

# THE EFFECT OF TRAINING AND SUPERVISION ON EMPLOYEE PERFORMANCE THROUGH OCCUPATIONAL SAFETY AND HEALTH AT PT. BAKRIE RENEWABLE CHEMICALS KUALA TANJUNG

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**Abstract:** The purpose of this research is to determine and analyze the influence of training on employee performance, the influence of supervision on employee performance, the influence of training on occupational safety and health, the influence of supervision on occupational safety and health, the influence of occupational safety and health on employee performance, the influence of training on employee performance through occupational safety and health and the influence of supervision on employee performance through occupational safety and health. This research uses associative research with a sample of 80 respondents who are employees of PT. Bakrie Renewable Chemicals Kuala Tanjung. The data collection technique uses a list of statements such as a questionnaire and the data analysis technique uses partial least squares (smartpls). Results research showing there is a significant influence of training on employee performance, there is a significant influence of supervision on employee performance, there is a significant influence of training on occupational safety and health, there is a significant influence of supervision on occupational safety and health, there is a significant influence of occupational safety and health on employee performance, there is a significant influence training on employee performance through occupational safety and health, there is a significant influence of supervision on employee performance through occupational safety and health

**Keywords:** Training, Supervision, Occupational Safety and Health, Employee performance

## Introduction

In this digital revolution era, human resources have become an important factor in a company's success. Companies that are able to turn challenges into opportunities will be able to be more productive, innovative and adaptive in each generation. Currently entering the industrial revolution generation 4.0. Human resource planning is one of the most important parts in the entire human resource management process. It is said that because whether the company has a group or one employee who can fulfill the company's demands and goals so that it is able to compete in the era of the industrial revolution 4.0. In the Making Indonesia 4.0 roadmap, one of the priority programs is

improving the quality of human resources. Because talent is a key or important factor for the successful implementation of industry 4.0.

Every organization or company will always try to improve the performance of its employees with the hope of achieving the company's goals (Sitepu, 2019) . Creating high performance requires optimal work improvement and being able to utilize the potential of human resources possessed by employees to create organizational goals, so that it will make a positive contribution to the development of the organization. Organizations need to pay attention to various factors that can influence employee performance. For this reason, it is necessary to have an organizational role in improving effective and efficient performance, in order to encourage the creation of professional attitudes and actions in completing work in accordance with their respective fields and responsibilities (Kuddy, 2017) .

Performance is generally defined as a person's success in carrying out a job (Andayani & Tirtayasa, 2019) , therefore, performance does not only concern the personal characteristics aimed at by a person, but also the results of work that has been and will be carried out by a person. However, in the context of an ever-evolving world of work, there are complex phenomena that significantly influence employee performance. One phenomenon that is gaining increasing attention is the paradigm shift in performance measurement. Traditionally, performance is often measured solely based on productivity and quantitative output. However, today, this approach is increasingly broadening to include qualitative aspects, such as adaptability, innovation, collaboration and the ability to learn quickly.

The factors that can influence the level of performance are a safe and comfortable work environment, motivation, leadership in the organization, organizational culture, compensation, competency, workload, job satisfaction, work climate, commitment to the organization, abilities and expertise, supervision, training and and so on (Kasmir, 2016).

Training has a current orientation and helps employees to achieve certain skills and abilities to successfully carry out their work. In implementing this training program, a good, systematic and focused company is required. So that the results of this program can provide positive input for the company. This is in accordance with the results of previous research conducted by (Abogsesa & Kaushik, 2018) which concluded that training will directly influence employee performance. In creating good training for employees, there are several factors that companies need to pay attention to, namely top management support , commitment of specialists and generalists, technological advances , organizational complexity and learning styles. (Rivai, 2014) .

With the Training and Supervision program , of course it can influence employee performance which will have an impact on the ease of the organization achieving its goals. Employees who are willing to take part in training better understand the risks and consequences that may occur if they do not comply with safety rules and regular supervision by management helps ensure that safety standards are followed correctly (Makrifah & Mindiharto, 2021) . This means that with training and supervision, employees will have more knowledge of work processes and understand the importance of Occupational Safety and Health.

Human resources as employees cannot be separated from problems related to Occupational Safety and Health when working, by ensuring occupational safety and health can foster work enthusiasm in employees which has an impact on their performance (Ilfani & Nugraheni, 2013) . Occupational safety and health issues are the responsibility of all parties, especially employers, workers and the community. Article 1

paragraph (1) Government Regulation no. 50 of 2012 concerning the Implementation of Occupational Safety and Health (K3) Management Systems states that the K3 management system is part of the company's overall management system in the context of controlling risks related to work activities in order to create a safe, efficient and productive workplace.

