

# The Effects of Individual and Group Behavior on Employee Performance Mediated by Occupational Safety and Health (OSH) at PT. Andalan Permata Buana

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**Abstract.** This study aims to determine and explain the effect of individual behavior and group behavior on employee performance mediated by Occupational Safety and Health (OSH) at PT Andalan Permata Buana. This study uses quantitative data. The study population amounted to 202 people, and the sample taken was 132 people. Data analysis used the PLS Structural Equation Modeling (SEM) statistical test. Data analysis techniques include path diagrams and measurement model evaluation (construct validity evaluation, reliability evaluation, goodness of fit model, hypothesis testing, indirect effect testing, conversion of path diagrams into structural models, and dominant influence). The results of this study are as follows: 1) Individual behavior has a positive and significant effect on employee performance 2) individual behavior has a positive and significant effect on employee performance through occupational safety and health. 3) group behavior has a positive and significant effect on employee performance. 4) group behavior has a positive and significant effect on employee performance through occupational safety and health. 5) occupational safety and health have a positive and significant effect on employee performance. 6) individual behavior has a positive and significant effect on occupational safety and health. 7) group behavior has a positive and significant effect on occupational safety and health. This research is relevant for PT. Andalan Permata Buana in identifying effective strategies to improve employee performance through individual behavior management, group dynamics, and OSH program implementation. This is important to create a safe and productive work environment.

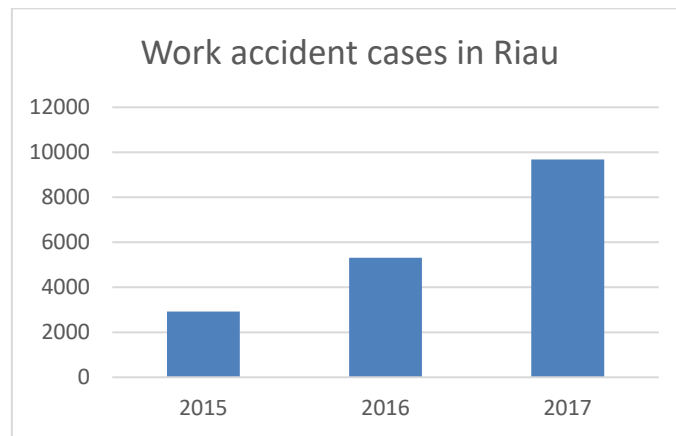
**Keywords:** Individual Behavior, Group Behavior, Occupational Safety and Health, Employee Performance

## 1 Introduction

In recent days, the rupiah exchange rate against the US dollar has weakened to almost Rp 14,000. It has had an impact on the Indonesian economy, both on the government and private companies. As a net importer of crude oil that is very sensitive to the movement of the dollar, Indonesia imports 350-500 thousand barrels of oil per day because domestic production is not sufficient for fuel consumption (CNBC Indonesia, April 23, 2018). The Ministry of Energy and Mineral Resources set the Indonesian Crude Price

(ICP) in March 2018 at USD 61.87 per barrel. This price has increased compared to February 2018 (Merdeka.com, April 04, 2018). However, the usual stable world oil price is above US\$100 per barrel. This condition inevitably has a very significant influence on upstream oil and gas business activities, both at the national and international levels (humasskkmigas.wordpress.com: 2015).

To address the aforementioned issues, the organization must implement a strategy to ensure its sustainability. One of the company's initiatives is to enforce occupational safety and health to prevent accidents and illnesses in the workplace.



**Graph 1.** Number of Work Accident Cases in Riau  
Source: Regional Office of BPJS Employment Pekanbaru, 2018.

In Graph 1, the number of work accident cases in Riau increased until 9,682 cases occurred in 2017. From the two data above, in 2017, there were many cases of work accidents in Indonesia and the Riau region. This certainly makes all parties pay more attention to the safety and health of employees. Occupational safety and health are now an obligation and necessity for companies in all forms of work activities. Occupational safety and health programs are very interesting to discuss because there are still many companies that pay less attention to safety and health for their employees, whether on small, medium or large scale, and sometimes still ignore the provision of occupational safety and health programs that employees actually have the right to obtain. This is regulated in Law Number 1 of 1970 concerning Occupational Safety. Moreover, it is regulated in Ministerial Regulation No. PER-05/MEN/1996 concerning Occupational Safety and Health Management Systems.

From the level of risk of work accidents above, the fields of work that have the highest risk of work accidents are mining, drilling, factories, construction, heavy equipment and transportation. This is what makes researchers choose a research location at PT Andalan Permata Buana, which is one of the contractors at PT Chevron Pacific Indonesia. PT APB has five employees who have certificates as general K3 experts. It is expected that occupational safety and health will be targeted in all scopes of PT work. APB is zero accident to improve employee performance and profit for the company. The success or failure of PT Andalan Permata Buana in achieving the company's goals

depends mainly on the ability of its human resources to carry out the tasks assigned to them. Although other management parts of PT APB, such as finance, marketing and operations, are running well, if excellent and reliable human resources do not support them, the work results will not be maximized.

