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THE INFLUENCE OF OCCUPATIONAL SAFETY AND HEALTH (OSH) FACTORS ON WORKER PERFORMANCE PT WASKITA BETON PRECAST, Tbk PLANT-PRAMBON

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Abstract - *This paper examines the influence of Occupational Safety and Health (OSH) factors on the work performance of the workers of PT Waskita Beton Precast, Tbk Plant-Prambon. The Type of this study is quantitative with the survey method. The respondents in this survey were 65 persons who are taken with probability sampling technique. The technique of data analysis was multiple linear regression analysis followed by t test (partial) and F test (simultaneous). The computation process uses the SPSS 26 software. According to the findings, it can be known that the independent variables that consist of rules and procedures, work environment and the dependent variable which is worker performance have a positive relationship (unidirectional) strongly. The results of the t test calculation show that the rules and procedures and the work environment partially have a significant effect on worker performance. The variables of the rules and procedures, work environment simultaneously have a significant effect on worker performance. The work environment variable is more dominant in influencing the worker performance variable.*

Keywords: rules and procedures, work environment, construction worker performance, construction industry.

INTRODUCTION

The world of the construction industry is unique because it is not only result-oriented but also process-oriented. With these conditions, it is necessary to have the attention of the management of the construction company to the internal factors that are directly related to the workers because it can influence the performance of the workers in the accomplishment of the construction project. Work Performance is the outcome of work quality and quantity in doing their task in keeping with the level of competence and responsibility given to the tasks they are assigned to (Mathis & Jackson, 2010). Performance is the main outcome of every job (Djazilan, 2020; Retnowati, 2022). It is the main condition of project success (Al Hakim & Hariani, 2021; Handayani & Khairi, 2022). Low quality performance causes a threat to project success (Irfan, 2022; Putra & Mardikaningsih, 2022). Darmawan et al. (2020); Arifin (2021) and Hariani (2021) stated that worker performance can be shaped with the support of a strong culture and a healthy organizational climate. According to Christina et al. (2012), there are some OSH factors that influence worker performance, including commitment of top managements, regulations and procedures, communication, competence of personnel, personnel participation, and workplace environment. In the meantime, Abdullah (2018) and Teja et al. (2017) also found that the performance of construction workers is influenced by regulations and procedures, the work environment. Studies by Lestari (2014); Mardikaningsih (2016); Darmawan et al. (2021); Putra (2021); Mardikaningsih et al. (2022) said the work environment plays a role in shaping performance. Irfan and Hariani (2022); Putra et al. (2022); Radjawane (2022) said a safe work environment in construction areas can shape worker satisfaction.

Companies that can reduce the level and severity of work accidents, disease and stress-related matters and are able to improve the quality of work life of their workers, then the company will be much more effective (Rivai, 2006). Therefore, the OSH program or the application of OSH should be one of the things that needs to be studied more deeply, because basically the application of OSH in every field of work has an important role to protect, maintain and create a safe and conducive work environment, especially with jobs that have a high risk of accidents such as in the world of construction work. In the industrial world, safety, occupational health and environment is not uncommon. Environmental aspects are indeed important in relation to occupational safety and health. The theory generally focuses on causal factors that exist in the work or way of working, some pay more attention to causal factors in work tools and some even focus on causal factors in human behavior. Working conditions must be properly formed and support the work process (Mardikaningsih & Darmawan, 2022). To overcome health problem and accidents in workers, companies need to consider several factors that support this health program, namely time and health facilities.

Occupational Safety and Health (OSH) are activities to ensure the establishment of safe conditions of work to avoid any physical and mentally disturbed through the guidance and trainings of the direction and the control of the tasks of the workers and the provisions of aid in conformity with the regulations in force, either from government agencies or company in which they are working (Mathis & Jackson, 2010). According to WHO, OSH is simply defined as efforts to enhance and sustain the high levels of physical, mentally and the social health of all workers in all occupations, to prevent workers' health conditions induced by work activities, and to safeguard the workers in their jobs from risks associated

with harmful factors to the health. These are the preventive actions to reduce the chances of an accident or an illness occurring as a cause of the work undertaken by each worker. An accident can also be precipitated by the unsafe work environment conditions such as poor ventilation, light, noise, or unsafe temperature that exceeds the safety threshold. In adding to these, the accident can also stem from people carrying out workplace activities and contacting tools or equipment. Work accident not only results in human casualties and material damage to workers and employers but it can also disturb the overall production process, damage the environment, which will ultimately have an unacceptable impact on the general public.

