THE EFFECT OF TRAINING PROGRAM IMPLEMENTATION, EMPLOYEE MOTIVATION, AND WORK ENVIRONMENT ON INCREASING EMPLOYEE PRODUCTIVITY AT PT PETROKIMIA GRESIK

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Abstract
Employee productivity remains a major challenge in human resource management within the industrial sector, including at PT Petrokimia Gresik. Although various training programs have been implemented, their effectiveness in improving productivity has not been systematically measured. This study aims to empirically examine the influence of training, motivation, and work environment on employee productivity. Using a quantitative approach, a survey was conducted with 310 employees who participated in training programs between January and July 2024, selected through simple random sampling. Data were analyzed using multiple linear regression. The results indicate that all three variables—training, work motivation, and work environment—have a positive and significant effect on productivity, both simultaneously and partially. However, employee participation in training remains uneven, indicating an implementation gap. This study highlights the need for a stronger training evaluation system, more adaptive program designs tailored to individual needs, and managerial interventions to foster a more supportive and motivating work environment. The findings reinforce the strategic importance of human resource development in enhancing productivity and provide practical insights for designing more responsive and results-oriented training policies. Further research using a longitudinal approach is recommended to assess the long-term impact of training on employee productivity.
Keywords: *Employee Training, Work Motivation, Work Environment, Productivity, Human Resource Management.*

INTRODUCTION

Employee motivation, particularly at PT Petrokimia Gresik, plays a crucial role in enhancing productivity. This aligns with the generalization from the study by Hossain et al. (2024), which states that motivation can significantly influence productivity. When employees possess intrinsic motivation—such as the desire to improve competencies, achieve better career advancement, or contribute meaningfully to the company—training programs become more effective in developing their skills. Motivation is also influenced by extrinsic factors like rewards, recognition, and incentives. Highly motivated employees are more likely to stay focused, actively participate, and apply acquired knowledge in their daily work, thereby improving performance (Kiswanto &

Yulianti, 2025). At PT Petrokimia Gresik, this translates into improved resource management, operational efficiency, and product quality.

According to PT Petrokimia Gresik's 2021 annual report, a strong and competent human resource (HR) base is vital to the company's success as a leading agro-industry solution provider in Indonesia. Nevertheless, optimizing employee productivity remains a concern, particularly in HR management which emphasizes training and development as a strategic effort to improve individual and organizational performance. HR management theories stress the importance of investing in employee development to enhance overall organizational performance. Widodo et al. (2015) noted that "training consists of a series of individual activities aimed at systematically improving skills and knowledge to achieve professional performance." Similarly, Larasati (2018) described training as an effort to increase employees' knowledge and skills to perform specific tasks more effectively.

Therefore, training implementation at PT Petrokimia Gresik is viewed as a strategic HR initiative to address productivity issues and improve overall company performance. The choice of the research topic—"The Influence of Training Implementation, Employee Motivation, and Work Environment on Employee Productivity at PT Petrokimia Gresik"—is based on the need to enhance productivity and employee performance. The company faces challenges in ensuring employees have sufficient motivation, skills, and knowledge to perform effectively in a dynamic work environment. Motivation in training and effective training implementation is expected to enhance employee competencies and positively impact overall productivity.

Following the COVID-19 pandemic, PT Petrokimia Gresik implemented widespread digitalization, including in HR training through e-learning platforms. This aligns with findings from Janti et al. (2023), which showed that e-learning significantly improved HR performance at PT Bank Rakyat Indonesia, Manado branch. Purwanto & Suratman (2022) also emphasized that effective job training, combined with transformational leadership, can increase employee performance by enhancing job satisfaction. Thus, the digitization of training at PT Petrokimia Gresik is believed to positively influence productivity by providing flexible, relevant, and sustainable learning aligned with modern industrial needs.

A related example is PT PLN (Persero) UP3 Medan, where a study by Sianturi (2022) found that employees who underwent job training showed higher productivity than those who did not. Similarly, Rianda (2023) found that both motivation and training significantly influenced employee productivity at BPRS Taman Indah Darussalam. The study used a quantitative approach and census sampling, with data analyzed using multiple linear regression. Results showed both variables had a partial and simultaneous impact on productivity.