Considering the significance of human roles inside firms and the escalating rivalry encountered. One of the most exciting assessments in a company is the behavior of employees, especially those who join the group. In every activity, employees should always be able to maintain behavior towards the group in the company. Because no matter how good an employee is when his behavior is bad, it will gradually disintegrate by itself. The group in a company is a combination of several employees who have different behaviors. It must be harmonized in order to achieve sustainability in the company, which is able to compete, grow, and develop in order to achieve the company's vision and mission [1].

Employees of PT Andalan Permata Buana are a group unit that carries out every work activity. The group work carried out by PT Andalan Permata Buana plays an essential role in realizing the progress of the company. A worker who commits an unsafe action has a background on why they take unsafe actions. Human behavior is a reflection of various psychological conditions such as knowledge, desire, interest, emotion, will, thinking, motivation, perception, attitude, reaction, and so on [2].

Based on the research by [3], individual behavior significantly influences the performance of employees of PT Televisi Mandiri Papua. This study's results are in line with [4] research, which states that individual behavior has a positive and significant effect on employee performance.

Furthermore, according to the results of research conducted by [5], work behavior has a significant effect on the performance of employees of National Private Radio in Malang. In line with the research of [6] and [7], leader behavior has a positive and significant effect on employee performance.

The results of the study support research conducted by [8] and [9] that occupational safety and health have a positive effect on employee performance. This research is in line with the results of research by [10], [11], [12] and [13], [14] and [15], [16], [17], [18] and [19], [20] and [21], and [22], occupational safety and health have a significant effect on employee performance.

Based on the phenomena and research that has been done before, researchers are interested in conducting research and want to see the effect of Individual Behavior and Group Behavior on Employee Performance mediated by K3 at PT Andalan Permata Buana. The results of this study are expected to provide benefits both theoretically and practically. Theoretically, this research can contribute to the development of studies on the influence of individual and group behavior on occupational safety and health, which in turn can improve employee performance. Practically, the results of this study are expected to be a reference for the management of PT Andalan Permata Buana in designing innovative strategies or actions related to the application of individual and group behavior to improve occupational safety and health, which has a positive impact on improving the overall performance of the Company.

## 2 Literature Review

### 2.1 Individual Behavior

Understanding individual behavior is pivotal as each individual has different characteristics that affect organizational work patterns and systems [23]. Individual behavior is comprehended via an examination of the primary psychological influences on organizational behavior, whereas individual behavior is a product of the interaction between individuals and their environment [24]. Individual behavior is everything a person does, directly and indirectly, which can affect his existence (achievement) and environment (colleagues, leaders, and organizations). This means that every action taken by a person will have an impact on the surrounding environment. Behavior is aimed at achieving goals. In other words, behavior is generally motivated by a desire to achieve goals [4]

An overview of the behavior model in the organization can be seen in the following figure:

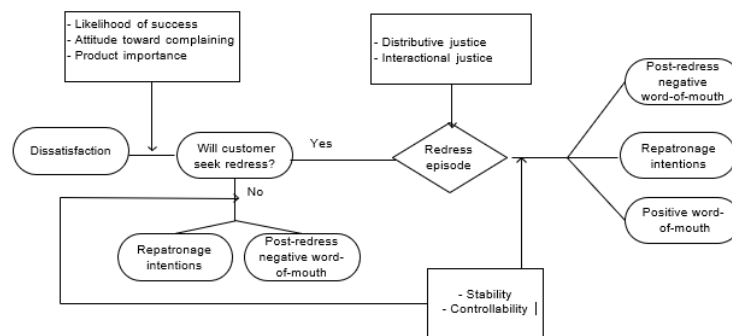


Fig 1. General Model of Individual Behavior in Organizations [4]

### Influence of Individual Behavior on Occupational Safety and Health

Safety in the workplace is a combination of three components: people, environment, and behavior. By managing the three elements above, accidents in the workplace can be reduced. From the worker's side, it consists of physical ability, experience, and training. At the same time, from the work environment component, work accidents can be reduced through engineering control, equipment, workload, and the nature of the work itself. The most important aspect is how people/individuals behave at work (HSE Policy, APB/SMK3/HES/17, 2017).

### Effect of Individual Behavior on Employee Performance

Individual behavior shows that behavior depends on two variables: individuals and the environment. The behavior shown at work is unique to each individual but is a fundamental process for everyone. Behavior results from the environment and individual differences, where the behavior is directed to achieve goals and needs to be encouraged or

motivated. The desired results of worker behavior are performance, employee self-development, and job satisfaction.

Individual behavior is comprehended via an examination of the primary psychological influences on organizational behavior, whereas individual behavior is a product of the interaction between individuals and their environment.

## **2.2 Group Behavior**

Everyone has different interests and goals, so each individual's different nature and characteristics may have great potential if realized into a joint or group interest and goal. After each individual enters into the group's interests and goals, their behavior becomes group behavior for togetherness [25].

Humans, as individuals, have different characters, temperaments, traits, and personalities. If the individual becomes a group member, his nature, character, temperament, and personality will be brought into the group. In this instance, conduct initially focused on individual actions must be redirected and regulated toward collective behavior. This means that individual behavior must be directed towards organizational interests to achieve organizational goals so that group behavior develops into organizational behavior [27].

