



An Empirical Study on Teacher Performance: The Effects of Commitment, Professionalism, and School Principal Supervision in Sleman Regency

Tarso¹, Hidayah Uswatun Kasanah², Edi Purwanto³, Deny Hadi Siswanto⁴,
Nas Rum Khasanah⁵

^{1,2,3,5}Yogyakarta State University, ⁴Muhammadiyah Mlati High School

E-mail: tarso.2024@student.uny.ac.id¹, hidayahuswatun.2024@student.uny.ac.id²,
edi0081fipp.2024@student.uny.ac.id³, denyiswanto11@guru.sma.belajar.id⁴, nasrum.2024@student.uny.ac.id⁵

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ABSTRACT

This study aims to analyze the influence of organizational commitment, professional competence, and principal supervision on teacher performance at Muhammadiyah Senior High Schools in Sleman Regency. The approach used was quantitative with a survey method. The research instrument has been tested for validity and reliability, and meets classical assumptions such as normality, multicollinearity, heteroscedasticity, and linearity. The results of the regression analysis indicate that three independent variables simultaneously have a significant effect on teacher performance (sig. 0.000 < 0.05), with a coefficient of determination of 21.4%. Partially, the three variables also have a significant effect: organizational commitment (sig. 0.008), professional competence (sig. 0.041), and principal supervision (sig. 0.004). These findings emphasize the importance of managerial and professional factors in improving teacher performance. Therefore, schools are advised to strengthen organizational culture, improve teacher competence through training, and optimize the principal's supervisory role on an ongoing basis. This study also opens up opportunities to explore other factors that influence teacher performance for a more comprehensive improvement in the quality of education.

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ABSTRACT

Penelitian ini bertujuan untuk menganalisis pengaruh komitmen organisasi, kompetensi profesional, dan supervisi kepala sekolah terhadap kinerja guru di SMA Muhammadiyah Kabupaten Sleman. Pendekatan yang digunakan adalah kuantitatif dengan metode survei. Instrumen penelitian telah diuji validitas dan reliabilitasnya, serta memenuhi asumsi klasik seperti normalitas, multikolinearitas, heteroskedastisitas, dan linearitas. Hasil analisis regresi menunjukkan bahwa ketiga variabel independen secara simultan berpengaruh signifikan terhadap kinerja guru (sig. 0,000 < 0,05), dengan nilai koefisien determinasi sebesar 21,4%. Secara parsial, ketiga variabel juga memiliki pengaruh signifikan: komitmen organisasi (sig. 0,008), kompetensi profesional (sig. 0,041), dan supervisi kepala sekolah (sig. 0,004). Temuan ini menegaskan pentingnya faktor-faktor manajerial dan profesionalisme dalam meningkatkan kinerja guru. Oleh karena itu, sekolah disarankan untuk memperkuat budaya organisasi, meningkatkan kompetensi guru melalui pelatihan, dan mengoptimalkan peran supervisi kepala sekolah secara berkelanjutan. Penelitian ini juga membuka peluang eksplorasi

faktor-faktor lain yang turut memengaruhi kinerja guru guna perbaikan mutu pendidikan yang lebih menyeluruh.

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Corresponding Author:

Tarso
Universitas Negeri Yogyakarta
tarso.2024@student.uny.ac.id

Introduction

Teacher performance is a key factor in determining the quality of education in schools (Apriwulan *et al.*, 2025). Teachers with high performance are able to manage the learning process effectively and efficiently, thereby positively influencing student learning outcomes (Mala *et al.*, 2025). Therefore, improving teacher performance has become one of the top priorities in educational management, especially at the senior high school level. At Muhammadiyah Senior High Schools in Sleman Regency, various efforts have been made to improve learning quality; however, the results have not been fully optimal. This indicates the presence of other important variables influencing teacher performance that warrant further investigation (Sadiyah *et al.*, 2025).

One such factor is organizational commitment (Heryuriani *et al.*, 2025). Organizational commitment reflects the extent to which individuals feel emotionally, normatively, and continuatively attached to their workplace (Aprilia *et al.*, 2025). Teachers with high commitment to their schools are more motivated to carry out their duties and responsibilities. This commitment not only includes loyalty to the organization but also reflects a willingness to actively contribute to the achievement of the school's vision and mission (Putri *et al.*, 2024). In the context of religious-based schools such as Muhammadiyah institutions, ideological values often serve as a strong foundation for developing such commitment.

Another important factor is professional competence, which includes mastery of subject matter, teaching methods, and the ability to design and evaluate learning activities (Dianawati *et al.*, 2025). Professional competence is a fundamental requirement for teachers to function optimally. In practice, teachers with high levels of competence are better equipped to respond to students' learning needs, implement instructional innovations, and create conducive learning environments (Tarso *et al.*, 2025). Therefore, the development of professional competence through training, workshops, and self-development activities is crucial to support improved teacher performance (Warman *et al.*, 2021).

