

Factors that influence worker behavior towards PPE users in palm oil harvesting employees at PT. Wawasan Kebun Nusantara West Kalimantan

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Introduction: The use of personal protective equipment (PPE) is a set of tools used by workers to protect part or all of the body from the possibility of a potential hazard or work accident. The final option for controlling hazards is to use personal protective equipment such as head protectors, gloves, respiratory protection, (respirator or mask), fall protection, and leg protection. **Research Methode:** This research is a descriptive study with a quantitative approach using the cross sectional study method which aims to determine the Factors that influence worker behavior towards PPE users in palm oil harvesting employees at PT. Wawasan Kebun Nusantara West Kalimantan. The research process was carried out in May- June 2023. In West Kalimantan, the total population was 194 respondents and the number of samples taken was 66 people who were selected by using purposive sampling using the Slovin formula (1960). data were analyzed using Chi Square. **Results:** The results showed that there was a significant influence between Education (P-value = 0,045) (P-value = 0.005), Attitude (P-value=0.004) and PPE facilities (P-value= 0.001) with PPE users. **Conclusions:** The results showed that there was a significant influence between Education (P-value = 0,045) (P-value = 0.005), Attitude (P-value=0.004) and PPE facilities (P-value= 0.001) with PPE users.

Key Words: PPE; Respiratory Protection; Education

INTRODUCTION

Oil palm (*Elaeis guineensis* jacq) is a plantation commodity that has an important role in the Indonesian economy through increasing exports, increasing income and creating new jobs. Apart from that, palm oil is a raw material for the soap, cosmetics and fuel industries. The productivity of oil palm plantations generates large profits so that forests and plantations in Indonesia that have long been neglected are being converted into oil palm plantations (Lubis and Widanarko, 2011). Personal Protective Equipment (PPE) is a set of tools used by workers to protect all or part of their body against the potential danger of work accidents in the workplace. The use of personal protective equipment is often considered unimportant or trivial by workers. The use of personal protective equipment is very important and affects the health and safety of workers. Workers' discipline in using personal protective equipment is still relatively low so the risk of accidents that could endanger workers is quite large.

According to the latest estimates released by the International Labor Organization (ILO) 2.78 million workers die every year due to work accidents and occupational diseases. Approximately 2.4 million (86.3%) of these deaths were due to occupational diseases, while more than 380,000 (13.7%) were due to work accidents. every year, there are almost a thousand times more nonfatal work accidents than fatal work accidents. It is estimated that 374

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Received: Aug 26, 2023 / Revised: Sep 05, 2023 / Accepted: Sep 26, 2023

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million workers experience non-fatal accidents every year, and many of these accidents have serious consequences for workers' earning capacity (Muharani & Dameria, 2019). According to BPJS Employment Services Director Krishna Syarif in finance "Throughout (2017), according to our statistics there has been an increase in work accidents of around 20 percent compared to 2016 nationally. "The number of work accidents throughout January (2018) was 99 cases in West Kalimantan. There were 99 accident cases work dominated by oil palm plantations. The percentage is 40 percent." From the work accident data, it can be calculated that 40% of the 99 cases of work accidents occurred in oil palm plantation companies in West Kalimantan within 1 month (Irma Fahrizal Butsi Ningsih et al., 2020).

The increasing growth of oil palm plantations is not accompanied by safe behavior in the use of PPE in oil palm plantations. This can be seen from the fact that the majority of workers do not work safely and do not use PPE when carrying out their activities. This research aims to determine the behavior of using personal protective equipment (PPE) among PT oil palm plantation workers. Kedaton Mulia Primas Jambi. Plantation research with a total of 77 workers and sampling technique using the total sampling method from the entire population of 77 workers. The research results showed that the behavior of using PPE in the bad category was 61.0%. Knowledge ($p=0.031$), attitude ($p=0.001$) and training (0.018) are variables that have a relationship with the use of PPE. Most workers know about the use of PPE, but workers do not believe that one way to reduce the risk of work accidents is by using personal protective equipment and the majority stated that they had received training in the use of personal protective equipment (Melda, 2020).

