# Implementation of Occupational Safety and Health (K3) for Increasing Employee Productivity

# Ahmad Firman \*1

\*1, Department of Management, Institut Teknologi dan Bisnis Nobel Indonesia, Makassar City, South Sulawesi 90221, Indonesia

#### ARTICLE INFO ABSTRACT



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Email Correspondence: a\_firman25@yahoo.com

**Keywords:** Occupational Safety; Health; Work productivity This study aimed to examine and analyze the effect of implementing occupational safety and health programs on employee productivity at PT. Pertamina (Persero) Regional VII Sulawesi. The population used in this study are employees who work at PT. Pertamina (Persero) Makassar BBM Terminal with a total of 160 employees. The determination of the number of samples was obtained using the Slovin formula so that the number of samples used in this study was 62 employees. The source of data used in this research is primary data. Primary data from this study were obtained from questionnaires filled in by employees at PT. Pertamina. Data analysis used a validity test, reliability test, multiple linear regression analysis, partial test, simultaneous test, and determination test. The results showed that occupational safety and occupational health positively influence employee productivity variables at PT. Pertamina (Persero) Makassar Fuel Terminal. Meanwhile, the work safety program variable has the dominant influence on employee productivity.

#### INTRODUCTION

In this era of globalization, the increasingly competitive competition in the energy industry requires companies to optimize their resources in producing high-quality products to survive in the competition (Firman & Said, 2016; Firman & Ilyas, 2021). One way to maintain the company's human resources is to provide protection related to the safety and health of employees (Ukhisia et al., 2018). Companies need to maintain employees' health, such as physical and mental health. Occupational health programs can be carried out by creating a healthy work environment to indirectly maintain or even increase employee productivity (Budihardjo et al., 2017). The work safety program is a means to prevent accidents, disabilities, and even death because of work negligence. The occupational health program is inseparable from the work safety program, and although there are differences in implementation, the two programs are included in the maintenance of employees (Prabowo, 2018).

Occupational safety is a form of maintaining human resources, in this case, employee maintenance which means retaining employees to remain loyal to the company, increasing employee motivation and work discipline, increasing the sense of security and peace of mind of employees in carrying out their work, and improving employee performance (Pandesiang et al., 2017). According to Law No. 13 of 2003 concerning employment, it is stated that employers are obliged to protect their workforce from potential hazards faced by employees. Companies must implement occupational safety and health programs to prevent work accidents or employees who experience work-related illnesses so that work productivity tends to decrease, and companies will spend more funds to repeat this.

From a scientific point of view, occupational health and safety is science and its application to prevent the possibility of work-related accidents and diseases in the workplace (Lala, 2018). Research

conducted by the world body the International Labor Organization (ILO) concluded that, on average, 6,000 people die every day, equivalent to one person every 12 seconds or 2.2 million people per year due to illness or accidents related to their work. Twice as many men die as women because they are more likely to do dangerous jobs. Overall, workplace accidents have killed 350,000 people. The rest died from work-related illnesses like dismantling toxic chemicals (Rusli, 2018).

According to Husain Umar, productivity is a mental attitude that always believes that the quality of life today must be better than yesterday and tomorrow better than today (Purwanti & Musadieq, 2017). Judging from this definition, a company should maintain the quality of life of its employees by providing several services or guarantees for the safety and health of employees when they carry out their work. Occupational safety can help increase company productivity, namely with a high level of work safety; accidents that cause illness, disability, and death can be minimized. A high level of safety is in line with productive and efficient maintenance and use of work equipment and machinery; this is related to the maintenance and use of productive and efficient work equipment and machinery, which is related to high productivity (Pangestu, 2016).

Occupational safety and health with productivity are very closely related to the workforce; diseases caused by workers can reduce work productivity, lowering the organization's or company's income. Meanwhile, the company resulted in a decrease in the amount of production and gave a bad image of the quality and capacity of the company (Saputra, 2017). Workers whose welfare is poor not only cause disillusionment with the company, but their productivity will decrease, their lack of motivation at work, and their apathy and loyalty to the company will also decrease. The aim and target of implementing the Occupational Safety and Health (K3) program in each company are to create an occupational safety and health management system within the scope of the company by involving elements of management, workforce, working conditions, and environment that are integrated to prevent and reduce accidents and diseases. The consequences of work and creating a safe, efficient, and productive workplace (Oluoch, 2015).