In terms of the work environment, a study by Sari (2025) analyzed its influence on employee productivity at the West Sulawesi Provincial Tourism Office using a cross-

sectional observational approach. The study found that both motivation and work environment significantly affected productivity. Kurniawan et al. (2023) supported this by stating that a comfortable, safe, and supportive work environment boosts morale and work effectiveness. This includes both physical aspects (lighting, cleanliness) and psychological ones (peer relationships, supervisor support). Hananta & Suratman (2023) also highlighted that a transformational leadership-driven work climate builds trust and confidence, encouraging knowledge sharing and performance improvement.

This research thus aims to examine whether training programs, employee motivation, and work environment significantly impact employee productivity at PT Petrokimia Gresik. A key issue is the relatively low productivity levels, which may stem from inadequate skills or knowledge, lack of motivation, or mismatches between company needs and employee capabilities. Solving this issue is crucial, as employee productivity directly affects company performance. By enhancing productivity through training and increased motivation to participate in effective training, PT Petrokimia Gresik can improve competitiveness, reduce production costs, and boost customer satisfaction—leading to business growth and sustainability.

Observations during internships found that training has both direct and indirect impacts. For example, hard competency training enables previously unskilled employees to gain essential competencies. This is evidenced by training evaluations conducted regularly. Training is key to productivity as it equips employees with necessary competencies and prepares them for career advancement.

However, challenges remain in ensuring equal participation in training programs. Not all employees have equal involvement—some consistently participate, while others lack access or opportunities. This issue was highlighted during a 2024 Focus Group Discussion (FGD) in the Rendalhar & JPP division, where it was found that some employees lacked current or valid certifications in technical fields like electricity and mechanics. This indicates room for improvement in training management to ensure equal opportunities for all employees, ultimately enhancing overall company productivity.

RESEARCH METHOD

This research employs a quantitative approach as it allows for the structured and directly measurable collection of data, thereby enabling a more systematic and objective analysis of employee participation in the training programs at PT Petrokimia Gresik. According to Sujarweni (2014), quantitative research is a type of research that produces findings which can be obtained through statistical procedures or other means of quantification (measurement).

This approach utilizes surveys for the research because it enables the structured and quantitatively measurable collection of data from a number of respondents within a representative population. According to Sujarweni (2014), a survey is "research

conducted to gather information by preparing a list of questions posed to respondents. In survey research, it is used to study symptoms of a group or individual behavior. For example, data collection can be conducted through questionnaires."

The survey approach is suitable for achieving the objectives of this research, which mainly focuses on understanding and analyzing employee participation in training programs at PT Petrokimia Gresik. By using surveys, the researcher can systematically and structurally collect data from a number of respondents who are representative of the company's employee population. Sugiyono (2013) states that survey research is a quantitative method used to obtain data that occurred in the past or present, regarding beliefs, opinions, characteristics, behaviors, variable relationships, and to test several hypotheses about sociological and psychological variables from samples taken from a specific population. The data collection technique involves non-in-depth observation (questionnaires), and the results of the research tend to be generalizable.

The population in this study includes all company employees who participated in training between January and July 2024. Thus, the population consists of individuals involved in the implementation of the training program and beneficiaries of the program. Sampling was conducted using the simple random sampling method, in which every member of the population has an equal chance of being selected. This technique ensures that the selected sample fairly represents the entire population group without bias. The sample will consist of a representative number of employees who have participated in training, ensuring that the analysis accurately reflects the entire population.

The total population in this study is 1,253 training participants. Sampling was conducted using the Slovin formula with a 5% margin of error:

$$n = N / (1 + N(e)^2)$$

Where:

n : number of samples

N : population size

E : margin of error

Based on the formula above, the calculated sample size is n = 303.6. The sample was increased to 310 to anticipate potential dropout in the data.

RESULT AND DISCUSSION
Validity and Reliability Check of Research Instruments
Validity Check

The validity check in the research was conducted by considering the Pearson correlation value. According to (Ghozali, 2006), the validity test aims to assess the extent to which the questionnaire instrument is able to measure what should be measured. Validity is tested by calculating the correlation coefficient between the score of each question item and the corrected total score. The correlation method used is

Pearson Product Moment. An item or indicator is declared valid if it has a positive correlation coefficient and is greater than 0.3 (Solimun, 2017). The results of the validity test are shown in Table 1 below.

