

# The Needs That Are Able To Motivate Leadership and Work Environment on Performance of Employees in Smelter General Maintenance Department (SGM) PT Indonesia Asahan Aluminum (Persero)

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## ABSTRACT

PT Indonesia Asahan Aluminum (Persero) is a joint venture between the government of Indonesia and Japan established in Jakarta and has many branches in various cities in Indonesia and has many employees, one of which is in the area of Batu Bara Regency, North Sumatra. Along with its development there is a decrease in employee performance caused by a decrease in work motivation, a less participatory leadership style and a non-supportive work environment. The purpose of this study is to find out and analyze the influence of motivation, leadership and work environment on employee performance. This type of research is quantitative associative. The population of this study was 208 employees and sample collection using probability sampling techniques as many as 137 employees. Data analysis using multiple linear regression. Research results show that motivation, leadership and work environment have a positive and significant effect on employee performance at PT Indonesia Asahan Aluminum (Persero).

**Keywords:** Abnormal Return, Trading Volume Activity, Security Return Variability, Presidential Election.

## INTRODUCTION

Improving employee performance has become very important in changing government policies in developing the spirit of reform to provide space for movement and the role of society in government while the government is only a facilitator. Government apparatus is one of the resources that exist in an organization besides other resources. The low performance of employees in an organization can cause organizational barriers to achieving goals. There are many

factors that influence employee performance including motivation, job satisfaction, stress level, physical condition of work, recruitment, job analysis, job description, compensation system, economic aspects, technical aspects and behavior, Martoyo (2013).

One of the factors that influence employee performance is motivation. According to research conducted by Omollo (2015), the causes of low employee performance are motivation caused by employee irregularities, high recruitment

costs, training, increased competition, increased regulation by the government and feelings of loss of motivation and overwork. The results of interviews with employees are known that performance degradation is caused by lack of motivation. Such as job training that is rarely given to employees, lack of a sense of togetherness of cooperation and employee responsibility in carrying out tasks.

According to Mondy (2008), performance is a goal-oriented process that is directed at ensuring that organizational processes are in place to maximize the productivity of employees, teams, and ultimately the organization. According to Mondy (2008), performance appraisal is a formal system for evaluating and evaluating employee task performance, both individuals and teams. Performance appraisals are often seen as unwelcome and negative routine actions and are considered not to require expertise. Even though performance appraisal is an important activity and provides many benefits for the company.

Motivational factors greatly affect employee performance. The desire to fulfill needs will affect the work motivation that exists in each individual to do everything better than others in carrying out activities to achieve goals. Motivation is an important part of every activity, without motivation there is no real activity, motivation encourages employees to try to meet their needs. Employees will work seriously if they have high motivation, if the employee has a positive motivation in the task or activity, he will show interest, have attention and want to participate in tasks and activities.

Another factor that influences employee performance is leadership. Research conducted by Henarthgoda (2016) states that leadership can reduce employee performance due to low leadership development, empowerment, training, coaching, participation and delegation.

The work environment also affects employee performance. According to

Bushiri's research (2014), the work environment has an influence on lowering employee performance caused by a lack of flexibility in the work environment, work noise disturbances, lack of interpersonal relationships between superiors and subordinates. Existing environmental factors around the organization are often called work environment conditions. Pleasant working conditions especially for working hours will improve employee morale and sincerity of work, good equipment, comfortable work space, protection against hazards, good ventilation, adequate employees, and success can not only increase efficiency.

According to the results of research by Litwin and Stringer as quoted by Steers (2015), it was concluded that an authoritarian work environment or organizational climate with centralized decision making while worker behavior was determined largely by standard rules and procedures, not only would lead to low productivity, but also generate very little job satisfaction and have an impact on low employee performance. On the other hand, a work environment that is familial with pressure on good interpersonal relations among workers, usually leads to high job satisfaction, a positive attitude towards work groups, and considerable creative behavior, where employee performance will be easily increased.

Performance-oriented work environment, pressure placed on achieving goals will arise creative behavior and high productivity. Performance work environments also result in high job satisfaction, positive group attitudes, and high levels of achievement motivation, Steer (2015). A work environment that is concerned with workers with open communication, mutual support, and decentralization of decision making usually leads to increased work performance, reduced movement of workers, reduced production costs, and shorter training / education time. Thus the work environment that is best for production and job

satisfaction is usually a work environment that emphasizes work performance and consideration of workers.

PT Indonesia Asahan Aluminium (Persero) is a state-owned company engaged in Aluminum processing and smelting and hydropower plant located in North Sumatra. This company is the largest aluminum production company in Indonesia. PT Indonesia Asahan Aluminium (Persero) is the 141st BUMN owned by the Indonesian nation after previously a company owned by a consortium of Indonesia and Japan. PT Indonesia Asahan Aluminium (Persero) has two business fields which are worked on, namely Asahan Hydroelectric Power Plant (PLTA) and Aluminum Smelting. The Aluminum smelter uses 100% of the electricity from the PLTA that it manages. Aluminum smelting products are in the form of ingots which are mostly exported and the remainders are for domestic consumption.

