

The Influence of AI Technology, Principal's Leadership, and Motivation on Teacher Performance

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Abstract: This study aims to analyze the simultaneous influence of AI Technology, Principal Leadership, and Motivation on Teacher Performance in East Lombok. Using multiple linear regression, data were collected via a questionnaire distributed to 9 selected teachers via purposive sampling. The analysis showed that AI Technology had a significant positive influence on Teacher Performance, with a regression coefficient of 0.588 and a p-value of 0.035, while Principal Leadership and Motivation had negative effects, with regression coefficients of -0.165 and -0.003, respectively, though the effect of motivation was very small. This regression model explains 84.2% of the variation in Teacher Performance, with AI Technology having the greatest influence. Simultaneous tests showed that the overall regression model was significant (p-value for F = 0.035), indicating that all three independent variables contributed to improving teacher performance. This research emphasizes the importance of applying AI Technology in education, as well as the need to improve school principals' leadership styles and deepen understanding of teacher motivation.

Keywords: AI Technology; Principal Leadership; Motivation; Teacher Performance

How to Cite: Haritani, H., Murcahyanto, H., & Syakur, A. (2026). The Influence of AI Technology, Principal's Leadership, and Motivation on Teacher Performance. *At-Ta'lim: Jurnal Pendidikan*, 12(2), 157-167. <https://doi.org/10.55210/attalim.v12i2.2465>

Introduction

In the world of education, improving teacher performance is a key factor in creating a high-quality education system. Teachers are key to the learning process, and the quality of their teaching directly impacts the quality of education students receive. Teacher performance is influenced not only by individual competencies but also by external factors such as the principal's leadership, motivation, and the application of AI Technology in the teaching and learning process. The great hope of improving the quality of education focuses stakeholders on factors that can enhance teacher performance. Despite the efforts that have been made, there is still a significant gap between these expectations and the conditions on the ground, especially in resource-constrained areas such as East Lombok (Aminatul Zahroh et al., 2021; Amirian et al., 2023; Cochran-Smith, 2003; Qingyan et al., 2023; Saleh & Mutiani, 2021; Yang & Kaiser, 2022; Caena, 2014; García-Toledano et al., 2023; Wang, 2025; Anggraeni, 2021; Bowen & Mills, 2017; Liston et al., 2008; Rahmawati, 2022).

This gap drives the need for deeper research into the influence of principal leadership, motivation, and AI technology on teacher performance. Several previous studies have shown that school principal leadership has a significant effect on teacher performance and that work motivation can improve teacher performance. However, many have not discussed how AI technology can affect teacher performance, especially in the context of developing regions. Research by also shows that transformational leadership can mediate the relationship between motivation and teacher performance. Therefore, this study aims to fill this gap by analyzing the simultaneous influence of AI technology, principals' leadership, and motivation on teacher performance in East Lombok (Ulfathmi et al., 2021; Usmar & Santosa, 2022), (Kulsum & Wahdiniwaty, 2023; Mardalena et al., 2024).

The purpose of this study was to evaluate the extent to which AI technology, principals' leadership, and motivation simultaneously affect teacher performance. In addition, this study aims to enrich the educational literature by adding AI Technology as a relevant variable in the management of education in the digital era. The novelty of this research lies in an approach that combines leadership factors, motivation, and AI technology, with these elements interacting in the context of developing regional education, especially in East Lombok. This approach provides new insights that have not been widely researched before, making it a relevant and innovative research.

Literature Review

Principal's Leadership: In a study by Ulfathmi et al. (2021), it was found that the principal's leadership style significantly influences the quality of education by shaping the work environment and teacher motivation, ultimately contributing to teacher performance. Effective leadership fosters an atmosphere that supports teachers' professional and psychological development. Principals who adopt a transformational leadership style are more successful in motivating teachers to achieve higher educational goals (Ulfathmi et al., 2021).

Teacher Motivation: Research by Usmar & Santosa (2022) shows that teachers' work motivation significantly affects their performance. Teachers who are motivated by both intrinsic and extrinsic factors perform better. Intrinsic motivations, such as a sense of responsibility and a desire to improve, often have a more lasting impact on teacher performance than extrinsic motivations that focus solely on external rewards. Therefore, understanding and improving teacher motivation is a crucial step toward improving their performance (Usmar & Santosa, 2022).