### **Influence of Group Behavior on Occupational Safety and Health**

Behavior has a major contribution to the direct cause of all events. Group behavior at all levels of the organization creates a reciprocal relationship to an event, including:

- a. Individual and group work behavior
- b. Decision-making at all levels
- c. Allocation of time and money to safety
- d. Reporting, follow-up, resolution
- e. All safety communications

Behavioral safety is a process that involves people who are highly likely to harm. It involves establishing ways, researching involvement, and having them observe and give feedback on safety requirements to co-workers to increase safe behaviors and reduce unsafe actions. Safety in behavior is considered safe and risky based on APB/SMK3/HES/17, 2017.

### **Influence of Group Behavior on Employee Performance**

The several disciplines employed in the examination of group behavior are fundamentally utilized to enhance our comprehension of systems and human values or issues. With the assumption that after understanding it, the group's performance can be improved by group actors in the organization [23].

From the motivation side, the group is seen as a collection of individuals whose existence respects individuals. Meanwhile, the interaction side states that the essence of grouping is interaction in the form of interdependence. From some of these views, Gibson concluded that the so-called group is a collection of individuals where one

member's behavior and/or performance is influenced by other members' behavior and/or performance [24].

According to Expectancy Theory, work behavior is a function of three characteristics, namely the member's perception that his efforts lead to a performance, the member's perception that his performance is rewarded (for example, with salary or praise), the value given by the member to the reward given. According to Vroom's expectancy theory, expected behaviors at work will increase if a person perceives a positive relationship between their efforts and performance. These behaviors further increase if there is a positive relationship between good performance and the rewards they receive, especially rewards that are valuable to them. To keep individuals on a continuum of behavior and performance, organizations must conduct accurate evaluations and provide appropriate rewards and feedback [23].

### **2.3 Occupational Safety and Health**

Occupational safety and health (OSH) are one way to protect employees from the dangers of work accidents and occupational diseases. Sometimes, the implementation of occupational safety and health is not considered in employee performance so that it will interfere with employee work productivity; if occupational safety and health are applied and implemented, it will grow satisfactory performance results because employees feel cared for safety and health. The health of employees can be disrupted due to occupational diseases or because work safety is not considered [16].

#### **Occupational Safety and Health Indicators**

Indicators in safety according to Law No. 1 of 1970 are:

- a. Conditions and hazards that can arise in the workplace
- b. All safety and protective equipment required in the workplace
- c. Personal protective equipment for the workforce concerned
- d. Safe ways and attitudes in carrying out work

### **2.4 Employee Performance**

A performance system is usually developed to measure employee performance through observations made by the superiors of each work unit, with several alternative ways of assessment or by direct interviews with the employees concerned. Supervisors or managers can use the information obtained from the performance appraisal to manage employee performance and find out what causes the weaknesses and successes of employee performance so that it can be used as a consideration for determining targets and further improvement steps in achieving business entity goals. Identifying aspects or dimensions of performance can affect the effectiveness of an employee's job performance; it will be easier for business entities to determine the appropriate employee awards according to their performance. This will encourage employees to further develop themselves in their job roles following the demands of the business entity so that the performance achieved will also increase [27].

### Factors that Affect Performance

According to [28], the factors that affect performance include the following:

1. Ability Factor

Psychologically, ability consists of potential ability (IQ) and reality ability (knowledge + skill). This means that managers will be more likely to achieve the expected performance of employees with an above-average IQ (110-120), adequate education for their position, and skills in their daily work. Therefore, employees need to be placed in jobs based on their expertise (the right man in the right place, the right man on the right job).

2. Motivation Factor

Motivation is formed from an employee's attitude toward work situations. It motivates employees to achieve organizational goals (work goals).

## 3 Method

The descriptive and explanatory survey method is used in this research because it will describe each variable and explain the relationship between the variables studied. The type of relationship between the variables used in the study is causality, namely, the independent variable / independent variable affects the dependent/dependent variable. Explanatory research refers to the hypothesis that is tested against the occurring phenomena. This phenomenon can be seen in the research object at PT Andalan Permata Buana Pekanbaru. The research variables to be studied are individual behavior, group behavior, occupational safety and health, and employee performance. The unit of analysis of this research is all employees of PT Andalan Permata Buana, using a stratified random sampling technique [29] totaling 132 people. The sampling method was designed to ensure representativeness, thereby reducing the potential for bias that could affect the validity of the findings. For data collection techniques, primary data in this study were obtained through interviews, observation, and questionnaire techniques. Interviews were conducted with competent parties at PT Andalan Permata Buana, directly or through communication media. Observation is done by observing daily work activities in the company's work environment to get representative data. Meanwhile, the questionnaire was prepared with structured statements tested for validity and reliability to make it easier for respondents to provide appropriate answers. Meanwhile, secondary data is obtained through literature studies by accessing various sources such as records, official documents, related reports, and guidelines and regulations from the government and PT Andalan Permata Buana.

Based on the research conceptual framework, the following hypotheses can be formulated:

1. There is an influence of individual behavior on the performance of employees of PT Andalan Permata Buana.
2. There is an influence of individual behavior on the performance of employees of PT Andalan Permata Buana through occupational safety and health.
3. There is an influence of group behavior on the performance of employees of PT Andalan Permata Buana.