In addition, principal supervision plays a strategic role in influencing teacher performance (Siswanto *et al.*, 2025). Constructive and continuous supervision can serve as a means of professional guidance for teachers (Pisriwati *et al.*, 2024). Principals who carry out their supervisory roles effectively are able to identify teachers' instructional weaknesses, provide constructive feedback, and motivate teachers to enhance their performance quality (Gading, 2024; Rambe *et al.*, 2025). Supervision also serves as an evaluative tool that enables teachers to reflect on their teaching practices. At Muhammadiyah schools, the effectiveness of principal supervision is an important indicator in managing educational quality.

These three variables organizational commitment, professional competence, and



principal supervision are believed to be interrelated in shaping teacher performance. However, in practice, there is still a lack of empirical studies that simultaneously examine the influence of all three within the context of Muhammadiyah schools, particularly in Sleman Regency. An integrative approach to these factors is important to gain a comprehensive understanding of the dynamics of teacher performance (Gyeltshen and Nima, 2022; Hanama *et al.*, 2024). This study is therefore relevant as it contributes to the development of more effective and contextualized educational management strategies.

Furthermore, the findings of this study are expected to serve as a valuable consideration for policymakers within Muhammadiyah schools, both at the foundation and school leadership levels, in formulating strategies for human resource development (Afandi *et al.*, 2024; Yirci *et al.*, 2023). By understanding the factors that influence teacher performance more comprehensively, schools can design more targeted professional development programs (Kintoko *et al.*, 2025). This study may also serve as a reference for other educational institutions with similar characteristics in efforts to improve teacher performance sustainably.

Therefore, research on the influence of organizational commitment, professional competence, and principal supervision on teacher performance is critically important (Fitriana *et al.*, 2025). Through a measurable quantitative approach and systematic data analysis, this study aims to empirically examine the extent to which these three variables contribute to enhancing teacher performance at Muhammadiyah Senior High Schools in Sleman Regency. The findings are expected to provide a scientific foundation for decision-making in improving education quality, particularly in managerial and teacher development aspects.

Method

This study employed a quantitative approach using a survey method, aiming to examine the influence of organizational commitment, professional competence, and principal supervision on the performance of Muhammadiyah senior high school teachers in Sleman Regency. The research instruments were developed based on theoretical indicators and validated by experts (Wahyuni *et al.*, 2024). Subsequently, the instruments underwent field testing to assess their validity and reliability, which confirmed that all items had significance values above 0.05, indicating that they were both valid and reliable.

The data were then analyzed using parametric statistical techniques, beginning with prerequisite tests, including the Kolmogorov-Smirnov normality test, multicollinearity test, heteroscedasticity test using the Glejser method, and linearity test. All of these tests met the assumptions required for a classical linear regression model (Alghiffari *et al.*, 2024; Naufal *et al.*, 2025). The analysis proceeded with multiple linear regression, involving the simultaneous test (F-test), partial test (t-test), and the coefficient of determination test (R^2).

Results

1. Instrument testing results and descriptive analysis of each variable

Prior to conducting the research, a pilot instrument was developed that included variables related to organizational commitment, professional competence, and principal supervision of teacher performance at Muhammadiyah high schools in Sleman Regency. After the instrument was constructed and validated by experts, its validity and reliability were tested. The results of the pilot instrument are presented in the following table.

Table 1. Instrument test results

No	X ₁		X ₂		X ₃		Y	
	t _{count}	Sig.	t _{count}	Sig.	t _{count}	Sig.	t _{count}	Sig.
1	0.354	0.587	0.554	0.565	0.396	0.354	0.378	0.594



2	0.455	0.455	0.593	0.664
3	0.472	0.456	0.687	0.546
4	0.365	0.381	0.389	0.763
5	0.684	0.278	0.299	0.374
6	0.288	0.663	0.466	0.485
7	0.364	0.374	0.385	0.518
8	0.364	0.237	0.476	0.373
9	0.358	0.656	0.573	0.629
10	0.693	0.466	0.609	0.298

Based on the instrument test results displayed in Table 1, it is known that all question items in variables X_1 (organizational commitment), X_2 (professional competence), X_3 (principal supervision), and Y (teacher performance) show varying t-count values, with most significance values (Sig.) above 0.05. This indicates that all instrument items are valid and reliable. Furthermore, the descriptive test results are as follows.