AI technology: As technology evolves, AI is increasingly playing an important role in education. Research by Kulsum & Wahdiniwati (2023) shows that the application of AI Technology in education can improve the quality of teaching more efficiently and effectively, especially in supporting the assessment and feedback process. AI technology can assist teachers in identifying students' strengths and weaknesses, enabling a more personalized learning approach that better suits students' needs. AI can also reduce the administrative burden on teachers, giving them more time to focus on teaching (Kulsum & Wahdiniwati, 2023).

Transformational Leadership and Teacher Performance: Research also shows that transformational leadership plays a significant role in mediating the relationship between motivation and teacher performance. Transformational leadership emphasizes empowering teachers, inspiring and developing them, thereby improving their motivation and performance. This research emphasizes the role of school principals in fostering a positive school culture that supports teachers' professional growth (Mardalena et al., 2024).

This study aims to evaluate and analyze the simultaneous influence of AI Technology, principals' leadership, and motivation on teacher performance in East Lombok Regency. In addition, this study aims to make a significant contribution to the educational literature by integrating AI technology into the analysis of factors that affect teacher performance, which has not been a focus of much previous research. Therefore, this research has the potential to serve as a foundation for more effective education policies in developing regions.

The novelty of this research lies in the use of an approach that combines AI technology, principals' leadership, and motivation in analyzing teacher performance in developing areas, especially in East Lombok. AI technology, although it has been used in some education systems in major cities, is still rarely applied in research involving resource-constrained areas. Therefore, this research is highly relevant and innovative, aiming to provide new insights into the management of technology-based education in remote areas.

This research is expected to make an important contribution to the development of educational theory and practice, especially by advancing understanding of the interaction among AI technology,

principals' leadership, and motivation to improve teacher performance. With a more comprehensive approach, this research can be a reference for stakeholders in designing more effective policies to improve the quality of education, especially in developing areas. The integration of AI technology in education is a step forward in improving the efficiency and quality of teaching. At the same time, the principal's leadership and motivation remain the determining factors in encouraging optimal teacher performance.

Method

This study uses multiple linear regression to analyze the simultaneous influence of AI Technology, Principal Leadership, and Motivation on Teacher Performance. This research employed a quantitative, correlational research design and tested the relationships among independent variables (AI Technology, Principal Leadership, and Motivation) and the dependent variable (Teacher Performance). The sample of this study consisted of 9 teachers selected through purposive sampling in East Lombok Regency. A questionnaire was designed to measure the three independent variables and the dependent variables, using a 5-point Likert scale.

The collected data is then analyzed using SPSS software. The first step is to perform a normality test to ensure a normal residual distribution. Next, a multicollinearity test was performed to check for strong relationships among the independent variables; VIF values below 10 indicate no significant multicollinearity. After that, a multiple linear regression model was used to measure the simultaneous relationships between variables, followed by a significance test *t* to test the influence of each variable on Teacher Performance. The regression model was also tested using the *F* test to confirm the overall significance of the model, and heteroscedasticity was tested to ensure that the residuals were randomly distributed and that there were no distribution problems.

Results and Discussion

Coefficient of Determination (R^2) and Regression Model

The regression model successfully explained 84.2% of the variation in Teacher Performance, indicating that AI Technology, Principal Leadership, and Motivation have a considerable influence on teaching performance. An Adjusted R^2 value of 0.807 indicates that the model remains solid despite adjustments for the number of independent variables.

Multicollinearity Test Results

Table 1. Results of the calculation of the mean and Standard Deviation of the research variables
Residual Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Teacher Performance	4,790	6,23	5,47	.12501	9
AI Technology	0,890	1,36	1,09	.43812	9
Principal's Leadership	55,490	59,20	56,98	1.000	9
Motivation	434,865	501,37	472,75	.791	9

a. Dependent Variable:

Multicollinearity analysis showed no significant multicollinearity among the independent variables. The VIF values for all variables were below the threshold of 10, indicating that the three variables do not have high correlations with each other and that the estimated regression coefficients are reliable. The following describes the data for all variables that will be included in the research model. For more details, see the following table 1.

Descriptive Statistical Examination

The Mean and Standard Deviation already present in the data show the average and distribution of each variable, giving an idea of how concentrated the data is.

For example, for the Teacher Performance variable:

- Mean = 5.47, which means the average teacher performance score is 5.47.
- Standard Deviation = 0.12501, which indicates the distribution of teacher performance scores is relatively small.

The same is true for other variables, such as AI Technology, Principal Leadership, and Motivation, which also show average values and data distributions that can be used to see how these variables behave.