PT. Bakrie Renewable Chemicals (BRC) is an integrated palm oil derivative and downstream producer. Together with our parent company, PT Bakrie Sumatra Plantations, Tbk. (BSP), which operates in the palm oil plantation and factory sector, strives to provide the best quality products that stakeholders can rely on, while maintaining sustainability at every stage of activity. Located in Kuala Tanjung, North Sumatra, Indonesia, which has a strategic position on the shores of the Malacca Strait, it has the advantage of an export development zone and an abundant supply of crude oil within close proximity. Therefore it is important for PT. Bakrie Renewable Chemicals to maintain the quality of aspects within the company, especially aspects human resources through human resource management ensure employee needs fulfilled.

Based on the initial survey that the author conducted, there were several problems regarding the performance of employees at PT. Bakrie Renewable Chemicals Kuala Tanjung which is related to Training, Supervision and K3. The Importance of Employee Performance at PT. Bakrie Renewable Chemicals is very influential on implementation objective company the. The problem is that training /socialization regarding the obligation to use minimal work tools is one of the causes of the number of work accidents in this company. The lack of socialization of the K3 training program to employees has resulted in employees paying less attention to personal safety when working, which can lead to work accidents.

Correspondingly There is still a lack of internal supervision by supervisors regarding work implementation. This encourages workers' negligence or non-compliance in working carefully and not complying with the use of work tools, and there are still some employees who feel they are already skilled at doing their work and therefore do not comply with existing SOPs ( Standard Operating Procedures ). Then PPE or Personal Protective Equipment as well as laboratory support materials consisting of masks, safety shoes king (bh), safety scotligh (vest), wearpack / coveralls, which are provided by the company, not all employees wear them while working. There are still employees who are determined not to wear vests and safety shoes while carrying out their work at any time can endanger employees and cause work accidents.

## **Method**

This Data will analyzed with approach quantitative use analysis statistics ie partial least square – structural equation model (PLS SEM) Which aim For do analysis track (path) with variable latent. Analysis This is often referred to as the second generation of multivariate analysis (Ghozali, 2016). Structural equation analysis (SEM) based on variance simultaneous can do testing model measurement at a time testing structural model. Model measurement used For test validity And reliability, while the structural model is used for causality testing (hypothesis testing with model prediction)

Objective from use ( Partial Least Square ) PLS that is For dopredictions. Which where in do predictions the is For predictrelationships between constructs, in addition to helping researchers and their research For get mark variable latent Which aim For do prediction. Latent variables are linear aggregates of the indicators. Weight estimate For create component score variable latent obtained based on how the inner model (structural model that connects between variable latent) and outer model (model

measurement that is connection between indicators with its construct) is specified.

PLS is method analysis Which powerful by Because No based on many assumptions and the data does not have to have a multivariate normal distribution (indicators with categorical, ordinal, interval and ratio scales can be used on the same model). Structural model testing in PLS is carried out with Smart PLS software help ver. 3 for Windows.

There are two group stages for analyzing SEM-PLS, namely analysis model measurement ( outer models ), ie (a) validity convergent (convergent validity ); (b) construct reliability and validity ; and (c) discriminant validity and structural model analysis(inner model), namely (a) coefficient of determination ( r-square ); (b) f-square ; and (c) hypothesis testing (Hair et al., 2014).

## Result and Discussion

### Data analysis

#### Measurement Model Analysis (Outer Model)

The measurement model analysis (outer model) uses 4 tests, including: convergent validity , discriminant validity , composite reliability, and Cronbach alpha. The following are the results the test:

#### Convergent Validity

An individual reflexive measure is said to be high if it correlates  $> 0.70$  with the construct being measured. However, according to (Ghozali, 2013), for research in the initial stages of developing a measurement scale, a loading value of 0.5-0.6 is considered sufficient.

**Table 1. Outer Loading**

	Occupational Safety and Health	Employee performance	Training	Supervision
K1		0.908		
K10		0.721		
K2		0.818		
K3		0.923		
K4		0.857		
K5		0.713		
K6		0.756		
K7		0.792		
K8		0.711		
K9		0.764		
KKK1	0.764			
KKK10	0.768			
KKK11	0.746			
KKK12	0.783			
KKK2	0.788			
KKK3	0.762			
KKK4	0.724			
KKK5	0.775			
KKK6	0.736			
KKK7	0.811			
KKK8	0.723			
KKK9	0.771			

P1			0.729	
P10			0.704	
P11			0.759	
P12			0.732	
P2			0.735	
P3			0.780	
P4			0.790	
P5			0.714	
P6			0.768	
P7			0.792	
P8			0.797	
P9			0.722	
PG1				0.850
PG10				0.787
PG2				0.787
PG3				0.798
PG4				0.718
PG5				0.783
PG6				0.710
PG7				0.791
PG8				0.793
PG9				0.707

