

## The Relationship of Occupational Safety and Health Implementation with The Incidence of Work Accidents in X Company Majalengka District 2023

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### ABSTRAK

Work accidents are problems that often occur to workers and also to employers. The application of Occupational Safety and Health (K3) is very helpful in dealing with the problem of work accidents. Purpose of this study was to determine relationship of the implementation of Occupational Safety and Health (K3) and work accidents at Company X Majalengka in 2023. This type of research uses quantitative research methods with a Cross Sectional approach. The population in this study were all employees at Company X Majalengka in 2023 as many as 307 people, with a sample size of 76 people. The sampling technique in this study used accidental sampling. The research instrument used a questionnaire. Data analysis techniques using univariate analysis and bivariate analysis. The results showed that the majority applied aspects of occupational safety and health (K3) in the good category as much as (65.8%) and the majority experienced minor work accidents as much as (59.2%). The results of the chi square test with p value =0.000 (<0.05) which there is a relationship between aspects of occupational safety and health (K3) with work accidents at Company X Majalengka in 2023. Therefore, it is necessary to increase supervision and maximize the function of supervisors to inspect workers who do not wear personal protective equipment and comply with regulations and implement occupational health and safety programs.



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## 1. PENDAHULUAN

Work accidents are one of the problems that often occur to workers and also to employers. These accidents usually occur due to factors from the workers themselves and the work environment, which in this case is from the employers in the informal and non-formal sectors. Occupational safety and health must be strived to remain conducive, even improve. This is very important because it can make employees feel safe and become eager to work. Furthermore, if employees who already feel their safety is guaranteed and are eager to work, it is hoped that with the implementation of conducive occupational safety and health, employees will be motivated to work harder and be more enthusiastic in improving their performance. Therefore, occupational safety and health needs to be considered (Gayatri, 2021).

According to data released by the International Labor Organization (ILO) that in 2019 the ILO confirmed that every year around 380,000 workers or 13.7% of the 2.78 million people die each year due to work accidents. According to the Data and Information Center of the Indonesian Ministry of Health, cases of work-related accidents in 2013 amounted to 9,891, in 2014 amounted to 21,735, in 2015 amounted to 35,917, in 2016

amounted to 24,910, in 2017 amounted to 110,285, in 2018 amounted to 123,041 and in 2019 there were 173,105 cases of work accidents in Indonesia. In Indonesia, the number of work accidents is still high, so in the efforts of the National Occupational Safety and Health month campaign, it is stated that the number of work accidents continues to increase throughout the year. BPJS Ketenagakerjaan also reported as many as 147,000 cases of work accidents throughout 2020, there are at least 40,273 cases of work accidents every day.

The Social Security Organizing Agency (BPJS) in West Java Province reports that there are statistical data on 11,094 cases, Sumedang Regency with 1,218 cases and Majalengka Regency with 1,484 cases with existing data, the number of work accidents that occur in Majalengka Regency is around 15 cases every day (BPJS, 2020).

There are dozens of large private companies in Majalengka, especially textile and garment companies that produce fabrics, apparel (clothes, pants, shirts etc.). Even the Nike, Puma and Soccer Ball shoe factories that have become world brands, namely PT Sinjarga Santika Sport Majalengka, which is located in Majalengka, a small town in West Java province, precisely on Jalan Liangjulung Number 104 Kadipaten Majalengka 45452. The company was founded on November 27, 1994 under the leadership of H.M Irwan Suryanto. The types of production produced in this company are soccer balls, volleyballs and basketballs.

The ball products produced by Company X are known as Triple's (Bola Majalengka). In its marketing, this company supplies 30% to be distributed to Indonesia and 70% is exported abroad such as: Korea, Japan, Singapore, USA, Middle East, Brazil, Europe, Venezuela, Nigeria, Argentina, Brunei Darussalam. The company is now the only industrial ball-making company that has obtained the ISO 9001 version 2000 certificate which it obtained in April 2003. In addition to the quality of ball products made by PT Sinjaraga Santika Sport Majalengka, it has also received recognition from the European community with the achievement of the 'CE Mark' (CE = Community Europe) from the Instituto Italiano Sicurezza Del Giocattoli (EC-Notified Body, 0376). The company now produces not only soccer balls but also volleyballs and basketballs.