The number of accidents and occupational diseases in several developed countries shows a trend of increasing prevalence. As a causative factor, it often occurs due to a lack of worker awareness and inadequate quality and skills of workers. Many workers underestimate work risks, so they refrain from using safety equipment even though it is available. The elucidation of Law number 23 of 1992 concerning Health has mandated, among other things, that every workplace must carry out occupational health efforts so that health problems do not occur in workers, families, communities, and the surrounding environment. One component that can minimize accidents at work is health workers. Health workers can handle victims of work accidents and can provide counseling to the public to realize the importance of occupational safety and health (Ekowati & Amin, 2019).

PT. Pertamina (Persero) Region VII Sulawesi is one of Pertamina's offices present in Makassar to meet the demand for fuel oil in Makassar, South Sulawesi. Pertamina Regional VII Sulawesi Office in Makassar is expected to be able to provide good services, in this case providing fuel oil intake in South Sulawesi so that there are no more areas experiencing fuel shortages. Pertamina needs an expert and skilled workforce to achieve high productivity. Of course, Pertamina's employees in carrying out their work cannot be separated from the threat of danger at work and diseases caused by an unhealthy work environment. As a fuel oil company. PT. Pertamina (Persero) uses complex fuels and high-tech equipment to process fuel oil. The production process using high-tech machines takes place quickly and efficiently so that the resulting quality is maximized and of high quality. However, on the other hand, using high-tech machines can create a greater possibility of a hazard in work accidents and occupational diseases. Previous research (Ardika et al., 2015; Hadiyanti & Setiawardani, 2017; Kartikasari & Swasto, 2017; Wahyuni et al., 2018) showed that occupational health and safety variables have a positive and significant effect on work productivity. At the same time, research conducted by (Budihardjo et al., 2017; Ukhisia et al., 2018) shows that workplace safety has no significant effect on employee productivity.

This study focuses on the occupational safety and health of PT Pertamina (Persero) Region VII Sulawesi employees at the Makassar BBM Terminal because PT. Pertamina is the only fuel oil supply company located in South Sulawesi. PT Pertamina should provide the best service to all levels of society in South Sulawesi by maintaining conditions so that there is no shortage of fuel oil. To achieve these conditions, PT. Pertamina must be ready for all elements, especially in the workforce and PT. Pertamina should consider it essential to protect workers' health so that they feel safe in carrying out their work. The company will not lose workers due to accidents or work-related illnesses that could hinder the processing and distribution process, which will be detrimental to the company. Objectively, this study aims to determine whether implementing occupational safety and health programs affects employee work productivity at PT. Pertamina (Persero) Regional VII Sulawesi. Some of the risks that PT will bear are. Pertamina (Persero), if it does not implement an occupational safety and health program as a commitment to carry out an occupational safety and health program and as a form of action in risk management, which aims to increase productivity and effectiveness both micro and macro–PT. Pertamina.

Human resource management is general management, which includes planning, organizing, directing, and supervising for procurement, development, compensation, integration, maintenance, and termination of labor relations intended to help organizational, individual, and community goals (Sondang, 2008). According to Costa (2019), Human Resource Management is the policies and practices involved in screening, training, rewarding, and appraising. Meaning: human resource management is the policies and methods that are practiced and related to human empowerment or HR aspects of a management position, including recruitment, selection, training, rewards, and assessment.

HR Operational Functions, according to (Kholik, 2017), include a. Procurement (Recruitment). The first operational function of HR management is to obtain the correct number and type of employees to achieve organizational goals; this function is primarily related to determining the needs of employees and their recruitment, selection, and placement. b. Development. This development increases skills through the training needed to carry out their work correctly. This activity is considered increasingly important to adjust to the development and increasingly complex work tasks. c. Compensation. Compensation is a reward for employees according to their contribution to achieving organizational goals. This compensation is usually received as money plus other allowances for a month. d. Integration (integration). Integration is the adjustment of attitudes, and the wishes of employees, with the wishes of the company and society. In terms of this integration, individual employees are asked to change habits and attitudes that are considered unfavorable to the company. e. Maintenance (maintenance). Maintenance means trying to maintain and improve existing conditions. What has been received and enjoyed by employees should be maintained because maintaining employee motivation is essential and very beneficial for the company going forward. f. Retirement (separation). The last function of HR management is the separation function. This function relates to employees who have worked for the company long. The primary function of HR management is to guarantee that employees will retire. When retiring, employees should feel safe. Usually, large companies provide funds for retired employees.