Source: SmartPLS 3 Data Processing Results (2023)

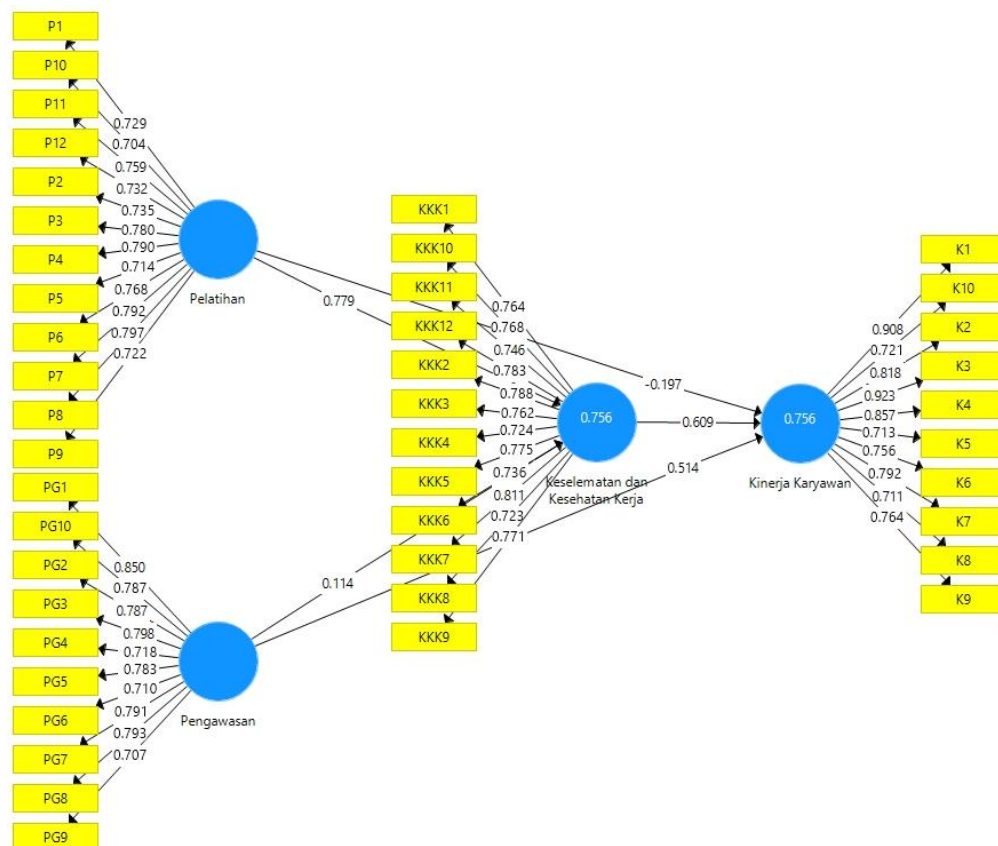


Figure 1. Algorithm Test Results (Outer Loading)

Source: SmartPLS 3 Data Processing Results (2023)

Convergent validity test is that all loading values are above 0.5, so it can be concluded that all loading values are adequate.

#### **Discriminant Validity**

It is a measurement model with reflexive indicators assessed based on cross-loading of measurements with constructs. (Ghozali, 2013) stated that this measurement can be used to measure the reliability of component scores of latent variables and the results are more conservative compared to composite reliability . It is recommended that the AVE value should be greater than the value of 0.50.

**Table 2. Average Variance Extracted (AVE)**

	Average Variance Extracted (AVE)
<b>Occupational Safety and Health</b>	<b>0.513</b>
<b>Employee performance</b>	<b>0.570</b>
<b>Training</b>	<b>0.545</b>
<b>Supervision</b>	<b>0.512</b>

Source: SmartPLS 3 Data Processing Results (2023)

Based on the table above, it shows that the AVE (Average Variance Extracted) value for all constructs has a value of  $> 0.50$ . Therefore, there is no discriminant validity problem in the model tested.

#### **Cronbach Alpha**

Cronbach alpha must be  $> 0.70$  for confirmatory research , and  $> 0.53$  is still acceptable for exploratory research ( Hair et al., 2021) .

**Table 3. Cronbach Alpha**

	Cronbach's Alpha
<b>Occupational Safety and Health</b>	<b>0.795</b>
<b>Employee performance</b>	<b>0.849</b>
<b>Training</b>	<b>0.870</b>
<b>Supervision</b>	<b>0.790</b>

Source: SmartPLS 3 Data Processing Results (2023)

By looking at the Cronbach alpha value of the indicator block that measures the construct, it can be concluded from the table above that all constructs have reliability that is in accordance with the required minimum value limit.