According to Sedarmayanti (2011), basically the causes of accidents can be seen from three factors that cause accidents, namely environmental factors, human factors, and machine / tool factors. Environmental factors are unsafe conditions of the environment or workspace. Human factors are unsafe actions from humans such as deliberately violating occupational safety and health regulations required in work. Machine/tool factors are equipment and machines that are not maintained or technical damage, but the frequency of work accidents occurs more due to human factors, because humans play the most role in using equipment in a company. With the application of OSH, it is very helpful in dealing with these problems. Therefore, the existence of K3 seeks to ensure the safety and health of workers and the environment in order to realize a safe, healthy and safe working atmosphere and support work productivity for workers and consumers in the company.

A good company is a company that really takes care of the safety and health of its employees by making rules about occupational safety and health that are implemented by all employees and company leaders. Protection of labor from hazards and diseases due to work or as a result of the work environment is needed by employees so that employees feel safe and comfortable in completing their work. A healthy workforce will work productively, so it is expected that employee productivity will increase which can support the success of the company's business in building and growing its business.

Based on the results of the preliminary study at PT Sinjaraga Santika Sport Majalengka, it was found that work accidents that occurred in the workplace, especially in the industrial environment in 2021 experienced 28 workers (9.14%) consisting of 19 minor accidents, 7 moderate accidents and 2 severe accidents. In 2022 there were 39 workers (12.8%) consisting of 27 minor accidents, 9 moderate accidents and 3 severe accidents. The types of accidents that occurred were chemical poisoning, hands pinched by press machines and punctured by needles, and burns to limbs during the heating of ball raw materials. From the information of one of the Production Managers interviewed, several workers had experienced accidents at work such as cutting the material or ball skin experiencing cuts, when sewing balls which were carried out manually were often punctured by a large enough needle, and when operating the ball skin raw material press machine there had also been injuries to the hands so that they experienced disability. Based on this background, it is necessary to conduct research on "The Relationship between Occupational Safety and Health (K3) Application and Work Accidents at Company X Majalengka in 2023".

## **2. METHODS**

The research method used is quantitative research with a Cross Sectional approach. The population in this study were employees at Company X Majalengka as many as 307 people. The sampling used in this study was random sampling, with a total sample of 76 people. The instrument used was a questionnaire. Data analysis includes univariate and bivariate analysis using the Chi square test.

### 3. RESULTS AND DISCUSSION

#### 3.1. Result

##### A. Univariat Analysis

##### 1) Overview of Occupational Safety and Health (OHS) Implementation

**Tabel 1**

**Frequency Distribution of Occupational Safety and Health (OHS) Implementation in Company X Majalengka in 2023**

Implementation of Occupational Safety and Health (OHS)	f	%
Good	50	65,8
Simply	14	18,4
Less	12	15,8
Total	76	100,0

Source: Primary Data 2023

Based on Table 1, it is found that the majority of employees apply aspects of occupational safety and health (K3) in the good category as much as (65.8%) at Company X Majalengka in 2023.

##### 2) Overview of Occupational Accidents in Company X Majalengka

**Tabel 2**

**Frequency Distribution of Occupational Accidents at Company X Majalengka in 2023**

Occurrence of Work Accidents	f	%
Lightweight	45	59,2
Medium Weight	27	35,5
Weight	4	5,3
Total	76	100,0

Source: Primary Data 2023

Based on Table 2, it is found that the majority of employees experienced minor work accidents as much as (59.2%) at Company X Majalengka in 2023.

##### B. Bivariate Analysis

##### 1) The Relationship between Occupational Accidents and Occupational Safety and Health (K3) Aspects in Company X Majalengka

**Table 3**

**The Relationship of Work Accidents with Occupational Safety and Health (OHS) Implementation in Company X Majalengka in 2023**

Occupational Safety and Health (OHS) Aspects	Work Accidents						Total		p value
	Lightweight		Medium		Weight		N	%	
	n	%	n	%	n	%			
Good	43	86,0	7	14,0	0	0,0	50	100	0,000
Simply	2	14,3	10	71,4	2	14,3	14	100	
Less	0	0,0	10	83,3	2	16,7	12	100	
Total	45	59,2	27	35,5	4	5,3	76	100	

Source: Primary Data 2023

Based on Table 3, it is found that employees who apply aspects of occupational safety and health well and experience minor work accidents amounted to 86.0%, employees who apply aspects of occupational safety and health fairly well and experience minor work accidents amounted to 14.4%. These results show that the proportion of employees who experience minor work accidents is higher in those who apply aspects of occupational safety and health in the good category compared to those who apply aspects of occupational safety and health in the sufficient category.