Table 1. Results of Questionnaire Item Validity Check

Variable	Item	Corrected Item Total Correlation	Conclusion
Implementation of Training Program	IPP1	0.703	Valid
	IPP2	0.791	Valid
	IPP3	0.764	Valid
	IPP4	0.703	Valid
	IPP5	0.836	Valid
	IPP6	0.751	Valid
	IPP7	0.919	Valid
	IPP8	0.784	Valid
	IPP9	0.859	Valid
	IPP10	0.836	Valid
	IPP11	0.909	Valid
	IPP12	0.867	Valid
Work Motivation	MK1	0.719	Valid
	MK2	0.728	Valid
	MK3	0.803	Valid
	MK4	0.656	Valid
	MK5	0.475	Valid
	MK6	0.740	Valid
	MK7	0.764	Valid
	MK8	0.527	Valid
Work Environment	LK1	0.866	Valid
	LK2	0.713	Valid
	LK3	0.777	Valid
	LK4	0.773	Valid
	LK5	0.866	Valid
	LK6	0.746	Valid
	LK7	0.665	Valid
	LK8	0.807	Valid
	LK9	0.883	Valid
	LK10	0.802	Valid
	LK11	0.554	Valid
	LK12	0.701	Valid
Work Productivity	PK1	0.744	Valid
	PK2	0.627	Valid
	PK3	0.880	Valid
	PK4	0.840	Valid

	PK5	0.838	Valid
	PK6	0.803	Valid
	PK7	0.818	Valid
	PK8	0.775	Valid
	PK9	0.763	Valid

Reliability Check

The next stage presents the results of the instrument reliability examination. (Ghozali, 2006) states that reliability is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable if a person's answer to a statement is consistent or stable over time. The reliability of a test refers to the degree of stability, consistency, predictive power, and accuracy. Measurements that have high reliability are measurements that can produce reliable data. A variable is declared reliable if the Cronbach's Alpha value is > 0.6 (Solimun, 2017). The results of the reliability examination are presented in Appendix 2, and a summary in Table 4.11 below.

Table 2. Questionnaire Reliability Examination Results

Variable	Alpha Crobach	Conclusion
Implementation of Training Programs	0,962	Reliable
Employee Motivation	0,890	Reliable
Work Environment	0,946	Reliable
Employee Productivity	0,945	Reliable

Source: Processed Primary Data, 2020 (Appendix 2)

Table 2 shows that the Cronbach Alpha values of the four variables, namely Training Program Implementation, Employee Motivation, Work Environment, and Employee Productivity, all have values above 0.6. The highest Cronbach Alpha value is shown by the Training Program Implementation variable of 0.962, while the lowest is Employee Motivation of 0.890. These results indicate that the four variables have a high level of reliability and meet the requirements for use in further data analysis processes.

Multiple Linear Regression Analysis Assumption Test
Residual Normality Assumption

The residual normality assumption in this study was tested using the Kolmogorov-Smirnov Test. The residual is said to have a normal distribution if it has an Asymp. Sig. (2-tailed) value > 0.05. The following is the output of the residual normality test using Kolmogorov-Smirnov.

Table 3. The Output of The Residual Normality Test

One-Sample Kolmogorov-Smirnov Test

N			310
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		.29067210
Most Extreme Differences	Absolute		.048
	Positive		.022
	Negative		-.048
Test Statistic			.048
Asymp. Sig. (2-tailed)[c]			.085
Monte Carlo Sig. (2- tailed)[d]	Sig.		.083
	99% Confidence Interval	Lower Bound	.076
		Upper Bound	.090

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 334431365.

The results shown in the table show that the Asymp. Sig. (2-tailed) value in the model is 0.085 where the value is greater than 0.05 so it can be concluded that the normality assumption is met.

Heteroscedasticity Assumption

The Heteroscedasticity test in this study uses the Glejser test method. The Glejser test is carried out by regressing the absolute value of the residual regression results against the independent variables. The aim is to find out whether there is inequality in the variance of the residuals at each level of the independent variables. If in this test the significance value (Sig.) of each independent variable is greater than 0.05, then it can be concluded that there is no heteroscedasticity or the regression model meets the assumption of homoscedasticity. Conversely, if the significance value is less than 0.05, then the model experiences symptoms of heteroscedasticity. The following are the results of the Glejser test:

Table 4. Results of the Glejser Test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	.207	.143		1.455	.147		
	IPP	.004	.037	.007	.097	.923	.598	1.672
	MK	-.021	.034	-.043	-.628	.530	.685	1.460
	LK	.021	.036	.044	.598	.550	.592	1.690

a. Dependent Variable: Abs_RES

Based on the results of the Glejser test shown in the table above, it is known that the significance value (Sig.) for each independent variable is as follows: IPP of 0.923, MK of 0.530, and LK of 0.550. All of these significance values are greater than 0.05, so it can be concluded that there are no symptoms of heteroscedasticity in the regression model used. Thus, the regression model meets the assumption of homoscedasticity and is suitable for further analysis