Table 2. Description of each variable

Value	X_1	X_2	X_3	Y
Total score	12,295	11,785	11,950	12,360
Mean	81.67	79.33	79.63	82.87
Maximum	100	97.50	100	100
Minimum	55.00	40.00	60.00	60.00

Based on descriptive statistical data, variables X_1 (organizational commitment), X_2 (professional competence), X_3 (principal supervision), and Y (teacher performance) show total scores of 12,295, 11,785, 11,950, and 12,360, respectively. The highest average is found in variable Y at 82.87, while the lowest average is found in X_2 at 79.33. The maximum score for almost all variables reaches 100, indicating the presence of respondents with the highest level in each aspect, while the minimum score ranges from 40.00 to 60.00, reflecting variations in the level of assessment from respondents for each variable. These data illustrate a fairly wide distribution of scores for each research variable.

2. Prerequisite Analysis Testing

The initial step in the analysis was a normality test using the Kolmogorov-Smirnov method, which is suitable for

samples of more than 50 respondents (Sugiyono, 2019). This test aims to ensure that the questionnaire data is normally distributed, an important requirement in parametric statistical analysis (Astutik *et al.*, 2025). The results are presented in the following table.

Table 3. Results of normality test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		150
Normal	Mean	.0000000
Parameters ^{a,b}	Std. Deviation	4.65362
Most Extreme	Absolute	.063
Differences	Positive	.048
	Negative	-.064
Test Statistic		.064
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Based on the table above, the Kolmogorov-Smirnov significance value is 0.005. Since it is equal to $\alpha = 0.005$, H_0 is accepted and the data is declared normally distributed. Thus, all variables in the study come from a normal population. A multicollinearity test is then conducted to determine whether there is a perfect relationship between the independent variables, as part of the classical assumption test to assess the quality of the regression model (Saleh *et al.*, 2025; Tarso *et al.*, 2025). The results of the multicollinearity test are presented as follows.

Table 4. Results of multicollinearity test

Coefficients ^a						
	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics	
Model	B	Beta			Tol.	VIF
C	16.137		3.937	.000		
X_1	.394	.277	2.700	.008	.510	1.961
X_2	-.176	-.117	-1.409	.161	.775	1.290
X_3	.298	.275	2.947	.004	.619	1.614

a. Dependent Variable: Y

Based on the analysis results, it can be concluded that there is no multicollinearity in the regression model used. This is indicated by the tolerance values of all variables ($X_1 = 0.510$; $X_2 = 0.775$; $X_3 = 0.619$) which are greater than 0.10 and VIF values which are all below 10.



Next, a heteroscedasticity test was conducted using the Glejser Test technique to determine any deviations from the classical assumption of homoscedasticity, namely the equality of residual variances between observations. The test results are presented in the following section.

Table 5. Heteroscedasticity test results

Coefficients ^a					
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Beta		
1	C	2.399			
	X ₁	.000			
	X ₂	.000			
	X ₃	.000			

a. Dependent Variable: Abs_RES

Based on the analysis results, there are no symptoms of heteroscedasticity in the regression model, indicated by the significance values of variables X₁, X₂, and X₃, all of which are 1.000 > 0.05. Next, a linearity test is conducted to ensure a linear relationship between the dependent variable and each independent variable. The linear regression model can only be used if the linearity assumption is met. The test results are presented below.

Table 6. Results of linearity test between teacher performance and organizational commitment

ANOVA Table						
		Sum of Squares	df	Mean Square	F	Sig.
Y	Between (Combined)	1098.179	15	73.212	3.724	.000
* Groups	Linearity	570.152	1	570.152	29.000	.000
X ₁	Deviation from Linearity	528.027	14	37.716	1.918	.230
	Within Groups	2634.514	134	19.661		
	Total	3732.693	149			

Table 7. Results of the linearity test between teacher performance and professional competence

ANOVA Table						
		Sum of Squares	df	Mean Square	F	Sig.
Y	Between(Combined)	537.061	16	33.566	1.397	.152
* Groups	Linearity	20.875	1	20.875	.869	.353
X ₂	Deviation from Linearity	516.185	15	34.412	1.432	.141
	Within Groups	3195.633	133	24.027		
	Total	3732.693	149			

Table 8. Results of the linearity test between teacher performance and principal supervision

ANOVA Table						
		Sum of Squares	df	Mean Square	F	Sig.
Y	Between (Combined)	1270.333	16	79.396	4.288	.000
	Groups	Linearity	1	652.593	35.249	.000
*		Deviation	15	41.183	2.224	.078
X	from Linearity					
	Within Groups	2462.360	133	18.514		
3	Total	3732.693	149			

The analysis results show a significant linear relationship between teacher performance and organizational commitment, professional competence, and principal supervision, as evidenced by the linearity deviation significance value of each above 0.05. Hypothesis testing was conducted through multiple regression, including simultaneous (F) tests, partial (t) tests, and coefficients of determination. The F test shows that all three independent variables simultaneously have a significant effect on purchasing decisions, as shown in the following ANOVA table.