At present PT Indonesia Asahan Aluminium (Persero) has 1,937 employees, most of which are in Kuala Tanjung and North Sumatra Paritohan. The well-being of the employees of PT Indonesia Asahan Aluminium (Persero) is very good, in addition to the large take home pay, a clear career and health problems also get serious service because the company has its own

hospital. Besides that, when you retire you get severance pay that can reach billions of Rupiah. Employees are also provided with full health facilities with the availability of self-owned hospitals, mess facilities and housing with complete facilities ranging from supermarkets, mosques, churches, post offices, sports facilities and so on. PT Inalum (Persero) also has an agreement that must be held firmly by employees including:

1. Comply with the State Law and Company Regulations.
2. Be honest and loyal to the Company.
3. Carry out tasks with full responsibility and discipline.
4. Cultivating a sense of togetherness, mutual understanding and harmonious cooperation.
5. Increase self-development for success.

This guideline is one form of commitment that is prepared as a behavioral reference for Inalum employees in managing the Company to achieve the Company's Vision and Mission. Based on the initial survey conducted, there was an increase and a decrease in employee performance, as indicated by the list of performance assessments in Table 1.1 below:

**Table 1.1 List of Employee Performance Evaluations for 2015-2018**

No.	Assessment	2015	2016	2017	2018
1.	Very Good (A)	60 person	46 person	35 person	31 person
2.	Good (B)	60 person	59 person	60 person	57 person
3.	Medium (C)	34 person	44 person	49 person	53 person
4.	Low (D)	54 person	59 person	64 person	67 person
	Total	208 person	208 person	208 person	208 person

Source: HRD PT Inalum (Persero), 2019

Based on the data in Table 1.1 it is known that there is an increase in employee performance results in the medium and low categories. Whereas the assessment in the excellent category continues to decline from 2015-2018 as well as the performance evaluation in the good category has increased from 2015-2017 but in 2018 it has decreased. This can be interpreted that employee performance is still not optimal. Employee performance assessment is seen

from employee compliance in carrying out employee guidelines that exist in PT Inalum. The decline in employee performance comes mainly from the following sections and details.

**Table 1.2 PT Inalum employees in SGM section**

Section	Number of Employees
Smelter Maintenance One (SMO)	59 Employee
Smeltel Maintenance Two (SMT)	66 Employee
Smeltel Service & Workshop (SSW)	62 Employee
Smeltel Electric Station (SES)	21 Employee
Total	208 Employee

Source: HRD PT Inalum (Persero), 2019

Based on Table 1.2, it can be seen that the section in PT Inalum, part of the Smelter General Maintenance Department (SGM), is divided into 4 sections including SMO, SMT, SSW, and SES. From several sections that have a tendency to decrease performance, this can be seen by the fact that there are still employees who have low performance and moderate performance. This of course raises questions for researchers measuring performance at PT Indonesia Asahan Aluminum (Persero) need to be reviewed so that employee performance can be more optimum. Thus the direction of research is to identify and analyze the factors that influence the

performance of employees at PT Indonesia Asahan Aluminum (Persero) so that it can provide input for management in formulating appropriate human resource strategies to improve employee performance as a basis for competitive advantage. The low performance of existing employees has an impact on the quality of work.

The first problem phenomenon with a decrease in performance is that there are still employees who lack motivation in working, there are some employees who are late in entering work hours. Lack of motivation in employees can be seen from Table 1.3 employees who are often neglected or licensed in the last few months.

**Table 1.3 Employee Attendance for October 2017-March 2018**

No	Month	Total Employee	Information					
			Sick	%	Permission	%	Alpa	%
1	October	208	12	5,7	2	0,96	16	7,6
2	November	208	2	0,96	7	3,4	5	2,4
3	December	208	3	1,4	14	6,7	12	5,7
4	January	208	7	3,4	4	1,9	13	6,2
5	February	208	5	2,4	11	5,2	12	5,7
6	March	208	14	6,7	11	5,2	12	5,7

Source: Personnel Section of PT Inalum (Persero), 2019

From Table 1.3 we can see that there are still negligent employees, and the results fluctuate every month. With still frequent employees absent from their jobs, it means that there is still less encouragement from employees to do the best performance for the company. Lack of employee motivation is caused by a lack of appreciation given by the company to employees when employees are able to complete their work. Many factors become stimulants or incentives for employees to work as hard as they can in order to achieve maximum performance.

Employees still consider the workload to be too heavy, organizational awards are still lacking, and lack responsibility for work. Compensation is also still unclear in measuring instruments, where there are positions that are compensated and some are not given besides the rewards provided by PT Indonesia Asahan Aluminum (Persero) to employees are indeed sufficient but the policies of the leadership and organizational commitment are still lacking. There are still

employees who have not received rewards from their superiors. Award from the leadership given to each subordinate to motivate employees to work evenly in each section

The leadership style in PT Indonesia Asahan Aluminum (Inalum) still needs attention. There are leaders who are considered less participatory. In this case the leader is not directly involved in controlling every job performed by the employee so that less participation from the supervisor to monitor each activity is the cause of the decline in employee performance. This can be seen from the number of tasks that cannot be completed by the employee on time, the leader cannot provide a solution to the problems being faced, causing employee productivity to decline and the company's target is difficult to achieve.