Personal Protective Equipment (PPE) is safety equipment used by workers to protect all or part of their body from possible exposure to dangerous potential in the work environment which includes accidents or work-related illnesses. The aim of the research is to analyze the behavior of PT. Bima Trisakti workers in using PPE. This research is an analytical survey research with a cross sectional approach. The population and sample are all health workers with a total of 101 people. Collection using total sampling technique. Data analysis uses Chi-Square with a confidence level of 95%. The results of the research show that there is a relationship between education and the behavior of using PPE in PT. Bima Trisakti Banjarmasin City Year (2022) with p value = 0.000 ($\alpha < 0.05$). There is no relationship between length of service and behavior of using PPE at PT. Bima Trisakti, Banjarmasin City in 2022 with a p value = 0.751 ($\alpha < 0.05$). There is a relationship between attitudes and the behavior of using PPE at PT. Bima Trisakti Banjarmasin City Year (2022) with p value = 0.000 ($\alpha < 0.05$). It is hoped that health workers will increase awareness and comply with the regulations for using PPE according to SOPs and training on the importance of using PPE, (Abdullah, Agustina Norsita Norsita, 2022).

Work accidents in the palm oil industry in Jambi Province, specifically Batanghari Regency, Bajubang District, Bungku Village, are still relatively high. This is due to potential risks from work tools, work environment and so on. Most of the causes of work accidents in this company are negligence in using personal protective equipment (PPE) and also a lack of information regarding work safety and accidents (K3). This type of research is an analytical survey with a cross sectional approach with a chi-square test using a confidence level of 95%. This research method was carried out using a simple random sampling technique with a sample size of 83 respondents. The statistical test results showed that there was a relationship between occupational safety and health promotion and the level of knowledge of workers regarding the use of personal protective equipment, p value 0.000 ($p < 0.05$), there was a relationship between the level of knowledge and the level of knowledge of workers regarding the use of personal protective equipment, p value 0.000 ($p < 0.05$), there is a relationship between safety and work promotion and workers' attitudes regarding the use of personal protective equipment, p value 0.002 ($p < 0.05$), there is a relationship between attitudes and the level of worker compliance regarding the use of personal protective equipment, p value 0.000 ($p < 0.05$), there is a relationship between occupational safety and health promotion and the level of worker compliance regarding the use of personal protective equipment, p value 0.001 ($p < 0.05$, (Muryadi & Andriani, n.d.).

As for PT. Wawasan Kebun Nusantara West Kalimantan is a palm oil industrial company engaged in palm oil processing factory plantations located in Selebar and Jagoi Babang Districts, Bengkayang Regency, West Kalimantan Province. Work activities carried out at this palm oil factory are on harvesters where these harvesters are one of the jobs that poses a risk of accidents at PT. Wawasan Kebun Nusantara, West Kalimantan. Harvesting is a job that produces processed raw materials such as palm fruit bunches. The process of harvesting oil palm starts from cutting the lower fronds of the palm, tidying up the fronds that have been cut, then the harvester cutting the ripe fruit bunches, and transporting the palm bunches to the harvesting place and then taking the palm fruit that is loose from the palm oil bunches. Harvesting activities are carried out using tools in the form of dodos or egrek. Based on an initial survey conducted directly at the location of PT. Wawasan Kebun Nusantara, West Kalimantan, interviews were conducted at the health center and it was found that there were 12 work accidents at oil palm harvesters between April (2022) and January (2023). , such as injuries from egrek and dodos work tools, injuries from falls on footbridges, snake bites, palm dust, pricked palm thorns and injuries hit by palm fronds. It can be seen that the majority of work accidents at PT. Wawasan Kebun Nusantara's palm oil harvesters are caused by several factors. consisting of human factors, equipment use factors, management factors, which can influence the occurrence of work accidents which are still high. Work accidents, especially in palm oil harvesters, can cause losses for both the harvester and the company and the company's productivity results will be less than optimal. Based on this background description, it is certainly important to research, so it is necessary to conduct research on the factors that influence worker behavior regarding the use of PPE among PT. Wawasan Kebun Nusantara West Kalimantan oil palm harvesting workers. in order to reduce the occurrence of work accidents in

METHODS

This research is analytical research using a quantitative approach. The research design used is quantitative research using a cross sectional study. The aim of the research is to determine the factors that influence worker behavior towards PPE users among oil palm harvesting employees at PT. West Kalimantan Archipelago Garden Insight. Population is a generalized area consisting of objects or subjects that have certain qualities and characteristics that are determined by researchers to be studied and then conclusions drawn. So population is not only people, but also objects and other natural objects. Population is also not just the number of objects or subjects being studied, but includes all the characteristics or traits of the subjects or objects being studied, Sugiyono (2017).