Multicollinearity Assumption

The multicollinearity test is used to evaluate whether there is a relationship or correlation between independent variables in a regression model. The condition of multicollinearity indicates a correlation between the independent variables themselves. A good regression model should not experience correlation between independent variables. The possibility of multicollinearity in a regression model can be identified by calculating the VIF (Variance Inflation Factor) and tolerance. A regression model is considered free from multicollinearity if its VIF value is less than 10 and its tolerance value is more than 0.10.

Table 5. Result of Multicollinearity Assumption

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.485	.222		2.184	.030		
	IPP	.369	.057	.342	6.458	.000	.599	1.670
	MK	.249	.053	.233	4.703	.000	.684	1.462
	LK	.277	.056	.262	4.934	.000	.593	1.687

a. Dependent Variable: PK

The results listed in the output above show that all variables have a tolerance value exceeding 0.1 and a VIF value below 10. Thus, the conclusion is that there is no indication of multicollinearity in the regression model.

Linearity Assumption

The linearity test is carried out to determine whether the relationship between two variables — in this case the independent and dependent variables — is linear or not. This test is important as a prerequisite in linear regression analysis, because the method assumes a linear relationship between the variables being analyzed. This test is usually carried out by looking at the significance value of the two components in the ANOVA table, namely Linearity and Deviation from Linearity. If the significance value of Linearity <0.05 and Deviation from Linearity> 0.05, then it can be concluded that there is a significant linear relationship and there is no deviation from linearity. After ensuring a linear relationship, regression analysis can be carried out validly.

Table 6. Result of Linearity Assumption

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
PK * IPP	Between Groups	(Combined)	24.457	23	1.063	11.517	.000
		Linearity	21.764	1	21.764	235.723	.000
		Deviation from Linearity	2.693	22	.122	1.326	.153
	Within Groups		26.406	286	.092		
	Total		50.863	309			

Based on the ANOVA table output on the linearity test between the Employee Productivity (PK) and Training Program Implementation (IPP) variables, the significance value in the Linearity row is 0.000, which means <0.05, so it can be concluded that there is a significant linear relationship between the two variables. Meanwhile, the significance value in the Deviation from Linearity row is 0.153, which means> 0.05. This shows that there is no significant deviation from linearity, so the linear relationship model between IPP and PK is feasible to use. Thus, the relationship between IPP and PK can be further analyzed using the linear regression analysis method

Table 6. Result of Linearity Assumption

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
PK * MK	Between Groups	(Combined)	17.015	14	1.215	10.592	.000
		Linearity	14.578	1	14.578	127.053	.000
		Deviation from Linearity	2.437	13	.187	1.634	.075
	Within Groups		33.848	295	.115		
	Total		50.863	309			

Based on the ANOVA table on the linearity test between Work Motivation (PK) and Employee Productivity (MK), it is known that the significance value for Linearity is 0.000 (<0.05), which indicates that there is a significant linear relationship between Work Motivation and Employee Productivity. Meanwhile, the significance value for Deviation from Linearity is 0.075 (> 0.05), which means there is no significant deviation from linearity. Thus, the relationship model between Work Motivation and Employee Productivity can be said to be linear and valid for further analysis using linear regression techniques.

Table 8. Result of Linearity Assumption

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
PK * LK Between Groups	(Combined)	20.174	20	1.009	9.499	.000
	Linearity	17.208	1	17.208	162.047	.000
	Deviation from Linearity	2.967	19	.156	1.470	.095
Within Groups		30.688	289	.106		
Total		50.863	309			

Based on the ANOVA table on the linearity test between Work Motivation (PK) and Work Environment (LK), the significance value of the Linearity component is 0.000 (<0.05), which indicates a significant linear relationship between Work Motivation and Work Environment. Meanwhile, the significance value of Deviation from Linearity is 0.095 (>0.05), which means there is no significant deviation from the linear relationship form. Thus, the relationship between Work Motivation and Work Environment can be considered linear and worthy of further analysis using linear regression analysis.