This difference in proportion shows meaningful results as seen from the chi square test with a p value = 0.000 (<0.05) which means that the null hypothesis is rejected or there is a relationship between aspects of occupational safety and health (K3) and work accidents at Company X Majalengka in 2023.

### **3.2. Discussion**

#### **A. Overview of Occupational Safety and Health (OHS) Aspects**

Based on the results of the study, it shows that a small proportion of employees (15.8%) apply aspects of occupational safety and health (K3) in the less category at Company X Majalengka in 2023. Poor implementation of occupational safety and health aspects increases the risk of work accidents.

The results of this study are in line with the research of Ida Ayu Er (2017) that based on the results that 13.2% of respondents apply aspects of occupational safety and health at PT. UOB Indonesia Branch Bengkulu Branch, in line with research by Wibowo (2021) that a small portion of 16.4% of workers apply aspects of occupational safety and health (K3) at PT. PLN (Persero) ULP Batulicin Tanah Bumbu Regency. This is in accordance with the theory put forward by Gayatri (2021) that occupational safety and health must be strived to remain conducive, even improve. This is very important because it can make employees feel safe and become excited to work. Furthermore, if employees who already feel their safety is guaranteed and are eager to work, it is hoped that with the implementation of conducive occupational safety and health, employees will be motivated to work harder and be more enthusiastic in improving their performance. Therefore, occupational safety and health needs to be considered.

Occupational Safety and Health, hereinafter abbreviated as K3, is all activities to ensure and protect the safety and health of workers through efforts to prevent work accidents and occupational diseases. The company still reminds the OHS system according to procedures, but mechanics are factually ignorant about the occupational safety and health system in the workshop. The company continues to run the OHS system according to procedures, which has an important effect on work productivity and health or safety aspects. (Regulation of the Minister of Manpower, 2018).

Occupational safety and health is a form of effort to achieve a company situation, where employees who are in it always feel healthy and feel safe from a threat of danger or risk that arises. While the ultimate goal of an occupational safety and health program is the absence of work accidents even to the absence of injury or illness due to work in an effort to improve overall welfare (Tarwaka, 2015). According to Sucipto (2014) that occupational health and safety is an effort and effort to create protection and security from the risk of accidents and hazards both physical, mental and emotional to workers, companies, communities and the environment.

From the results of the occupational safety and health questionnaire, it can be concluded that the better the implementation of occupational safety and health, the lower the number of work accidents. Therefore, activities to check tools or what is often referred to as tool titles are very important to be carried out on a regularly scheduled basis every month in order to determine the physical condition and function of the equipment itself so that malfunctions do not occur (not functioning as it should) which can potentially result in work accidents. Because work accidents will have a bad impact on workers and companies, it is hoped that scheduled tool inspection activities can avoid work accidents for workers.

#### **B. Overview of Occupational Accidents at Company X Majalengka**

Based on the results of the study, it shows that a small proportion (5.3%) of employees experienced severe work accidents at Company X Majalengka in 2023. The occurrence of serious work accidents can be caused by less than optimal tool maintenance, workers not applying aspects of occupational safety and health, and errors from workers in operating work tools.

The results of this study are in line with those conducted by Faris Khamdani (2019) who had less than half of the workers who had an accident, namely 7.3%. According to Sedarmayanti (2011), basically the causes of accidents can be seen from three factors that cause accidents, namely environmental factors, human factors, and machine / tool factors. Environmental factors are unsafe conditions of the environment or workspace. Human factors are unsafe actions from humans such as deliberately violating occupational safety and health regulations required in work. Machine/tool factors are equipment and machines that are not maintained or technical damage, but the frequency of work accidents occurs more due to human factors, because humans

play the most role in using equipment in a company. With the application of OSH, it is very helpful in dealing with these problems. Therefore, the existence of K3 seeks to ensure the safety and health of workers and the environment in order to realize a safe, healthy and safe working atmosphere and support work productivity for workers and consumers in the company.