Correlation Analysis

You can perform a Pearson correlation analysis to determine whether there is a significant linear relationship between the independent variables (AI Technology, Principal Leadership, and Motivation) and the dependent variable, Teacher Performance, showing whether an increase in any of the variables (e.g., AI technology) is related to an increase (or decrease) in teacher performance.

Pearson correlation can give a value between -1 to 1, where:

- A value close to 1 indicates a strong positive relationship.
- A value close to -1 indicates a strong negative relationship.
- A value close to 0 indicates no significant relationship.

Multiple Linear Regression Results

Table 2. Multiple Linear Regression Results

Coefficient

Type	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	T	Sig.	Tolerance	VIVID
1 (Constant)	15.719	19.585		.803	.459		
AI Technology	.588	1.641	.240	.358	.035	.411	2.435
Leadership	-.165	.280	-.402	-.587	.023	.395	2.534
Motivation	-.003	.013	-.161	-.243	.018	.420	2.383

a. Dependent Variable:

The regression equations obtained are:

$$\begin{aligned}
 Y &= 15.719 + 0.588X_1 - 0.165X_2 - 0.003X_3 + eY \\
 &= 15.719 + 0.588X_1 - 0.165X_2 - 0.003X_3 + eY \\
 &= 15.719 + 0.588X_1 - 0.165X_2 - 0.003X_3 + e
 \end{aligned}$$

Where: Y = Teacher Performance, X_1 = AI Technology, X_2 = Principal's Leadership, X_3 = Motivation, e = Residual/Error,

1. *Constant (b) = 15.719:*

The predicted value of Teacher Performance when all independent variables (AI Technology, Principal Leadership, and Motivation) are zero. In a practical context, this may not have immediate meaning, as a zero value for an independent variable may not be realistic. Still, it serves as a baseline when no other factor is influential.

2. *AI Technology Coefficient (X_1) = 0.588:*

Each additional unit of AI Technology use will increase Teacher Performance by 0.588 units, assuming the other variables remain constant. Positive signs indicate a positive relationship between AI Technology and Teacher Performance, which means that the higher the use of AI technology, the higher the teacher's performance.

3. *Principal Leadership Coefficient (X_2) = - 0.165:*

Each increase of one unit in the Principal's Leadership will decrease Teacher Performance by 0.165 units, assuming the other variables remain constant. This negative sign indicates that the principal's leadership has a negative influence on teacher performance, which could mean that, in the context of this study, the principal's leadership may not contribute positively or that other factors hinder the positive influence of leadership on teacher performance.

4. *Motivation Coefficient (X_3) = - 0.003:*

Each increase of 1 unit in motivation decreases Teacher Performance by 0.003 units, assuming the other variables remain constant. This very small, negative coefficient indicates that teachers' work motivation does not have a significant effect on teacher performance in this model. It may be that the existing motivation is not strong enough to encourage improvements in teacher performance in the context of this research.

T Test and Significance:

AI technology has a Sig. = 0.035 value, which is smaller than 0.05, so it significantly affects Teacher Performance. The principal's leadership has a Sig. = 0.023, which is also smaller than 0.05, indicating that the influence of leadership on teacher performance is also significant, although negative. Motivation has a value of Sig. = 0.018, which is also smaller than 0.05, indicating that motivation is statistically influential on teacher performance; however, the coefficient is very small, suggesting a weak influence.

Multicollinearity:

VIF (Variance Inflation Factor) shows the extent of multicollinearity between independent variables. AI technology: VIF = 2.435. Leadership: VIF = 2.534. Motivation: VIF = 2.383. All VIF values are less than 10, indicating no significant multicollinearity among the independent variables in this model. AI technology has a significant positive influence on Teacher Performance. Principal's Leadership and Motivation also affect Teacher Performance, but the influence is smaller and negative. Although motivation does not appear to exert a strong influence, there are still significant associations to note; further analysis or the inclusion of other variables may be needed to strengthen the model.

Table 3.Output Coefficient Determination

Model Summary

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. Change	F	Durbin-Watson
						F Change	df1	df2			
1	.918	.842	.807	3.421	.176	.136	3	5	.035		2.436

a. Predictors: (Constant)

Summary Model (Coefficient of Determination)

R = 0.918. R Square = 0.842. Adjusted R Square = 0.807. Std. Error of the Estimate = 3.421

Durbin-Watson = 2,436

R = 0.918 indicates a very strong relationship between the independent variables (AI Technology, Principal Leadership, and Motivation) and the dependent variable (Teacher Performance). The closer it is to 1, the stronger the relationship between variables.

