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## THE EFFECT OF REMUNERATION, WORK ENVIRONMENT, AND EMPLOYEE WELFARE PROGRAMS ON WORK PRODUCTIVITY AT PT PETROKIMIA KAYAKU

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### ABSTRACT

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*The purpose of this study was to determine the effect of remuneration on work productivity, the effect of the work environment on work productivity, the effect of employee welfare programs on work productivity, the effect of the three factors mentioned above on work productivity and to find out which variables have the most influence on work productivity. The research approach used in this study is a quantitative approach. In this study, data and information were obtained from respondents using a questionnaire. Types of data sources used in this study, namely quantitative data. The data analysis technique in this study used basic statistics, namely descriptive analysis. Based on the results of the calculation of the t-test table (table 18) it can be seen that the confidence level is 0.05 and the t-table value is 2.05, the calculated remuneration value is 8.042 and the probability value of t-value is 0.000 means that  $H_0$  is rejected and  $H_a$  is accepted, then this means that remuneration has a significant effect on employee productivity. From the results of the analysis, it is known that the remuneration variable consisting of elements of work standards, working time, number of products, product quality and increasing work ability, each has a significant effect on work productivity variables.*

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### KEYWORDS

Remuneration, Work Environment, Employee Welfare Programs, Work Productivity

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## INTRODUCTION

In an effort to increase employee work productivity, not only relying on the quality of the goods produced, but companies also need to pay attention to factors that can affect employee productivity, such as the effect of remuneration satisfaction, work environment and welfare programs for employees (Kabir & Parvin, 2011; Muguongo et al., 2015). By paying attention to the factors that can affect the level of employee productivity, the company can better know and understand the needs and desires of its employees so that employees can feel more satisfied or feel more cared for by the company and can carry out their work activities optimally (Jean et al., 2017; Raziq & Maulabakhsh, 2015).

Employee work productivity according to the National Productivity Council (Indriyani, 2014) has an understanding as a mental attitude that always holds the view that the quality of work life of employees today must be better than yesterday and the quality of work life of employees tomorrow must be better than today. Meanwhile, in general, as stated by (Nofriyanti & Kuswantoro, 2019) employee productivity is a comparison between the sources of results that can be achieved by the company and the overall resources used (Berliana et al., 2018; Zhu et al., 2014). In other words, employee work productivity has two dimensions of understanding, the understanding of the first dimension is the level of effectiveness that leads to optimal work results, namely achieving target results related to quality, quantity and working time. While the understanding of the second dimension is the level of efficiency related to efforts to compare inputs with the realization of their use or work activities (Sunarsi, 2018).

In order to increase employee work productivity, the most influential factor is remuneration for employees, because the size of the remuneration received by employees is very decisive in motivating employees to be able to work harder, so every company is expected to pay attention to aspects of remuneration for employees. in accordance with the ability of employees to produce higher quality products (Purwanto, 2016).

In addition to the effect of remuneration satisfaction, other factors that can affect employee work productivity are work environment factors, employee welfare programs, and post-employment welfare programs. A work environment that is created properly, in accordance with the needs of employees in carrying out work activities, will be able to provide a separate satisfaction for employees so that the morale for employees to work harder in producing higher quality products for the company (Muayyad & Gawi, 2016)

In improving the results of employee work productivity and for the creation of higher quality products, companies are also required to provide work welfare programs for employees in the form of employee welfare programs (Djuwita, 2011; Kandou, 2013). If the welfare programs for employees provided by the company can provide individual satisfaction for employees, then in carrying out work activities employees can feel more secure, so that the quality of work and the quality of the products produced will also be guaranteed. A successful company continues to improve employee productivity, but basically it all depends on the quality of its human resources, namely as employees whether employees can work more effectively or not. The same thing happened in the Pesticide Company PT Petrokimia Kayaku, where this company wants to utilize human resources more optimally, with the aim that employees can work effectively and efficiently.

PT Petrokimia Kayaku as one of the subsidiaries under the Petrokimia Gresik Group with the highest net profit of forty-five to fifty billion rupiah per month in the last two years, in its efforts to increase the productivity of its employees, cannot be separated from

the factors that exists in each of its workforce or employees, and views its employees as one of the most important resources owned by the company. The purpose of this study was to determine the effect of remuneration on work productivity, the effect of the work environment on work productivity, the effect of employee welfare programs on work productivity, the effect of the three factors mentioned above on work productivity and to find out which variables have the most influence on work productivity.

