

Effect of Occupational Safety and Health, and Work Environment on Performance with Job Satisfaction as an Intervening Variable (Study of Employees of KebonAgung Sugar Factory, Malang)

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ABSTRACT: *This study aims to analyze the effect of occupational safety and health, and work environment on job satisfaction, and to analyze whether job satisfaction can mediate the relationship between occupational safety and health, and work environment and its significance on the performance of employees of KebonAgung Sugar Factory, Malang. The sample in this study includes 100 employees of KebonAgung Sugar Factory Malang, and the data are analyzed using Path Analysis. The result of the study proves that Occupational Safety and Health (K3), and Work Environment directly affect Job Satisfaction significantly; Occupational Safety and Health (K3), and work environment affect performance significantly, despite job satisfaction being unable to mediate the relationship between occupational safety and health on performance.*

KEYWORDS: *Occupational Safety and Health (K3), Work Environment, Satisfaction, Performance*

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I. INTRODUCTION

Productivity and profit increase can be achieved by reducing the total number of occupational accidents and illnesses, as well as the cost of compensation or insurance. The application of K3 in HR maintenance is the main strategy, and is a demand for standardization of business viability nationally and internationally, (Ramli, 2010: 46). Occupational safety and health are applied so that employees can feel safe, comfortable, and healthy in doing their jobs, to realize the desired job satisfaction of employees. Implementation of occupational safety and health programs and a conducive work environment can be felt directly by the employees, and is manifested in a feeling of satisfaction. Satisfaction means employees feel their needs have been met to encourage a positive impact on their attitude or behavior in carrying out their work. It is reflected in their work quality, quantity, and punctuality.

The result of a study by Wibowo and Utomo (2016) evidently shows that safety as a variable indirectly have a significant effect on performance with job satisfaction as an intervening variable. Occupational health as a variable indirectly have a significant effect on performance with job satisfaction as an intervening variable. However, the research result by Runanto et al (2016) suggests that work safety has a positive and significant effect on employee performance with job satisfaction as an intervening variable, and occupational health has a positive and significant impact on employee performance with job satisfaction as an intervening variable.

II. LITERATURE REVIEW

According to Suma'mur (2012), work safety is related to machinery, aircraft, working tools, materials and processing, the workplace foundation and its environment, and ways of doing work. It can be concluded that work safety is a situation where the employees feels safe and comfortable, with the environment affecting their quality of work. Feeling comfortable starts from within the employees themselves, whether they are comfortable with the work safety equipment, equipment used, workspace layout and workloads.

Moenir (2012) states that occupational health is "the effort and a condition that allows a person to maintain his health at work". Soepomo (2012) explains that "Occupational health includes the rules and efforts to protect workers from any accident detrimental to their health and decency in doing the work in an employment relationship". Thus, occupational health can be defined as the effort and rules to protect employees from events or conditions that are detrimental to their health and morals, so that they physically, mentally and socially, can resume their work.

Work environment is the workplace or the physical condition of the site in which the employee works (Handoko, 2005: 184). Meanwhile, according to Nitisemito (2006: 191), work environment is defined as "everything that exists around the workers which can affect themselves in carrying out their designated work".

A conducive work environment provides a sense of security and allows employees to work optimally. The work environment can affect employee emotions. If the employee likes the work environment, they will feel comfortable in carrying out activities, effectively working on their tasks. Their performance will show great outcome.

Whereas Martoyo (2010) states that job satisfaction is the emotional state of employees following the realization of the meeting point between the value of employee work remuneration from a company or organization and the level of service value desired for the employee concerned. It can be concluded that employee job satisfaction is the emotion felt by an employee for what he is doing or for what he feels about his job. However, work dissatisfaction will arise when someone's expectations are not met. Therefore, employee compensation is crucial for a company, to make employees feel job satisfaction, and be able to meet their physical, status, and social needs, as well as their ego.

Simanjuntak (2012) argues that performance means employees carrying out their duties in accordance with the responsibilities given to them. Furthermore, Kusriyanto in Mangkunegara (2012) defines performance as a comparison of results achieved by labor per unit of time (typically per hour). Performance as referred to in this study is the work achieved by employees based on standards within a certain time period. Thus, performance in this concept is the quantity, quality and punctuality of work completion by employees.

