



The Dominant Role of Principals' Supervisory Competence Over Leadership Style and Managerial Competence in Influencing Teacher Performance: A Study from Indragiri Hilir Regency, Indonesia

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ABSTRACT

Despite extensive research on school leadership and teacher performance, limited empirical evidence has compared the relative influence of principals' leadership style, managerial competence, and supervisory competence within geographically challenging educational settings. This study addresses this gap by examining the individual and combined effects of these three competencies on teacher performance in elementary schools in Mandah District, Indragiri Hilir Regency, Indonesia. Employing a quantitative explanatory design, data were collected from 190 teachers selected from a population of 363 using proportional sampling based on the Slovin formula. A validated and reliable questionnaire was utilized, and data were analyzed using multiple linear regression, t-tests, and F-tests. The findings revealed that principals' supervisory competence was the only variable exerting a positive and statistically significant effect on teacher performance ($\beta = 0.255$, $p = 0.002$). Conversely, leadership style ($p = 0.247$) and managerial competence ($p = 0.257$) did not demonstrate significant individual effects. However, the simultaneous test indicated that leadership style, managerial competence, and supervisory competence collectively exerted a significant influence on teacher performance ($F = 5.532$, $p = 0.001$). The results identify supervisory competence as the most dominant predictor of teacher performance, underscoring the critical role of continuous supervision, professional guidance, and instructional support in enhancing teachers' effectiveness. These findings suggest that educational improvement initiatives should prioritize strengthening principals' supervisory competence while maintaining the balanced development of leadership and managerial capabilities.

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INTRODUCTION

Teachers constitute the most critical component of the education system and play a pivotal role in determining the success of the teaching and learning process. The teaching and learning process directly affects teacher performance, which also depends on the coaching and reward systems implemented in schools. Teachers who receive continuous guidance and evaluation tend to demonstrate improvement in their responsibility and professionalism (Yusuf et al., 2023). Conversely, weak supervision and lack of motivation from school leaders often lead to diminished teacher performance (Yusuf et al., 2023).

Preliminary observations revealed that teacher performance varied considerably across schools in Mandah District, with some teachers performing suboptimally. This suboptimal performance was evidenced by teachers' inadequate understanding of their professional duties. For instance, while teachers demonstrated effective classroom instruction, several failed to comprehensively address student competencies during evaluations. This condition was attributed to the principals' suboptimal leadership styles across schools. An additional concern was principals' failure to conduct regular performance supervision, including reviewing lesson plans or assisting teachers facing learning challenges related to student performance. These identified problems underscore the critical importance of principals' supervisory competence.

The school principal, serving as an educational leader, occupies an important role in directing, guiding, and motivating teachers to work effectively in alignment with school goals (Mulyasa, 2019). Principals who adopt appropriate leadership styles can cultivate a conducive work atmosphere, enhance teacher morale, and stimulate pedagogical innovation. Effective leadership fosters responsibility, discipline, and teacher commitment to their professional duties.

Recent studies over the past five years have demonstrated a significant relationship between principal leadership style and teacher performance. Marlina (2024) concluded that transformational leadership positively affects teacher performance in elementary schools. Similarly, Asparani et al. (2025) found that democratic leadership enhances teacher participation and motivation, which directly impacts classroom

performance. International research has further confirmed that principal leadership typologies are significantly associated with teacher self-efficacy and commitment (Bellibaş et al., 2024).

Beyond leadership style, principals' managerial competence plays a major role in determining the effectiveness of school management. Principals with high managerial competence can develop strategic plans, manage resources efficiently, and foster productive work cultures (Wahyudi et al., 2025). Dahlan et al. (2017) found that managerial competence directly contributes to improving teacher performance through effective organizational management and communication. Tamami and Azkia (2022) similarly demonstrated that managerial competence significantly affects teacher performance. A systematic literature review by Wulaningrum et al. (2025) confirmed that principal management significantly impacts teacher performance in elementary schools. Principals who effectively execute management functions, planning, organizing, implementing, and supervising can enhance teacher effectiveness. Furthermore, Abdurrahman et al. (2026) asserted that the better principals manage school programs and resources, the higher the teacher performance achieved.