#### **Composite Reliability**

Composite reliability must be  $> 0.70$  for confirmatory research , 0.53-0.70 is still acceptable for exploratory research ( Hair et al., 2021) .

**Table 4. Composite Reliability**

	Composite Reliability
<b>Occupational Safety and Health</b>	<b>0.830</b>
<b>Employee performance</b>	<b>0.877</b>
<b>Training</b>	<b>0.859</b>
<b>Supervision</b>	<b>0.820</b>

Source: SmartPLS 3 Data Processing Results (2023)

The table above shows that the composite reliability value for all constructs is above 0.53. Thus it can be concluded that all constructs have good reliability.

#### Model Analysis (Inner Model)

Analysis model structural use 3 testing, between other: (1) R- Square ; (2) F-Square ; (3) Hypothesis Test : Following are the test results:

#### R-Square

The criteria for R-Square are: (1) if the value (adjusted) = 0.75 → model is substantial (strong); (2) If mark (adjusted) = 0.50 → model is moderate (medium); (3) if the value (adjusted) = 0.25 → the model is weak (bad) (Juliandi, 2018).

**Table 5 . R-Square**

	<b>R Square</b>	<b>R Square Adjusted</b>
<b>Occupational Safety and Health</b>	0.756	0.750
<b>Employee performance</b>	0.756	0.747

Source: SmartPLS 3 Data Processing Results (2023)

The conclusion from testing the R-square value in Table 4.13 is as follows: R-Square Adjusted m model path I = 0 .747 This means that the ability of variable X is training and supervision in explaining Y ( employee performance ) is 74.7%, thus the model is classified as strong (substantial); R-Square Adjusted model path II = 0 .750 . This means that the ability of variable X is training and supervision in explaining Z ( occupational safety and health ) is 75 %, thus the model is classified as strong (substantial).

#### F-Square

F-Square measurement or effect size is a measure used to assess the relative impact of an influencing (exogenous) variable on the influenced (endogenous) variable. Changes in values when certain exogenous variables are removed from the model can be used to evaluate whether the omitted variables have a substantive impact on the endogenous construct (Juliandi, 2018).

The F-Square criteria according to (Juliandi, 2018) are as follows: (1) If the value = 0.02 → Small effect of exogenous variables on endogenous; (2) If value = 0.15 → Medium/moderate effect of exogenous variables on endogenous; and (3) If value = 0.35 → Large effect of exogenous variables on endogenous.

**Table 6. F-Square**

	<b>Occupational Safety and Health</b>	<b>Employee performance</b>	<b>Training</b>	<b>Supervision</b>
<b>Occupational Safety and Health</b>		<b>0.371</b>		
<b>Employee performance</b>				
<b>Training</b>	<b>1,022</b>	0.032		
<b>Supervision</b>	0.022	<b>0.435</b>		

Source: SmartPLS 3 Data Processing Results (2023)

The conclusion of the F-Square value that can be seen in the table above is as follows:

- 1) Variable X1 ( training ) to Y (employee performance) has a value = 0.032, so there is a small effect of the exogenous variable on the endogenous.
- 2) Variable X2 (supervision) to Y (employee performance) has a value = 0.435, then there is a large effect of the exogenous variable on the endogenous.
- 3) Variable X1 ( training ) to Z ( occupational safety and health ) has a value = 1.022, then the exogenous variable has a large effect on the mediator.
- 4) Variable X2 (supervision) to Z ( occupational safety and health ) has a value = 0.022 , then the exogenous variable has a small effect on the mediator
- 5) The variable Z ( occupational safety and health ) on Y (employee performance) has a value = 0.371, so the mediator variable has a large effect on endogenous.

### Hypothesis test

#### Direct Effects (Direct Influence)

This test is to determine the path coefficients of the structural model. The goal is to test the significance of all relationships or test hypotheses. If the P-Values < 0.05, then it is significant; and if the P-values are > 0.05, then it is not significant (Juliandi, 2018).

**Table 7. Direct Effects**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
<b>Occupational Safety and Health -&gt; Employee Performance</b>	0.609	0.556	0.165	3,692	<b>0,000</b>
<b>Training -&gt; Occupational Safety and Health</b>	0.779	0.784	0.140	5,570	<b>0,000</b>
<b>Training -&gt; Employee Performance</b>	0.597	0.555	0.224	3,879	<b>0,000</b>
<b>Supervision -&gt; Occupational Health and Safety</b>	0.614	0.519	0.145	3,786	<b>0,000</b>
<b>Supervision -&gt; Employee Performance</b>	0.514	0.480	0.116	4,414	<b>0,000</b>