Implementation of various HR management functions is not only able to create productive employees and support company goals but also to create better conditions to increase employees' potential and motivation to work (Kaynak et al., 2016). Implementation of job analysis, HR planning, recruitment and selection, placement, and career development, as well as good education and training, will increase the potential of human resources to work because they have received the provision of knowledge and skills and are placed in the correct position (the right man in the right place). Meanwhile, implementing other HR functions, such as compensation, protection, and good labor relations, will generate a stimulus that encourages increased employee motivation (Busyairi et al., 2019).

The protection of the workforce covers several aspects and one of them is safety protection, the protection means that the workforce can safely carry out their daily work to increase productivity (Jane, 2018). The workforce must obtain protection from various issues around them and on themselves that can

affect or disturb them and their health. Occupational safety is a thought and effort to guarantee the integrity and perfection of both the physical and spiritual workforce, and humans in general, results and culture towards a just and prosperous society (Ristiani & Daulay, 2015). Occupational safety is a means of preventing accidents, disabilities, and deaths due to work accidents. Occupational safety is a preventive measure that refers to top management support in implementing company policies and creating a safe and peaceful work atmosphere for employees working in the company (Fauziyah et al., 2018).

The occupational health program is essential and needs to be considered by employers. Because the existence of a good health program will materially benefit employees because employees will be absent less often and work in a more pleasant environment so that overall, employees will be able to work longer hours; according to Saputra (2017), occupational health programs can be carried out by creating a healthy work environment. This maintains health from visual, hearing, fatigue, and so on. Creating a healthy work environment will indirectly maintain or even increase productivity. PER.05/MEN/1996 concerning Occupational Health and Safety Management System, the purpose of an occupational safety and health management system in the workplace involves elements of management, workforce, working conditions, and environment that are integrated to prevent and reduce work-related accidents and diseases and creating a safe, efficient and productive workplace.

According to the HPS (Health and Safety Protection) Academy Training Center, the core objective of the Occupational Safety and Health (K3) management system is to protect employees. After all, workers are a company asset that must be cared for and safeguarded. With guaranteed safety, security and health while working, they will certainly provide satisfaction and increase their loyalty to the company. b. Benefits of a Safe and Healthy Work Environment. Suppose companies can reduce the level and severity of work accidents, illnesses, and stress-related matters and improve their workers' quality of life. In that case, the company will be more effective.

Kaynak (2016) states that productivity is a mental attitude that always believes that the quality of life today must be better than yesterday, and that tomorrow is better than today. Productivity is closely related to the production system, in which factors such as labor, capital in the form of machinery, work equipment, raw materials, and factory buildings are managed and organized to realize effective and efficient production. Productivity increases will produce several benefits, namely increased productivity due to a decrease in the number of lost working days; increased efficiency and quality of more committed workers; reduced health and insurance costs; lower levels of worker competency, and direct payments due to reduced claims submission; Greater flexibility and adaptability as a result of increased participation and a sense of ownership (Katz et al., 2019).

Constraint factors affecting labor productivity are likely to result in new hires after the first few months. This initial employee turnover was commonplace. This can benefit new employees who feel the company or job could be more suitable. Thus, the company will immediately find the best solution, starting from the recruitment, selection, and placement of new employees (Jane, 2018). According to Oluoch (2015), factors that affect productivity are a. Man. Human factors cover several aspects: quantity, level of expertise, cultural and educational background, abilities, attitudes, interests, job structure, age, and gender. b. Capital. Capital factors include aspects of fixed capital, technology, and raw materials. c. Method (process). The method factor includes spatial planning, handling auxiliary materials and machinery, production planning and supervision, maintenance through prevention, and technology using alternative methods. d. Production. Factors of production include quantity, quality, production space, production structure, composite structure, and production specialization. e. Organizational Environment. Environmental factors include organization and planning, personnel, management systems, leadership style, working conditions, company size, work climate, and incentive systems. f. State Environment. Environmental factors include socio-political structure, industrial structure, legalization, and long-term development goals. g. International Environment. Environmental factors include world trade conditions, international trade issues, and labor migration policies. h. Feedback. Feedback shows how society assesses the quantity and quality of production and how much money should be paid for the main inputs (labor) that society offers to the company.

The elements contained in productivity are as follows: a. Efficiency. Productivity as an output/input ratio is a measure of efficiency in the use of resources (inputs). Efficiency is a measure of comparing the planned use of inputs with the actual use of implemented inputs. The definition of inputoriented efficiency. b. Effectiveness. Effectiveness is a measure that shows how far the target can be achieved, both in quantity and time. The greater the percentage of targets achieved, the higher the effectiveness. c. Quality. In general, quality measures how far consumers' requirements, specifications, and expectations are met. Quality is one measure of productivity. Although quality is challenging to measure mathematically through the output/input ratio, the quality of the input and the quality of the input and process quality will improve the quality of the output (Busyairi et al., 2019).