The work environment is also a role in this research, namely a less conducive work environment at PT Indonesia Asahan Aluminum (Persero). Narrow environmental

conditions make employees uncomfortable in working relationships between coworkers and superiors are still fragmented blocks one with another block and the layout between parts one with the other parts apart so that interfere with work communication. In addition, the leadership work room with remote employees also disrupts the smooth running of work. Leaders are less able to unite employees so that they are not divided into illegal units which will reduce communication skills and not support employee performance.

Based on the explanation above, the problem to be examined and is very important in influencing the performance decline. The decline in performance is the achievement of work targets that are not in accordance with the procedures specified in the work plan. Work implementation exceeds the existing work guidelines. The quantity of work is still difficult to improve. Therefore this research is very important to follow up whether these problems can affect the overall performance of the organization. So that researchers are interested in researching with the title "The Needs That Are Able To Motivate Leadership And Work Environment On Performance Of Employees In Smelter General Maintenance Department (Sgm) Pt Indonesia Asahan Aluminum (Persero)".

### **Hypothesis**

Based on the research background and the relationship between variables, the research hypothesis is as follows:

1. Motivation has a positive and significant effect on employee performance at the PT Indonesia Asahan Aluminum Smelter General Maintenance (SGM) Department.
2. Leadership has a positive and significant effect on the performance of employees at the PT Indonesia Asahan Aluminum Smelter General Maintenance (SGM) Department.
3. The work environment has a positive and significant effect on employee performance at the PT Indonesia Asahan

Aluminum Smelter General Maintenance (SGM) Department.

4. Motivation, leadership and work environment together have a positive and significant effect on employee performance in the Smelter General Maintenance (SGM) Department of PT Indonesia Asahan Aluminum.

### **MATERIALS AND METHODS**

The approach of this research is associative research. One type of research according to the level of explanation (explanation) is associative research. This research was conducted at the Smelter General Maintenance (SGM) Department of PT Indonesia Asahan Aluminum. Jl. Kuala Tanjung Sei District Like 21657 Batu Bara Regency, North Sumatra.

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be studied and then conclusions drawn. The populations in this study were employees of PT. Indonesia Asahan Aluminum in the Department of Smelter General Maintenance (SGM) which has 4 sections consisting of:

**Table 3.1. Number of SGM Section Staff**

Section	Number of Employees	Sample
Smelter Maintenance One (SMO)	59 Employee	35
Smelter Service & Workshop (SSW)	62 Employee	29
Smelter Maintenance Two (SMT)	66 Employee	34
Smelter Electric Station (SES)	21 Employee	39
Total	208 Employee	137

Source: HRD PT Inalum (Persero), 2019

Based on Table 3.1, it can be seen the number of employees of the SGM section consisting of SSW, SMO, SMT and SES sections as many as 208 employees so that the population in this study was 208 employees.

The way to take samples is by using probability sampling with simple random sampling technique. Simple random sampling is a sampling technique that is directly carried out on sampling units (Margono, 2010: 126). Simple random sampling technique allows each sampling unit as a population element to have the

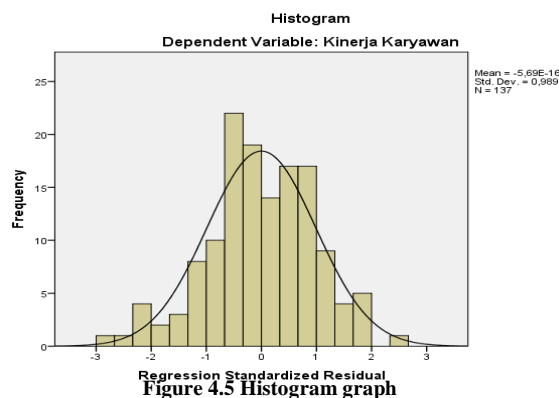
same opportunity to become a sample. Calculation of samples using the Slovin formula. So that from the calculation results obtained a sample size of 137 respondents.

## RESULTS AND DISCUSSION

### Classical Assumption Test Results

#### Normality test

The normality test of the data used in this study was conducted by testing the normality plot by looking at the P-Plot graph. The basis of decision making is that if the data spread around the diagonal and follow the direction of the diagonal line, then multiple linear regression models meet the assumptions of normality. In addition, the histogram graph display also gives a normal distribution pattern because it spreads evenly to the left and right. The results of the normality test performed are shown in Figure 4.5 and Figure 4.6 below:



In Figure 4.5, the lines and histograms cross from left to right. This image shows that the processed data is normally distributed.