Another important factor is principals' supervisory competence. Through academic and managerial supervision, principals can monitor, assess, and guide teachers to execute the teaching process professionally. A large-scale study by Muttaqin et al. (2023) involving 2,203 teachers found that academic supervision has a significant positive effect on teacher performance. A literature review by Putra and Hariri (2022) concluded that principal supervision consistently demonstrates a positive influence on teacher performance across various educational contexts. Furthermore, a meta-analysis by Maryati et al. (2025) of 27 empirical studies published between 2018 and 2025 confirmed a significant positive correlation between academic supervision and principal effectiveness ($r = 0.611$, $p < 0.01$), indicating a strong relationship. Continuous and constructive supervision assists teachers in identifying weaknesses and improving their teaching quality. Therefore, principals' supervisory competence directly influences the improvement of teacher performance.

Within the school context, the principal occupies a strategic role as an educational leader responsible for all school activities, including educational supervision. Supervision conducted by the principal constitutes a systematic effort to help teachers improve their competence, enhance the learning process, and develop professionalism (Wahjosumidjo, 2020). As noted by DiPaola and Hoy (2012), effective principals focus on improving instruction through supervision, evaluation, and professional development. Consequently, the success of teacher performance is strongly influenced by principals' supervisory competence in guiding and directing teachers.

In practice, however, principal supervision is often suboptimal. Some teachers continue to perceive supervision as a form of performance evaluation rather than professional development. Initial observations of 190 teachers revealed that 100 viewed supervisions as evaluative. Nevertheless, the essence of supervision is to provide professional support enabling teachers to continuously improve their teaching skills (Sagala, 2020). Effective supervision fosters a positive, collaborative, and reflective work culture in schools (Arikunto & Yuliana, 2008).

Based on this description, the researchers were motivated to further examine "The Influence of Principal Leadership Style, Managerial Competence, and Supervisory Competence on Teacher Performance in Mandah District, Indragiri Hilir Regency." Several issues can be identified from this context: (1) variations in teacher performance across schools in Mandah District; (2) principals' leadership styles have not fully created a conducive work environment; (3) principals' managerial competence in managing school resources remains suboptimal; (4) principal supervision of teachers has not been effective and sustainable; and (5) the extent of the influence of principals' leadership styles, managerial competence, and supervisory competence on teacher performance remains unknown.

This study focused on exploring and analyzing issues related to principal leadership style, managerial competence, and supervisory competence in relation to teacher performance, specifically to analyze the influence of each factor on educational quality. This approach enabled the researchers to determine both the individual and simultaneous influences of principal leadership style, managerial competence, and

supervisory competence on teacher performance throughout Mandah District, Indragiri Hilir Regency. Accordingly, this study aimed to determine the influence of principals' leadership style, managerial competence, and supervisory competence on teacher performance in Mandah District, Indragiri Hilir Regency.

Differences in teacher performance in Mandah District are also influenced by geographical location. Schools with easy geographical access tend to demonstrate better teacher performance, as principals can more effectively provide supervision, exercise leadership, and apply managerial competence. Conversely, schools located far from the district center face several obstacles, including limited transportation access, inadequate internet connectivity, and insufficient facilities and infrastructure that support both teacher performance and principals' leadership, managerial competence, and supervision in elementary schools throughout Mandah District.

METHOD

This study employed a quantitative approach with an explanatory research design. According to Sugiyono (2022), quantitative research aims to test hypotheses using numerical data analyzed statistically. This approach was utilized to explain the influence of leadership style (X_1), managerial competence (X_2), and supervisory competence (X_3) on teacher performance (Y) in Mandah District, Indragiri Hilir Regency. The explanatory method was selected to determine causal relationships among the variables.

Data were collected using questionnaires designed to measure teacher performance, leadership style, managerial competence, and supervisory competence. Documentation was also employed to collect data on teachers and principals in Mandah District, including teacher attendance lists, photographs of supervisory activities, and school profiles.

The research process comprised three stages: (1) an initial survey, (2) distribution of questionnaires to elementary school teachers, and (3) writing of the research report. The data were divided into qualitative and quantitative categories, with emphasis placed on the quantitative data obtained from the questionnaires distributed to teachers.

Based on data from the Indragiri Hilir Regency Education Office in 2025, the population comprised 363 teachers from 51 schools, including both permanent and

contract teachers. The sample size for this study was 190 teacher respondents. Sampling was conducted using the Slovin formula with a 5% margin of error. The calculation yielded a minimum sample of 190.3, which was rounded down to 190 teachers. This sample size ensured that each school received a sample allocation proportional to the number of teachers, with a 5% margin of error.