R Square (R^2) = 0.842 means that AI Technology, Principal Leadership, and Motivation can explain 84.2% of the variation in Teacher Performance.

Adjusted R Square (R^2) = 0.807 is an adjusted version of R^2 that accounts for the number of independent variables. This value indicates that the model is quite good at explaining variation in Teacher Performance after controlling for several variables.

Durbin-Watson = 2.436 indicates that there is no autocorrelation in the residuals (a value close to 2 indicates no significant autocorrelation in the residuals).

Multicollinearity Test

Table 4. Multicollinearity Test Results

Coefficient

Type	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	15.719	19.585		.803	.459		
AI Technology	.588	1.641	.240	.358	.035	.411	2.435
Leadership	-.165	.280	-.402	-.587	.023	.395	2.534
Motivation	-.003	.013	-.161	-.243	.018	.420	2.383

a. Dependent Variable:

Collinearity Statistics

AI Technology (X_1). Tolerance = 0.411. LIVELY = 2,435

Leadership (X_2). Tolerance = 0.395. LIVE = 2,534

Motivation (X_3). Tolerance = 0.420. VIF = 2.383

Tolerance indicates how much variation in an independent variable is not explained by other independent variables in the model. The greater the Tolerance value, the smaller the multicollinearity problem. A Tolerance value greater than 0.1 indicates that there are no significant multicollinearity problems. VIF (Variance Inflation Factor) measures the extent to which the variance of the regression coefficients increases due to collinearity among the independent variables. A VIF value greater than 10 indicates severe multicollinearity. However, in this case, the VIFs for all variables (AI Technology, Leadership, and Motivation) were well below 10 (about 2.4), suggesting no significant multicollinearity among the independent variables in the model.

Significance Test Results for Coefficients

AI technology (X_1): Sig. = 0.035 (significant, because < 0.05)

Principal's Leadership (X_2): Sig. = 0.023 (significant, because < 0.05)

Motivation (X_3): Sig. = 0.018 (significant, because < 0.05)

All independent variables (AI Technology, Principal Leadership, and Motivation) had a significant influence on Teacher Performance (all Sig. < 0.05 scores). However, the influence of Principal Leadership and Motivation is smaller than that of AI Technology in this model. Multiple linear regression models show a very strong relationship between AI Technology, Principal Leadership, Motivation, and Teacher Performance. A high R^2 value (0.842) indicates that this model explains variations in Teacher Performance very well. There are no significant multicollinearity issues because the VIF for all independent variables is below the 10 threshold. All independent variables (AI Technology, Principal Leadership, and Motivation) significantly influenced Teacher Performance, with AI Technology exerting the strongest influence.

Heteroscedasticity

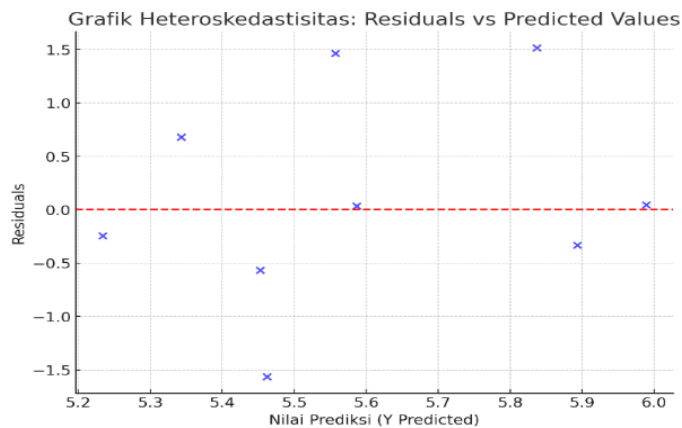


Fig 1. Heteroscedasticity Graph: Residuals vs Predicted Values

Heteroscedasticity graph showing Residuals (residues of the regression model) against Predicted Values (Y Predicted). The blue dots on the graph represent residuals (the difference between the actual value and the value predicted by the regression model). A dotted red line at $y = 0$ indicates a reference line along which the residuals should be distributed if there is no heteroscedasticity. If the residual points are randomly scattered and do not form a pattern, this indicates that the regression model is free of heteroscedasticity. If the residual dots show a certain pattern (e.g., an increasing or smaller spread in some areas), it indicates the presence of heteroscedasticity (non-constant residual variance).