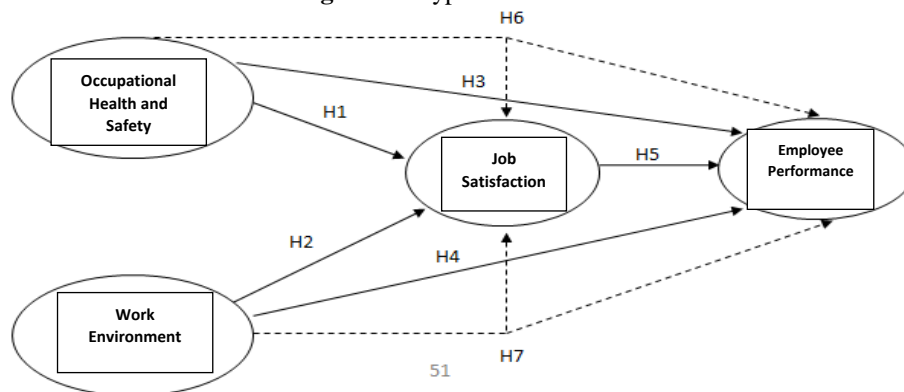
The effect of occupational safety and health on performance with job satisfaction as a variable: A research conducted by Juwita (2017) proves that occupational safety and health can improve employee performance with the support of job satisfaction. Angkasa Duta's research result (2014) shows that occupational safety and health have a significant effect on job satisfaction of employees of PLN Kediri, indicating that employee job satisfaction will be optimal if employees are always guaranteed work safety, as they expect to get satisfaction from work.

The effect of work environment on performance with job satisfaction as a variable: Yasa (2014) shows that job satisfaction is significantly and positively affected by work environment. Ollukaran (2012) suggests that work environment including interpersonal relations, participatory management, training and development, supervision, job security, and the support of adequate work facilities can affect employee performance.

2.1 Hypothesis Model

Based on the aforementioned theory, the following is a framework presented to facilitate the understanding of it.

Figure 1 : Hypothesis Model



Hypothesis 1: Occupational Safety and Health Allegedly Affect Job Satisfaction

Hypothesis 2: Work Environment Allegedly Affects Job Satisfaction

Hypothesis 3: Occupational Safety and Health Allegedly Affect Employee Performance

Hypothesis 4: Work Environment Allegedly Affects Employee Performance

Hypothesis 5: Job Satisfaction Allegedly Affects Employee Performance

Hypothesis 6: Occupational Safety and Health Allegedly Affect Employee Performance with Job Satisfaction as a Variable

Hypothesis 7: Work Environment Allegedly Affects Employee Performance with Job Satisfaction as a Variable

2.2 Research Method

This was a correlational research as it tested the hypotheses of the effect of independent variables including occupational safety and health on the dependent variables including employee performance, and the intervening variable of job satisfaction.

2.3 Population and Research Sample

The population in this study were all employees of KebonAgung Sugar Factory, Malang, rounding up to 137 people. 100 respondents answered the questionnaire distributed correctly and completely. Questionnaire measurement used the Likert scale.

2.4 Testing the Research Instrument

Validity Test Product moment correlation technique is used to test the validity of the research instrument. If the probability of the correlation is less than 0.05 (5%), then the instrument is declared valid and if the probability of the correlation is greater than 0.05 (5%), then the instrument is declared not valid (Singarimbun, 2012).

Reliability Test In this study, Cronbach's alpha is used to measure data reliability. Explained further by Arikunto (2012), the lowest value for Cronbach's alpha is 0.6.

2.5 Data Analysis Method (Path)

Path Analysis To find out the effect of the independent variables including Occupational Health and Safety (X1), Work Environment (X2) on Performance as a dependent variable (Y) with Job Satisfaction (Z) as the intervening variable, the following substitution is used: $PLT(X-Y) = \beta_{xz} \times \beta_{zy}$

Description: $PLT(X-Y)$ = indirect effect of an independent variable (X) on the dependent variable (Y) via the intervening variable (Z), β_{xz} = direct effect of an independent variable (X) on the moderator variable (Z), and β_{zy} = direct effect of the intervening variabel(Z) on the dependent variable (Y).

2.6 Research Objectives

KebonAgung Sugar Factory, Malang, represents the long history of the sugar cane industry in Java. This company thrives through the dynamics of change with a variety of turmoil, conflicting interests, and socio-political conditions. It will continue to be part of the Indonesian sugar industry, which contributes to the national sugar supply and regional economy. The location of the company is in the village of KebonAgung, Pakisaji sub-district, Malang regency, precisely about 5 km south of Malang City.

2.7 Research Methodology and Data Analysis

Most respondents were male (74%), and were more than 30 years old. The highest level of their education is high school diploma. Some respondents have worked more than 5 years.