The population in this study were all palm oil harvesting workers at PT. West Kalimantan Archipelago Garden Insight. According to data obtained from HSE staff, the total population is 194 people. Non-probability sampling is the method used in this research. A sampling strategy is one that does not give each component or member of the population an equal opportunity to be selected for the sample. Purposive sampling is a sample selection strategy from data sources by considering certain factors Sugiyono (2014). To determine the number of samples, the Taro Yamane formula or the Slovin formula (1960) was used (Malik, 2018). as follows:

Information :

n = number of samples

N = Number of respondent population

d2 = Precision (set at 10% 95% confidence level) = 66 respondents

The research includes several stages, namely the preparation, implementation and evaluation stages.

1) Preparatory stage

At this stage the researcher conducted an initial survey to identify existing problems in the area used as the research site. Determine the size of the population and sample to be studied.

2) Implementation stage

The implementation stages carried out in this research include:

- a) Prepare research tools to conduct interviews or distribute questionnaires to samples
- b) Conduct interviews or distribute questionnaires to a sample (66) of people who have been determined from the population.

3) Evaluation stage

The final stage carried out is analysis
Evaluation data on a series that has been
Carry out suggestions and criticism clearly
Write research to make improvements
for similar research and other research.

The data that has been collected will be entered into the frequency distribution table. After that, the data is entered into a chisquare table to look for relationships. The program that will be used for data management is the SPSS (Statistical Product And Service Solution) program.

Data analysis is carried out in two ways, namely:

1). Univariate Analysis

Univariate analysis was carried out to get a general picture of the research problem by describing each variable used in this research, namely by looking at the frequency distribution picture with the percentage of each independent variable and the dependent variable.

2). Bivariate Analysis

Bivariate analysis is used to identify the relationship between independent variables, the selection of statistical tests used is based on the type of data and number of variables studied. The chi-square test is used for independent variables in the form of categorical data (human factors, environmental factors, equipment factors, supporting factors, driving force) and the dependent variable (Factors that influence employee behavior towards PPE users among employees of palm oil harvesters PT. Wawasan Kebun Nusantara West Kalimantan). Using chi square analysis with a significance level of P-value = 0.05. Using chi square analysis with a significance level of a = 0.05.

The chi-square test uses the following formula:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Information :

X2 : Chi Square

Σ : Addition

O: Observation value

E: Expected frequency / expected value

The results obtained from chi square analysis, using the SPSS program, namely the P value, were then compared with a = 0.05.

RESULTS

Table 1. Predisposing Variables Relationship between age and PPE user behavior

Usia	Perilaku Pengguna APD						P- Value
	Tidak Baik		Baik		Total		
	N	%	N	%	N	%	
≤ 25 tahun	8	50.0 %	8	50.0 %	16	100 %	0,071
> 25 tahun	13	26.0 %	37	74.0 %	50	100 %	
Total	21	31.8 %	45	68.2 %	66	100 %	

In Table 1 above, it can be seen that 8 people (50.0%) of respondents aged ≤ 25 years behaved badly (50.0%), and 8 people (50.0%) behaved well. Meanwhile, 13 respondents aged > 25 years who behaved badly were 13 people (26.0%) who behaved well and 37 people (76.0%). The results of statistical tests obtained a p-value of 0.071 (>0.05), which means there is no significant influence between age and the behavior of PPE users.

Table 2. The Relationship between Education and PPE User Behavior

Pendidikan	Perilaku Pengguna APD						P- Value
	Tidak Baik		Baik		Total		
	N	%	N	%	N	%	
Rendah	13	25.5 %	38	74.5 %	51	100 %	0,045
Menengah	8	53.3 %	7	46.7 %	15	100 %	
Total	21	31.8 %	45	68.2 %	66	100 %	

In Table 2 above, it can be seen that 13 respondents who had low education behaved badly (25.5%), 38 people behaved well (74.5%). Meanwhile, respondents with secondary education who behaved badly were 8 people (53.3%) who behaved well and 7 people (46.7%). The results of statistical tests obtained a p-value of 0.045 (<0.05), which means there is a significant influence between education and the behavior of PPE users.