## RESEARCH METHOD

The research approach used in this study is a quantitative approach. This approach is generally implemented in inferential research (in order to test hypotheses) and puts the conclusions on a null probability of rejecting the hypothesis. Causal research is used to identify cause-and-effect relationships. When something causes an effect (independent variable), it means to bring or make something happen (dependent variable) (Graue, 2015; Johnston, 2014). In this study, data and information were obtained from respondents using a questionnaire.

Types of data sources used in this study, namely quantitative data. Quantitative data is data in the form of numbers or numbers. The data can be in the form of the age of the informant, gender, age, and other information related to numbers.

In this study, the population is the entire head office of PT Petrokimia Kayaku as many as 300 employees. The number of samples used in this study were 125 respondents and were considered to meet the criteria and represent the desired population in the study. The characteristics of the sample in this study are permanent employees of PT Petrokimia Kayaku who have worked for at least 2 years. The data analysis technique in this study used basic statistics, namely descriptive analysis.

## RESULT AND DISCUSSION

### Research Instrument Testing

#### Validity test

Validity is an index that shows the extent to which a measuring instrument measures what it wants to measure. Testing the validity in this study using SPSS with a significant level of 5%. The results of the validity test for the questionnaire show that all statements are valid because they are positively correlated with a probability of  $<0.05$ . The full validity test results can be seen in the appendix.

#### Remuneration Variable

Table 1 Test Results of Remuneration Variable Questionnaire Validity

Item		Probabilitas	Keterangan
1	0,406	0,001	Valid
2	0,311	0,016	Valid
3	0,499	0,000	Valid
4	0,327	0,011	Valid
5	0,640	0,000	Valid

Source: processed from primary data of PT Petrokimia Kayaku 2020

From the results of the validity test for the remuneration variable, it can be seen that each question item is valid because it has a probability smaller than 0.05

Work Environment Variables

Table 2 Validity Test Results for Work Environment Variables

Item		Probabilitas	Keterangan
1	0,538	0,000	Valid
2	0,318	0,013	Valid
3	0,547	0,000	Valid
4	0,366	0,004	Valid
5	0,370	0,004	Valid

Source: processed from primary data of PT Petrokimia Kayaku 2020

From the results of the validity test for the work environment variable, it can be seen that each question item is valid because it has a probability that is smaller than 0.05.

Employee Welfare Program Variable

Table 3 Test Results of Variable Validity Program Welfare Program for Employees

Item		Probabilitas	Keterangan
1	0,545	0,000	Valid
2	0,506	0,000	Valid
3	0,543	0,000	Valid
4	0,579	0,000	Valid
5	0,322	0,012	Valid

Source: processed from primary data of PT Petrokimia Kayaku 2022

From the results of the validity test for the employee welfare program variable, it can be seen that each question item is valid because it has a probability smaller than 0.05.

Work Productivity Variables

Table 4 Validity Test Results of Work Productivity Variables

Item	Pasca Keria	Probabilitas	Keterangan
1	0,506	0,000	Valid
2	0,509	0,000	Valid
3	0,550	0,000	Valid
4	0,566	0,000	Valid
5	0,579	0,000	Valid

Source: processed from primary data of PT Petrokimia Kayaku 2022

From the results of the validity test for the work productivity variable, it can be seen that each question item for the work productivity variable has a probability that is smaller than 0.05.

Reliability Test

Reliability test shows the extent to which the measuring instrument can be trusted or relied on. The measurement results can be trusted if in several times the measurement of the same subject group obtained relatively the same results. Reliability calculation is done by SPSS computer program assistance.

Table 5 Reliability Test Results

Variabel	Koefisien	Status
	0,4016	Reliable
	0,4947	Reliable
	0,4303	Reliable
1	0,5631	Reliable

Source: processed from primary data of PT Petrokimia Kayaku 2022

The reliability value between 0.4 to 0.7 is categorized as acceptable reliability (Sekaran, 2000: 312), so that in this study the reliability is acceptable.

Frequency Distribution

In this analysis, information will be presented in the form of tables and descriptions of the answer categories, frequencies, and percentages. The following is the frequency distribution of the answers for each variable.