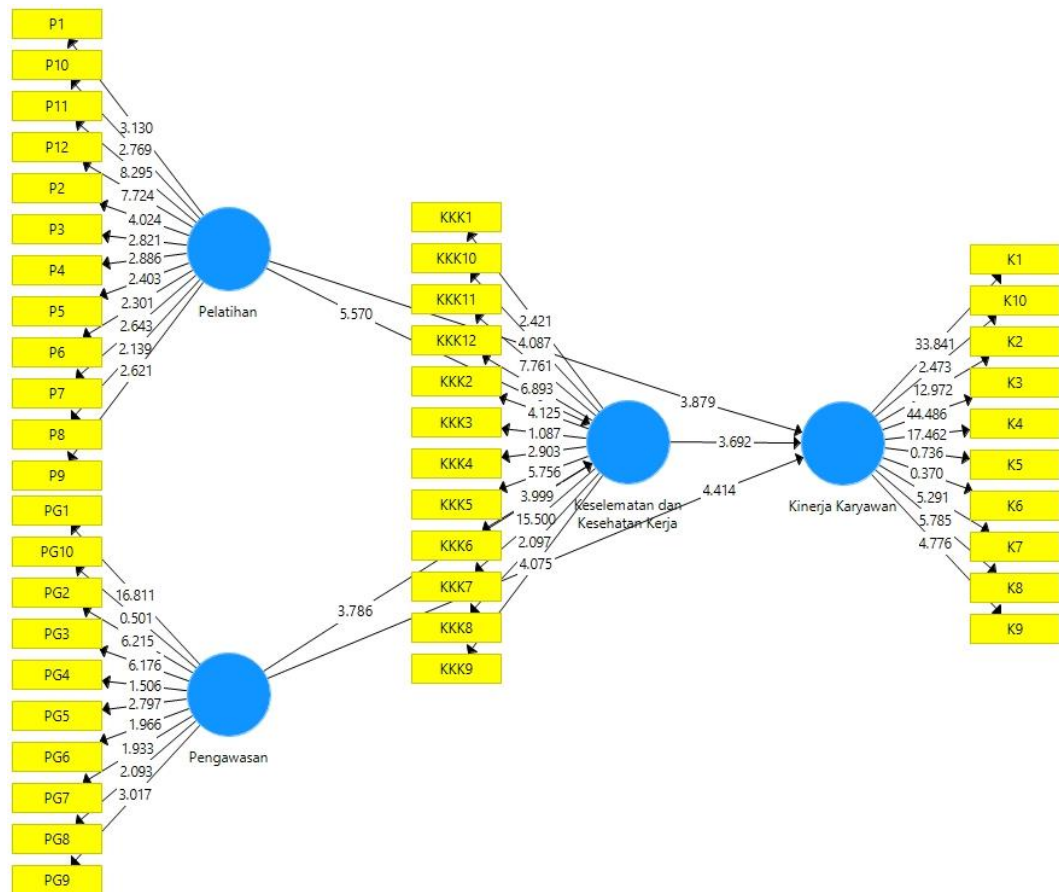
Source: SmartPLS 3 Data Processing Results (2023)

The path coefficient in the table above shows that all path coefficient values are positive (seen in TStatistic(|O/STDEV|) ), including:

- 1) X1 against Y : TStatistics value (|O/STDEV|) = 3.879 and P-Value = 0.000 < 0.05 meaning, the influence of X ( training ) on Y (employee performance) is positive and significant .
- 2) X2 against Y : TStatistics value (|O/STDEV|) = 4.414 and P-Value = 0.000 < 0.05 meaning, the influence of X (supervision) on Y (employee performance) is positive and significant .
- 3) X1 against Z : TStatistics value (|O/STDEV|) = 5.570 and P-Value = 0.000 < 0.05 meaning, the influence of X1 ( training ) on Z ( occupational safety and health ) is positive and significant .



- 4) X2 against Z : TStatistics value ( $|O/STDEV|$ ) = 3.786 and P-Value = 0.000 < 0.05 meaning, the effect of X2 ( training ) to Z ( occupational safety and health ) is positive and significant .
- 5) Z on Y: TStatistics( $|O/STDEV|$ ) = 3.692 and P-Values = 0.000 < 0.05, meaning that the influence of Z ( occupational safety and health ) on Y (employee performance) is positive and significant.