Every company naturally has a strategy to reduce or even eliminate the incidence of accidents and occupational diseases among employees according to the conditions of the company (Prabowo, 2018). The strategies that need to be implemented by the company include a. Management needs to establish a form of protection for employees in the face of work accidents and occupational diseases. For example, looking at the company's financial condition, employee awareness of occupational safety and health, as well as the responsibilities of the company and employees, the company may have a minimum or even maximum level of protection. b. Management can determine whether occupational safety and health regulations are formal or informal. It means that every regulation is stated in writing, implemented, and controlled, and every regulation is stated in writing, implemented, and controlled according to the rules. While informally, it is stated as unwritten or convention and is carried out through training and agreements. c. Management must be proactive and reactive in developing procedures and plans for employee safety and health. Proactive means that management needs to continuously improve procedures and plans according to the company and employees' needs. While the meaning of reactive, the management needs to immediately address the problem of occupational safety and health after an incident arises. d. Management can use a low degree of occupational safety and health to promote the company to a broad audience. This means that the company is very concerned about the safety and health of its employees.

## H1. Occupational safety and health programs have a positive effect on employee productivity.

#### H2. Dominant Occupational safety programs affect employee productivity.

#### **RESEARCH METHOD**

The population used in this study are employees who work at PT. Pertamina (Persero) Makassar BBM Terminal with a total of 160 employees. The determination of the number of samples was obtained using the Slovin formula so that the number of samples used in this study was 62 employees. The source of data used in this research is primary data. Primary data from this study were obtained from questionnaires filled in by employees at PT. Pertamina. Data analysis used a validity test, reliability test, multiple linear regression analysis, partial test, simultaneous test, and determination test.

Variable	Item	Indicator	Reference				
	X1.1	Level of understanding of the correct use of medical	(Hadiyanti &				
Occupational		devices	Setiawardani, 2017;				
Safety	X1.2	Level of education and training on safety					
(X1)	X1.3	Level of administrative and personnel control	Wahyuni et al.,				
	X1.4	Health insurance	2018)				

**Table 1. Variable Indicator** 

	X1.5	The level of completeness of occupational safety equipment.	
	X2.1	Periodic health screening rate	(Kartikasari &
Health	X2.2	Health insurance provided by the company	Swasto, 2017;
(X2)	X2.3	Level of completeness of work facilities that support employee health	Ukhisia et al., 2018)
	Y1.1	Knowledge of the duties and responsibilities of employees	
Work	Y1.2	Number of jobs completed	(Budihardjo et al.,
Productivity (Y)	Y1.3	Presentation of attendance in carrying out and completing work tasks.	2017; Prabowo, 2018)
	Y1.4	The existence of work evaluation to measure employee performance	

Source: Data Processing Results, 2022

# **RESULTS AND DISCUSSION**

#### **Results**

Respondents in this study were employees of PT Pertamina (Persero) Makassar BBM Terminal, with as many as 62 employees. There are characteristics of the respondents included in this study, namely based on the gender and age of the employee.

Table 2. Respondent Demographic Data					
Variable	Measurement	n	%		
Gender	Man	58	93,5		
Gender	Woman	4	6,5		
A	20-35 years	56	90,33%		
Age	>35 years	6	9,67%		

Based on the processed data regarding the characteristics of respondents based on gender in table 2, most respondents were male, namely 58 (93.5%), while the number of female respondents was 4 (6.5%). Based on age, it shows that of the 62 respondents, most are in the age range of 31-35 years, as many as 28 people. For the age range of 26-30 years, as many as 22 people. Whereas at the age of 20-25 years and more than 35 years, there were six people.

The second stage is the research data instrument test which consists of validity and reliability tests. The instrument is said to be good if the research instrument meets the main requirements, namely valid (valid) and reliable (reliable). If r-count more than r-table, then the question is said to be valid. As well as a variable that is stated to have consistent questionnaire answers if it has a Cronbach Alpha value greater than 0.60.

