

**THE INFLUENCE OF OCCUPATIONAL HEALTH AND SAFETY ON EMPLOYEE  
PRODUCTIVITY IN THE PRODUCTION DEPARTMENT OF PT. EASTERN PEARL FLOUR  
MILLS MAKASSAR**

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**Abstract**

*This research aims to determine the effect of occupational health and safety on employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar. This type of research is quantitative research with an associative approach. The data collection method was carried out by distributing questionnaires. The population in this study were all employees of the production department of PT. Eastern Pearl Flour Mills Makassar, totaling 70 people, were also sampled using a sampling technique, namely saturated sampling. The data analysis techniques include the validity test, reliability test, classical assumption test, multiple linear regression test, t test, f test, and R<sup>2</sup> test which are aimed at testing the proposed hypothesis. With data processed through the Statistical Product and Service Solution (SPSS) program. The results of this research show that occupational health and safety have a positive and significant effect on employee productivity, both partially and simultaneously. This shows that the higher the level of occupational health and safety of employees in the production department of PT. Eastern Pearl Flour Mills Makassar, the higher the level of employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar.*

**Keywords:** Occupational Health, Occupational Safety, Employee Productivity.

**INTRODUCTION**

In the current era of globalization, the growth of science and technology is experiencing rapid development over time. In developing countries like Indonesia, industry is the driving force of the national economy. The increasingly tight competition at all times forces companies to improve the management of their resources, especially Human Resources (HR). Human

Resources are the key element that must be considered in everything.

The increasing emphasis on the importance of human resources, which play a significant role in the success of an organization or company, means that human resources are a living asset that requires special attention from the company. Humans, as the main asset of the company, must be maintained and managed as well as possible. Human resource management is no longer considered a factor of production, but has become human resources as a company asset that must be further developed to acquire knowledge and skills. With the knowledge and skills possessed, it is possible to anticipate workplace accidents (Rosniah, 2018:3). Thus, the company pays attention to the health and safety of employees, and this action is carried out to ensure comfort and fostering a sense of safety at work.

Employee productivity is very important and crucial within a company. When employees feel safe and comfortable because they believe they are well-protected by the company, they will work with a calm mindset and perform well, which is expected to increase employee productivity, especially in the production department.

Occupational health and safety issues in Indonesia are still often neglected, as evidenced by the still high number of workplace accidents. Based on data from the Social Security Agency for Employment (BPJS-TK), the number of work accidents in 2023 was 370,747 cases. According to Fathoni (2008:4), from the total number of work accidents in general, it can be concluded that 78% of accidents are caused by human error and 20% are caused by hazardous conditions of the equipment used in work, with other factors accounting for 2%. This shows that human behavior is the biggest cause of workplace accidents. The consequences of workplace accidents can also have negative impacts such as loss of life, disabilities, and damage to production results, which ultimately harm everyone involved.

Reflecting on several issues that have occurred in the company, the lack of awareness about the importance of occupational health and safety (OHS) programs is the biggest problem that needs to be addressed, so the company management must give serious attention to the importance of understanding, implementing occupational safety, and health programs (K3) in business organizations. Companies should focus on developing health and safety programs and facilities to create work designs and work environments that can protect workers from various health and safety hazards (K3) faced by employees.

According to Mangkunegara in Manalu (2023:47), occupational health and safety is a thought and effort to ensure the integrity and perfection, both physically and mentally, of the workforce in particular, and humans in general, as well as their works and culture, towards a just and prosperous society. Meanwhile, according to Sinambela (2016:364), occupational safety and health refer to the physiological and psychological conditions of the workforce resulting from the work environment provided by the organization. If an organization effectively implements various occupational health and safety measures, it can be ensured that the number of employees who will suffer injuries or illnesses as a result of performing their duties within the organization will decrease. From the various opinions above, it can be concluded that occupational safety and health is a program designed to prevent workplace accidents and provide health guarantees for employees while performing their duties.