**Figure 2. Bootstrapping Test Results (Direct Effect)**

Source: SmartPLS 3 Data Processing Results (2023)

### Indirect Effect (Indirect Influence)

indirect effect analysis is useful for testing the hypothesis of the indirect influence of an influencing variable (exogenous) on the influenced variable (endogenous) which is mediated/mediated by an intervening variable (mediator variable) (Juliandi, 2018). The criteria for determining indirect influence (indirect effect) (Juliandi, 2018) are:

- 1) If the P-Values value is <0.05, then it is significant, meaning that the mediator variable (Z/ occupational safety and health ), mediates the influence of the exogenous variables (X1/ training ) and (X2/supervision) on the endogenous variable (Y/employee performance).
- 2) If the P-Values value is > 0.05, then it is not significant, meaning that the mediator variable Z/ occupational safety and health ), does not mediate the influence of the exogenous variables (X1/ training ) and (X2/supervision) on the endogenous variable (Y/employee performance).

**Table 8. Indirect Effects**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
<b>Training Occupational Health and Safety -&gt; Employee Performance</b>	0.475	0.422	0.119	3,984	<b>0,000</b>
<b>Supervision Occupational Health and Safety -&gt; Employee Performance</b>	0.470	0.380	0.116	3,805	<b>0,000</b>

Source: SmartPLS 3 Data Processing Results (2023)

Thus, it can be concluded that the indirect effect values seen in table 4.16 are:

- 1) Indirect effect (X1) -> (Z) -> (Y) TStatistics(|O/STDEV|) value is 3.984 , with P-Values  $0.000 < 0.05$  (significant), then occupational safety and health mediate the effect of training on employee performance.
- 2) Indirect effect (X2) -> (Z) -> (Y) TStatistics(|O/STDEV|) value is 3.805 with P-Values  $0.000 < 0.05$  (significant), then occupational safety and health mediate the effect of supervision on employee performance.

#### **Total Effect ( Total Influence)**

total effect is the total of direct effects and indirect effects (Juliandi, 2018).

**Table 9. Total Effect**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
<b>Occupational Safety and Health -&gt; Employee Performance</b>	0.609	0.556	0.165	3,692	<b>0,000</b>
<b>Training Occupational Safety and Health -&gt; Employee Performance</b>	0.779	0.784	0.140	5,570	<b>0,000</b>
<b>Supervision Occupational Health and Safety -&gt; Employee Performance</b>	0.597	0.555	0.165	3,678	<b>0,000</b>
<b>Supervision Occupational Health and Safety -&gt; Employee Performance</b>	0.614	0.519	0.145	3,786	<b>0,000</b>
<b>Supervision Occupational Health and Safety -&gt; Employee Performance</b>	0.583	0.561	0.136	4,296	<b>0,000</b>

Source: SmartPLS 3 Data Processing Results (2023)

Conclusion from mark total influence on table on is:

- 1) Total effect For connection X1 ( training ) And Y (employee performance)

- TStatistics(|O/STDEV|) value is 3.678 with P-Values  $0.000 < 0.05$  (significant effect)
- 2) Total effect For connection X2 (supervision) And Y (employee performance)  
TStatistics(|O/STDEV|) value is 4.296 with P-Values  $0.000 < 0.05$  (significant effect)
  - 3) Total effect For connection X1 ( training ) And Z ( occupational safety and health )  
TStatistics(|O/STDEV|) value is 5.570 with P- Values  $0.000 < 0.05$  (significant effect)
  - 4) Total effect For connection X2 ( training ) And Z (employee performance)  
TStatistics(|O/STDEV|) value is 3.786 with P-Values  $0.000 < 0.05$  (significant effect)
  - 5) The total effect for the relationship between Z ( occupational safety and health ) and Y (employee performance) value of TStatistics(|O/STDEV|) is 3.692 with P-Values  $0.000 < 0.05$  (significant effect)

## **Discussion**

### **The Effect of Training on Employee Performance**

Based on the results of testing the effect of training on employee performance , with a significance level of  $0.000 < 0.05$  From these results it can be concluded that there is a significant influence between training and employee performance.

Training can improve their skills and achievements. Training has a very significant effect on employee performance. This training will have a huge impact on improving employee performance which will directly influence the company's performance. In the end, training does have quite a big influence on employee performance in a company. Training has a very significant effect on employee work performance. This influence is a very positive influence, meaning that the better the training for employees, the higher the performance will be. (Kamil, 2012) said that training is a part of education that involves the learning process to acquire improved skills outside the current education system in a relatively short time and by using methods that prioritize practice over theory .

This is in line with the results of research conducted by (Dulay & Handayani, 2021) (Elizar & Tanjung, 2018) , (Triasmoko, Mukzam, & Nurtjahjono, 2014) , (Dahmiri, 2014) , (Astuti & Safitri, 2017) , (Siswadi, 2016) , (Sharma & Taneja, 2018) , (Abogsesa & Kaushik, 2018) , (Ibrahim, Boerhannoeddin, & Bakare, 2017) , (Sendawula, Nakyejwe Kimuli, Bananuka, & Najjemba Muganga, 2018) , (Saeed et al., 2013) , (Singh & Mohanty, 2010) , (Kum , Cowden, & Karodia, 2014) and (Bhat, 2011) which concludes that training influences employee performance .