Regression Analysis

Based on the classical assumption test that has been carried out, it can be concluded that the model has met the requirements for regression analysis. The following are the results of the regression analysis. The results of the regression analysis are in the form of coefficients for each independent variable. The following are the results of multiple linear regression analysis:

Table 9. Result of Regression Analysis

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.485	.222		2.184	.030
	IPP	.369	.057	.342	6.458	.000
	MK	.249	.053	.233	4.703	.000
	LK	.277	.056	.262	4.934	.000

Based on the table, the following regression equation is obtained.

$$Y = 0.485 + 0.369X_1 + 0.249X_2 + 0.277X_3$$

Where:

Y = Work Productivity

X1 = Implementation of Training Programs X2 = Employee Motivation

X3 = Work Environment

Determination Coefficient

The determination coefficient measures how far the ability of the independent variable explains the dependent variable. The following is a table of determination coefficients produced in the study.

Table 10. Result of Determination Coefficient

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698^a	.487	.482	.29209

a. Predictors: (Constant), LK, MK, IPP
b. Dependent Variable: PK

Based on the table above, it can be seen that the value of R2 is 0.487, which means 48.7%, which means that the variation of Work Productivity can be explained by variations in the variables of Training Program Implementation, Employee Motivation, and Work Environment, while the rest (100% - 48.7% = 51.3%) is explained by other variables that cannot be explained in the regression equation or other factors that are not examined in this study.

Simultaneous Test (F Test)

The F test is used to show whether all independent variables have a joint influence on the dependent variable. The following are the results of the F Test calculation.

Table 11. Simultaneous Test (F Test)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.755	3	8.252	96.716	.000^b
	Residual	26.107	306	.085		
	Total	50.863	309			

a. Dependent Variable: PK
b. Predictors: (Constant), LK, MK, IPP

Based on the ANOVA test or F statistical test, the calculated F value is 96.716 with a significance level of 0.000. The significance is smaller when compared to 0.05, so the regression model can be used to predict Employee Productivity or it can be said that the independent variables together have a significant effect on Employee Productivity.

Partial Test

The results of the regression analysis can be used to partially determine each independent variable that affects Employee Productivity (which has a sig. level below

0.05), namely Implementation of Training Implementation, Work Motivation, and Work Environment with the following regression equation.

$$Y = 0.485 + 0.369X_1 + 0.249X_2 + 0.277X_3$$

Where:

Y = Work Productivity

X_1 = Implementation of Training Program X_2 = Employee Motivation

X_3 = Work Environment

Next is a more detailed explanation of the regression equation, which includes the constant and the effect of each independent variable on the Employee Productivity variable.

a. Constant

The constant value is 0.485. This positive value means that in the absence of training program implementation, employee motivation, and work environment, the average productivity of employees at PT Petrokimia Gresik would be 0.485.

b. H1: The Effect of Training Program Implementation (X_1) on Employee Productivity (Y)

Based on the t-test results, the significance value is <0.001 < 0.05, hence H0 is rejected and H1 is accepted. It can be concluded that the Training Program Implementation variable has a significant effect on Employee Productivity. The regression coefficient for the effect of Training Program Implementation on Employee Productivity is +0.369, indicating a positive relationship—meaning the better the implementation of the training program, the higher the employee productivity.

c. H2: The Effect of Employee Motivation (X_2) on Employee Productivity (Y)

Based on the t-test results, the significance value is <0.001 < 0.05, hence H0 is rejected and H1 is accepted. It can be concluded that the Employee Motivation variable has a significant effect on Employee Productivity. The regression coefficient for the effect of Employee Motivation on Employee Productivity is +0.233, indicating a positive relationship—meaning the higher the motivation, the higher the employee productivity.

d. H3: The Effect of Work Environment (X_3) on Employee Productivity (Y)

Based on the t-test results, the significance value is <0.001 < 0.05, hence H0 is rejected and H1 is accepted. It can be concluded that the Work Environment variable has a significant effect on Employee Productivity. The regression coefficient for the effect of Work Environment on Employee Productivity is +0.262, indicating a positive relationship—meaning the better the work environment, the higher the employee productivity.

Discussion of Research Results

The Effect of Training Program Implementation (X1) on Employee Productivity

This study shows that the implementation of the training program (X1) has a positive and significant effect on the productivity of employees who participated in the training at Petrokimia Gresik. This finding is consistent with empirical conditions in the field, where employees who underwent training showed improvements in work efficiency, mastery of technical skills, and increased motivation in completing tasks. This indicates that training programs that are systematically designed and aligned with job requirements can add real value to individual and team productivity within the company. Furthermore, this also reflects the organization's success in managing its human resources through a sustainable competency development approach.