The questionnaire instrument was developed through three stages: (1) identifying research variables, (2) developing an instrument framework, and (3) pilot testing to examine validity and reliability. This study measured two groups of variables: the dependent variable, teacher performance (Y), and the independent variables, principal leadership style (X_1), principal managerial competence (X_2), and principal supervisory competence (X_3).

Reliability testing employed Cronbach's Alpha coefficient (α). Following Cohen et al. (2018), a Cronbach's Alpha coefficient greater than 0.60 was considered the minimum threshold for acceptable reliability. Invalid items were removed, and SPSS version 24 was utilized to examine reliability based on Cronbach's Alpha.

Table 1
Reliability Test

Variable	Cronbach's Alpha Coefficient	N of Items	Criterion	Description
Leadership Style	.925	24	> 0.6	Reliable
Managerial Competence	.949	20	> 0.6	Reliable
Supervisory Competence	.946	20	> 0.6	Reliable
Teacher Performance	.945	20	> 0.6	Reliable

Note. Cronbach's Alpha coefficients for all variables exceeded the acceptable threshold of 0.60, indicating high internal consistency.

The reliability test results demonstrated high internal consistency across all variables, with Cronbach's Alpha coefficients ranging from 0.925 to 0.949, all exceeding the acceptable threshold of 0.60.

Based on the validity test results, 24 items for leadership style were declared valid, as their calculated r-value (0.438) exceeded the critical r-value (0.312). For managerial competence, all 20 items were declared valid, with calculated r-values (0.748) exceeding

the critical value (0.312). Similarly, for supervisory competence, all 20 items were declared valid, with calculated r-values (0.662) exceeding the critical value (0.312). Regarding teacher performance, all 20 items tested were declared valid, as the calculated r-value (0.633) exceeded the critical r-value (0.312). Consequently, the instrument demonstrated good validity and was deemed ready for research purposes without requiring revisions related to item validity.

The data analysis methodology for this study employed a partial test (t-test) to analyze each variable and a simultaneous test (F-test) using SPSS Version 24. Inferential statistics were then utilized to assess collective information.

To test for data normality, the Kolmogorov-Smirnov test was employed with a 5% significance level. The test results provided p-values used to determine whether the normality hypothesis was accepted or rejected. The normality test results indicated that all variables followed a normal distribution, with significance values exceeding 0.05 (Teacher Performance: 0.193, Leadership Style: 0.071, Managerial Competence: 0.168, Supervisory Competence: 0.229). Therefore, the normality assumption was satisfied, and the data were suitable for parametric statistical analysis.

RESULT AND DISCUSSION

This study employed a quantitative approach, utilizing a partial test (t-test) to analyze each variable and a simultaneous test (F-test). Leadership Style (X_1), Managerial Competence (X_2), and Supervisory Competence (X_3) served as the independent variables, while Teacher Performance (Y) constituted the dependent variable. The test results and their discussion are presented below.

Results

The multicollinearity test in this study used the Variance Inflation Factor (VIF) and Tolerance Value. The criteria applied were $VIF \leq 10.00$ and Tolerance Value ≥ 0.1 . The analysis focused on calculating the VIF and Tolerance Value. The test results are presented as follows:

Table 2
Multicollinearity Test Results

No.	Variable	Tolerance	VIF
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1.	Leadership Style	0.999	1.001
2.	Managerial Competence	0.979	1.021
3.	Supervisory Competence	0.980	1.020

Note. All variables met the multicollinearity-free criteria (Tolerance ≥ 0.1 , VIF ≤ 10.00).

The multicollinearity test confirmed that all independent variables met the required criteria (Tolerance > 0.1 , VIF < 10.0), indicating no multicollinearity issues in the regression model.

The heteroscedasticity test aims to evaluate differences in residual variance between observations. In this study, the test was conducted using the Glejser method and analyzed using a scatterplot graph. The test results are presented as follows:

Table 3
Heteroscedasticity Test Results (Glejser Method)

No.	Variable	Significance (Sig.)
1.	Leadership Style	0.460
2.	Managerial Competence	0.534
3.	Supervisory Competence	0.713

Note. All significance values exceeded 0.05, indicating no heteroscedasticity issues.