Table 3. Relationship between Work Period and PPE User Behavior

Masa Kerja	Perilaku Pengguna APD						P- Value
	Tidak Baik		Baik		Total		
	N	%	N	%	N	%	
≤ 1 tahun	4	36.4 %	7	63.6 %	11	100 %	0.488
> 1 tahun	17	30.9 %	38	69.1 %	55	100 %	
Total	21	31.8 %	45	68.2 %	66	100 %	

In Table 3 above we can see that 4 people (36.4%) of respondents who had worked for ≤ 1 year behaved badly, 7 people (63.6%) behaved well. Meanwhile, 17 respondents (30.9%) had good behavior and 38 people (69.1%) had a working period of > 1 year. The results of statistical tests obtained a p-value of 0.488 (>0.05), which means there is no significant influence between work experience and PPE user behavior.

Table 4. Relationship between Knowledge and PPE User Behavior

Pengetahuan	Perilaku Pengguna APD						P- Value
	Tidak Baik		Baik		Total		
	N	%	N	%	N	%	
Rendah	9	64.3 %	5	35.7 %	14	100 %	0.005
Tinggi	12	23.1 %	40	76.9 %	52	100 %	
Total	21	31.8 %	45	68.2 %	66	100 %	

In table 4 above, we can see that respondents with low knowledge had bad behavior of 9 people (64.3%), of whom 5 people had good behavior (35.7%). Meanwhile, 12 respondents (23.1%) had good behavior and 40 people (76.9%) had bad behavior. The statistical test results obtained a p-value of 0.005 (<0.05), which means there is a significant influence between knowledge and behavior of PPE users.

Table 5. Relationship between attitudes and behavior of PPE users

Sikap	Perilaku Pengguna APD			P- Value
	Tidak	Baik	Total	

	Baik							
Fasilitas APD	Perilaku Pengguna APD							
	Tidak Baik		Baik		Total		P- Value	
	N	%	N	%	N	%	0,05	
Tidak tersedia	1	21.2	4	78.8	5	100	0.001	
Tersedia	10	71.4	4	28.6	14	100		
Total	11	31.8	8	68.2	19	100		

In Table 5 above we can see that 11 respondents (22.0%) had negative attitudes and bad behavior, 39 people (78.0%) had good behavior. Meanwhile, there were 10 respondents who had a positive attitude towards bad behavior (62.5%) and 6 people with good behavior (37.5%). The statistical test results obtained a p-value of 0.004 (<0.05), which means there is a significant influence between attitudes and behavior of PPE users.

Table 6 Relationship between attitudes and behavior of PPE users

Tersedia peralatan kerja	Perilaku Pengguna APD							
	Tidak Baik		Baik		Total		P- Value	
	N	%	N	%	N	%	0,05	
Tidak tersedia	4	44.4	5	55.6	9	100	0.304	
Tersedia	17	29.8	40	70.2	57	100		
Total	21	31.8	45	68.2	66	100		

In Table 6 above, we can see that the respondents provided work equipment with 4 people (44.4%) having bad behavior, 5 people (55.6%) having good behavior. Meanwhile, 17 respondents who had work equipment available with bad behavior were 17 people (29.8%) and 40 people with good behavior (70.2%). The results of statistical tests obtained a p-value of 0.304 (>0.05), which means there is no significant influence between attitudes and behavior of PPE users.

In table 4 Age factor with PPE users

In Table 4 above we can see that 8 people (50.0%) of respondents aged ≤ 25 years behaved badly (50.0%), and 8 people (50.0%) behaved well. Meanwhile, 13 respondents aged > 25 years who behaved badly were 13 people (26.0%) who behaved well and 37 people (76.0%). The results of statistical tests obtained a p-value of 0.071 (>0.05), which means there is no significant influence between age and the behavior of PPE users.

Based on research by Elvaro Islami Muryadi and Monica Andriani who conducted research on oil palm plantations (2021), it was stated that there was no influence between age and the use of personal protective equipment among PT palm oil workers. Thanks to Palm Oil.

This research is said according to Suma'mur (1991), that someone who is young is able to do heavy work, and conversely, if they are older then their ability to do heavy work will decrease, which is the reality in the field that most people work on plantations. with respondents > 25 years old, this means there is no relationship between age and PPE user behavior.

In table 5 Educational Factors with PPE User Behavior

In Table 5 above, we can see that 13 respondents who had low education behaved badly (25.5%), 38 people behaved well (74.5%). Meanwhile, respondents with secondary education who behaved badly were 8 people (53.3%) who behaved well and 7 people (46.7%). The statistical test results obtained a p-value of 0.045 (<0.05), which means there is a significant influence between education and the behavior of PPE users.