#### Remuneration Variable

The remuneration in this study includes elements of work standards, the suitability of remuneration with the number of products created, the suitability of remuneration with product quality and work ability. Answers from respondents can be seen in the following table:

Table 6 Frequency Distribution of Remuneration Variables

Kategori	ITEM									
	1		2		3		4		5	
i	F	%	F	%	F	%	F	%	F	%
SS	12	40	5	17	11	37	14	48	10	33
S	13	43	22	73	17	57	15	50	16	52
N	4	14	3	10	2	6	1	2	4	15
TS	1	3	0	0	0	0	0	0	0	0
STS	0	0	0	0	0	0	0	0	0	0
Jumlah	30	100	30	100	30	100	30	100	30	100

Source: processed from primary data of PT Petrokimia Kayaku 2022

Based on the table, as many as 13 employees (43%) think that the remuneration received is in accordance with work standards. As many as 22 employees (73%) stated that the remuneration received was in accordance with the time of remuneration, while 17 employees (57%) stated that the amount of remuneration received was in accordance with the work agreement. As many as 15 employees (50%) think that the remuneration received is in accordance with the maximum quality of work. Meanwhile, in terms of remuneration, 16 employees (52%) stated that remuneration can improve employee work finances.

#### Work Environment Variables

The work environment in this study includes elements of standard work, working time, number of products, product quality and capacity building. Answers from respondents can be seen in the following table:

Table 7 Frequency Distribution of Work Environment Variables

Kategori	ITEM									
	1		2		3		4		5	
ori	F	%	F	%	F	%	F	%	F	%
SS	4	14	3	12	4	14	1	3	5	15
S	14	48	23	73	18	60	18	60	16	52
N	9	26	3	12	7	23	10	33	9	33
TS	3	12	1	3	1	3	1	4	0	0
STS	0	0	0	0	0	0	0	0	0	0
Jumlah	30	100	30	100	30	100	30	100	30	100

Source: processed from primary data of PT Petrokimia Kayaku 2022

Based on the table, as many as 14 employees (48%) think that the work environment is in accordance with employee work standards. As many as 23 employees (73%) stated that the work environment was in accordance with the employee's working time while 18 employees (60%) stated that the work environment was in accordance with the number of products that must be achieved by employees at work. As many as 18 employees (60%) think that the work environment is in accordance with the quality of the products that can be achieved by employees, while as many as 16 employees (52%) state that the work environment can improve employee work abilities.

#### Variable welfare program program for employees

The welfare program for employees in this study includes elements of work standards, working time, number of products, product quality, and improvement of work ability. Answers from respondents can be seen in the following table:

Table 8 Frequency Distribution of Employee Welfare Program Variables

Kategori	ITEM									
	1		2		3		4		5	
	F	%	F	%	F	%	F	%	F	%
SS	1	4	4	14	1	4	2	6	2	6
S	19	66	14	48	17	57	14	49	23	77
N	9	26	12	38	10	33	12	39	5	16
TS	1	4	0	0	2	6	2	6	0	0
STS	0	0	0	0	0	0	0	0	0	0
Jumlah	30	100	30	100	30	100	30	100	30	100

Source: processed from 2022 primary data

Based on the table, as many as 19 employees (66%) think that the work welfare program is in accordance with the welfare program standards, as many as 14 employees (48%) state that the work welfare program is in accordance with working hours, while as many as 17 employees (57%) think that the work welfare program is in accordance with the number of products that must be achieved by employees. As many as 14 employees (49%) think that the work welfare program is in accordance with the product quality that must be achieved. 23 employees (77%) state that the work welfare program can improve work ability.

#### Work Productivity Variables

Work productivity in this study includes elements of work standards, working time, number of products, product quality and improvement of work ability. Answers from respondents can be seen in the following table:

Table 9 Frequency Distribution of Work Productivity Variables

ITEM	1		2		3		4		5	
	F	%	F	%	F	%	F	%	F	%
SS	6	18	1	3	1	4	3	12	5	15
S	17	58	19	66	14	14	15	50	11	37
N	7	24	9	26	15	12	11	37	13	44
TS	0	0	1	5	0	0	1	1	1	4
STS	0	0	0	0	0	0	0	0	0	0
Jumlah	30	100	30	100	30	100	30	100	30	100

Source: processed from primary data of PT Petrokimia Kayaku 2022

Based on the table, as many as 17 employees (58%) feel that they can work according to the standard with the work standard. As many as 19 employees (66%) stated that they could work according to their working hours, while 15 employees (12%) stated that they could make products according to the company's product targets.