Table 3. Validity and Reliability Test Resul
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Table 5. Valuity and Kenability Test Results						
Variable	Instrument	r-calculated	Cronbach Alpha	Info		
	X1.1	0,799		Valid dan reliable		
Occupational	X1.2	0,887		Valid dan reliable		
Occupational	X1.3	0,866	0,734	Valid dan reliable		
safety	X1.4	0,541		Valid dan reliable		
	X1.5	0,450		Valid dan reliable		
	X2.1	0,899		Valid dan reliable		
	X2.2	0,864		Valid dan reliable		
Health	X2.3	0,932	0,821	Valid dan reliable		
	X2.4	0,958		Valid dan reliable		
	X2.5	0,462		Valid dan reliable		
	Y1.1	0,904	0,802	Valid dan reliable		

Work	Y1.2	0,726	Valid dan reliable
Productivity	Y1.3	0,904	Valid dan reliable
	Y1.4	0,702	Valid dan reliable
	Y1.5	0,753	Valid dan reliable

Source: Output SPSS (2022)

Following that r count > r table, variable items can be said to be valid. In testing the data processing using the SPSS (Statistical Package for The Social Sciences) 20 for a windows computer program, it is obtained that r count > from r table = 0.25 (standard r value for n = 62). So that all indicators of this research variable are valid. While the reliability test results showed that all variables had a Cronbach Alpha coefficient that was greater than 0.6, it could be concluded that the question items from the questionnaire were reliable, meaning that the questionnaire used in this study was reliable and correct questionnaire.

The third stage will be carried out evaluating and interpreting the multiple regression model. Multiple linear regression tests were carried out to determine the functional relationship between the independent variables on the dependent variable. The test results can be seen in table 4.

		C	Coefficients <sup>a</sup>			
Model		Unstandardized Coefficients		Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	3,025	1,980		1,528	,129
	Occupational Safety	,539	,095	,533	5,674	,000,
	Health	,372	,076	,481	4,895	,000,

# **Table 4. Multiple Linear Regression Test Results**

a. Dependent Variable: Work Productivity Source: Output SPSS (2022)

The regression equation model that can be written from these results, namely Unstandardized coefficients, is as follows:

## Y = 3,025 + 0,539 X 1 + 0,372 X 2

The Unstandardized coefficients model shows the coefficient b, which is a value that explains that Y (the dependent variable) will change if X (the dependent variable) is changed by 1 unit, while for the Standardized Coefficients regression equation model where the coefficient value will not change anymore is as follows:

## Y = 0.533 + 0.481

This equation can be interpreted that the regression coefficient value (X1) of 0.533 means that work safety (X1) has a positive effect on employee productivity (Y). The regression coefficient (X2) of 0.481 means that Occupational Health (X2) has a positive effect on Employee Productivity (Y). Based on this equation, the independent variable that has the most influence on the dependent variable (Y) is the work safety variable (X1), with a coefficient of 0.533.

The test was carried out with a significance level of 0.05. If Sig> 0.05, then the proposed hypothesis is rejected. Conversely, if Sig. < 0.05, then the proposed hypothesis is accepted. The test results are presented in table 5.

	Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients			
		В	Std. Error	Beta	t	Sig.	
1	(Constant)	3,025	1,980		1,528	,129	
	Occupational Safety	,539	,095	,533	5,674	,000	
	Health	,372	,076	,481	4,895	,000,	

# Table 5. t-statistical Test Results

a. Dependent Variable: Work Productivity Source: Output SPSS (2022)

The influence of each variable Occupational Safety, and Occupational Health, on Employee Productivity, can be seen from the significance level (probability). From the table above, from the results of the hypothesis testing carried out, partial coefficient values are obtained from each independent variable on its dependents. This can be seen from the probability value of employee safety (X1), which is 0.000 > 0.05, and the probability value of occupational health (X2) is 0.001 < 0.05.

From this presentation, it can be concluded that the variables of occupational safety (X1) and occupational health (X2) have a positive influence with a significant level of each on the independent variables, so the value of the occupational safety variable (0.000) is greater than the value of the health variable—work (0.000).

The F test is used to see whether all the independent variables included in this model influence the dependent variable. The test results are presented in table 6.

			ANOVA <sup>a</sup>	cot results		
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10,513	2	5,257	50,808	,000b
	Residual	6,104	59	0,103		
	Total	16,617	61			

# **Tabel 6. F-Statistical Test Results**

a. Dependent Variable: Work Productivity

b. Predictors: (Constant), Occupational Safety, Health

Source: Output SPSS (2022)

Furthermore, the analysis of the coefficient of determination is used to determine how much influence the independent variables have on the dependent variable. This test uses the hypothesis that the R-Square value ranges from 0 to 1 ( $0 \le R^2 \le 1$ )—the closer to 1, the better the model.