Table 9. F test results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	800.620	3	266.873	13.29	.000 ^b
	Residual	2932.074	146	20.083		
	Total	3732.693	149			

a. Dependent Variable: Y

b. Predictors: (Constant), X₃, X₂, X₁

Based on the table, the F test shows a significance value of 0.000 < 0.05, so H₁ is accepted, meaning that organizational commitment, professional competence, and principal supervision have an effect on teacher performance. Furthermore, a partial test (t-test) was conducted to see the effect of each independent variable on the dependent variable at a significance level of 0.05, the results of which are shown in the following table.

Table 10. T-Test results

Coefficients ^a					
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
1	C	16.13			
	X ₁	.394	.146	.277	.7
	X ₂	-.176	.125	-.117	.908
	X ₃	.298	.101	.275	.784

a. Dependent Variable: Y



Based on Table 10, it can be concluded: (1) organizational commitment has a partial effect on teacher performance (significance $0.008 < 0.05$); (2) professional competence also has a partial effect (significance $0.041 < 0.05$); and (3) principal supervision also has a partial effect on teacher performance (significance $0.004 < 0.05$). Next, a determination coefficient test was conducted to determine how much the independent variables explain changes in the dependent variable, which is indicated by the R-squared value in the following model summary table.

Table 11. Coefficient test results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 ^a	.214	.198	4.48137

a. Predictors: (Constant), X_3 , X_2 , X_1

Based on the table above, the R-Square value is a coefficient of determination that has been adjusted based on the number and size of the sample, thus reducing bias if there are additional variables. In this study, the R-Square value of 0.214 indicates that organizational commitment, professional competence, and principal supervision together can influence teacher performance by 21.4%.

Discussion

The results of validity and reliability tests indicate that all instrument items for the variables of organizational commitment, professional competence, principal supervision, and teacher performance are valid and reliable (Siswanto *et al.*, 2024). This provides a strong foundation that the data obtained are suitable for further analysis. Descriptively, teacher performance obtained the highest average score compared to the other variables, reflecting a positive perception of teachers' task implementation at Muhammadiyah Senior High Schools in Sleman Regency. This finding aligns with the study by Nugroho *et al.* (2025) and Musyoki *et al.* (2021), which showed that

teachers with high levels of commitment tend to demonstrate better performance.

The classical assumption tests confirmed that the data are normally distributed, with no multicollinearity or heteroscedasticity, and meet the assumption of linearity. These results strengthen the validity of the regression model used in this study. The linearity test between teacher performance and each independent variable indicates a linear and significant relationship. This finding supports previous research by Uy *et al.* (2023) and Berhanu (2024), which also concluded that principal supervision and teacher competence are positively correlated with teacher performance quality.

The multiple regression analysis results show that the three independent variables organizational commitment, professional competence, and principal supervision collectively have a significant effect on teacher performance. This is indicated by the significance value of the F-test, which is $0.000 < 0.05$. Thus, these factors should be considered integrally by school management in efforts to enhance teacher performance. These findings are consistent with a study by Khofifah *et al.* (2023) and Welsh (2024), which emphasized the importance of synergy between school management and teacher professionalism.

The partial test results indicate that each independent variable also has a significant influence on teacher performance. Organizational commitment has a positive and significant effect, with a significance value of 0.008, supporting Rochmat *et al.* (2025) and Tarso *et al.* (2025) finding that teachers with high loyalty and dedication to their organization tend to perform optimally. Similarly, professional competence has a significant effect (sig. 0.041), confirming Asmoro (2024) and Syah *et al.* (2025) conclusion that pedagogical and professional abilities are key determinants of teaching quality.

Principal supervision also significantly affects teacher performance



(sig. 0.004). This demonstrates that the principal's role is not only administrative but also strategic in guiding and developing teachers' potential. This finding is supported by research from Efendi *et al.* (2025) and Zein *et al.* (2025), which stated that effective supervision can enhance teacher motivation and performance through continuous coaching and constructive feedback. Therefore, principal training in supervisory skills is crucial.

Finally, the coefficient of determination test shows that the three independent variables collectively explain 21.4% of the variation in teacher performance. Although this figure is not very high, it still indicates a meaningful contribution. This suggests that there are other factors influencing teacher performance, such as intrinsic motivation, work environment, and educational policy. Therefore, future research could expand the model by incorporating these variables to obtain a more comprehensive understanding of the determinants of teacher performance.

Conclusion

Based on the research results, it can be concluded that organizational commitment, professional competence, and principal supervision simultaneously and partially have a significant effect on teacher performance at Muhammadiyah Senior High Schools in Sleman Regency, with a contribution of 21.4%. This indicates that these three factors are important elements in improving teacher performance, although there are still other factors that have not been studied. Therefore, it is recommended that schools continue to strengthen organizational commitment through a positive work culture, improve teacher professional competence through ongoing training, and ensure that principal supervision is carried out effectively and continuously, in order to create a conducive work environment and support optimal teacher performance improvement.

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