The implementation of a good OSH program will provide a sense of security and comfort to workers so that workers can do their jobs wholeheartedly and with full responsibility so that the tasks assigned by the company to workers can be carried out properly and on target. The OSH program is specific, meaning that the OSH program cannot be created, imitated, or developed in its entirety. An OSH program is made based on real conditions and needs in the workplace in accordance with the potential hazards of the nature of activities, culture, financial capabilities, laws and others. OSH programs must be specific to the respective organization so as not to be able to merely imitate or following directions and guideline from other entities. Through OSH programs, losses can be avoided so that companies can improve the welfare of their workers. Therefore, based on this explanation, the study was aimed at identifying the influence of occupational safety and health (OSH) factors on worker performance.

RESEARCH METHODS

The object of study is PT Waskita Beton Precast, Tbk-Plant Prambon located on Jl. Raya Prambon KM 36, Kedungwonokerto Village, Prambon District, Sidoarjo Regency. The survey was conducted using a quantitative technique. The sample of this research is the employees of the field section (Workshop) of PT Waskita Beton Precast, Tbk-Plant Prambon. The technique of sampling which will be utilized in the study is probability sampling. To obtain the necessary data, the authors conducted data collection techniques by distributing questionnaires. The type of the questionnaire utilized within the study is a close-ended questionnaire, which is a type of questionnaire that expected a quick response or expecting the respondents to select an alternative answer from every question that is available.

In this study, the variable (X1) is rules and procedures which are the rules and instructions established in implementing OSH management. In this case, the OSH regulations and procedures are the rules and directives determined to carry out OSH management. In addition, OSH regulations and procedures should not be too complicated so that they are easy to understand, easy to determine properly, there are sanctions if violations occur and there is a need for continuous improvement in line with the construction project conditions. The indicators are: (a) OSH rules and procedures are indispensable; (b) OSH rules and procedures are easy to apply consistently; (c) there are sanctions against violators of OSH procedures; (d) OSH rules and procedures are improved periodically; (e) OSH rules and procedures are easy to understand (Christina et al., 2012). The variable (X2) of this study is the work environment which is a condition or obstacle that exists at the work location that encourages OSH if all work prioritizes the OSH program and it is hoped that the work environment will be more conducive and increase the motivation of workers. The work environment has indicators consisting of: (a) workers prioritize OSH; (b) workers are not bored with repetitive work; (c) workers are motivated because of the OSH program; (d) workers are satisfied with the safety of the work environment (safety equipment, cleanliness, lighting); (e) workers do not blame each other if an accident occurs (Christina et al., 2012). The variable (Y) is the worker's performance, which is defined as the work results that an individual or group of people can achieve in an appropriate organization in line with their authority and respective responsibilities, in an effort to achieve the goals of the respective organization legally, not breaking the law and in compliance with morals and ethics (Mangkunegara, 2016). Indicators to measures this variable are as follows: (a) workers are able to work according to targets; (b) projects are carried out in accordance with the specified time period; (c) work results meet the specified specifications and criteria; (d) work results meet the standard quality control; (e) there are no work accidents in the work environment; (f) there are no mistakes in doing work; (g) workers pay attention to safety in carrying out workers; (h) workers are present (enter) according to the work schedule (Christina et al., 2012).

Responses to each instrumental item which uses a Likert scale have gradations from strongly agree: 4, Agreed: 3, Do Not Agree: 2, Disagree: 1. The survey results will be verified using the validity, Reliability, multiple linear regression analysis, t test, F test, and coefficient of determination through SPSS version 26 software.

RESULTS AND DISCUSSIONS

Validation test is useful to check the worthiness of the points in a list of statements in the define a variable. The results of r count we compare with r table where df = n - 2 with 5% sig. If r table < r count it is valid. According to all statement which presented in the questionnaire showing valid results due to If r table < r count. Reliable tests can be carried out jointly on all question items. If the Alpha value is higher than 0.60 then it is reliable. As per table 1, the reliability test results are fulfilled.

Tabel 1
Reliability test results

No	Variable	Statement items	Cronbach's Alpha	Status
1	Rules and procedures	7	0.847	Reliable
2	Working environment	8	0.884	Reliable
3	Performance	8	0.877	Reliable

Source: SPSS Output

After multiple linear analysis with the SPSS 26 program, the value a = 1.160, value b1 = 0.411, value b2 = 0.600. These results can be seen in table 2 below.