Based on research conducted by Riri Febriyanti Wulandari et al in Ketapang, West Kalimantan (2017), it was stated that there was no relationship between education and compliance with using personal protective equipment (PPE) for oil palm harvesters at PT. Kencana Eclipse Permai Estate Theory According to Notoatmodjo (2007), education or health promotion is a form of intervention or effort directed at behavior, so that individual, group or community behavior has a positive influence on maintaining and improving health. In order for the intervention or effort to be effective, before the intervention is carried out, a diagnosis or analysis of the behavioral problem needs to be carried out, which means there is no relationship between education and the behavior of PPE users.

In table 6 Work Period Factors and PPE User Behavior

In Table 6 above, we can see that 4 people (36.4%) of respondents who had worked for ≤ 1 year behaved badly, 7 people (63.6%) behaved well. Meanwhile, 17 respondents (30.9%) who had worked > 1 year had bad behavior and 38 people (69.1%) behaved well. The results of statistical tests obtained a p-value of 0.488 (>0.05), which means there is no significant influence between work experience and PPE user behavior.

Based on research by Ismailiah et al who conducted research in the city of Banjarmasin (2022), which states that there is no relationship between length of service and behavior in using PPE at PT. Bima Trisakti, Banjarmasin City.

According to Seniati (2006), length of service is one of the components consisting of age, length of service and rank group. Overall, it can be concluded that the work period is also a period of time that an employee uses to contribute energy to the company so that it will produce quality work attitudes and work skills. In theory, there is no relationship between work experience and PPE user behavior.

In table 7 Knowledge Factors and PPE User Behavior

In Table 7 above we can see that respondents with low knowledge had bad behavior of 9 people (64.3%), of which 5 people had good behavior (35.7%). Meanwhile, 12 respondents (23.1%) had good behavior and 40 people (76.9%) had bad behavior. The statistical test results

obtained a p-value of 0.005 (<0.05), which means there is a significant influence between knowledge and behavior of PPE users.

Based on research by Melda Yenni who conducted research in Jambi oil palm plantations in 2017, which stated that there was a significant relationship between knowledge and the relationship between knowledge and the behavior of using personal protective equipment (PPE) among PT palm oil plantation workers. Kedaton Mulia Primas Jambi with knowledge (p value-0.031) (<0.05)

According to Soekidjo Notoatmodjo (2014), knowledge is the result of "knowing" and this occurs after people sense a particular object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears. Knowledge or cognitive domain is a very important domain in shaping a person's actions (overt behavior).

In table 8 Attitude Factors and PPE User Behavior

In Table 8 above, we can see that 11 respondents (22.0%) had negative attitudes and bad behavior, 39 people (78.0%) had good behavior. Meanwhile, there were 10 respondents who had a positive attitude towards bad behavior (62.5%) and 6 people with good behavior (37.5%). The statistical test results obtained a p-value of 0.004 (<0.05), which means there is a significant influence between attitudes and behavior of PPE users.

Based on research by Melda Yenni who conducted research in Jambi oil palm plantations in 2017, it was stated that there was a significant relationship between attitudes and the behavior of using personal protective equipment (PPE) among PT palm oil plantation workers. Kedaton Mulia Primas Jambi with attitude (p value - 0.001) (<0.05).

According to Campbell 1950, quoted in the book Notoatmodjo (2014), Attitude is a reaction or response that is still very closed from a person to a stimulus or object, a person's attitude is also a response to existing social objects (conversation, social creatures, society, and other phenomena). phenomenon in society). Attitude is not yet an action or activity, but is a predisposition to the action of a behavior. This attitude is still a closed reaction, not a readiness to react to objects in a certain environment, an appreciation of the object.

In table 9 Factors Available Work Equipment and PPE User Behavior

In Table 9 above, we can see that the respondents provided work equipment with 4 people (44.4%) having bad behavior, 5 people (55.6%) having good behavior. Meanwhile, 17 respondents who had work equipment available with bad behavior were 17 people (29.8%) and 40 people with good behavior (70.2%). The results of statistical tests obtained a p-value of 0.304 (>0.05), which means there is no significant influence between attitudes and behavior of PPE users.