Compared to previous studies, this finding aligns with the results of the study by *Mohammed et al. (2022)*, which concluded that training and development significantly improve employees' skills and competencies, positively impacting productivity. Local studies such as those by *Sianturi (2022)* and *Ginting (2021)* also show similar patterns, where job training makes a significant contribution to improving employee productivity. Likewise, the study by *Mutaqin et al. (2024)* supports this finding with empirical evidence that training contributes substantially to work productivity and overall performance. Even in the agricultural sector, as studied by *Raji et al. (2024)*, training programs have proven effective in increasing productivity and resilience. Thus, the results of this study strengthen both the theoretical and practical foundation that effective training programs are a strategic key in improving work productivity across sectors.

The Effect of Employee Motivation (X2) on Employee Productivity (Y)

This study reveals that employee motivation (X2) has a positive and significant effect on the productivity of employees who participated in the training at Petrokimia Gresik. Empirically, this is consistent with conditions in the field, where motivated employees—whether through incentives, recognition, or workplace support—demonstrate higher work enthusiasm, increased initiative, and perseverance in completing tasks. Employees who feel appreciated and are encouraged to grow tend to be more productive than those who lack such encouragement. At Petrokimia Gresik, motivation is not only material but also comes through managerial support and competency development opportunities, ultimately creating a productive and results-oriented work environment.

This finding is consistent with several previous studies emphasizing the importance of motivation for productivity. For example, *Rianda (2023)* demonstrated that motivation partially and significantly affects employee productivity in the Islamic banking sector. Similarly, *Hossain et al. (2024)* affirmed that motivation is key to driving organizational performance and productivity, especially when related to incentive policies and employee engagement. *Suhardi et al. (2023)* also confirmed that motivation,

along with training, significantly influences work productivity. The study by *Ahmad et al. (2024)* reinforced this by showing that HR policies that support employee motivation directly contribute to increased productivity in modern workplaces. Meanwhile, *Sari (2025)* in the context of local government also showed that motivation statistically affects work productivity, although in her study the work environment had a greater influence. Collectively, this evidence confirms that motivation is a crucial factor in improving employee performance across sectors and types of organizations.

The Effect of Work Environment (X3) on Employee Productivity (Y)

The results of this study state that the work environment (X3) has a positive and significant effect on the productivity of employees who participated in the training at Petrokimia Gresik. Empirically, this is in line with field observations, where a comfortable, safe, clean, and adequately equipped work environment has a real impact on employees' work spirit, focus, and effectiveness. A supportive work environment not only enhances physical comfort but also creates a psychological atmosphere conducive to productivity—such as harmonious coworker relationships, supportive leadership, and opportunities for growth. This is particularly important for employees who have received training, as a supportive environment allows them to optimally apply the training results in their daily work.

This finding is in line with previous research. *Febrina (2024)* and *Sari (2025)* found that the work environment has a significant effect on productivity, even being the most dominant variable compared to motivation. *Febrina (2024)* also indicated that the work environment contributes to the development of adaptive behavior that enhances productivity. Likewise, *Rahim et al. (2024)* concluded that the work environment significantly affects productivity, although the mediating effects of work facilities and work spirit were not significant. In contrast, the study by *Silalahi & Wonua (2025)* found that the effect of the work environment on performance was not significant and productivity did not moderate that relationship—suggesting that the effect of the work environment may be stronger when focused directly on productivity rather than merely performance. Meanwhile, *Anakpo et al. (2023)* through a systematic review, also reinforced the view that productivity is heavily influenced by environmental factors, including in work-from-home (WFH) contexts. Overall, this body of evidence strengthens the notion that a conducive work environment is a critical aspect in driving productivity across various sectors and work conditions.

CONCLUSION

Based on the research conducted by the author, the following conclusions can be drawn regarding the influence of training program implementation, employee motivation, and work environment on employee productivity at PT Petrokimia Gresik:

1. The implementation of training programs has a positive and significant effect on employee productivity at PT Petrokimia Gresik. This indicates that the better the training provided, the higher the employees' productivity.
2. Employee motivation has a positive and significant effect on employee productivity at PT Petrokimia Gresik. This means that motivated employees tend to demonstrate more productive performance.
3. The work environment has a positive and significant effect on employee productivity at PT Petrokimia Gresik. A good working environment can enhance employee enthusiasm and improve work outcomes.

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