Tabel 7. R-Square Test ResultsModel Summaryb					
Model	R	R Square	Adjusted R	Std. Error of the	Durbin-Watson
			Square	Estimate	
1	0,884ª	0,728	0,716	0,37100	1.89834

a. Predictors: (Constant), Occupational Safety, Health

b. Dependent Variable: Work Productivity

Source: Output SPSS (2022)

From the results of the regression analysis in table 6, it can be seen that the calculated F value is 50.808 with a significance value (sig) of 0.000. Because the significance value (sig) is much smaller than 0.05, the regression model can be used to predict Occupational Safety and Occupational Health, which affect Employee Productivity.

The results of calculations using the SPSS program show that the coefficient of determination (R-square) obtained is 0.728. This shows that the independent variable, namely occupational safety and health, has a significant influence on employee productivity by 72.8%, seeing that employee productivity variables can be influenced by many other variables, while the rest are influenced by variables not examined in this study.

#### Discussion

#### The Effect of Occupational Safety and Health Programs on Work Productivity

The first hypothesis, which says that "work safety and health programs have a positive effect on employee work productivity," is acceptable; things that support the hypothesis in this study can be seen from an empirical review of previous research which also states that workplace safety and health programs have a positive effect on employee productivity. This is also supported by several experts who state that occupational safety and health with productivity are very closely related to the workforce; good occupational health for workers can automatically increase work productivity and income. Occupational safety at PT Pertamina (Persero) is a top priority that must be addressed, although other achievements, in this case, production, and marketing, are the company's goals. Achieving production targets and marketing success will only be valid if safety aspects are considered; for this reason, all workers are committed to supporting and paying attention to safety aspects at work. Occupational safety at PT Pertamina ensures that all workers can work healthily and with a healthy lifestyle. Health is an essential asset in work and activities, so PT Pertamina organizes programs to support the Health of its Workers. While protecting the environment, PT Pertamina means Pertamina guarantees an environmentally friendly work environment and operations without hazardous waste and is environmentally friendly and strives to reduce emissions to the environment and increase energy efficiency. Environmental aspects have become a top priority in company operations, both at the head office and operating units, where exploration, production, processing, distribution, and storage (Storage) processes must prioritize environmental aspects that are environmentally friendly, without pollution and emissions/radiation or toxic waste. Moreover, increase energy use efficiently. This study's results align with those (Ardika et al., 2015; Hadiyanti & Setiawardani, 2017), showing that occupational health and safety significantly positively affect employee productivity.

#### Occupational Safety Programs with a Dominant Impact on Employee Productivity

The second hypothesis of this study states that " Occupational Safety Programs have a more dominant effect on Employee Productivity," which can be accepted. This is seen in the multiple linear regression research conducted by researchers. Occupational Safety Efforts are efforts to harmonize work capacity, workload, and work environment so that each worker can work well without endangering himself or the surrounding community to obtain optimal work productivity. This is reinforced based on the results of several interviews with employees conducted; the researcher concludes that most employees prioritize work safety because, according to them, safety at work is the most important thing, because work safety is their priority; by being careful, employees will keep working and produce maximum output and get the salary/wages determined by the company.

#### CONCLUSION

Based on the results of the analysis that has been carried out, it has been proven that occupational safety and occupational health positively influence employee productivity variables; occupational safety and health and productivity are closely related to the workforce. The second result of this study proves that occupational safety programs have a dominant effect on employee productivity, which researchers in multiple linear regression tests have proved.

Future researchers are expected to examine other variables affecting employee productivity to obtain more varied results. To make the Occupational Safety and Health Program for employees effective,

which aims to improve better Employee Productivity, the strength of the company, which lies in its human resources, must be prioritized, starting from the procurement of labor, improving human resources to paying attention to safety and health aspects, both physically and psychologically employees themselves. So the better the safety and health programs, the better employee productivity. Improvement in the application of the OHS Management System, namely deepening employee knowledge in recognizing the types of OHS hazards. Hazards can vary and can arise from various sources. The company should pay more attention to the management and maintenance of safety equipment or personal protective equipment used by employees so that the safety and health of employees are more guaranteed. As well as creating a safe and healthy workplace.

This study only uses two independent variables, occupational safety, and health, to determine their effect on employee productivity. The research encountered a few difficulties, from obtaining permission to research the company until it was time to distribute questionnaires to employees. This study only uses employees as research objects because company data in the form of evaluation results of employee performance and productivity cannot be provided by the company.