Based on research by Ilfani Iamaro Zakiah who conducted research in the city of Banjarmasin (2021), which states that there is no relationship between work period and the use of personal protective equipment and the use of work tools in Langga Payung Village.

According to Kasmir (2016), work equipment is one that must also pay attention to the quality of work safety equipment. The quality of work safety equipment will affect work safety itself. The lower the quality of work safety equipment, the less guaranteed employee work safety is. In order to improve the quality of work equipment, continuous maintenance is required.

In table 10 PPE Facility Factors and PPE User Behavior

In table 10 above, we can see that 11 people (21.2%) had bad behavior in PPE facilities, but 41 people with good behavior (78.8%). Meanwhile, there were 10 respondents who had PPE facilities available who behaved badly (71.4%) and 4 people who behaved well (28.6%). The

statistical test results obtained a p-value of 0.001 (<0.05), which means there is a significant influence between PPE facilities and PPE user behavior.

Based on research by Ismailiah et al who conducted research in the city of Banjarmasin (2022), which states that there is a significant relationship between the availability of PPE and the behavior of using PPE at PT. Bima Trisakti, Banjarmasin City and the availability of PPE (p value-0.000) (<0.05).

According to Minister of Manpower and Transmigration Regulation No. Per: 01/Men/1981 Article 4 paragraph (3), states that it is the obligation for administrators to provide free personal protective equipment which is mandatory, for workers under the leadership to prevent occupational diseases (PAK).

In table 11 Monitoring Factors with PPE User Behavior

In table 4.18 above we can see that 3 respondents (37.5%) had bad behavior and 5 people (62.6%) had bad behavior. Meanwhile, there were 18 respondents who had supervision carried out with bad behavior (31.0%) and 40 people with good behavior (69.0%). The statistical test results obtained a p-value of 0.499 (>0.05), which means there is no significant influence between supervision and the behavior of PPE users.

Based on research by Fitri Kurniawati et al which was conducted in Ketapang, West Kalimantan (2017), it was stated that there was no relationship between supervision and compliance with using personal protective equipment (PPE) for oil palm harvesters at PT. Kencana Eclipse Permai Estate .

According to Syafie (2013), supervision is one of the functions in management to ensure that work implementers run according to the standards set in the planning. Through supervision, we can monitor the extent of irregularities, misuse, misappropriation and other obstacles that will arise. So, overall supervision is the activity of comparing what is being done or has been done with what was previously planned.

CONCLUSION

Based on the existing results and conclusions, the author tries to provide input or suggestions, namely as follows:Based on predisposing factors (predisposing) the results of univariate research, the most age for the age category ≤ 25 years with 50 respondents with a percentage (38.5%), low education as many as 51 people with a percentage (39.2%), working period > 1 year as many as 55 people with a percentage (42.3%), high knowledge as many as 53 people with a percentage (40.0%), bad attitudes as many as 50 people with a percentage (38.5%),Univariate enabling factors: available work equipment is 57 with a percentage (43.8%), PPE facilities are not available 52 with a percentage (40.0%),Univariate reinforcing factors of supervision were implemented 58 with a percentage (44.6%),Based on the results of bivariate research, there is a significant influence between the Education category and APD user behavior, P-value 0.045 (0.005), knowledge and PPE user behavior P-value 0.005 (<0.05). Attitudes with APD user behavior P-value 0.004 (<0.05) and PPE facilities with PPE user behavior P-value 0.001 (<0.05) which means there is a significant influence,Based on the results of bivariate research, there is no significant relationship between age, P-value 0.71 (>0.05), length of service, P-value 0.488 (>0.05), available work equipment, P-value 0.304 (>0.05), monitoring P-value 0.499 (>0.05) which means there is no significant effect.

BIBLIOGRAPHY

Increase workers' knowledge regarding the risks and dangers that exist in the workplace by providing information and experience in exploring potential dangers in the workplace. Pay attention to the attitude of workers by providing standard PPE facilities that are comfortable for workers to use so that workers can work more safely. Company owners must prepare PPE facilities that are complete and in accordance with standards so that workers do not experience undesirable things.

REFERENCES

Afriani, D. (2021). Analysis of factors causing work accidents in palm oil harvesters at PT Perkebunan Nusantara VII Betung Unit Thesis. Sriwijaya University.