4. There is an influence of group behavior on the performance of employees of PT Andalan Permata Buana through occupational safety and health.
5. There is an influence of occupational safety and health on the performance of employees of PT Andalan Permata Buana.
6. There is an influence of individual behavior on occupational safety and health.
7. There is an influence of group behavior on occupational safety and health.

In conformity with the explanation of the paradigm and research hypothesis that has been presented, the verification analysis method to test the hypothesis is the SEM statistical method. This method is a statistical technique that analyzes indicator variables, latent variables, and measurement errors. SEM is also a multivariate analysis tool for analyzing complex variable relationships [30].

## 4 Results and Discussion

This section's research results and discussion include the data analysis's main findings and the interpretation of the relationship between the variables studied. This study aims to provide an overview of how behavioral factors, both individually and in groups, can affect employee performance, with OHS as a mediator that plays an essential role in creating a safe and productive work environment.

### 4.1 Partial Least Square (PLS) Analysis

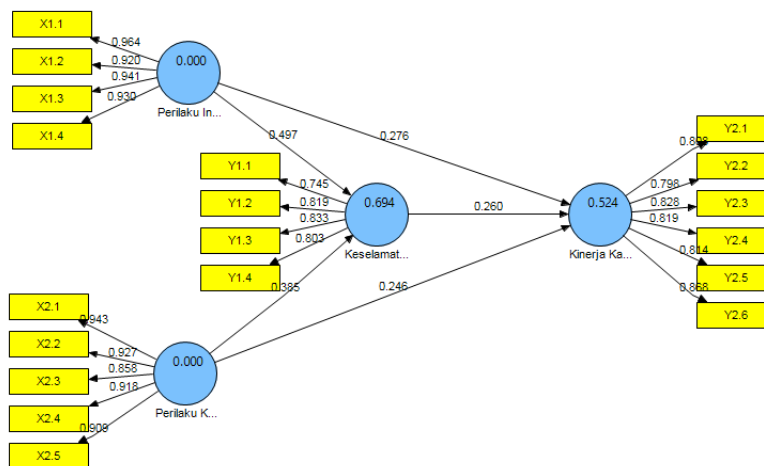


Fig 2. Path Diagram

### Goodness of Fit Model

The Goodness of fit Model is used to determine the ability of endogenous variables to explain the diversity of exogenous variables, or in other words, to determine the contribution of exogenous variables to endogenous variables. The Goodness of fit model in PLS analysis uses Q-Square predictive relevance (Q<sup>2</sup>).



The Goodness of fit Model results have been summarized in the following table.

**Table 1.** Goodness of Fit Model Results

Variable	R <sup>2</sup>
Occupational Safety and Health	0.694
Employee Performance	0.524
$Q^2 = 1 - [(1 - R_1^2) (1 - R_2^2)]$	
$Q^2 = 1 - [(1 - 0.694) (1 - 0.524)] = 0.855$	

Source: Primary Data Processed, 2019

The R-square of occupational safety and health variables is 0.694 or 69.4%. This outcome shows that the diversity of occupational safety and health variables can be explained by individual behavior and group behavior by 69.4%, or in other words, the contribution of individual behavior and group behavior to occupational safety and health is 69.4%. In comparison, the remaining 202.6% is the contribution of other variables not discussed in this study.

Furthermore, the R-square of the employee performance variable is 0.524 or 52.4%. This exhibits that the diversity of employee performance variables can be explained by individual behavior, group behavior, and occupational safety and health by 52.4%, or in other words, the contribution of individual behavior, group behavior, and occupational safety and health to employee performance is 52.4%. In comparison, the remaining 47.6% is the contribution of other variables not discussed in this study.

*Q-Square predictive relevance (Q2)* is worth 0.855 or 85.5%. This result indicates that the diversity of employee performance variables can be explained by the model as a whole by 85.5%. In other words, the contribution of individual behavior, group behavior, and occupational safety and health to overall employee performance is 85.5%. In comparison, the remaining 14.5% is the contribution of other variables not discussed in this study.

### Hypothesis Testing

Hypothesis testing is used to test the effect of exogenous variables on endogenous variables. The test criteria state that if the T-statistics value  $\geq$  T-table (1.96), it is stated that there is a significant effect of exogenous variables on endogenous variables. The results of significance testing can be seen through the following table:

**Table 2.** Significance Testing Results

Exogenous	Endogenous	Path Coefficient	Standard Error	T Statistics
Individual Behavior	Occupational Safety and Health	0.497	0.070	7.061
Individual Behavior	Employee Performance	0.276	0.088	3.120
Group Behavior	Occupational Safety and Health	0.385	0.070	5.467
Group Behavior	Employee Performance	0.246	0.110	2.251
Occupational Safety and Health	Employee Performance	0.260	0.099	2.622

Source: Primary Data Processed, 2019

The effect of individual behavior on occupational safety and health. The test results in the table above show that the T statistics value of the relationship between individual behavior and occupational safety and health is 7.061. The test results show that the T statistics value is > 1.96. This shows that individual behavior significantly influences occupational safety and health.

The effect of individual behavior on employee performance. The test results listed in the table above show that the T statistics value of the relationship between individual behavior and employee performance is 3.120. The test results show that the T statistics value is > 1.96. This indicates that individual behavior has a significant influence on employee performance.

