

Research Article

The Influence of Occupational Health and Safety (OHS) on The Work Productivity of Employees at PT Aquila Sanjaya Purnama

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Abstract.

This study aimed to determine how the influence of Occupational Health and Safety (OHS) on the work productivity of employees at PT Aquila Sanjaya Purnama. The population in this study consisted of employees in the production department, totaling 40 people, using the saturated sample technique. The data collection technique used was a questionnaire. The data analysis technique used was a simple linear regression analysis technique. The data was processed using the Satisficial for Product and Service Solution (SPSS) program version 26. The results showed that Occupational Health and Safety (OHS) had a positive and significant effect on the work productivity of employees PT Aquila Sanjaya Purnama.

Keywords: occupational health and safety (OHS), work productivity

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1. Introduction

The growth of the manufacturing industry in the current era of globalization continues to increase every year. This causes an increase in increasingly fierce business competition, so companies are required to improve the quality of human resource management. As we know human resources are a very valuable asset for the company. In order for a company to survive and compete is by increasing employee productivity because increased productivity can increase the rate of economic development of the company. The company must maintain and improve the productivity of its employees optimally to realize the goals of a company. The lack of work productivity as a problem that needs to be observed by the company because it can affect the quantity and quality of a company. Not only employee work productivity, there are also things that must be paid attention to, namely Occupational Health and Safety (OHS) [1].

Occupational Safety and Health (OHS) is a program established by employers or workers as an effort to prevent accidents and diseases due to the implementation of work through understanding things that are likely to cause accidents and preparing

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anticipations if accidents or diseases arise [2]. Workers themselves also have the right to get their Safety and Health during work, in line with Law Number 1 of 1970 concerning work safety which explains “every worker has the right to protection for their safety in doing work for the welfare of life and increasing national production and productivity” [3].

PT Aquila Sanjaya Purnama is a private company that produces syrup and powder as a complement to drinks under the Convi brand. Convi itself has the tagline “A passionate group of people ready to serve the best taste of syrup for young creative souls like you”, which is a local brand founded from the initiation of several people to provide syrup that has the best taste for young people and products are clearly aimed at young consumers in cafes or restaurants that sell contemporary drinks. PT Aquila Sanjaya Purnama is located in Tangerang, Banten Province and has authorized distributors located in Jakarta, Yogyakarta, Surabaya, and Kalimantan.

There is a phenomenon in this company, namely the decline in work productivity and the company’s lack of attention to ensuring Occupational Health and Safety (OHS) of employees at PT Aquila Sanjaya Purnama, especially those who work in the production department. So that researchers want to prove further about “the influence of Occupational Health and Safety (OHS) on the work productivity employees of PT Aquila Sanjaya Purnama”.

2. Theory, Literature Review, and Hypothesis

2.1. Domino Effect Theory

The Domino Effect Theory expressed by H.W Heinrich (1931) that the occurrence of work accidents cannot be avoided if one domino falls and causes the fall of other dominoes automatically. In inhibiting the occurrence of work accident cases, the thing that must be done is to break the series of domino causes, for example by breaking one chain. This theory also states that the cause of work accidents is due to three things [4].

2.2. Occupational Health and Safety (OHS)

Occupational Health and Safety (OHS) according to [2] is a program established by employers or workers as an effort to prevent accidents and diseases due to the implementation of work through understanding things that are likely to cause these accidents

and preparing anticipations if these accidents or diseases arise. According to [5] there are 3 indicators of Occupational Health and Safety (OHS), including:

1. Working conditions
2. Health services
3. Work environment

2.3. Work Productivity

According to [6] work productivity is the relationship between the output or goods or services produced by the company and the inputs needed by the company. According to (Sutrisno, 2019) the indicators of work productivity consists of:

1. Ability
2. Increasing the results achieved
3. Work enthusiasm
4. Self-development
5. Quality
6. Efficiency

2.4. Literature Review

In research conducted by [7] at PT PLN (PERSERO) UP3 Manado stated that Occupational Health and Safety (OHS) has a positive and significant effect on employee work productivity. Then in research conducted by [8] at PT. Johnline Baratama Site Konawe in Southeast Sulawesi shows that Occupational Health and Safety variables have a significant effect on productivity variables together.

However, in the research conducted by [9] at PT Segara Timber in Samarinda shows the results of work safety has a positive significant effect on employee productivity, but the Occupational health variable has a negative effect on employee productivity.

2.5. Hypothesis

Hypothesis are temporary answers in research that need to be proven. The hypothesis underlying this study, developed from the above framework, is as follows:

H0: Occupational Health and Safety (OHS) has no effect on employee work productivity

H1: Occupational Health and Safety (OHS) has a positive and significant effect on employee work productivity.