# REFERENCE

- Ardika, G. K., Haris, I. A., & Suwena, K. R. (2015). Pengaruh pelaksanaan keselamatan dan kesehatan kerja (K3) terhadap produktivitas kerja di UD. Sinar Abadi Singaraja tahun 2015. Jurnal Pendidikan Ekonomi Undiksha, 5(1). <u>https://doi.org/10.23887/jjpe.v5i1.6077</u>
- Budihardjo, P. H., Lengkong, V. P. K., & Dotulong, L. O. H. (2017). Pengaruh keselamatan kerja, kesehatan kerja, dan lingkungan kerja terhadap produktivitas karyawan pada PT. Air Manado. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi, 5(3). <u>https://doi.org/10.35794/emba.v5i3.18374</u>
- Busyairi, M., Tosungku, L. O. A. S., & Oktaviani, A. (2019). Pengaruh keselamatan kerja dan kesehatan kerja terhadap produktivitas kerja karyawan. <u>http://hdl.handle.net/11617/5270</u>
- Costa, A. C., Demo, G., & Paschoal, T. (2019). Do human resources policies and practices produce resilient public servants? Evidence of the validity of a structural model and measurement models. Revista Brasileira de Gestão de Negócios, 21, 70–85. <u>https://doi.org/10.7819/rbgn.v21i1.3965</u>
- Ekowati, V. M., & Amin, F. M. (2019). The effects of occupational health and safety on employee performance through work satisfaction. 2018 International Conference on Islamic Economics and Business (ICONIES 2018), 242–245. <u>https://dx.doi.org/10.2991/iconies-18.2019.46</u>
- Fauziyah, A., Djaelani, A. Q., & Slamet, A. R. (2018). Pengaruh lingkungan kerja, kesehatan dan keselamatan kerja terhadap produktivitas kerja karyawan (studi pada karyawan bagian produksi PT. Berlina Tbk Pandaan). Jurnal Ilmiah Riset Manajemen, 7(2). <a href="http://riset.unisma.ac.id/index.php/jrm/article/view/1208">http://riset.unisma.ac.id/index.php/jrm/article/view/1208</a>
- Firman, A., & Said, S. (2016). Linking organizational strategy to information technology strategy and value creation: impact on organizational performance.
- Firman, A., & Ilyas, G. B. (2021). The Effect of Kaizen Strategy on Customer Satisfaction: Empirical Study on Budget Hotels in Makassar City. Point Of View Research Management, 2(1), 01-09.
- Hadiyanti, R., & Setiawardani, M. (2017). Pengaruh pelaksanaan program keselamatan dan kesehatan kerja terhadap produktivitas kerja karyawan. Jurnal Riset Bisnis Dan Investasi, 3(3), 12–23. https://doi.org/10.35313/jrbi.v3i3.941
- Jane, W. M. (2018). Influence of occupational health and safety on employees'performance in the flower industry in kenya: a case study of Penta Flowers Limited, Thika Sub-County. JKUAT-COHRED. <u>http://ir.jkuat.ac.ke/handle/123456789/4491</u>
- Kartikasari, R. D., & Swasto, B. (2017). Pengaruh keselamatan dan kesehatan kerja karyawan terhadap kinerja karyawan. Jurnal Administrasi Bisnis, 44(01). <u>http://repository.ub.ac.id/118953/</u>

- Katz, A. S., Pronk, N. P., McLellan, D., Dennerlein, J., & Katz, J. N. (2019). Perceived workplace health and safety climates: associations with worker outcomes and productivity. American Journal of Preventive Medicine, 57(4), 487–494. <u>https://doi.org/10.1016/j.amepre.2019.05.013</u>
- Kaynak, R., Toklu, A. T., Elci, M., & Toklu, I. T. (2016). Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: Using the PLS-SEM approach. International Journal of Business and Management, 11(5), 146–166. <u>https://pdfs.semanticscholar.org/608b/a2e3680fc4a4e93e1e27b43aa2a990ce242a.pdf</u>
- Kholik, K. (2017). the effect of occupational safety and health on work productivity of employees and its impact on employee performance at pt. alfo citra abadi Medan. <u>http://digilib.unimed.ac.id/id/eprint/28247</u>
- Lala, A. (2018). Pengawasan kesehatan tenaga kerja menurut Pp Nomor 50 tahun 2012 Tentang Penerapan Smk3. Syntax Literate; Jurnal Ilmiah Indonesia, 3(12), 1–12. http://www.jurnal.syntaxliterate.co.id/index.php/syntax-literate/article/view/506
- Oluoch, E. O. (2015). Effect of occupational safety and health programmes on employee performance at Kenya power company limited. University of Nairobi. <u>http://erepository.uonbi.ac.ke/handle/11295/93944</u>
- Pandesiang, D., Lengkong, V. P. K., & Sendow, G. M. (2017). Pengaruh keselamatan dan kesehatan kerja terhadap produktivitas kerja karyawan pada PT. Horiguchi Sinar Insani. Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi, 5(3). <a href="https://doi.org/10.35794/emba.v5i3.17156">https://doi.org/10.35794/emba.v5i3.17156</a>
- Pangestu, A. (2016). Pengaruh program keselamatan dan kesehatan kerja (K3) dan disiplin kerja karyawan terhadap produktivitas kerja karyawan (studi kasus pada PT Wika Realty Proyek Pembangunan Tamansari Hive Office Park). Jakarta: Fakultas Ekonomi dan Bisnis UIN Syarif Hidayatullah Jakarta. <u>http://repository.uinjkt.ac.id/dspace/handle/123456789/33445</u>
- Prabowo, C. H. (2018). Pengaruh kesehatan dan keselamatan kerja (K3) dan lingkungan kerja terhadap produktivitas kerja karyawan PT. Rickstar Indonesia. Jurnal Manajemen Bisnis Krisnadwipayana, 6(3), 1–11.