The effect of group behavior on occupational safety and health. The test results in the table above show that the T statistics value of the relationship between group behavior and occupational safety and health is 5.467. The test results show that the T statistics value is > 1.96. This shows that group behavior significantly influences occupational safety and health.

The effect of group behavior on employee performance. The test results in the table above show that the T statistics value of the relationship between group behavior and employee performance is 2.251. The test results show that the T statistics value is > 1.96. It shows a significant influence of group behavior on employee performance.

The effect of occupational safety and health on employee performance. The test results in the table above show that the T statistics value of the relationship between occupational safety and health and employee performance is 2.622. The test results show that the T statistics value is > 1.96. This indicates that occupational safety and health significantly affect employee performance.

### Indirect Effect Testing

Indirect effect testing is carried out to test whether the independent variable has an indirect effect on the dependent variable through the mediating variable. The test criteria state that if the T-statistics  $\geq$  T-table (1.96), then it is stated that there is a significant effect of exogenous variables on endogenous variables through their mediating variables. The results of indirect effect testing can be seen through the summary in the following table:

**Table 3.** Indirect Effect Testing Results

Exogenous	Mediation	Endogenous	Indirect	Standard Error	T Statistics	
Individual Behavior	Occupational and Health	Safety	Employee Performance	0.129	0.053	2.458
Group Behavior	Occupational and Health	Safety	Employee Performance	0.100	0.042	2.364

Source: Primary Data Processed, 2019

Based on the tests listed in the table above, it can be seen that:

1. The effect of individual behavior on employee performance through occupational safety and health obtained a T statistics value of 2.458. The test results

show that the T statistics value is > 1.96. This indicates that individual behavior significantly influences employee performance through occupational safety and health. Therefore, occupational safety and health are stated to be able to mediate the effect of individual behavior on employee performance.

- The effect of group behavior on employee performance through occupational safety and health obtained a T statistics value of 2.364. The test results show that the T statistics value is > 1.96. This indicates that group behavior significantly influences employee performance through occupational safety and health. Therefore, occupational safety and health can mediate the effect of group behavior on employee performance.

### Conversion of Path Diagram into Structural Model

The conversion of the path diagram into a measurement model is intended to determine the strength of the influence between the constructs described in effect on the model, namely the direct effect and the indirect effect. The direct and indirect model effects are presented in the following table:

**Table 4.** Direct & Indirect Effect Model

Exogenous	Mediation	Endogenous	Direct	Indirect	Total
Individual Behavior		Occupational Safety and Health	0.497		0.497
Individual Behavior	Occupational Safety and Health	Employee Performance	0.276	0.129	0.405
Group Behavior		Occupational Safety and Health	0.385		0.385
Group Behavior	Occupational Safety and Health	Employee Performance	0.246	0.100	0.347
Occupational Safety and Health		Employee Performance	0.260		0.260

Source: Primary Data Processed, 2019

Based on the table above, it can be seen that the measurement model formed is as follows:

$$\text{Equation 1 : } Y_1 = 0.497 X_1 + 0.385 X_2$$

From equation 1, it can be informed that

- The direct effect coefficient of individual behavior on occupational safety and health of 0.497 states that individual behavior has a positive and significant effect on occupational safety and health. This means that the better individual behavior, the more likely it is to improve occupational safety and health.

- The direct effect coefficient of group behavior on occupational safety and health of 0.385 states that group behavior has a positive and significant effect on occupational safety and health. This means that the better the group behavior, the more likely it is to improve occupational safety and health.

$$\text{Equation 2 : } Y_2 = 0.276 X_1 + 0.246 X_2 + 0.260 Y_1$$

From equation 2, it can be informed that

- The direct effect coefficient of individual behavior on employee performance of 0.276 states that individual behavior has a positive and significant effect on employee performance. This means that the better individual behavior, the more likely it is to improve employee performance.
- The direct effect coefficient of group behavior on employee performance of 0.246 states that group behavior has a positive and significant effect on employee performance. This means that the better the group behavior, the more likely it is to improve employee performance.
- The coefficient of direct effect of occupational safety and health on employee performance of 0.260 states that occupational safety and health positively and significantly affect employee performance. This means that the higher occupational safety and health are, the more likely it is to improve employee performance.
- The indirect effect coefficient of person behavior on employee performance, measured at 0.129, indicates that individual conduct positively and significantly influences employee performance via workplace safety and health. It means that better individual behavior causes higher occupational safety and health, which tends to improve employee performance.
- The indirect effect coefficient of group behavior on employee performance through occupational safety and health of 0.100 states that group behavior has a positive and significant effect on employee performance through occupational safety and health. This means that higher occupational safety and health results from better group behavior, which tends to improve employee performance.