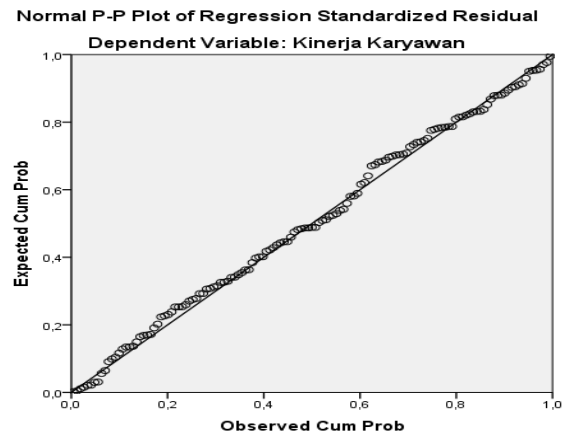


Figure 4.6 P-Plot Normality Test Results

Based on Figure 4.6 it can be seen that the data is distributed evenly along the diagonal line. This proves that the data used in this study meets the assumptions of normality.

#### Multicollinearity Test

Multicollinearity is a condition where there is a significant correlation between independent variables. If there are symptoms of multicollinearity that are relatively perfect, then the interpretation through the least squares becomes insignificant and the variance and standard deviation becomes undefined. This causes an increase in deviations regarding the accuracy of the independent variable in explaining the dependent variable. From the results of the analysis obtained the tolerance value and Variance Inflation Factor (VIF) in Table 4.10 as follows:

Table 4.10 Multicollinearity Test Results

Coefficients <sup>a</sup>		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
Model		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,112	2,387		1,304	,195		
	Motivation	,412	,073	,422	5,677	,000	,511	1,957
	Leadership	,170	,066	,181	2,569	,011	,571	1,751
	Work Environment	,299	,060	,325	4,937	,000	,652	1,533

a. Dependent Variable: Employee Performance

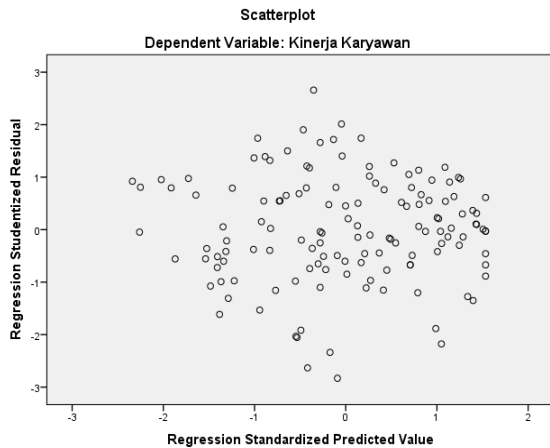
Based on Table 4.10 it is known that the VIF value for independent variables consisting of motivation (X1) Leadership (X2) and Work Environment (X3) is less than 10 (VIF <10), while tolerance values are greater than 0.1 (tolerance > 0, 1). Thus

free from the assumption of multicollinearity.

#### Heteroscedasticity Test

Heteroscedasticity test aims to test whether in multiple linear regression models variance inequality occurs from one residual to another observation. If the residual

variance from one observation to another observation remains, it is called homoscedasticity; conversely if different it is called heteroscedasticity. A good regression model is that homoscedasticity or heteroscedasticity does not occur. With SPSS processing, the following results are obtained in Figure 4.7:



**Figure 4.7 Heteroscedasticity Test Results**

Based on Figure 4.8 it can be seen that the points spread randomly above and below the number 0 on the Y axis. Thus it can be concluded that the multiple regression equation on the hypothesis is free from the assumption of heteroscedasticity.

### Results of Multiple Linear Regression Analysis

Multiple linear regression analysis was used to find out and analyze the influence of motivation, leadership and work environment on employee performance, the hypothesis the researcher used Multiple Regression Analysis and to obtain the data results, the writer used the SPSS 24 program in Table 4.11 below:

**Table 4.11 Analysis of Multiple Linear Regression**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,112	2,387		1,304	,195
	Motivation	,412	,073	,422	5,677	,000
	Leadership	,170	,066	,181	2,569	,011
	Work Environment	,299	,060	,325	4,937	,000

Based on Table 4.11, it can be seen the second column (Unstandardized Coefficients) section B obtained the value of b1 motivation variable (X1) of 0.412, the value of b2 leadership variable (X2) of 0.170 and b3 value of work environment variable X3) of 0.299. The equation of multiple linear regression analysis in this study is:

$$Y = 3,112 + 0,412 X_1 + 0,170 X_2 + 0,299 X_3$$

Based on these equations can be described as follows:

1. Interpretation of multiple regression equations namely:

- a. If everything in the independent variables namely motivation (X1), leadership (X2), and work environment (X3) is considered zero, the employee's performance (Y) is 3,122.
- b. If there is an increase or increase in motivation level (X1) of 1 unit, then

the employee's performance will increase by 0.412.

- c. If there is an addition or increase in leadership (X2) of 1 unit, then the purchasing decision will increase by 0.170.
  - d. If there is an addition or increase in leadership (X3) of 1 unit, then the purchasing decision will increase by 0.299.
2. Motivation (X1) has a positive effect on performance (Y) indicated by a regression coefficient of 0.412 with a positive sign (+) which indicates a unidirectional relationship. And motivation (X1) has a significant effect on purchasing decisions (Y) which is indicated by a significance level of 0,000 smaller than alpha 0.05 ( $p < 0.05$ ). This means that if work motivation (X1) is increased it will have an effect with increasing employee performance (Y).