https://scholar.archive.org/work/d42hxwrnjzadjiuqbb4hjbcy4m/access/wayback/http://ojs.ekono mi-unkris.ac.id/index.php/JMBK/article/download/224/pdf

- Purwanti, L. D., & Musadieq, M. (2017). Pengaruh keselamatan dan kesehatan kerja terhadap kualitas kehidupan kerja dan produktivitas kerja (studi pada karyawan divisi operasiddan pemeliharannpt pembangkitan Jawa Bali (Pjb) unit pembangkitan Paiton). Jurnal Administrasi Bisnis S1 Universitas Brawijaya. <u>http://repository.ub.ac.id/119398/</u>
- Ristiani, E., & Daulay, I. N. (2015). Pengaruh program kesehatan & keselamatan kerja dan lingkungan kerja terhadap kinerja karyawan bagian produksi pada PT. Surya Bratasena Plantation Pelalawan. Jurnal Online Mahasiswa (JOM) Bidang Ilmu Ekonomi, 2(1), 1–17. https://jom.unri.ac.id/index.php/JOMFEKON/article/view/7945
- Rusli, A. (2018). Pengaruh keselamatan dan kesehatan kerja terhadap kinerja karyawan pada PT. Pertamina (persero) TBBM Pare-Pare. Departemen manajemen fakultas ekonomi dan bisnis universitas hasanuddin makassar. <u>https://core.ac.uk/download/pdf/83870916.pdf</u>
- Saputra, A. A. (2017). Pengaruh program kesehatan dan keselamatan kerja K3 terhadap Produktivitas kerja Karyawan pada PT. PLN (persero) Cabang Pinrang. Universitas Islam Negeri Alauddin Makassar. <u>http://repositori.uin-alauddin.ac.id/7096/</u>
- Sondang, P. S. (2008). Manajemen sumber daya manusia. Jakarta: Bumi Aksara.
- Susanto, E. (2017). Pengaruh penerapan program keselamatan dan kesehatan kerja terhadap produktivitas karyawan di PT Nestle Indonesia Pabrik Panjang Bandar Lampung. UNIVERSITAS LAMPUNG. http://digilib.unila.ac.id/id/eprint/26814

- Ukhisia, B. G., Astuti, R., & Hidayat, A. (2018). Analisis pengaruh keselamatan dan kesehatan kerja terhadap produktivitas karyawan dengan metode partial least squares. Jurnal Teknologi Pertanian, 14(2), 95–104. <u>https://www.researchgate.net/profile/Retno-Astuti-</u> 2/publication/316716634\_Analisis\_Pengaruh\_Keselamatan\_dan\_Kesehatan\_Kerja\_terhadap\_Pr oduktivitas\_Karyawan\_dengan\_Metode\_Partial\_Least\_Squares/links/590f05eaa6fdccad7b1242 8f/Analisis-Pengaruh-Keselamatan-dan-Kesehatan-Kerja-terhadap-Produktivitas-Karyawandengan-Metode-Partial-Least-Squares.pdf
- Wahyuni, N., Suyadi, B., & Hartanto, W. (2018). Pengaruh keselamatan dan kesehatan kerja (K3) terhadap produktivitas kerja karyawan pada PT. Kutai Timber Indonesia. Jurnal Pendidikan Ekonomi: Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi Dan Ilmu Sosial, 12(1), 99–104. <u>https://doi.org/10.19184/jpe.v12i1.7593</u>