### Dominant Influence

Exogenous variables that have a dominant influence on endogenous variables can be seen through the highest total effect, which can be seen through the following explanation:

**Table 5.** Dominant Influence

Exogenous	Endogenous	Total
Individual Behavior	Occupational Safety and Health	<b>0.497</b>
Individual Behavior	Employee Performance	<b>0.405</b>

Group Behavior	Occupational Safety and Health	0.385
Group Behavior	Employee Performance	0.347
Occupational Safety and Health	Employee Performance	0.260

Source: Primary Data Processed, 2019

1. Dominant influence on occupational safety and health  
 Individual behavior has the greatest effect on occupational safety and health, with a total effect of 0.497. Thus, individual behavior is the most influential variable or dominant influence on occupational safety and health.
2. Dominant influence on employee performance  
 Individual behavior has the most considerable total effect on employee performance, with a total effect of 0.405. Thus, individual behavior is the most influential variable or dominant influence on employee performance.

#### 4.2 There is an influence of individual behavior on the performance of employees of PT Andalan Permata Buana

[24] defines behavior as a function of interactions between individuals and their environment, using four indicators: biographical characteristics, abilities, personality, and learning. Meanwhile, according to [24], performance is a function of the interaction between ability, motivation, and opportunity. So, performance here is measured by six indicators: quality, quantity, timeliness, effectiveness, independence, and work commitment.

The results of data processing show that individual behavior positively affects the performance of PT Andalan Permata Buana employees. This is shown in Tables 3 and 4, with the T statistics value of the relationship between individual behavior and employee performance is 3.120. Because the T statistics value > 1.96, there is a significant influence of individual behavior on employee performance. Then, the direct effect coefficient of individual behavior on employee performance of 0.276 states that individual behavior has a positive and significant effect on employee performance. The results of the data processing show that the better the individual behavior, the better the employee's performance.

If PT Andalan Permata Buana employees have sufficient experience, they produce good work in quantity and quality. Likewise, if employees in the company have adequate abilities and a good personality, their performance will be even better. Should the PT Andalan Permata Buana employee pursue more education, their job quality and quantity would undoubtedly be enhanced.

This study found that individual behavior has the largest total effect on employee performance, with a value of 0.405. Thus, individual behavior is the most influential variable or dominant influence on employee performance.

#### **4.3 There is an influence of individual behavior on the performance of employees of PT Andalan Permata Buana through occupational safety and health**

The data processing results in Tables 3 and 4 show that individual behavior affects the performance of PT Andalan Permata Buana employees through occupational safety and health. Occupational safety and health, which is defined according to Law No. 1 of 1970 concerning occupational safety, namely occupational safety and health is an effort to prevent work accidents that can cause various losses, both property losses (damage to equipment) as well as losses to human life (minor injuries, serious injuries, disability and even death) Then measured by four indicators, namely conditions and hazards that can arise in the workplace, all safety and protective equipment required in the workplace, personal protective equipment for the workforce concerned, and safe ways and attitudes in carrying out work.

The effect of individual behavior on employee performance through occupational safety and health obtained a T statistics value of 2.458. Then, the value of T statistics is  $> 1.96$ . This shows a significant influence of individual behavior on employee performance through occupational safety and health. Therefore, occupational safety and health are stated to be able to mediate the effect of individual behavior on employee performance. Then, the indirect effect coefficient of individual behavior on employee performance through occupational safety and health is 0.129, proving that individual behavior has a positive and significant effect on employee performance through occupational safety and health.

An employee's excellent learning ability about the importance of improving occupational safety and health will improve his performance. A good personality will enable him to maintain a safe attitude at work. If work is safe and health is maintained, of course, it will be easier for an employee to complete all the work that is his responsibility, the performance may increase.

#### **4.4 There is an influence of group behavior on the performance of employees of PT Andalan Permata Buana**

The results of data processing show that group behavior affects the performance of PT Andalan Permata Buana employees. Group behavior is defined by [24] as all activities carried out by two or more individuals who interact and influence and depend on each other to achieve certain goals. This group behavior is measured using five indicators, namely external conditions in the group, member resources, group structure, group processes, and group tasks.

The test results listed in the table above show that the T statistics value of the relationship between group behavior and employee performance is 2.251. Then the value of T statistics  $> 1.96$ , indicating that there is a significant influence of group behavior on employee performance. For the direct effect coefficient of group behavior on employee performance of 0.246 states that group behavior has a positive and significant effect on employee performance.

If the resources owned by group members can support all activities, it will be able to improve the performance of the group. Suppose all members have expertise that

supports the work, or the group has adequate financial resources, then performance will be easier to achieve. But on the other hand, if the human resources of most group members are not able to support the completion of the work, it tends to reduce the performance of the employees of PT Andalan Permata Buana.

#### **4.5 There is an influence of group behavior on the performance of PT Andalan Permata Buana employees through occupational safety and health**

The data processing results in Tables 3 and 4 show evidence that group behavior affects employee performance through work safety. This is indicated by the T statistics value of 2.364, which is  $> 1.96$ . Therefore, occupational safety and health can mediate the effect of group behavior on employee performance. The indirect effect coefficient of group behavior on employee performance through occupational safety and health of 0.100 states that group behavior has a positive and significant effect on employee performance through occupational safety and health.

The better group behavior, which shows a clear division of tasks in taking care of each other, will increase awareness of the importance of occupational safety and health. If occupational safety and health are improved due to more organized group behavior, the performance of PT Adalan Permatan Buana employees may improve.