Achmad (2021) regarding the influence of occupational health and safety on the work productivity of engineering department employees at PT. Industri Kapal Indonesia (IKI)

Makassar shows that there is an influence of occupational health and safety on the work productivity of employees in the department. engineering at PT. Industri Kapal Indonesia (IKI) Makassar that is significant and positive. Daspar & Ferrose, (2023) regarding the influence of occupational safety, occupational health, and work environment on work productivity at PT. Sumiden Sintered Components Indonesia shows that occupational safety and work environment significantly affect work productivity.

In Indonesia, there are several companies from various sectors that have implemented occupational health and safety (OHS), especially in Makassar. One of the companies that has implemented occupational health and safety (OHS) is PT. Eastern Pearl Flour Mills Makassar, located at Jl. Moh Hatta No 32 and Jl. Nusantara Baru No 36, Tamalabba, Kec. Ujung Tanah, Makassar, South Sulawesi. This company operates in the field of flour production, which requires a good occupational health and safety (OHS) management system to produce quality workforce, optimally support the company's goals, and prevent work-related accidents and diseases.

Based on the results of field observation, there are workers who do not comply with the occupational health and safety (OHS) regulations at PT. Eastern Pearl Flour Mills Makassar, including, Some workers do not use masks, gloves, and goggles during the production process, which can lead to work accidents and occupational diseases. The table below is a report on workplace accidents at PT. Eastern Pearl Flour Mills Makassar over the past 3 years as follows:

**Table 1. Work Accident Report**

No	Year	Number of Workers that experiencing a work accident	Number of Work Accident Cases		
			Light	Currently	Berat (Passed away)
1	January – June 2022	8 People	8	0	0
2	July – December 2022	11 People	11	0	0
3	January – June 2023	5 People	5	0	0
4	July – December 2023	1 People	1	0	0
5	January – June 2024	3 People	3	0	0

Source: PT. Eastern Pearl Flour Mills Makassar 2024.

In Table 1.1 of the report on workplace accidents above, it can be explained that in the past 3 years, PT. Eastern Pearl Flour Mills Makassar has experienced fluctuations in the number of workplace accidents. This statement is supported by the data provided by the company to the researcher. The cause of the fluctuations in the number of work accidents at PT. Eastern Pearl Flour Mills Makassar is employees' negligence in adhering to the standard operating procedures (SOP) set by the company. This statement is reinforced by the field observations conducted by

the researcher.

Starting from the year 2022, the accident rate increased from 8 people to 11 people. This results in a decrease in employee work productivity because employees who experience work accidents require care for their health recovery. In addition, workplace accidents are one of the factors causing the loss of working days for employees in the production department. The company feels a significant loss if it loses employees, because if employees cannot work, the company will experience a decline in production and incur losses. For the year 2023, the accident rate decreased from 5 people to 1 person. With this condition, employee productivity also increased because employees could work more optimally and there were no conditions hindering their work. Meanwhile, in 2024, there were 3 work accidents. In the past 3 years, PT. Eastern Pearl Flour Mills Makassar has continued to operate well, despite workplace accidents. The company, particularly the HSE (Health, Safety, and Environment) department, always emphasizes the importance of implementing K3 (Occupational Health and Safety) and adhering to operational procedures (SOP) in the workplace to help reduce the risk of workplace accidents and occupational diseases. From the above issue, it can be seen that workplace accidents occurring among employees can certainly affect employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar.

Therefore, considering the importance of occupational health and safety, which is the key to avoiding workplace accidents in order to maintain or improve employee work productivity at PT. Eastern Pearl Flour Mills Makassar, especially in the production department.