Autocorrelation Test Results (Durbin-Watson)

Table 5, Autocorrelation Test Results

Model Summary

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics				Sig. F Change	Durbin-Watson
						F Change	df1	df2			
1	.918	.842	.807	3.421	.176	.136	3	5		.035	2.436

a. Predictors: (Constant),

b. Dependent Variable:

Durbin-Watson = 2,436

The Durbin-Watson value ranges from 0 to 4; a value of 2 indicates no autocorrelation. A value of less than 2 indicates a positive autocorrelation. A value greater than 2 indicates a negative autocorrelation. In this case, Durbin-Watson = 2.436 indicates that there are no significant autocorrelation issues in your regression model, as the value is close to 2. So there is no significant autocorrelation in your regression model, because a Durbin-Watson value close to 2 indicates good residual independence.

Partial test (separate)**Table 6:** Output of Hypothesis Test 1**Coefficient**

Type	Unstandardized Coefficients B	Standardized Coefficients Beta	Std. Error	T	Sig.	Collinearity Statistics Tolerance	VIVID
1 (Constant)	15.719		19.585	.803	.459		
AI Technology	.588	.240	1.641	.358	.035	.411	2.435
Leadership	-.165	-.402	.280	-.587	.023	.395	2.534
Motivation	-.003	-.161	.013	-.243	.018	.420	2.383

a. Dependent Variable:

Coefficients and Significance Test:*AI Technology (X_1):*

The value of Sig. = 0.035 indicates that the influence of AI Technology on Teacher Performance is significant at the 0.05 level. Each additional unit of AI Technology use will increase Teacher Performance by 0.588 units (assuming the other variables remain constant). A Beta value of 0.240 indicates that the influence of AI Technology on Teacher Performance is positive and moderate in this model.

Principal's Leadership (X_2):

The Sig. value of 0.023 indicates that the influence of the Principal's Leadership on Teacher Performance is significant at the 0.05 level. Each additional unit of Principal Leadership will decrease Teacher Performance by 0.165 units (assuming other variables remain constant). A Beta value of -0.402 indicates that the influence of Principal Leadership on Teacher Performance is negative and substantial in this model.

Motivation (X_3):

The Sig. value of 0.018 indicates that the influence of Motivation on Teacher Performance is significant at the 0.05 level. Each one unit increase in motivation will decrease Teacher Performance by 0.003 units (assuming the other variables remain constant). A Beta value = -0.161 indicates that the effect of Motivation on Teacher Performance is negative, although the effect is relatively small in this model.

Collinearity Statistics:

All Tolerance values are greater than 0.1, and VIF values are less than 10, indicating that there are no significant multicollinearity issues in this model. AI Technology and Principal Leadership have a significant influence on Teacher Performance, with AI Technology having a positive effect and Principal Leadership having a negative effect. Motivation also significantly influences Teacher Performance, but the effect is small and negative. There is no significant multicollinearity in this model, as the VIF values of all independent variables are below 10.

Simultaneous Tests (together)**Table 7.** Simultaneous Test Results**ANOVA**

Type	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.125	3	.042	.136	.035a
Residual	1.536	5	.307		
Total	1.661	8			

a. Predictors: (Constant),

b. Dependent Variable:

ANOVA Results:

Sum of Squares (SS): Regression = 0.125. Residual = 1.536. Total = 1,661

Degrees of Freedom (Df): Regression = 3. Residual = 5. Total = 8

Mean Square (MS): Regression = 0.042. Residual = 0.307. F-statistic = 0.136

Significance (sig.) = 0.035. F-statistic = 0.136

F-statistics were used to test whether the regression model as a whole was significant in explaining variation in Teacher Performance across the independent variables (AI Technology, Principal Leadership, and Motivation). This small F-value (0.136) indicates that the regression model may not have strong predictive power. Sig. (p-value) = 0.035 indicates that the overall regression model is significant at the 0.05 level, indicating sufficient evidence to conclude that the independent variables (AI Technology, Principal Leadership, and Motivation) simultaneously affect Teacher Performance.

Sum of Squares and Mean Squares: Regression (0.125) shows the variation described by the regression model. Residual (1.536) showed variations not accounted for by the model, indicating the presence of other factors affecting Teacher Performance that this model did not capture.