#### **4.6 There is an influence of occupational safety and health on the performance of employees of PT Andalan Permata Buana**

Tables 3 and 4 show the data processing results proving that the occupational safety and health of PT Andalan Permata Buana employees affect their performance. This is evidenced by the T statistics value of the relationship between occupational safety and health on employee performance is 2.622, then the T statistics value  $> 1.96$ . This shows that occupational safety and health significantly influence employee performance. The direct effect coefficient of occupational safety and health on employee performance of 0.260 states that occupational safety and health positively and significantly affect employee performance. This means that the higher occupational safety and health are, the more likely it is to improve employee performance.

Understanding what conditions and hazards can arise in the workplace will prevent and reduce the occurrence of work accidents. Always checking whether all the required safety and protection equipment is in the workplace, always using personal protective equipment when working, and carrying out work in safe ways and with safe attitudes will improve the performance of PT Andalan Permata Buana employees.

#### **4.7 There is an influence of individual behavior on occupational safety and health.**

The data processing results show that the direct effect coefficient of individual behavior on occupational safety and health of 0.497 states that individual behavior has a positive and significant effect on occupational safety and health. This means that the better individual behavior, the more likely it is to improve occupational safety and health.

This study found that individual behavior is the most dominant variable affecting occupational safety and health in PT Andalan Permata Buana employees. This is evidenced by the total value of the effect of individual behavior, which is the largest, 0.497

#### **4.8 There is an influence of group behavior on occupational safety and health.**

The test results in the table above show that the T statistics value of the relationship between group behavior and occupational safety and health is 5.467, and the T statistics value is  $> 1.96$ . This indicates that group behavior significantly influences occupational safety and health. The direct effect coefficient of group behavior on occupational safety and health of 0.385 states that group behavior has a positive and significant effect on occupational safety and health. This means that the better the group behavior, the more likely it is to improve occupational safety and health.

### **5 Conclusion**

Based on the research findings, it can be concluded that individual and group behavior significantly influences the performance of PT Andalan Permata Buana employees, both directly and through aspects of occupational safety and health. Individual behavior is proven to be the dominant factor influencing occupational safety, health, and employee performance in the company. Therefore, it is recommended that decision-makers at PT Andalan Permata Buana pay more attention to and improve the individual behavior of employees in order to improve performance and create a safer and healthier work environment. In addition, theoretically, the results of this study are expected to contribute to the development of the study of individual behavior, groups, and occupational safety and health. Researchers also suggest further research by expanding the population involving companies from various fields to make the research results more comprehensive and applicable in a broader context.

### **References**

- [1] Sitorus, B. *Pengaruh Sikap dan Perilaku dalam Kelompok pada PT Bank Sumut Cabang Tarutung* (Doctoral dissertation, Universitas Sumatera Utara). (2012).
- [2] Zaenal, T. Hubungan Perilaku Keselamatan dan Kesehatan Kerja dengan Dosis Radiasi pada Pekerja Reaktor Kartini. In *Seminar Nasional IV Keselamatan Kerja*. (1978).
- [3] Sabarofek, M.S. and Sawaki, M.E. The Influence of Individual Characteristics. *Work Culture and Individual Behavior on Employee Performance: A Case Study at PT Televisi Mandiri Papua*, 12(2), pp.93-106. (2017).
- [4] Rahman, A. Pengaruh Perilaku Individu Terhadap Kinerja Pegawai Pada Kantor Wilayah Departemen Agama Provinsi Riau. *Cano Ekonomos*, 2(1), 1-19. (2013).
- [5] Sarwoko, E. Peranan faktor individu, budaya organisasi, dan perilaku kerja terhadap kinerja karyawan radio swasta nasional di Malang. *Jurnal Ekonomi Modernisasi*, 3(1), 12-27. (2007).