## **RESEARCH METHOD**

The research approach used by the researcher is a quantitative research approach with an associative method. Quantitative research is scientific research that uses numerical data and statistical methods to test hypotheses and draw conclusions. The purpose of quantitative research is to develop and use mathematical models, theories, and hypotheses related to a phenomenon. According to Creswell (2016), quantitative research is a type of research that tests a specific theory through the relationship between the variables being studied by measuring the variables using research instruments, resulting in data in the form of numbers.

According to Sugiyono (2017:80), Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by the researcher to be studied and then concluded. Meanwhile, according to Arikunto 2010:173 in Karlina (2019), it is stated that the population is the entire subject of the research. Thus, it can be concluded that the population is the entire set of objects used as data sources needed by the author in the research. The number of the population in this study is 70 people, consisting of 55 permanent employees and 15 contract employees.

A sample is a part of the population used for research. According to Sugiyono (2017:82), a sample is a part of the number of characteristics possessed by that population. The technique of sampling and selection in this research uses saturated sampling; according to Sugiyono (2001), saturated sampling is a sampling determination technique when all members of the population are used as samples. Due to the small

sample size, where the sample consists of all employees of PT. Eastern Pearl Flour Mills Makassar in the production department, which amounts to only 70 people.

## **RESULT AND DISCUSSION**

This research aims to prove whether there is an influence of occupational health and safety on employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar. Based on this research, it can be explained that one of the factors that can increase employee productivity is occupational health and safety because employees who have good occupational health and safety will improve employee productivity both in the long term and in the short term. Therefore, employees who have good workplace safety will strive optimally to minimize accidents at work, so they can perform their tasks calmly, safely, and securely. The data from this research comes from the distribution of questionnaires administered by the researcher to the employees of the production department at PT. Eastern Pearl Flour Mills Makassar. Information regarding the characteristics of the respondents used as a reference in this study was obtained from the research sample. The characteristics of the respondents in this study include gender, which shows that the majority of the respondents in the production department of PT. Eastern Pearl Flour Mills Makassar are male, while based on age, they are predominantly older employees, with an average education level of a bachelor's degree, and most employees hold permanent worker status. This indicates that the dominant employees in this company are those who are more experienced, possess better technical skills, and have high job stability, thereby contributing to the efficiency and sustainability of the company's operations.

In the work health variable ( $X_1$ ), the statement that received the highest score is "I have a clean work environment." This indicates that PT. Eastern Pearl Flour Mills Makassar has a clean working environment, which supports the work process. Conversely, the statement item that received the lowest score is "the waste disposal system has been well organized so that it does not interfere with my health while working." That statement item received the lowest score because some employees feel that the waste disposal system has not been well managed, which can affect the health of the employees. Therefore, this matter should be further addressed by the company to create a healthy working environment.

On the work safety variable ( $X_2$ ), the statement that received the highest score is "the company often inspects the condition of my workplace to ensure compliance with safety standards." This indicates that PT. Eastern Pearl Flour Mills Makassar always inspects the conditions of the employees' workplaces to ensure compliance with safety standards, thereby preventing workplace accidents for the employees. Meanwhile, the statement that received the lowest score was "I feel that waste disposal in the work environment is not optimal." The statement item is negative, indicating that the waste disposal system in the work environment of PT. Eastern Pearl Flour Mills Makassar functions well and optimally.

In the employee productivity variable (Y), the statement that received the highest score is "I always focus on the work I do." This indicates that employees of PT. Eastern Pearl Flour Mills Makassar are always focused on the work they do, and conversely, the item that received the lowest score is "I am willing to take on additional work outside of working hours if needed." The item question received the lowest score because there were some employees who did not want to be given additional work outside the established working hours. This happens because employees feel that additional work can lead to fatigue and stress, less time with family, or employees feel that the additional work is not compensated fairly.

#### **1. The Influence of Occupational Health on Employee Productivity in the Production Department of PT. Eastern Pearl Flour Mills Makassar.**

Based on the research results above, it can be said that the work health variable affects the employee productivity variable because the hypothesis test results show that work health has a positive and significant impact on employee productivity. The better the work health of the employees, the higher the employee productivity. This can happen because an employee with high work health will naturally reduce the need for supervision by management, as employees who maintain their health well will have a positive impact on their work and can increase their productivity.