3. Leadership (X2) has a positive effect on employee performance (Y) indicated by a regression coefficient of 0.170 with a positive sign (+) which shows a unidirectional relationship. And leadership (X2) has a significant effect on employee performance (Y) which is indicated by a significance level of 0.011 smaller than alpha 0.05 ( $p < 0.005$ ). This means that if leadership (X2) is increased, it will affect the increase in employee performance (Y).
4. Work environment (X3) has a positive effect on employee performance (Y) indicated by a regression coefficient of 0.299 with a positive sign (+) which shows a unidirectional relationship. And the work environment (X3) has a significant effect on employee

performance (Y) which is indicated by a significance level of 0,000 smaller than alpha 0.05 ( $p < 0.005$ ). This means that if the work environment (X3) is increased, it will have an effect with increasing employee performance (Y).

### Hypothesis Test Results

#### Determination Coefficient Test (R2)

To find out the size of the contribution or contribution between the motivation independent variable (X1), leadership (X2) and work environment (X3) on the dependent variable, employee performance (Y) can be seen from the R2 (R Square) value. The magnitude of the coefficient of determination in this study can be seen in Table 4.12 below:

**Table 4.12 Determination Coefficient Test Results (R2)**

Model Summary <sup>b</sup>										
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Change Statistics				
						R Square Change	F Change	df1	df2	Sig. F Change
1	,790 <sup>a</sup>	,625	,616		4,73330	,625	73,843	3	133	,000
a. Predictors: (Constant), Work Environment, Leadership, Motivation										
b. Dependent Variable: Employee Performance										

From Table 4.12 it is known that the Adjusted R Square value is 0.616 or 61.6%. This value gives an understanding that motivation (X1), leadership (X2) and work environment (X3) has an effect on employee performance (Y) of 61.6%. The rest is influenced by other variables beyond the analysis of research, namely compensation, recruitment and work stress.

#### Simultaneous Test (F Test)

To test this hypothesis used F statistics with decision-making criteria if the F value is greater than F table, then Ho is rejected and Ha is accepted. Simultaneous influence of motivation variables (X1), leadership (X2) and work environment (X3) influences employee performance (Y) in multiple linear regression analysis can be seen in Table 4.13:

**Table 4.13 Simultaneous Test Results (Test F)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4963,139	3	1654,380	73,843	,000 <sup>b</sup>
	Residual	2979,752	133	22,404		
	Total	7942,891	136			
a. Dependent Variable: Employee Performance						
b. Predictors: (Constant), Work Environment, Leadership, Motivation						

Based on Table 4.13, it is found that the Fcount is 73.843 with a significant level of 0.000 smaller than alpha 0.05 (5%). The resulting F count is 73.843 greater than Ftable which is 2.44. The provisions of table F are obtained from the number of samples

reduced by the number of variables, namely  $df2 = n - k = 137 - 4 = 133$ , and the number of variables reduced by 1, so that  $df1 = k - 1 = 4 - 1 = 3$ . And the results obtained from table F of 2.44. Thus simultaneously motivation (X1), leadership (X2) and work



environment (X3) influences employee performance (Y).

### Partial Test (t Test)

The t test is used to find out and look for the effects of independent variables (motivation, leadership and work environment) partially affecting the dependent variable (employee

performance). The t-table value in this study is 1.66 (by looking at t-table at the 0.05 level of significance). With a significance level of 0.05. Hypothesis testing is done by comparing the calculated values with the value of t-table with the decision criteria if t-count <t-table Ho is accepted or Ha is rejected, and if t count > t-table Ho is rejected or Ha is accepted.

**Table 4.14 Partial Test Results (t Test)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Keterangan
		B	Std. Error	Beta			
1	(Constant)	3,112	2,387		1,304	,195	
	Motivation	,412	,073	,422	5,677	,000	1
	Leadership	,170	,066	,181	2,569	,011	3
	Work Environment	,299	,060	,325	4,937	,000	2

Dependent Variable: Employee Performance

Based on Table 4.14 it can be explained as follows:

1. Value of t count > t table of motivation (X1) which is 5.6775 > 1.978 and significant value for motivation is 0.000 < alpha 0.05, so the motivation variable (X1) has a positive and significant effect on employee performance (Y) thus then the hypothesis is accepted.
2. Value of t count > t table of leadership variables (X2) which is 2.569 > 1.978 and significant value for leadership is 0.011 < alpha 0.05, so the leadership

variable (X2) has a positive and significant effect on employee performance (Y) thus hypothesis accepted.

3. The value of t count > t table from the work environment variable (X3) is 4.937 > 1.978 and the significant value for the work environment is 0.000 < alpha 0.05, so the work environment variable (X2) has a positive and significant effect on employee performance (Y) thus the hypothesis is accepted.