Table 1: Characteristic of Respondents by Gender

Gender	Number of people	Percentage (%)
Male	74	74%
Female	26	26%
Total	100	100%

Table 2: Characteristic of Respondents by Age

Age	Number of people	Percentage (%)
20-30 years old	22	22%
31-40 years old	42	42%
> 40 years old	36	36%
Total	100	100%

Table 3: Characteristic of Respondents by Education Level

Education Level	Number of people	Percentage (%)
High School/Vocational High School	59	59%
Diploma	26	26%
Bachelor's Degree	15	15%
Total	100	100%

Table 4. Characteristic of Respondents by Length of Work

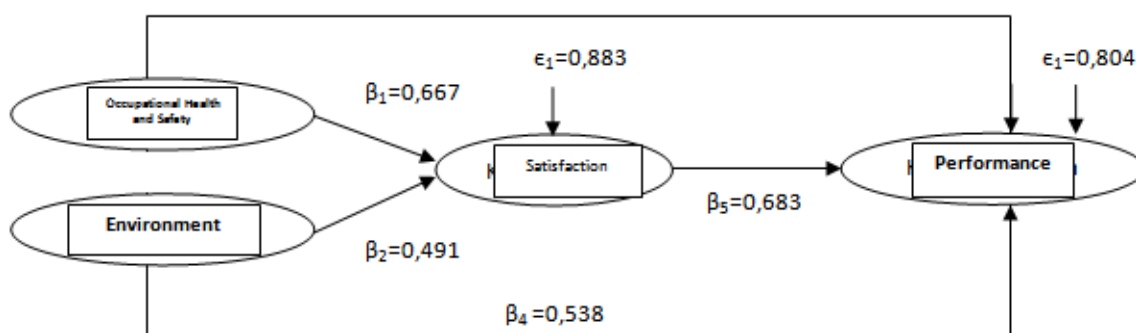
Length of Work	Number of people	Percentage (%)
< 5 Years	18	18%
5 yrs<10 Years	38	38%
> 10 years	44	44%
Total	100	100%

2.7.1 Hypothesis Testing with Path Analysis

Table 6: Analysis Result with a significance rate of 5%

No.	Relationship of Variables	Variable	Standardized Coefficient Beta	T	Sign	t	R Square
1	Effect of Occupational Health and Safety on Job Satisfaction	Occupational Health and Safety (X1)	0,667	8,858	0,000	1,665	0,445
2	Effect of Work Environment on Job Satisfaction	Work Environment (X2)	0,491	5,583	0,000	1,665	0,241
3	Effect of Occupational Health and Safety on Performance	Occupational Health and Safety (X1)	0,629	8,018	0,000	1,665	0,396
4	Effect of Work Environment on Performance	Work Environment (X2)	0,538	6,321	0,000	1,665	0,29
5	Effect of Job Satisfaction on Performance	Job Satisfaction (Z)	0,683	9,266	0,000	1,665	0,467
6	Effect of Occupational Health and Safety, Job Satisfaction on Performance	Occupational Health and Safety (X1)	0,313	3,318	0,001	1,665	0,521
		Job Satisfaction (Z)	0,475	5,036	0,000		
7	Effect of Work Environment on Performance	Occupational Health and Safety (X1)	0,267	3,308	0,001	1,665	0,521
		Job Satisfaction (Z)	0,552	6,845	0,000		

Figure 2: Hasil Analisis Jalur $\beta_3=0,629$



2.8 Findings and Interpretation

1. Direct effect of Occupational Safety and Health on Job Satisfaction

The statistic result of the regression test shows Occupational Safety and Health value (β) of 0.667, with a significance value of lower than 0.05 or 5%, which is 0.000. This indicates that the variable of Occupational Safety and Health has a significant effect on the Job Satisfaction variable. The result of this study is supported by a previous research by Indra (2013). Mangkunegara (2000) proves work safety has a significant effect on job satisfaction, and it explains that work safety shows conditions that are safe from suffering, damage or loss at work. Thus, Hypothesis 1 regarding Occupational Safety and Health on Job Satisfaction is accepted.

2. Direct effect of Work Environment on Job Satisfaction

The statistic result of the regression test shows Work Environment value (β) of 0.491, with a significance value of lower than 0.05 or 5%, which is 0.000. This indicates that the variable of Work Environment has a significant effect on the Job Satisfaction variable. The result of this study supports a previous research by Sedarmayanti (2009:21). Masliha (2017) claims that work environment has a significant effect both partially and simultaneously on job satisfaction. The results of this research and the previous studies concludes that physical work environment has an effect on job satisfaction. Thus, Hypothesis 2 regarding the Work Environment variable on Job Satisfaction variable is accepted.