The aspects of occupational health considered in this study include the medical work environment, health facilities for workers, and health maintenance facilities that are already functioning well and meet the company's expectations, thus these variables can influence employee productivity. Thus, occupational health is very important to implement in the production department of PT. Eastern Pearl Flour Mills Makassar because employees who work in a clean and healthy environment are more productive in work and providing long-term benefits for the company as well as for the productivity of the employees themselves.

Based on the explanation above, which shows that the influence of the work health variable on employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar is reinforced by previous research conducted by Rivaldo Pardede and Anitha Pulina Tinambunan (2022), which states that occupational safety and health have a positive and significant impact on employee productivity in the production section of PT. Intiindo Sawit Subur, Pelalawan Regency. Thus, the previously formulated hypothesis stating that occupational health has a positive and significant effect on employee productivity has been proven true.

#### **2. The Influence of Occupational Safety on Employee Productivity in the Production Department of PT. Eastern Pearl Flour Mills Makassar.**

Based on the research results above, it can be said that the variable of occupational safety affects the variable of employee productivity because the hypothesis test results show that occupational safety has a positive and significant impact on employee productivity. The higher the occupational safety, the higher the employee productivity will be. This can happen because with the implementation of good occupational safety,

the factors that cause workplace accidents can be avoided, making the conditions for employees working in the production department of PT. Eastern Pearl Flour Mills Makassar conducive, safe, and productive.

The aspects of occupational safety considered in this study include the condition of the work area and the use of work equipment. This reflects that the company always conducts checks on the working area conditions to avoid factors that cause work accidents. In addition, the company also frequently conducts inspections on production machines and provides facilities such as personal protective equipment to employees on a regular basis. Thus, employee safety is very important to be implemented and enforced in the production department of PT. Eastern Pearl Flour Mills Makassar to identify the factors that cause accidents for employees, so that the executives or management of the company can minimize workplace accidents, thereby benefiting both the company and employee productivity.

Based on the explanation above, which shows that the influence of the occupational safety variable on employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar is reinforced by previous research conducted by Mardi Astutik and Retno Catur Kusuma Dewa (2019), which states that occupational safety and health and the work environment have a positive and significant effect on employee productivity at PT. Sumber Citra Persada. Thus, the previously formulated hypothesis stating that occupational safety has a positive and significant effect on employee productivity has been proven to be true.

### **3. The Influence of Occupational Health and Safety on Employee Productivity in the Production Department of PT. Eastern Pearl Flour Mills Makassar.**

Based on the research results above, it can be said that occupational health and safety simultaneously have a significant impact on employee productivity, as seen from the F-test results and supported by the determinant coefficient results, which show that the employee productivity variable has a large influence and can be explained by the occupational health and safety variables, while the rest is influenced by other factors. This is in line with previous research conducted by Wibowo (2022), which shows a simultaneous and significant effect of occupational safety and health variables on employee work productivity. Occupational health and safety have a significant impact on employee productivity and specifically on company performance.

## **CONCLUSION**

Based on the results of the hypothesis test of this research using quantitative data processed with the SPSS application, it can be concluded that there is a significant and positive influence of occupational health and safety on employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar. Furthermore, based on the coefficient of determination test, the work health and safety variables simultaneously affect the employee productivity

variable by 51.5%, while the remaining 48.5% is influenced by other unexamined variables. Thus, the higher the level of occupational health and safety of employees in the production department of PT. Eastern Pearl Flour Mills Makassar, the higher the level of employee productivity in the production department of PT. Eastern Pearl Flour Mills Makassar.