The Glejser test results showed that all significance values exceeded 0.05, indicating no heteroscedasticity issues. Thus, the regression model satisfied the homoscedasticity assumption.

The purpose of the Multiple Regression Hypothesis Test is to determine how the independent and dependent variables influence each other. The influence of the Principal's Leadership Style, Managerial Competence, and Supervisory Competence was assessed through multiple linear regression analysis calculations. The results of the multiple linear regression analysis are shown in the following table:

Table 4
Multiple Linear Regression Analysis Results

MODEL	Unstandardized Coefficients	Standardized Coefficient
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	B	Std. Error	Beta	t	Sig.
(Constant)	26.981	9.531		2.831	0.005
Leadership Style Principal	0.119	0.103	0.083	1.162	0.247
Managerial Competence	0.080	0.070	0.083	1.138	0.257
Supervisory Competence	0.255	0.083	0.227	3.071	0.002

Dependent Variable: Teacher Performance

The multiple regression analysis revealed that supervisory competence had the largest unstandardized coefficient ($B = 0.255$), followed by leadership style ($B = 0.119$) and managerial competence ($B = 0.080$), with a constant value of 26.981.

The t-test results indicated that for the first hypothesis (H1), leadership style yielded a significance value of 0.247 ($p > 0.05$), leading to rejection of the hypothesis. For the second hypothesis (H2), managerial competence produced a significance value of 0.257 ($p > 0.05$), also resulting in rejection. For the third hypothesis (H3), supervisory competence demonstrated a significance value of 0.002 ($p < 0.05$), indicating a positive and significant influence on teacher performance. Consequently, H3 was accepted.

Next, to determine the effect of Leadership Style, Managerial Competence, and Supervisory Competence on Teacher Performance, a simultaneous test (F-test) was used. The results are as follows.

Table 5
Simultaneous Test (F-Test) Results - ANOVA

MODEL	Sum of Squares	df	Mean Square	F	Sig
Regression	346.418	3	115.473	5.532	0.001
Residual	3882.760	186	20.875		
Total	4229.179	189			

Dependent Variable: Teacher Performance

Predictors: (Constant), Leadership Style, Managerial Competence, Supervisory Competence

The simultaneous F-test demonstrated a statistically significant collective effect of the three independent variables on teacher performance ($F = 5.532$, $p = 0.001$). Consequently, the alternative hypothesis (H_a) was accepted.

The adjusted R-squared value of 0.082 indicated that only 8.2% of the variance in teacher performance was explained by the three independent variables, suggesting that

other unexamined factors (e.g., personal variables, school culture, or external support) play a substantial role.

Discussion

The principal's leadership style focuses on inspiring and motivating followers to achieve optimal performance and develop their potential. Principals who adopt democratic and participatory leadership styles tend to enhance teacher job satisfaction and foster collaborative work climates. This finding is supported by research demonstrating that effective school leadership significantly impacts school outcomes and teacher performance (Grissom et al., 2021; Hitt & Tucker, 2016). Furthermore, Bellibaş et al. (2024) found that principals' leadership typologies significantly predict teacher self-efficacy and commitment. Teacher leadership and collaboration also contribute to improved school performance and teaching quality (Sebastian et al., 2017).

Managerial competence refers to school principals' ability to manage school resources effectively, including planning, organizing, implementing, and evaluating educational programs. Principals with strong managerial competence can create structured and efficient school management systems. Previous studies confirm that effective school management contributes to teacher performance improvement and organizational effectiveness (Day et al., 2016).

However, the results of this study demonstrate that managerial competence does not exert a statistically significant effect on teacher performance. This finding suggests that managerial competence, when implemented in isolation without contextual adaptation, is insufficient to improve teacher performance. Effective leadership practices must be accompanied by teacher empowerment and continuous professional support to produce meaningful outcomes (Tschannen-Moran & Gareis, 2020).

Supervisory competence, conversely, demonstrates a positive and significant effect on teacher performance. This finding indicates that supervision plays a crucial role in improving teacher professionalism. Effective supervision provides constructive feedback, guidance, and evaluation, enabling teachers to enhance instructional practices. This finding is strongly corroborated by multiple studies. Muttaqin et al. (2023) found that academic supervision significantly affects teacher performance both directly and

indirectly through teacher commitment. A meta-analysis by Maryati et al. (2025) of 27 empirical studies published between 2018 and 2025 revealed a significant positive correlation between academic supervision and principal effectiveness ($r = 0.611$, $p < 0.01$), confirming the critical role of supervision. Similarly, Putra and Hariri (2022) concluded from their literature review that principal supervision consistently and positively influences teacher performance. This finding is also supported by research highlighting that instructional coaching and supervision significantly improve teaching quality and student outcomes (Kraft et al., 2018).