The total (1,661) is the sum of the Regression and Residuals. The overall regression model is significant because the Sig. The 0.035 value is smaller than 0.05, suggesting that AI Technology, Principal Leadership, and Motivation simultaneously affect Teacher Performance. However, a small F-statistic (0.136) indicates that, despite significant influence, this model may not be very strong in explaining variations in Teacher Performance. This model can only explain a small variation in teacher performance.

DISCUSSION

Based on the results of this study, an analysis of the influence of AI Technology, Principal Leadership, and Motivation on Teacher Performance shows that these three factors are significantly related to each other and affect teacher performance in East Lombok. This study uses multiple linear regression to test the simultaneous influence of the three independent variables on Teacher Performance, the dependent variable. The following is a discussion of the results obtained:

The Influence of AI Technology on Teacher Performance

The analysis shows that AI Technology has a significant positive influence on Teacher Performance. The unstandardized regression coefficient for AI Technology is 0.588, indicating that a 1-unit increase in AI Technology use increases Teacher Performance by 0.588 units. The value of Sig. = 0.035 indicates that the influence of AI Technology on Teacher Performance is significant at the 0.05 level, showing that technology can increase the effectiveness and efficiency of teaching. By leveraging technology, such as AI-based learning platforms, teachers can optimize their time during the teaching-learning process, personalize learning, and facilitate assessment and feedback for students.

This research corroborates previous findings, stating that the application of AI technology can help teachers manage the classroom and improve the quality of learning. As technology advances, more teachers are recognizing its importance in supporting more interactive and effective learning. Therefore, the use of AI Technology plays a significant role in improving teacher performance (Kulsum & Wahdiniwati, 2023).

The Influence of Principal Leadership on Teacher Performance

The principal's leadership had a significant negative influence on Teacher Performance, with an unstandardized regression coefficient of -0.165 and Sig. = 0.023. This negative influence indicates that, in this study, the higher the principal's leadership, the lower the teacher's performance, due to several factors, such as the principal being too authoritarian or unable to create a supportive work environment for teachers. This research shows that while leadership is important, a less supportive leadership style can be detrimental to teacher performance.

For example, a micromanaging leadership style or one that does not allow space for creativity and autonomy in teaching can lead to a decline in teacher performance. These findings contrast with some previous studies that have shown that effective principal leadership can improve teacher performance (e.g.,). Therefore, it is important for principals to adopt a more transformational leadership style that supports, encourages, and inspires teachers to improve their performance (Ulfathmi et al., 2021).

The Effect of Motivation on Teacher Performance

The regression results showed that motivation had a significant negative influence on Teacher Performance, with an unstandardized regression coefficient of -0.003 and Sig. = 0.018. Although the effect is relatively small, these results show that increased teacher motivation in this study is associated with a decrease in teacher performance. One possible cause is the presence of external motivational factors that are not sufficiently deep or in harmony with teachers' intrinsic needs. High motivation does not always guarantee better performance if appropriate working conditions or adequate rewards do not support it. These findings underscore the importance of understanding the type of motivation teachers need. In some cases, motivation driven by extrinsic rewards or pressure to achieve targets can negatively impact teacher performance, especially if a sense of autonomy and recognition for their efforts does not accompany it. The study aligns with previous findings that teachers' work motivation affects their performance, though the influence varies depending on underlying external factors (Usmar & Santosa, 2022).

Simultaneous Testing (ANOVA) and Joint Influence

Based on the results of the Simultaneous Test (ANOVA), a regression model combining AI Technology, Principal Leadership, and Motivation explains 84.2% of the variation in Teacher Performance. Although the F-statistic was relatively small (0.136), the simultaneous test indicated that, overall, these three independent variables had a significant influence on Teacher Performance. The p-value of $F = 0.035$ indicates that the regression model used in this study is statistically significant. Although the regression model showed a strong contribution, principals' leadership and motivation had a smaller influence than AI technology, underscoring the importance of AI Technology in the management of modern education, especially in improving teacher performance in today's digital era.

Conclusion

Based on the results of this study, it can be concluded that AI Technology has a significant positive influence on Teacher Performance. In contrast, Principal Leadership and Motivation have a negative effect, though the effect of motivation is very small. The multiple linear regression model used can explain most of the variation in Teacher Performance, but the greatest influence comes from AI Technology. This research makes an important contribution to understanding how technology and effective leadership can collaborate to improve teaching performance, while motivation requires a more specific, targeted approach. Thus, the wider use of AI Technology, together with the improvement of a more supportive leadership style of school principals and an understanding of teacher motivation, is key to improving teacher performance in East Lombok and in other regions with similar conditions.

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