Table 2
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.160	.906		1.281	.205
	X.1	0.411	.119	.356	3.466	.001
	X.2	0.600	.100	.619	6.025	.000

Source: SPSS Output

The formula of the regression Equation can be defined as Y = 1.160 + 0.411X1 + 0.600X2. The results if interpreted, then: (1) the resulting constant (a) of 1.160 indicates that the value of worker performance (Y) is 1.160 when rules and procedures (X1) and work environment (X2) are constant; (2) The coefficient value of rules and procedures (X1) is 0.411. This means that it appears the variable has a positive influence on the performance variable (Y) that when the rules and procedures (Variable X1) increase by 0.411, the worker performance (Y) increases by 0.411 under constant conditions. With this positive influence / relationship, it means that variable X1 and performance (Y) show a unidirectional influence, meaning that if variable X1 increases, worker performance (Y) will increase, and vice versa; (3) coefficient value of the work environment (X2) is 0.600. This means that it can clearly be observed a positive influence on the performance variable (Y) that when the work environment (X2) increases by 0.600, the performance of workers (Y) increases by 0.600 under constant conditions. With this positive influence / relationship, it means that variable X2 as well as the work performance (Y) indicate a direct influence, which means that if variable X2 increases, the performance of workers (Y) will also increase, and vice versa.

The t-test table of the variable regulations and procedures (X1) found t-count 3.466 with a more significant level of 0.001 <0.05. That means the rules and procedures (X1) had a significant influence on the performance of workers (Y). Then the results of the Work Environment variable (X2) showed t-count 6.025 with a 0.000 <0.05 significant level. Meaning that work environment (X2) has a statistically Significant influence on worker performance (Y).

Test F is also used to determine the simultaneous or shared influences of the variables on the dependent variable at a significance level of 5% or α = 0.05. The results of the calculations using the SPSS 26 software are obtained as shown in table 3.

Table 3
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1219.213	2	609.606	376.498	.000[b]
	Residual	100.387	62	1.619		
	Total	1319.600	64			

Source: SPSS Output

According to table 2, namely the calculation of the F test, it is known that the F table is equal to 376. 498 and sig. of 0.000. It shows that the rules and procedures variable (X1), and the working environment (X2) influence simultaneously and effectively on worker performance (Y). In addition, the coefficient of determination tells how the influence of the variables of rules and procedures (X1), work environment (X2) on the variable of worker performance (Y). The calculation of the results using SPSS 26 as in Table 4.

Table 4
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.961[a]	.924	.921	1.272

Source: SPSS Output

From the results of the PSS calculation, the regression coefficient R Square (R^2) of 0.924 is obtained, which means it shows how much the model's ability to explain the variation in its variables. The results shown by the R Square score of 0.924 or 92.4% indicate a strong association among variables and the remaining 7.6% is affected by or is explained by other factors not included in this study the model.

The baseline for determining the dominant variable is by looking at the largest t-count between the two independent variables. The result is that the work environment variable (X2) is more dominant in influencing worker performance. The result is t-count of rules and procedures (3.466) < t-count of work environment (6.025).

Research conducted by Christina et al. (2012); Teja et al. (2017); Abdullah (2018); Djaelani et al. (2021); Cahyono and Mardikaningsih (2021) also support it. These results indicate that the Occupational Safety and Health Management System ("OSHMS") is a set of procedures that are designed to provide all personnel in the workplace with proper safety so as to avoid suffering injuries or diseases in the workplace by abiding by the laws and rules of work safety and health, which is expressed in a change in attitude to safety in the workplace). For this reason, it is necessary to prioritize safety and remind workers and the public outside the project by installing safety sign boards, installing signs or information about the project, project fences or prohibitions on approaching the project, and rescue routes for workers in the project. Other occupational safety and health (OSH) programs must be given more attention to the work safety of workers in the project and reduce the risk of accidents at work. In the event that the construction project does not meet the basic or basic needs, the importance of occupational safety and health (OSH) on the project must be implemented properly and workers should be accustomed to the personal protective equipment (PPE) since without personal protection equipment (PPE) all of these cause problems in the implementation of occupational safety and health (OSH) on the construction project.

CONCLUSIONS

The results and analysis and testing that have been carried out conclude that the rules and procedures, and the work environment partially have a significant effect on worker performance. The variables of rules and procedures, work environment simultaneously have a statistically significancy effect on worker performance. The work environment variable is most dominant in influencing the worker performance variables.

In accordance with these conclusions, the suggestion for the management of Occupational Safety and Health is to periodically monitor and evaluate the variables of rules and procedures so that at least the value of their influence is equivalent to the work environment so that the performance of workers is even more improved. The next step is for the researcher to continue to investigate factors that may influence worker performance, by including other independent variables relating to occupational safety and health activities.

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