**Table 4.20 Summary of Hypothesis Test Results**

No	Hypothesis	Path Coefficient	t-hitung >	Sig <	Results
			1,978		
			f-hitung >		
			2,011		
1	(H <sub>1</sub> Motivation has a positive and significant effect on employee performance	,412	5,677	,000	Accepted
2	(H <sub>2</sub> Leadership has a positive and significant effect on employee performance	,170	2,569	,011	Accepted
3	(H <sub>3</sub> The work environment has a positive and significant effect on employee performance	,299	4,937	,000	Accepted
4	Motivation, leadership and work environment together have a positive and significant effect on employee performance	-	73,843	,000	Accepted

Source: Processed by the author (2019)

## DISCUSSION

### Motivation Has A Positive And Significant Effect On Employee Performance

Motivation is an important element in human beings, which plays a role in achieving success in human work or work. Work motivation is a concept that describes

the forces that exist within employees and directs behavior (Gibson, 2004). Motivation provides the driving force that creates the excitement of one's work, in order to work together, work effectively and be integrated with all its efforts to achieve goals.

According to Hasibuan (2010: 141), work motivation is very important for

employees because with work motivation it is expected that individual employees want to work hard and be enthusiastic to achieve high work productivity. Motivation questions how to encourage subordinate work passion so that they want to work hard by giving all their abilities and skills to realize the company's goals. With the existence of motivation, then there is a willingness to work and with the willingness to work and with cooperation, the performance will increase. Employee performance is a benchmark for company performance, the higher the employee's performance, the higher the company's performance. McClelland in Mangkunegara (2011: 68) also argues that there is a positive relationship between achievement motivation and performance achievement. This is because the achievement motives that are grown from within themselves will form a strength of self and if the work environment situation also supports the achievement of performance will be more maximal. The higher the motivation of the employee the higher the performance of the employee and vice versa

This study provides empirical evidence that work motivation has a positive and significant effect on employee performance which means that an impulse that exists in employees is able to improve performance. This is seen from the number of employees who answer strongly agree with the highest answer is on the willingness indicator to achieve achievement because of the award with an average value of 4.21%, the value comes from the total respondents who answered the tendency to agree as many as 109 people (79.5%) and respondents who answered the tendency to disagree were 28 people (20.4%). The encouragement of employees at PT Inalum also comes from the desire to get full power, achieve achievements and get awards.

PT Inalum has provided opportunities for employees to improve their work performance by giving higher awards and career paths. With the

increasing career income of employees, this will become a driving force for employees to improve their performance better. This indicates how strong the drive, effort, intensity, and willingness to sacrifice to achieve the goal. In this case the stronger the motivation or motivation and the higher the performance.

Mangkunegara (2015: 67) states that factors that influence performance are ability and motivation factors. While Malthis (2011) states that the performance sought by the company from a person depends on the ability, motivation, and individual support received. According to Lukito (2016) there is a positive relationship between motivation and performance with achievement, meaning employees who have high achievement motivation tend to have high performance, on the contrary those who have low performance are possible because of low motivation. Research by Suharto and Budhi Ratnasari (2012) also examined the relationship between motivation and employee performance, that work motivation had a positive effect on employee performance.

### **Leadership Has A Positive And Significant Effect On Employee Performance**

Robbins (2012: 12) leadership is the ability to influence a group towards achieving a goal. Leadership is a person who is run in certain situations, and is directed through a communication process towards achieving one or several specific goals. Leadership involves the process of intentional social influence carried out by someone against another person to structure activities and influences within a group or organization. An organization will succeed or fail largely determined by the leader. The leader is responsible for the success and failure of carrying out a job.

Leadership is the ability to influence the activities of others through communication, both individually and in groups towards achieving goals (Anoraga, 2014). According to Hasibuan (2011)

leadership is the way a leader influences the behavior of subordinates, so they want to work together and work productively to achieve organizational goals. Leadership or leadership is the applied science of the social sciences, because its principles and formulations are expected to bring benefits to human welfare. There are many meanings expressed by experts according to their respective perspectives, these definitions show some similarities.

In the book *The Art of Leadership*, Ordway Tead states that leadership is an activity affecting people so that they are willing to work together to achieve the desired goals. The important thing that must be understood by a leader in implementing leadership in an agency or organization is that being a leader must be able to observe and discover the reality of an environment, for that the leader must be able to see, observe and understand the situation or workplace situation, in the sense how the subordinates are, how the organization is, how the assignment situation is and how it is about itself so that leaders are able to apply the right leadership. (Kartini Kartono, 2011: 57).

A leader must be able to provide a vision that leads to a better, more successful, or more desirable future goal compared to current conditions. A strong vision will lead to successful leadership, because successful leadership is the key to success. Empowering leadership also needs to be possessed by a leader who is suspected of prioritizing a harmonious relationship between leaders and subordinates to foster empowerment that leads to creativity and innovation (Zhang and Bartol, 2010). A leader who has a long-term goal in a company will do coaching and has social care for each member of the organization.

