relationship between occupational health, job satisfaction, and employee performance, the value of T Statistic is 2,180, bigger than T Table 1.960, and coefficient value is 0.300. Thus, occupational health has an indirect effect on employee performance through job satisfaction. Thus, hypothesis 4 is accepted.

The result of an indirect effect test between occupational safety and employee performance through job satisfaction, indicate that T-Statistic is -1.494, smaller than T Table 1.960, and coefficient value is -0.206. This means that job satisfaction cannot mediate the effect of occupational safety on performance. Thus, hypothesis 5 is rejected.

Based on the results indicate that occupational safety does not affect the employee performance of PT. PLN, Kediri. These findings confirm Walters [11] that occupational safety does not affect employee performance. However, this finding contradicts to Subrahmaniam [8] which states that occupational safety affects employee performance. According to Mangkunegara [24] occupational health and safety have a purpose to increase work harmoniously and employee work participation. By increasing harmonious work and work participation, it will have an impact on the increase of employee performance. In order to achieve employee performance, safety and health programs are required, with the following functions: (1) protecting employees against hazardous conditions of occupational health and safety; (2) assisting physical adjustment of employees to be healthy and productive; (3) assisting in the achievement and maintenance of physical, mental, and high employee performance [25] occupational health has no effect on employee performance. These conditions confirm that performance is not only supported by occupational health, but also by other factors. As stated by Handoko [22] that work environment becomes the virtue of occupational safety and health that can affect the work of employees. This finding supports Sakariyau and Latip [26] which states that occupational health has no effect on employee performance. However, job satisfaction affects employee performance. Bronkhorst and Brenda [17] indicated that occupational health with a good psychosocial condition is able to maintain the mental and physical health of employees.

Job satisfaction, in the findings of this study, cannot mediate occupational safety that loyalty has a positive effect on safety rules and individual safety and employee performance. This is supported by Lin [7] responsibilities through safety culture. This finding is different from Yousef [19] that there is a significant relationship between satisfaction and job security and performance. Kavanaugh [21] stated there is an influence of OHS on job satisfaction. These findings also indicate a significant positive correlation between satisfaction and job security and organizational commitment, as well as between satisfaction and job security and performance. This shows the existence of job dissatisfaction in PT. PLN Kediri due to poor work safety. Some negligence is also performed by the employee while performing the job, not complying with the regulations and debilitating, neglecting the use of safety equipment, the safety of the employees is threatened. Such conditions may cause employees to be dissatisfied with their work. By implementing the safety program, it is expected to minimize the risk of accidents and occupational diseases.

Job Satisfaction Mediating the Effect of Occupational Health on Employee Performance. These findings support Kuswadi [20] that satisfied employees tend to work with high quality and work more productively. This also confirmed Jalalkamali [10] showing the influence of job satisfaction on employee performance. This finding is relevant to the opinion of Mondy [12], health refers to freedom from both physical and emotional. Problems in this field can affect the quality of life and employee performance. Work-related injuries and illness are more common. A healthy worker condition will produce good work productivity. Therefore, occupational health has an important role in achieving employee job satisfaction and high performance.

V. CONCLUSION

Occupational safety has no direct effect on employee performance. This is due to some employees are not use safety equipment that has become the company's provisions. Occupational health has no effect on employee performance. Health services of employees in PT. PLN Kediri already exists. But, it is not enough and it has an impact on employee performance.

Furthermore, Job satisfaction cannot mediate the safety and performance of employees. This means to achieve a good performance, safety must be improved so that employees feel satisfied in the work. In addition, Job satisfaction can mediate the relationship between occupational health and employee performance. This is because health facilities are adequate and can improve employee job satisfaction. Satisfied employees will be more productive than disgruntled employees. With high job satisfaction expected employees have better and higher performance. For subsequent research, it is expected to consider some of the weaknesses and shortcomings in this study or add work environment variables to achieve deeper and extend result.

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