As many as 15 employees (50%) think that they can work with quality in accordance with company regulations and as many as 13 employees (44%) state that they can improve their work abilities.

#### Descriptive Analysis

The distribution of questionnaires as many as 30 copies of the questionnaire given to the respondents. And of the 30 questionnaires all can be used as material for analysis because all questionnaires meet the criteria that have been determined by the author.

From the results of data processing from 30 collected questionnaires, the results of the mean value of each variable are as listed in table 10 below:

Table 10 Results of Descriptive Analysis

Variabel	Mean	Standart Deviasi
	29,13	2,12
	30,25	2,14
	25,22	2,38
	44,20	4,53

Source: processed from primary data of PT Petrokimia Kayaku 2022

For the remuneration variable, the mean value is 29.13 with a standard deviation of 2.12. Work environment variable, the mean value is 30.25 with a standard deviation of 2.14. The variable of the welfare program program for employees has a mean value of 25.22 with a standard deviation of 2.38. Mean value of work productivity variable is 44.20 with a standard deviation of 4.53. From the data processing, it can also be seen that the correlation between variables is as follows:

Table 11

Variabel	X1	X2	X3	Y
X1	1	0,297	- 0,049	0,659
X2		1	- 0,098	0,698
X3			1	0,065
Y				1

Source: processed from primary data of PT Petrokimia Kayaku 2022  
Sig level of significant 0.05

From the table above, it can be seen the correlation between the independent variable and the dependent variable, and the lowest is the variable. Work environment (0.065) and the highest variable is employee welfare program (0.698).

### Quantitative Analysis

#### Multiple Linear Regression Analysis

Used to determine the effect of remuneration, work environment and employee welfare programs on employee productivity.

The equation is as follows:

$$Y = + 1X1 + 2X2 + 3X3 + e$$

Information:

Y = the magnitude of the productivity position  
= constant

X1 = remuneration

X2 = work environment

X3 = welfare program for employees

n = regression coefficient

e = error (confounding variable)

Table 12 Multiple Linear Regression

Model	Un standardized coefficient		Standardized coefficient β	t	Sig
	β	Std. error			
1. (Constant)	-27,037	6,267		-4,314	1,000
Remuneration	1,135	,141	,531	8,042	,000
Work Environment	,666	,167	,350	3,985	,000
Welfare Program	,284	,133	,134	2,129	,038

Source: processed from primary data of PT Petrokimia Kayaku 2022

From the results of data processing with the help of the SPSS program, the following multiple linear regression equations were obtained:

$$Y = -27.037 + 1.135X1 + 0.666X2 + 0.284X3 + e$$

The equation means:

The constant value with a negative sign indicates that if there is no remuneration, work environment and employee welfare program variables, there will be job dissatisfaction, or the employee's work productivity is relatively small. The value of the

regression coefficient for the remuneration variable is positive, indicating a unidirectional relationship. This means that if the remuneration given by the company is increased, the work productivity of employees will also increase, and vice versa. The regression coefficient value for the work environment variable is positive, indicating a unidirectional relationship. This means that if the work environment is getting better, the work productivity of employees will also increase.

The regression coefficient value for the employee welfare program variable is positive, indicating a unidirectional relationship. This means that if the employee welfare program provided by the company is increased, the employee's work productivity will also increase, and vice versa.

The regression coefficient of each variable which is positive means that the four independent variables each have an influence in the direction of the dependent variable, namely work productivity.

F Uji test

Used to determine whether the independent variables, namely remuneration, work environment and employee welfare programs together have a significant effect on the dependent variable, namely the work productivity variable.