3. Research Methods

In this study, the object of research is PT Aquila Sanjaya Purnama. This study uses a quantitative approach using primary data. The population of this study were all 40 employees of the production department of PT Aquila Sanjaya Purnama. Since the population is relatively small, this research employs a saturated sampling method.

The data analysis technique involves instrument validation, reliability testing, and the successive interval method. Subsequently, it employs simple linear regression analysis, correlation coefficient testing, and determinant coefficient analysis. Hypothesis testing is conducted using the t-test.

4. Results and Discussion

4.1. Respondent Profile

In general, the profile of respondents in this study is 100% male. Most of the respondents are employees aged 30-40 years. The education level of the respondents is mostly at the diploma three (D3) education level. Most respondents have worked in their current company at their current job for more than 3 years.

4.2. Instrument Test

4.2.1. Results of Validity Test

Based on the results of the validity test on the Occupational Health and Safety (OHS) variable (X) and work productivity (Y) as shown in Table 1 above, it is known that the results of all statement items above are considered valid or acceptable except for statement 8 invalid on the work productivity variable (Y) because it has a calculated r value smaller than the r table.

TABLE 1: Results of Validity Test.

| Variable | Statements items | R value | R table | Description |
|--|------------------|---------|---------|-------------|
| Occupational Health and Safety (OHS) (X) | Statements 1 | 0,594 | 0,263 | Valid |
| | Statements 2 | 0,586 | 0,263 | Valid |
| | Statements 3 | 0,702 | 0,263 | Valid |
| | Statements 4 | 0,536 | 0,263 | Valid |
| | Statements 5 | 0,489 | 0,263 | Valid |
| | Statements 6 | 0,622 | 0,263 | Valid |
| | Statements 7 | 0,669 | 0,263 | Valid |
| | Statements 8 | 0,745 | 0,263 | Valid |
| | Statements 9 | 0,794 | 0,263 | Valid |
| Work Productivity (Y) | Statements 1 | 0,603 | 0,263 | Valid |
| | Statements 2 | 0,721 | 0,263 | Valid |
| | Statements 3 | 0,684 | 0,263 | Valid |
| | Statements 4 | 0,679 | 0,263 | Valid |
| | Statements 5 | 0,753 | 0,263 | Valid |
| | Statements 6 | 0,685 | 0,263 | Valid |
| | Statements 7 | 0,722 | 0,263 | Valid |
| | Statements 8 | 0,106 | 0,263 | Invalid |
| | Statements 9 | 0,445 | 0,263 | Valid |
| | Statements 10 | 0,424 | 0,263 | Valid |
| | Statements 11 | 0,569 | 0,263 | Valid |
| | Statements 12 | 0,600 | 0,263 | Valid |
| | Statements 13 | 0,519 | 0,263 | Valid |
| | Statements 14 | 0,754 | 0,263 | Valid |
| | Statements 15 | 0,587 | 0,263 | Valid |
| | Statements 16 | 0,594 | 0,263 | Valid |
| | Statements 17 | 0,764 | 0,263 | Valid |

4.2.2. Results of Reliability Test

Based on the results of the reliability test on the Occupational Health and Safety (OHS) (X) and Work Productivity (Y) variables as shown in Table 2 above, it is known that the research instrument is considered reliable or trustworthy because the Cronbach's Alpha value for variables X and Y is greater than 0.60.

TABLE 2: Results of Reliability Test.

| Variable | Cronbach's alpha | Alpha Coefficient | Description |
|--|------------------|-------------------|-------------|
| Occupational Health and Safety (OHS) (X) | 0,816 | 0,60 | Reliabel |
| Work Productivity (Y) | 0,918 | 0,60 | Reliabel |

4.3. Statistical Test Simple

4.3.1. Linear Regression Analysis

TABLE 3: Results of Simple Linear Regression Analysis.

| Model | Unstandardized Coefficients | | Standardized Coefficients |
|--------------------------------------|-----------------------------|------------|---------------------------|
| | B | Std. Error | Beta |
| (Constant) | 16,463 | 5,678 | |
| Occupational Health and Safety (OHS) | 1,322 | ,216 | ,705 |

Based on the results of simple linear regression analysis as shown in Table 3 above, it is known that the constant value (a) is 16,463, and the regression coefficient for Occupational Health and Safety (OHS) (b) is 1,322. Therefore, the simple linear regression equation is as follows:

$$Y = 16,463 + 1,322X + e$$

The simple linear regression equation can be interpreted as follows:

1. Constant (a) = 16.463

The constant value (a) is 16.463. This means that Occupational Health and Safety (OHS) (X) is considered fixed or there is no change, the value of work productivity (Y) is 16.463.

2. Regression Coefficient (b) = 1.322

The regression coefficient value in this study shows positive, meaning that the Occupational Health and Safety (OHS) variable and employee work productivity have a unidirectional relationship. If there is an increase in Occupational Health and Safety (OHS) by 100%, the Work Productivity of Employees of PT Aquila Sanjaya Purnama will increase by 1.322.