- [6] Anzhari, I., Sumampouw, H., & Kaparang, S. Pengaruh Perilaku Pemimpin Terhadap Kinerja Karyawan PT. Bank Tabungan Negara (Persero) Tbk. Kantor Cabang Manado. *Jurnal Administrasi Bisnis (JAB)*, 4(1). (2016).
- [7] Riyadi, I. B. Pengaruh Perilaku Pimpinan, Kepuasan Kerja, Lingkungan Kerja Dan Kemampuan Kerja Terhadap Kinerja Karyawan PT. BPR Central Artha-Tegal. *Media Ekonomi dan Manajemen*, 29(2). (2016).
- [8] Firmanzah, A., Hamid, D., & Djudi, M. *Pengaruh Keselamatan Dan Kesehatan Kerja Terhadap Kinerja Karyawan (Studi Pada Karyawan PT. PLN (Persero) Area Kediri Distribusi Jawa Timur)* (Doctoral dissertation, Brawijaya University). (2017).
- [9] Mutiarasari, P., Prasetya, A., & Djudi, M. *Pengaruh Program Keselamatan Dan Kesehatan Kerja (K3) Serta Lingkungan Kerja Terhadap Motivasi Dan Kinerja Karyawan (Studi Pada Karyawan Pg. Kebon Agung Kabupaten Malang)* (Doctoral dissertation, Brawijaya University). (2017).
- [10] Wibowo, E., & Utomo, H. Pengaruh keselamatan kerja dan kesehatan kerja terhadap kinerja dengan kepuasan kerja sebagai variabel intervening (Studi kasus pada karyawan bagian produksi unit serbuk effervescent PT Sido Muncul Semarang). *Among Makarti*, 9(1). (2016).
- [11] Simanjuntak, N., & Andri, S. *Pengaruh keselamatan dan kesehatan kerja (K3) terhadap kinerja karyawan PT. Haleyora Powerindo Pekanbaru* (Doctoral dissertation, Riau University). (2016).
- [12] Aprilia, R., & Prihatini, A. E. Pengaruh kepemimpinan dan K3 terhadap kinerja karyawan bagian teknik PT. PLN (PERSERO) UPJ-Semarang. *Jurnal Administrasi Bisnis*, 5(1), 1-5. (2016).
- [13] Sombolinggi, B., Abdurahman, M. A., & Hamzah, S. Studi Pengaruh Keselamatan Dan Kesehatan Kerja Terhadap Kinerja Pekerja Pada Proyek Pelebaran Rantepao-Palopo Oleh Pt. *Waskita Karya*. (2016).
- [14] Frans, A. Pengaruh kesehatan dan keselamatan kerja (K3), dan insentif terhadap motivasi serta kinerja karyawan pada bagian produksi. *Masyarakat, Kebudayaan Dan Politik*, 28(4), 219-226. (2015).
- [15] Amalita, A. N., Utami, H. N., & Mayowan, Y. *Pengaruh Program Keselamatan dan Kesehatan Kerja Terhadap Kepuasan Kerja dan Kinerja Karyawan (Studi pada Karyawan Kompartemen Operasi I dan II PT Pupuk Kaltim)* (Doctoral dissertation, Brawijaya University). (2015).
- [16] Munandar, M. R. *Pengaruh keselamatan, kesehatan kerja (K3) dan insentif terhadap motivasi dan kinerja karyawan (studi pada pekerja bagian produksi PT. Sekawan Karyatama Mandiri Sidoarjo)* (Doctoral dissertation, Brawijaya University). (2014).
- [17] Juwitasari, V. M. A. *Pengaruh keselamatan dan kesehatan kerja terhadap kinerja karyawan (Studi Pada Karyawan Bagian Produksi PT. Inti Luhur Fuja Abadi, Beji Pasuruan)* (Doctoral dissertation, Brawijaya University). (2014).
- [18] Anjani, M. *Pengaruh Keselamatan dan Kesehatan Kerja Terhadap Kinerja Karyawan (Studi pada Karyawan Bagian Produksi PT. International Power Mitsui Operation and Maintenance Indonesia (IPMOMI) Paiton)* (Doctoral dissertation, Brawijaya University). (2014).
- [19] Satriawan, A. L. & Kaming, P. F. *Relasi antara Kepuasan Kerja, Gaya Kepemimpinan, dan Penerapan program Keselamatan dan Kesehatan Kerja*

- pada Proyek Konstruksi*. Konferensi Nasional Teknik Sipil 8 (KoNTekS8) Institut Teknologi Nasional. Bandung: 16 - 18 Oktober 2014. Hal. MK121-MK128. (2014).
- [20] Al Kautsar, I. *Pengaruh keselamatan dan kesehatan kerja terhadap kinerja karyawan (studi pada karyawan tetap bagian produksi PR. Sejahtera Abadi Malang)* (Doctoral dissertation, Brawijaya University). (2013).
- [21] Rozy, M. F., & Anisah, H. U. Pengaruh Motivasi, Kesehatan Dan Keselamatan Kerja Terhadap Kinerja Karyawan Lapangan (Studi Pada PT. Amanah Anugerah Adi Mulia). *JWM (Jurnal Wawasan Manajemen)*, 1(3), 323-348. (2013).
- [22] Christina, W. Y., Djakfar, L., & Thoyib, A. Pengaruh Budaya Keselamatan dan Kesehatan Kerja (K3) terhadap kinerja proyek konstruksi. *Jurnal Rekayasa Sipil*, 6(1), 83-95. (2012).
- [23] Selanno, H. Faktor internal yang mempengaruhi perilaku organisasi. *Jurnal Populis*, 8(2), 44-56. (2014).
- [24] Robbins, S. P., & Judge, T. A. *Perilaku Organisasi*, Edisi 8. (2001).
- [25] Rivai, V. *Kepemimpinan dan perilaku organisasi*. (2014).
- [26] Wursanto, I. *Dasar-dasar ilmu organisasi*. Yogyakarta: Andi Offset. (2005).
- [27] Apriyanto, W., & Satrio, R. B. Pengaruh gaya kepemimpinan transformasional dan motivasi kerja terhadap kinerja karyawan. *Jurnal Ilmu Dan Riset Manajemen (JIRM)*, 4(11). (2015).
- [28] Prabu, M. A. *Manajemen sumber daya manusia perusahaan*. Bandung: PT. Remaja Rosdakarya. (2005).
- [29] Cochran, W. G., & Radiansyah. *Teknik penarikan sampel*. University Indonesia Press. (1991).
- [30] Ferdinand, A. *Metode penelitian manajemen: Pedoman penelitian untuk penulisan skripsi tesis dan disertasi ilmu manajemen*. (2014).