The test begins with the null hypothesis (Ho), which states that there is no significant effect jointly on the independent variable on the dependent variable. Then proceed with the hypothesis that is not equal to zero (Ha), which states that there is a significant effect

together the independent variables on the dependent variable; test steps as follows:

Table 13 Multiple Linear Regression

MODEL	F	Sig	Sum of squares	df	Mean square
Regression	50,324	,000	951,594	4	237,898
Residual	26,009	,000	260,006	55	4,727
Total	76,333	,000	1211,600	59	242,625

Source: processed from primary data of PT Petrokimia Kayaku 2022

Based on the results of the calculation table above, it can be seen that the calculated F value is 50,324 which is greater than the F table of 2.96 or the probability value of F is 0.000 which is smaller than 0.05. From these results, it is found that Ho is rejected and Ha is accepted.

Test steps:

Determine the formulation of null and alternative hypotheses

Ho : 0 = 0 (the independent variables together do not affect the dependent variable, namely work productivity).

Ha : a 0 (independent variables jointly affect the dependent variable, namely work productivity).

Level of significant ( $\alpha$ ) = 0.05

Test criteria:

Ho is accepted and Ha is rejected if F count < F table (probability of F value > 0.05).

Ho is rejected and Ha is accepted if F count > F table (probability of F value < 0.05).

The probability is 0.000 0.05 then Ho is rejected. This means that the work environment remuneration variable and employee welfare program together have a significant effect on the work productivity variable. Thus, the first hypothesis which states that the remuneration, work environment, and welfare program variables together have a significant effect on work productivity is proven.

T-test



The t-test is used to test whether the variable remuneration, work environment and welfare programs for work employees each have an influence on the work productivity variable. The test starts from the null hypothesis (Ho) which is that there is no separate significant effect between the independent variables on the dependent variable, then continues with the non-zero hypothesis (Ha) which states that there is a separate significant effect between the independent variables on the dependent variable.

Table 14 t test results

Model	Un standardized coefficient		Standardized coefficient $\beta$	t	Sig
	$\beta$	Std. error			
1. (Constant)	-27,037	6,267		-4,314	1,000
	1,135	,141	,531	8,042	,000
	,666	,167	,350	3,985	,000
	,284	,133	,134	2,129	,038

Source: processed from primary data of PT Petrokimia Kayaku 2022

## CONCLUSION

Based on the results of the calculation of the t-test table (table 14) it can be seen that the confidence level is 0.05 and the t-table value is 2.05, the calculated remuneration value is 8.042 and the probability value of t-value is 0.000 means that Ho is rejected and Ha is accepted, then this means that remuneration has a significant effect on employee productivity. From the results of the analysis, it is known that the remuneration variable consisting of elements of work standards, working time, number of products, product quality and increasing work ability, each has a significant effect on work productivity variables.

Based on the results of the calculation of the t-test table (table 14) it can be seen that the confidence level is 0.05 and the t-table value is 2.05, the calculated value of the work environment is 2.129 and the probability value of t-value is 0.038 which means that Ho is rejected and Ha is accepted, then this means that the work environment has a significant effect on employee productivity. From the results of the analysis, it can be seen that the work environment variables consisting of elements of work standards, working time, number of products, product quality and increasing work ability have a significant effect on work productivity variables.

Based on the results of the calculation of the t-test table (table 14) it can be seen that the confidence level is 0.05 and the t-table value is 2.05 the calculated value of the employee welfare program is 3.985 and the probability value of t-value is 0.000 means that Ho is rejected and Ha is accepted, then this is means that the employee welfare program variable has a significant effect on employee work productivity. From the results of the analysis, it is known that the employee welfare program variables consisting of elements of work standards, working time, number of products, product quality and increasing work ability, each have a significant effect on work productivity variables.

Seeing the t value of each independent variable separately has a significant effect on employee productivity. By looking at the t-value of each independent variable, it will be seen that the remuneration variable has the highest t-count value among the other independent variables, which is 8.042. This shows that the remuneration variable is the most influential factor on work productivity. Thus, the second hypothesis which states that the independent variable with the strongest influence on the independent variable is the remuneration variable can be proven.

Test the coefficient of determination (R<sup>2</sup>) to see what proportion of variations of

the independent variables together in influencing the dependent variable, if the value of R2 is close to 1 then the contribution to the dependent variable is getting bigger, meaning that the R2 used is getting stronger to explain the variation of the dependent variable. On the other hand, if the value of R2 is close to zero, it means that the independent variable has absolutely no effect on the dependent variable so that the R2 model is not appropriate to use.

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