### **The Effect of Supervision on Employee Performance**

Based on the results of testing the effect of supervision on employee performance , 05 From these results it can be concluded that there is a significant influence between supervision and employee performance .

Supervision is also very important in every job in the organization, because through supervision you can monitor various things that can be detrimental to the organization, such as errors in work implementation, deficiencies and weaknesses in work implementation, as well as obstacles that will be experienced. Supervision is a process to ensure that organizational and management goals are achieved (Handoko, 2013) . This is concerned with ways of making activities according to plan. Supervision is carried out in an effort to ensure that activities are in accordance with plans, decision

strategies and work programs that have been previously determined. The supervisory function both in government and in companies is important.

Supervision is one of the determining factors for the survival of the organization as a whole in achieving its goals . This opinion is in line with the opinion expressed (Manulang, 2013) Basically Supervision means observation and measurement of an activity operations and results achieved compared to targets and standards that have been set previously. This is in line with the results of previous research conducted by (Jufrizen, 2016) , (Wardana et al., 2020) , (Toding, 2016) , (Herdino & Andri, 2017) and (Situmeang, 2017) concluded that supervision influences employee performance.

### **The Effect of Training on Occupational Safety and Health**

Based on the results of testing the effect of training on occupational safety and health , with a significance level of  $0.000 < 0.05$  From these results it can be concluded that there is a significant influence between training on occupational safety and health .

Training can contribute significantly to improving Occupational Safety and Health in the workplace . Through training, employees can increase their knowledge about occupational safety and health risks that may occur in the workplace. By having better knowledge, employees can take appropriate precautions to reduce risks and avoid work-related injuries or illnesses ( Newaz, Davis, Jefferies, Pillai, Al - Habsi & Nenadic, 2019) . In conclusion, Training can play an important role in improving Occupational Safety and Health in the workplace. By improving employee knowledge, skills, awareness and behavior, Training can help reduce the risk of work-related injuries and illnesses and ensure that the workplace remains safe and healthy for all employees.

This is in line with the results of previous research conducted by (Purwanto, 2022) and (Arianto, Agustin, & Rifai, 2021) concluding that training can help change the behavior of employees who are less careful in the workplace to become more alert and responsible. Better behavior can help prevent work-related injuries and illnesses .

### **Effects of Supervision Regarding Occupational Safety and Health**

Based on the results of testing the effect of supervision on occupational safety and health , and occupational health .

Monitoring Occupational Safety and Health is very important to ensure that the workplace is safe and healthy for all employees . Supervision can help improve efficiency in the workplace by ensuring that work procedures are carried out correctly and effectively. This can help reduce down-time due to work-related injuries or illnesses . Good supervision can help improve the Occupational Safety and Health culture in the workplace (Zohar, 2010) . By showing management's commitment to ensuring employee safety and health, employees will feel valued and respected, so they will be more likely to comply with Occupational Safety and Health procedures.

In conclusion, monitoring occupational safety and health is very important to ensure a safe and healthy workplace for all employees. Effective supervision can help prevent work-related accidents and illnesses, increase employee awareness, increase workplace efficiency, improve Occupational Health and Safety culture, and ensure that equipment and work environments are always in a safe condition. This is in line with the results of previous research conducted by (Japeri, Helmi, & Marlinae, 2016) concluding that supervision can help increase efficiency in the workplace by ensuring that work procedures are carried out correctly and effectively. This can help reduce down-time due to work-related injuries or illnesses.

### **The Influence of Occupational Safety and Health on Employee Performance**

Based on the results of testing the influence of occupational safety and health on employee performance, Z against Y with the value  $TStatistics(|O/STDEV|) = 3.692$  and P-Value  $s 0,000$  with a significance level of  $0.000 < 0.05$ . From these results it can be concluded that there is a significant influence between occupational safety and health on employee performance.

Human resources as employees cannot be separated from problems related to Occupational Safety and Health when working, by ensuring Occupational Safety and Health can foster work enthusiasm in employees which has an impact on their performance (Ilfani & Nugraheni, 2013). Occupational safety and health issues are the responsibility of all parties, especially employers, workers and the community. Article 1 paragraph (1) Government Regulation no. 50 of 2012 concerning the Implementation of Occupational Safety and Health (K3) Management Systems states that the K3 management system is part of the company's overall management system in the context of controlling risks related to work activities in order to create a safe, efficient and productive workplace. This is in line with the results of research conducted by (Wibowo & Widiyanto, 2019); (Ilfani & Nugraheni, 2013) and (Anjani, Utami, & Prasetya, 2014) which state that occupational safety and health influence employee performance.