Leadership in a company is very necessary for achieving organizational goals. PT Inalum requires a leader who can have a positive impact and progress for the company. Some of the criteria needed to improve employee performance are leaders who are able to approach Inalum

employees. Not only do orders to subordinates but also jump directly to see conditions in the field. In addition, subordinates also need a leader who is able to solve problems that exist in the employee and provide solutions to all problems that occur so that a leader is able to give influence to employees.

The results of the study show that leadership has a positive and significant effect on performance. This means that if leadership is improved it will improve employee performance. This can be seen from the average answer of the respondent who agrees with the highest answer indicator in the statement of the leader, always providing challenging work for subordinates who like challenges. With an average value of 4.16% consisting of respondents who answered the agreed tendency as many as 107 people (78.1%) and respondents who answered the tendency to disagree as many as 30 people (21.9%).

This research is in line with research from Abdilah (2011), Khalil (2008), Iwan Ristiawan (2013), Bruce J Avolio (2010), Raudlotul Jannah (2017) and Fahmi (2009) suggesting that leadership has a positive and significant relationship to performance . Therefore every manager or leader must know and understand the factors that can motivate employees so that they can improve employee performance and be able to be an effective driving force for employees to achieve organizational goals in accordance with what has been set. With good leadership it will have a positive impact on performance.

### **The Work Environment Has A Positive And Significant Effect On Employee Performance**

Sedarmayanti (2011: 21), states that the work environment is the entire tooling equipment and materials faced, the surrounding environment in which a person works, the method of work, and work arrangements both as individuals and as a group. The work environment has an influence on employees in completing work

which will ultimately improve organizational performance. Therefore, the determination and creation of a good work environment will greatly determine the success of achieving organizational goals. The work environment that gets less attention will have a negative impact on the company, this is because employees in carrying out the task experience interference, so that lack of enthusiasm, lack of concentration and inhibit their work. With a good and comfortable work environment, employees will be able to work well without significant interference.

The work environment in a company is very important to pay attention to management. Although the work environment does not carry out the production process in a company, but the work environment has a direct influence on the employees who carry out the production process. The work environment is an atmosphere where employees carry out activities every day. A conducive work environment provides a sense of security and allows employees to work optimally. If the employee takes care of the work environment where he works, then the employee will feel at home in his workplace, doing his activities so that work time is used effectively.

Conversely an inadequate work environment will be able to reduce employee performance. Some experts define the work environment as follows: According to (Nitisemito in Nuraini 2013: 97) work environment is everything that exists around employees and can influence in carrying out the tasks assigned to him for example by the presence of air conditioner (AC), adequate lighting and so on . The work environment is something that is in the environment of workers who can influence themselves in carrying out tasks such as temperature, humidity, ventilation, lighting, noise, workplace cleanliness and the adequacy of equipment or work equipment (Isyandi, 2014: 134)

The results of the study show that the work environment has a positive and

significant effect on employee performance. This means that if the work environment is improved it will improve employee performance. This can be seen from the number of employees who answer strongly agree with the highest answer, there are indicators of work results that are always given the expectations of the company with an average value of 4.08% consisting of respondents who answered as many as 98 people (71.5%) and respondents who answered the tendency to disagree were 39 people (34.8%).

The work environment at PT Inalum is important to note. The work environment can be seen from the physical (Adequate lighting, good air temperature, noise, coloring, sufficient space for movement, security) and non-physical work environment (relations between employees). In this case, PT Inalum needs to pay attention to the existing work environment such as the air temperature in the smelter, factories and several other divisions. This has an effect on the work results of employees. A good work environment can support work implementation so that employees become more enthusiastic in their work and can improve employee performance.

Kacmar (2009), Ratnasari (2012) and Nitisemito (2015: 159) in their study concluded the same results that the work environment has a positive and significant relationship to employee performance. So that the existence of a comfortable work environment both in physical and non-physical conditions will have a positive impact on employee performance. To improve better performance needs to be supported by the existence of a supportive work environment. A satisfying work environment for employees can improve performance, whereas an inadequate work environment can reduce employee performance in achieving organizational goals.

**Motivation, Leadership And Work Environment Together Have A Positive**

### **And Significant Effect On Employee Performance**

According to Sarwoto (2012) motivation is something that raises the process of giving encouragement to work to subordinates in such a way that they want to work sincerely in order to achieve organizational goals efficiently. From this definition it can be seen that motivation affects employee performance because employees who are motivated will cause reactions to achieve goals and that will optimize employee performance in achieving the target of the company. Companies not only need smart, capable and skilled people but also need people who are actively working and who want to optimize their performance in accordance with the vision and mission of the organization's goals.

So in this case the leader is needed to be able to optimize and motivate employees so that they actively work and can run the company's goals to be achieved and implemented well. In addition to that, employees must be able to follow the instructions given by the leadership regarding the encouragement and enthusiasm given by the leader, so that there is synchronization between the leadership and the leader. This can make optimal employee performance so that employees are enthusiastic and motivated to carry out their activities in the company.

According to Abdulrahman (2010), leadership as a person's ability to move people to follow leaders. In this case, it means that leadership influences employee performance because employees will follow what is ordered by their leaders, so leaders must have good leadership so that employee performance can be optimal and run well. The explanation explains that leadership influences employees in following leaders in this matter is about their performance.