Dwi Hartono, A. F., & Soewardi, H. (2019). Analysis of Risk Factors Causing Musculoskeletal Disorders and Work Stress (Case Study at Pln Pltgu Cilegon). *Scientific Journal of Industrial Engineering*, 6(3), 165–173.

<https://doi.org/10.24912/jitiuntar.v6i3.4242> Eka Rini, W. N., Aswin, B., & Hidayati, F. (2021). Risk Analysis and Determinants of Occupational Accidents in Palm Oil Factories. *Hesti Medan Research Journal Akper Kesdam I/BB Medan*, 6(2), 162

<https://doi.org/10.34008/jurhesti.v6i2.248> Gunawan. (2021). Understanding Work Accidents. In *According to Bird and Germain* (Issue July, p. 8).

Adlin U. Lubis. 2008. Oil Palm (*Elaeis guineensis* Jacq.) IN Indonesia, Edition 2. Medan: Palm Oil Research Center

Indrayani, I., & Sukmawati, S. (2019) Overview of the Use of Personal Protective Equipment for Outsourced Distribution Workers at PT PLN (Persero) Wonomulyo Rayon, Polewali Mandar Regency. *J-KESMAS: Journal of Public Health*, 4(1),59. <https://doi.org/10.35329/jkesmas.v4i1.236>

Irma Fahrizal Butsi Ningsih, Muslimah, M., & Sunardi. (2020). Analysis of Occupational Safety and Health Risks at PT. X. In *PATANI (Development of Agricultural Technology and Informatics)* (Vol. 4, Issue 1, pp. 1–4). <https://doi.org/10.47767/patani.v4i1.4>

Malik, A. (2018). Introduction to Educational Statistics (1sted.). Deepublish. http://digilib.uinsgd.ac.id/21828/1/book_of_educational_statistics.pdf

Muharani, R., & Dameria, D. (2019). Factors Associated with Work Accidents in Workers in the Production Section of the Adolina PTPN IV Palm Oil Factory, Serdang Bedagai Regency. *Journal of Global Health*, 2(3),122. <https://doi.org/10.33085/jkg.v2i3.4438>

Safety Net. (2020). Concepts and Theories of Work Accidents According to Experts. In www.Safetynet.asia (p. 1).

Salsabila, S. (2020). Analysis of Factors that Influence Work Accidents among Fishermen in the Belawan Coastal Area. In State Islamic University.

Setyarso, R. (2020). Occupational Health and Safety is Important. Directorate General of State Assets, Ministry of the Republic of Indonesia. <https://www.djkn.kemenkeu.go.id/article/baca/13078/Kesehatan-dan-Ke-Selamatatan-Kerja-itu-Penting.html>

Simanjuntak, Hiskia and Yahya, Sudirman. (2018). Palm Oil Harvest Management. *Bul Agrohorti*, 6(2), 221–230.

Sri Wijastuti. (2020). Determining Palm Oil Harvest Times.

Sudalma. (2021). Management Commitment in Preventing Work Accidents. *Widiya Praja Journal*, 1(2), 33–37.

Sugiyono. (2014). Quantitative, Qualitative, and R&D Research Methods. Alfabeta.
Sulistiarni, W. (2010). Chapter 1 Introduction. In *Health Services* (Issue 2015, pp. 3–13).

Thamrin, R.H. (2018). Description and Factors Causing Work Accidents at PT. Wijaya Karya Building Bogor Transmart Project Building [Binawan University]. In Binawan University Repository. <https://repository.binawan.ac.id/269/>

Viesta Haloho, B., Puspita, & Yuanita. (2021). Evaluation of the Quality of Palm Oil Harvest at PT. Sentosa Kalimantan Jaya. *Agricultural Journal*, 6(2), 81–89. <https://doi.org/10.51967/jurnalagriment.v6i2.513>

Zakiah, I. I. (2021). Analysis of the causes of work accidents in palm oil harvesters in Langga Umbrella sub-district [North Sumatra State Islamic University, Medan.] <http://repository.uinsu.ac.id/id/eprint/15807>

Zalunudin, F. (2021). Implementation of an Occupational Safety and Health Management System in the Automotive Light Vehicle Engineering Workshop at Ma'arif 1 Wates Vocational School [Yogyakarta State University]. <http://eprints.uny.ac.id/id/eprint/67182>

(Yussi, 2019) Family Behavior in First Aid for Coronary Heart Disease Patients at the Dr. Hospital Heart Clinic. Hardjono Ponorogo