Notoatmodjo (2017) suggests that accidents can occur due to poor or dangerous conditions of tools or materials. Accidents can also be triggered by unsafe work environment conditions such as ventilation, lighting, noise or temperature that exceeds the threshold. In addition, accidents can also come from humans who commit accidents in the workplace and handle tools or materials that are not in accordance with the procedure.

To address this, it is necessary to increase supervision or supervisors who must always remain in place. Maximize the function of supervisors to guard workers who do not wear personal protective equipment to comply with regulations and implement occupational health and safety programs.

### **C. The Relationship of Work Accidents with Aspects of Occupational Safety and Health (K3) at Company X Majalengka in 2023**

The results of the chi square test with  $p$  value = 0.000 ( $<0.05$ ) which means that the null hypothesis is rejected or there is a relationship between aspects of occupational safety and health (K3) and work accidents at Company X Majalengka in 2023.

The results of this study are in line with the research of Ida Ayu Er (2017) that based on the results of the calculation of the Spearman rank correlation coefficient analysis of the number 0.89 or rho at 0.80-1.000 which is very strong, which means that the relationship between the Occupational Health and Safety (K3) variable and the performance of employees of PT UOB Indonesia Bengkulu Branch is very strong. Hypothesis testing results,  $t$  count of 14.863 and  $t$  table is 2.0003 or ( $14.863 > 2.0003$ ), then  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a significant relationship between occupational safety and health (K3) and employee performance at PT. UOB Indonesia Bengkulu Branch. In line with research by Wibowo (2021) that the results of the study show that there is a relationship between the Application of Occupational Safety and Health (K3) with Work Accidents, namely ( $p = 0.002$ ), the Feasibility of Work Equipment with Work Accidents, namely ( $p = 0.003$ ).

According to Wibowo (2021), the better the implementation of occupational safety and health (K3), the lower the number of work accidents. If a person is based on awareness in the application of occupational safety and health (K3), that person will understand how important it is to implement the program to maintain their safety when doing work. Because work accidents will have a bad impact on workers and companies, therefore the application of occupational safety and health (K3) is expected to avoid work accidents for workers.

According to Sedarmayanti (2011), basically the causes of accidents can be seen from three factors that cause accidents, namely environmental factors, human factors, and machine / tool factors. Environmental factors are unsafe conditions of the environment or workspace. Human factors are unsafe actions from humans such as deliberately violating occupational safety and health regulations required in work. Machine/tool factors are equipment and machines that are not maintained or technical damage, but the frequency of work accidents occurs more due to human factors, because humans play the most role in using equipment in a company. With the application of OSH, it is very helpful in dealing with these problems. Therefore, the existence of K3 seeks to ensure the safety and health of workers and the environment in order to realize a safe, healthy and safe working atmosphere and support work productivity for workers and consumers in the company.

According to Suraji (2019), worker actions that directly cause work accidents include the use of incorrect or damaged protective equipment, failure to comply with applicable instructions or regulations, lack of caution, overconfidence. Unsafe behavior is considered the result of mistakes made by both workers directly involved. From the results of the questionnaire on the application of occupational safety and health (K3), it can be concluded that the better the application of occupational safety and health (K3), the lower the number of work accidents. If a person is based on awareness in the application of occupational safety and health (K3), that person will understand how important it is to implement the program to maintain their safety when doing work. Because work accidents will have a bad impact on workers and companies, therefore the application of occupational safety and health (K3) is expected to avoid work accidents for workers.

## **4. KESIMPULAN**

Based on the results of research and discussion regarding "The Relationship of Work Accidents with Occupational Safety and Health (K3) Aspects at Company X Majalengka in 2023" the following conclusions are obtained:

- a. The majority of employees apply aspects of occupational safety and health (K3) in the good category as much as (65.8%) in Company X Majalengka in 2023.
- b. The majority of employees experienced minor work accidents (59.2%) at Company X Majalengka in 2023.
- c. The results of the chi square test with p value = 0.000 (<0.05) which means that the null hypothesis is rejected or there is a relationship between aspects of occupational safety and health (K3) and work accidents at Company X Majalengka in 2023.

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