According to Terry (2006: 23) the work environment can be interpreted as influencing forces, both directly and indirectly on the performance of an organization or company. From this

definition it is very clear that the work environment impacts performance. The work environment is no less important in an effort to improve employee performance. Where the work environment is the material and psychological conditions that exist within the organization. Therefore the organization must be able to provide an adequate work environment such as the physical environment (a comfortable, clean room), as well as a non-physical work environment (employee work atmosphere, employee welfare, employee relations with employees, employee relations with leaders).

Based on the results of the F test, it was found that the calculated F value of 73.843 was greater than  $F_{table}$  which was 2.44 with a significant level of 0,000 smaller than alpha 0.05 (5%). it means that together motivation, leadership and work environment have a positive and significant effect on employee performance. Work motivation is one of the factors that determine the success of an organization. Work motivation can be interpreted as an encouragement in a person to do an activity or task as well as possible so as to achieve achievement with a commendable predicate, (Mangkuprawira, 2009). If the motivation of each individual employee is high, it will also lead to high morale, which in turn will contribute to good performance. Employees hope the company can meet every need, where it can increase employee productivity.

In addition, one factor that affects the level of performance of individual employees is leadership, where employees learn a lot from how the leader behaves. The leader is also expected to be a liaison between employees, can provide clear information and can make decisions wisely. The work environment is also a determining factor that can be interpreted in a psychological form, namely a comfortable, pleasant, saturated, or boring work atmosphere. An uncomfortable work environment will tend to cause feelings of disappointment and despair. Even until

someone experiences severe stress, and the performance decreases automatically. The attitude of employees towards discomfort can be in the form of accepting what is, complaining, filing protests and even leaving the organization. So that in this case the motivation, leadership and work environment together can improve employee performance.

The work environment includes the physical and non-physical work environments. Physical work environment in the form of color, cleanliness, air exchange, lighting, security, and noise. The colors in the work environment can be walls, clothing, work equipment etc. Cleanliness of the workplace, cleanliness is very influential on the health and mental condition of employees. In addition, air exchange greatly determines the physical fitness of employees, abnormal air exchange will occur

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusion**

Based on the results of the research and discussion in the previous chapter, it can be concluded several things as follows:

1. Motivation has a positive and significant effect on employee performance at the PT Indonesia Asahan Aluminum Smelter General Maintenance (SGM) Department.
2. Leadership has a positive and significant effect on the performance of employees at the PT Indonesia Asahan Aluminum Smelter General Maintenance (SGM) Department.
3. The work environment has a positive and significant effect on employee performance at the PT Indonesia Asahan Aluminum Smelter General Maintenance (SGM) Department.
4. Motivation, leadership and work environment together have a positive and significant effect on employee performance in the Smelter General Maintenance (SGM) Department of PT Indonesia Asahan Aluminum

### **Recommendations**

Based on research research that has been done at PT Indonesia Asahan Aluminum, the suggestions from researchers are:

1. Motivation based on fulfilling the needs of employees, has gone very well. Even so, the work motivation of employees should be improved again, because by increasing the fulfillment of these needs, motivation will increase and performance will improve. Fulfillment of needs that should be improved is the fulfillment of needs such as awards, work performance. Reward should be given more to employees because every employee would be happy to get one form of appreciation from the company, and in the future it will make employees want to get it again. Then the company can increase motivation also on social needs, in this case the company can create opportunities to fulfill these social needs, for example by organizing events or agendas for the recreation of joint employees so that friendship or kinship of employees gets tighter.
2. The work environment such as air circulation in the workplace can affect employees while working, and the company should provide the existing conditions, namely the presence of several places that are rather hot. This can be done by giving AC to the hot work place. Then the convenience of the workplace, can be improved by one of them is maintaining the cleanliness of the workplace. Existing cleanliness should be able to be thoroughly or evenly distributed in all corners of the workplace and not only in certain parts, because this cleanliness will affect the level of comfort of the employees as well. The company should also maintain relations in the work environment to run more conducive, namely the relationship between employees and the relationship between employees and their superiors, it is also recommended to make fun activities together, such as making

activities to decorate the work environment so it is not boring.

3. For leadership, there are some employees who are not satisfied with the existing leadership. This is due to a lack of direct involvement in monitoring subordinate activities. So that this needs to be considered by directing leaders to be more active in jumping directly to the activities in the field. Then the company can also act by providing leadership training to employees so that they are prepared to become leaders in the future, as well as for current leaders. For the ability of leaders to improve cooperation, and the ability of leaders to organize activities. To improve cooperation, intensive relationships are also needed between leaders and subordinates so that leaders are expected to establish intensive relationships with employees. Basically, the inspiration given by leaders to employees is very useful for the future progress of the company. Supposedly, leaders always inspire their employees so that the inspiration given can be used as well as possible for employees. In this case the leader must also emphasize the relationship approach to all employees so that there is no misunderstanding in the completion of the tasks given.

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