TABLE 4: Results of Correlation Coefficient (r) and Determination Coefficient (R²).

| Model | r | R Square | Adjusted Square R | Std. Error of the estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | ,705 | ,496 | ,483 | 7,195927 |

4.3.2. Correlation Coefficient (r) and Determination Coefficient (R²)

Based on the results of the correlation coefficient (r) analysis shown in Table 4 above, the r value is 0.705, which means that Occupational Health and Safety (OHS) has a strong relationship with work productivity.

Based on the results of the determination coefficient (R²) analysis shown in Table 4 above, the R² value is 0,496. This means that the Occupational Health and Safety (OHS) variable can explain the work productivity variable by 49.6%, while the remaining 50.4% is explained by other variables not examined in this study.

4.3.3. Hypothesis Testing (t-test)

TABLE 5: Results of Hypothesis Testing (t-test).

| Variabel Independent | t value | t table | Sig | Result |
|--------------------------------------|---------|---------|-------|-------------------|
| Occupational Health and Safety (OHS) | 6,120 | 1,685 | 0,000 | t value > t table |

Based on the results of the t test analysis shown in Table 5 above, the calculated t value is greater than the t table value and the significance level is smaller than 0.05. This means that the Occupational Health and Safety (OHS) variable has a positive and significant effect on Employee Work Productivity.

4.4. Discussion

The results of simple linear regression analysis show that the coefficient is positive at 1.322, indicating that the Occupational Health and Safety (OHS) variable has a positive relationship with the work productivity variable (Y). The correlation coefficient analysis (r) shows an r value of 0.704, which is in the range of 0.60-0.79, indicating a strong relationship between the occupational Occupational Health and Safety (OHS) variable and the work productivity variable. The coefficient of determination (R²) shows an R² value of 0.496.

This shows that the Occupational Health and Safety (OHS) variable can explain 49.6% of the work productivity variable (Y), while the remaining 50.4% is explained by other variables, such as high work productivity can be influenced by mental attitudes, skills, and technology [10].

The t test results show that the t value is 6.120, and the t table value is 1.685, which means that the t value is greater than the t table value and the significance level of 0.000 is smaller than 0.5. This shows that Occupational Health and Safety (OHS) variables have a positive and significant effect on work productivity.

This study is in line with the domino effect theory by H.W Heinrich (1931), which states that work accidents occur through the chain or cause-and-effect relationship of several factors that cause work accidents that are interconnected so as to cause work accidents [4]. H. W Heinrich also stated that the cause of work accidents is due to three things. Where in this theory it is said that 10% is due to unsafe conditions, 88% of accidents are caused by unsafe acts (unsafe behavior), and things that cannot be avoided (anavoidable) amount to 2% [11]. If there are many work accidents in a company, it will affect employee productivity. If the number of work accidents is high, the employee's work productivity is low and vice versa [12].

The results of this study are also supported by several previous studies, namely research conducted by [7] at PT PLN (PERSERO) UP3 Manado stating that Occupational Health and Safety (OHS) has a positive and significant effect on employee work productivity. Meanwhile, research by [8] at PT Johnline Baratama Site Konawe in Southeast Sulawesi showed that Occupational Health and Safety (OHS) variables significantly affect productivity variables together. Then in research by Wahyuni et al., (2018) at PT. Kutai Timber Indonesia shows that Occupational Health and Safety (OHS) has a significant effect on employee work productivity.

5. Finding and Conclusion

Based on the research results that have been described, it can be concluded that Occupational Safety and Health (OHS) has a positive and significant effect on the work productivity of employees of PT Aquila Sanjaya Purnama.

6. Implications, Limitations, and Suggestions

1. In Occupational Health and Safety (OHS), the management of PT Aquila Sanjaya Purnama is expected to pay more attention to the Health and Safety (OHS) of

employees, especially in the dimension of equipment completeness so that the company facilitates complete and appropriate work equipment and equipment to be protected from the danger of work accidents. In addition, management is also expected to more often supervise employees to always wear personal protective equipment (PPE) when working to avoid work accidents in the future. And also the management reprimands or gives strict sanctions if employees do not comply with the standard operating procedures (SOP) set by the company.

2. PT Aquila Sanjaya Purnama can evaluate employees on a regular basis in order to increase employee productivity towards improving the efficiency, effectiveness and quality of employees so that their performance can be more effective with achievements that can be more optimal and increase every year.
3. For future researchers, the results of this study are expected to help and become reference material for researchers to examine variables related to Occupational Health and Safety (OHS) and work productivity, or can add other variables that are not revealed in this study such as high productivity can be influenced by variables of mental attitude, skills and technology [10].

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