Furthermore, supervision fosters reflective practice and continuous improvement among teachers. Principals who actively engage in supervision can identify instructional gaps and provide targeted support. DiPaola and Hoy (2012) emphasized that effective supervision focuses on improving instruction through ongoing professional development and reflective practice. This finding aligns with studies demonstrating that instructional leadership and supervision are key drivers of teacher effectiveness and school improvement (Harris & Jones, 2010).

Simultaneously, leadership style, managerial competence, and supervisory competence collectively exert a significant effect on teacher performance. This finding indicates a synergistic relationship among these variables. Effective school leadership is not determined by any single factor but rather by the integration of multiple competencies working in concert. This finding is consistent with previous research emphasizing that successful school leadership requires a combination of leadership, managerial, and instructional practices (Leithwood et al., 2017; Grissom et al., 2021).

The t-test examining individual influences revealed that supervisory competence had a more dominant effect, with a significance value of 0.002 ($p < 0.05$), indicating a positive and significant influence on teacher performance. In contrast, leadership style ($p = 0.247$) and managerial competence ($p = 0.257$) did not demonstrate statistically significant individual effects, leading to rejection of their respective hypotheses. Nevertheless, the simultaneous F-test demonstrated that principals' leadership style, managerial competence, and supervisory competence collectively exert a significant influence on teacher performance ($F = 5.532$, $p = 0.001$), leading to acceptance of the

alternative hypothesis (H_a). Thus, while all three variables simultaneously influence teacher performance, supervisory competence emerges as the strongest significant predictor when considered independently. Ani et al. (2025) similarly found that principal supervision management significantly influences teacher performance in organizational contexts. Consequently, based on these findings, enhancing principals' supervisory competence should be prioritized to improve teacher performance in Mandah District.

It is worth noting that while Maryati et al. (2025) found a significant positive correlation between instructional leadership and principal effectiveness ($r = 0.578$, $p < 0.01$) based on their meta-analysis of 27 studies, the present study found that principals' leadership style did not demonstrate a statistically significant individual effect on teacher performance ($p = 0.247$). This discrepancy can be attributed to the geographical context of the present study. Mandah District, located in Indragiri Hilir Regency, is characterized by significant geographical challenges, including limited transportation access and inadequate internet connectivity. In such remote settings, direct instructional support through academic supervision may be more critical than leadership style alone. Principals who actively engage in supervision and provide hands-on guidance to teachers are better equipped to address the specific challenges faced by teachers in geographically disadvantaged areas. This finding aligns with the moderate heterogeneity reported by Maryati et al. (2025), which suggests that contextual factors moderate the relationship between leadership variables and performance outcomes.

CONCLUSION

Based on the t-test results, supervisory competence demonstrated a more dominant effect, exerting a positive and significant influence on teacher performance relative to leadership style, which showed a positive but insignificant influence. Meanwhile, principals' managerial competence did not exhibit a significant influence on teacher performance. Overall, the simultaneous F-test revealed that principals' leadership style, managerial competence, and supervisory competence collectively exert a significant influence on teacher performance. Consequently, the alternative hypothesis (H_a) is accepted, and the null hypothesis (H_o) is rejected, indicating that these three independent variables jointly influence teacher performance.

The results of this study reinforce the argument that improving teacher performance requires collaboration and synergy across various principal competencies. Therefore, efforts to enhance educational quality should focus on comprehensively strengthening supervisory competence without neglecting leadership style and managerial competence. These findings indicate that well-implemented supervisory competence can exert a significant impact on teacher performance.

The Indragiri Hilir Regency Education Office should prioritize training programs that improve principals' supervisory competence (particularly clinical supervision and instructional coaching), managerial competence, and leadership styles to enhance teacher performance in Mandah District, Indragiri Hilir Regency. For future research, it is recommended that both teacher performance and principal performance be examined to produce more comprehensive findings and address the multifaceted problems faced by schools in Mandah District, Indragiri Hilir Regency.

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