### **The Effect of Training on Employee Performance Through Occupational Safety and Health**

on the results of testing the effect of training on employee performance through occupational safety and health, There is a significant relationship between training and employee performance through occupational safety and health. This means that the mediating variable (occupational safety and health) becomes a mediator between training and employee performance.

It is very important for companies to develop competence employees to adapt with environmental developments one of the companies is through Training activities. According to (Simamora, 2019) Training is a series activities designed for improve skills, knowledge, experience or change in a person's attitude. Increased skills and knowledge in use Technology has an impact on employees' understanding of risks work accident.

Training can help employees understand its importance Occupational Safety and Health in carrying out their work. By gaining the necessary knowledge and skills through training, employees will be more aware of the risks of work-related injuries and illnesses. This awareness will motivate employees to carry out their duties more safely and healthily, thereby improving their overall performance. This is in line with the results of research conducted by (Lasarik & Setiawan, 2016) which states that Occupational Safety and Health mediates the influence of Training on Employee Performance.

### **The Effect of Supervision on Employee Performance Through Occupational Safety and Health**

Based on the results of testing the effect of supervision on employee performance through occupational safety and health,  $X^2$  on Y through Z with  $TStatistics(|O/STDEV|)$  value = 3.805 and P-Value  $s 0.000$  with a significance level of  $0.000 < 0.05$ . From these results it can be concluded that there is an influence between supervision on employee performance through occupational safety and health. This

means that the mediating variable ( occupational safety and health ) becomes a mediator between supervision and employee performance.

Supervision carried out effectively can help ensure that K3 is carried out well. Surveillance can help identify risks and hazards in the workplace, and ensure that steps taken to reduce those risks are effective. Apart from that, Supervision can also ensure that employees are equipped with equipment and supplies that are safe and in accordance with established K3 standards. That way, it will be easier for employees to achieve their best performance. This is also in line with the results of research conducted by (Lasarik & Setiawan, 2016) which states that K3 mediates the influence of Supervision on Performance.

## **Conclusion**

Based on the data obtained in this research from 80 respondents , then analyzed , the conclusions are as follows:

1. Training has a significant effect on employee performance at PT. Bakrie Renewable Chemicals Kuala Tanjung.
2. Supervision has a significant effect on employee performance at PT. Bakrie Renewable Chemicals Kuala Tanjung.
3. Occupational Health and Safety has a significant effect on employee performance at PT. Bakrie Renewable Chemicals Kuala Tanjung.
4. Training has a significant effect on occupational safety and health at PT. Bakrie Renewable Chemicals Kuala Tanjung.
5. Supervision has a significant effect on occupational safety and health at PT. Bakrie Renewable Chemicals Kuala Tanjung.
6. Training has a significant effect on employee performance through occupational safety and health at PT. Bakrie Renewable Chemicals Kuala Tanjung.
7. Supervision has a significant effect on employee performance through occupational safety and health at PT. Bakrie Renewable Chemicals Kuala Tanjung.

## **Suggestion**

The suggestions that can be given in this research are as follows:

1. Companies need to increase the intensity of socialization of the K3 Training program to employees. This can be done through regular meetings, repeated training, or even continuous work safety campaigns. The goal is to make work safety a priority for every employee.
2. Ensure tighter internal monitoring by supervisors. Supervisors must monitor and check whether SOPs are followed correctly by each employee. This includes providing constructive feedback and involving employees in their performance evaluations.
3. Strictly enforce the PPE usage policy. This can involve strict sanctions if employees do not comply with the rules. In addition, companies can provide additional training on the importance of PPE and its impact on work safety.
4. Conduct training or workshops focused on increasing employee awareness of their responsibilities at work. This can help them understand the consequences of their actions on the safety of themselves and others.

## **Research Limitations**

Based on the researcher's direct experience in this research process, there are several limitations experienced and these can be several factors that future researchers

can pay attention to in further perfecting their research because this research itself certainly has shortcomings that need to be continuously improved in research. -future research. Some limitations in this research include:

1. The general limitation of this research is that it focuses on one organization, namely PT. Bakrie Renewable Chemicals Kuala Tanjung Research results cannot be directly generalized to other organizations or different industrial sectors. Variability among organizations may affect the external validity of this study.
2. This research depends on data obtained through questionnaires. Limitations may arise in terms of the reliability and validity of the data collected, depending on the level of participation and honesty of the respondents.
3. The use of occupational safety and health as an intervening variable introduces potential limitations. Occupational safety and health measurements can be subjective and susceptible to individual bias. Additionally, the causal relationships between independent variables (training and supervision) and dependent variables (employee performance) through intervening variables may be complex and dependent on the specific context.

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