## **BIBLIOGRAPHY**

- Achmad, A. N., Arfah, A., Mente, L., & Murfat, M. Z. (2021). The Influence of Occupational Safety and Health on the Work Productivity of Engineering Department Employees at PT. Industri Kapal Indonesia (IKI) Makassar. *Center of Economic Students Journal*, 4(3), 215-224.
- Al Kautsar, I., Swasto, B., & Al Musadieg, M. (2013). The Influence of Occupational Health and Safety on Employee Performance. *Journal of Business Administration*, 6(2).
- Creswell, J. (2016). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Yogyakarta. Pustaka Belajar.
- Edy, S. (2016). *Human Resource Management*. Kencana Prenada Media Group, Jakarta, 119.
- Edy, S. (2020). *Human Resource Management*. 3rd Edition. Kencana Prenada Media Group, Jakarta, 119.
- Fathoni, A. (2008). *Organization and Human Resource Management*. Jakarta: Rineka Cipta.
- Ghozali, I. (2021). *Application of multivariate analysis with the IBM SPSS 26 program*. Edition 10. Diponegoro University Press
- Hartatik, I. P. (2014). *Practical book on developing human resources*. Yogyakarta: Laksana, 8(1).
- Hasibuan, M. S. (2014). *Human resource management*. PT. Bumi Aksara, Jakarta.
- Hidayatullah, A., & Tjahjawati, S. S. (2017). The influence of occupational health and safety on employee work productivity. *Journal of Business and Investment Research*, 3(2), 104-111.
- Karlina, B. (2015). *The Influence of Facility Management on the Quality of Training Services at the Center for Development and Empowerment of Educators and Educational Personnel in the Field of Machinery and Industrial Engineering (PPPPTK BMTI) Bandung (Doctoral dissertation, Universitas Pendidikan Indonesia)*.
- Manalu, P. S., (2023). *Occupational Health and Safety Management System*. Jakarta: Kencana.
- Mangkunegara, A. A. P., & Prabu, A. (2013). *Company Human Resource Management*. Remaja Rosdakarya, Bandung. Ismail, Iriani.
- Nasim, A. (2023). The Influence of Work Environment, Compensation, and Job Satisfaction on Employee Retention. *Jurnal Pelita Manajemen*, 2(01), 22-33.
- Pramono, T. D., Atmoko, D., & Subekti, A. T. (2020). Analysis of the Implementation of Occupational Health and Safety on Work Productivity. *Bhamada: Journal of*

- Health Science and Technology (E-Journal), 11(1), 7-7.
- Raharjo, J. (2013). Human Resource Management. Platinum, Jakarta.
- Rivaldo, P., & Tinambunan, A. P. (2022). The Influence of Safety and Health Work on the Work Productivity of Employees in the Production Department of PT. Inti Indo Sawit Subur in Pelalawan Regency. National Seminar on Management and Accounting, 1, 224–238.
- Rosniah, P. (2018) The Relationship Between Occupational Safety and Health (OSH) and Work Productivity.
- Saputra, D. N., Novita Listyaningrum, S. H., Leuhoe, Y. J., Apriani, S. S., Asnah, S. P., & Rokhayati, T. (2022). Textbook on research methodology. Feniks Muda Sejahtera.
- Saqif, H., & Achmad, S. R., (2023). Occupational Safety and Health (OSH). Yogyakarta: CV. Budi Utama.
- Sugiyono, (2017). Quantitative, Qualitative, and R&D Research Methods. Bandung: CV. Alfabeta.
- Sugiyono, (2019). Quantitative, Qualitative, and R&D Research Methods. Bandung: CV. Alfabeta.
- Swasto, B. (2011). Human Resource Management, First Edition. Malang. Syaputra, H., & Bahrum, K. (2016). The Influence of Occupational Health and Safety Work on Employee Performance. Journal of Capital and Business Management (JMMIB), 7(2), 121-130.
- Wirawan, (2015). Human Resource Management in Indonesia. Jakarta: PT Raja Grafindo Persada.