3. Direct effect of Occupational Safety and Health on Performance

The statistic result of the regression test shows Occupational Safety and Health value (β) of 0.629, with a significance value of lower than 0.05 or 5%, which is 0.000. This indicates that the variable of Occupational Safety and Health has a significant effect on the Performance variable. The result of this study supports a previous research by Mulyadi (2015:165), stating that one of the goals of work safety is to protect the employees during their daily work in the workplace for the welfare of life and improving employee performance. Empirically, this study supports a research conducted by Brimantyo and Susilo (2017), claiming that employee safety and health have a significant effect on employee performance. Thus, Hypothesis 3 regarding Occupational Safety and Health variable on Performance variable is accepted.

4. Direct effect of Work Environment on Performance

The statistic result of the regression test shows Occupational Safety and Health value (β) of 0.538, with a significance value of lower than 0.05 or 5%, which is 0.000. This indicates that the variable of Work Environment has a significant effect on the Performance variable. The result of this study supports a previous research by Ardana (2012), suggesting that a safe and healthy work environment is proven to affect employee performance. It also mentions that "pleasant working conditions shall include the workplace and assistive facilities that accelerate the completion of work". Thus, Hypothesis 4 regarding Work Environment variable on Performance variable is accepted.

5. Direct effect of Job Satisfaction on Performance

The statistic result of the regression test shows Job Satisfaction value (β) of 0.638, with a significance value of lower than 0.05 or 5%, which is 0.000. This indicates that the variable of Job Satisfaction has a significant effect on the Performance variable. The result of analysis reveals that job satisfaction positively affects performance. The result of this study is supported by a previous research by Ristiana (2013), showing that Job Satisfaction affects Performance positively and significantly. Thus, Hypothesis 5 regarding Job Satisfaction variable on Performance variable is accepted.

6. Effect of Occupational Safety and Health on Performance via Job Satisfaction

The result of research using path analysis shows the direct effect of Occupational Safety and Health on the Performance of the Employees of Kebon Agung Sugar Factory, Malang, with a value of 0.629. While the indirect effect of Occupational Safety and Health on Performance via Job Satisfaction is 0.456. According to the results, job satisfaction does not mediate the relationship between occupational safety and health and employee performance. Occupational safety and health in the form of the provision of health facilities for employees who fall ill, or for first aid in work accidents, that is in accordance with the standard, will encourage employee improvement as they feel safe at work so they can focus to perform their best. The result of this study supports a research by Duta (2014), showing that occupational safety and health can improve the work of employees of PLN Kediri without job satisfaction as a variable. The analysis of Job satisfaction mediating the relationship between occupational safety and health and employee performance suggests no significant effect, thus Hypothesis 6 is rejected.

7. Effect of Work Environment on Performance via Job Satisfaction

The result of research using path analysis shows the direct effect of Work Environment on the Performance of the Employees of Kebon Agung Sugar Factory, Malang, with a value of 0.538. While the indirect effect of Work Environment on Performance via Job Satisfaction is 0.335. This indicates that job satisfaction felt by employees of Kebon Agung Sugar Factory, Malang, has not been able to provide a stimulus in improving performance. The result of this study supports a research conducted by Ghofar (2010), claiming that satisfaction does not strengthen the effect of work environment on performance. The analysis of Job satisfaction mediating the relationship between work environment and employee performance suggests no significant effect, thus Hypothesis 7 is rejected.

III. CONCLUSION

Based on the results of tests that have been carried out, it is concluded that:

1. Occupational Safety and Health directly affect Job Satisfaction at KebonAgung Sugar Factory, Malang.
2. Work Environment directly affects Job Satisfaction at KebonAgung Sugar Factory, Malang.
3. Occupational Safety and Health directly affect Employee Performance at KebonAgung Sugar Factory, Malang.
4. Work Environment directly affects Employee Performance at KebonAgung Sugar Factory, Malang.
5. Job Satisfaction directly affects Employee Performance at KebonAgung Sugar Factory, Malang.
6. Job Satisfaction cannot mediate the relationship between Occupational Safety and Health and the Performance of employees of KebonAgung Sugar Factory, Malang.
7. Job Satisfaction cannot mediate the relationship between Work Environment and the Performance of employees of KebonAgung Sugar Factory, Malang.

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