

## The Influence of Principal's Competence and Mastery of Information Technology on the Performance of Islamic Education Teachers

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**Abstract: The Influence of Principal's Competence and Mastery of Information Technology on Teacher Performance**

**Objective:** This study investigates the influence of principal competence and mastery of information technology (IT) impact teacher performance at SMP Negeri 1 Tigo Nagari, Pasaman Regency, in 2024.

**Methods:** This study uses a quantitative correlational approach. The sample of this study amounted to 46 Islamic education teachers. **Data collection:** Questionnaires were used to collect data. **Data analysis:** Data were analyzed using the classical assumption test, including test for normality, multicollinearity, heteroscedasticity, followed by multiple linear regression analysis, F test, and coefficient of determination test. **Results and conclusions:** The ANOVA results indicated a significant regression model ( $F = 17.637$ ,  $p = 0.000$ ). The findings demonstrate that both principal competence and IT mastery have a positive and significant effect on teacher performance at SMPN 1 Tigo Nagari. **Contribution:** This study contributes as a guide for principals in improving their competence to create a productive work environment and support the improvement of teacher performance.

**Keywords:** Principal Competence; Information Technology; Teacher Performance

**Abstrak: Pengaruh Kompetensi Kepala Sekolah dan Penguasaan Teknologi Informasi terhadap Kinerja Guru Pendidikan Agama Islam**

**Tujuan:** Studi ini bertujuan untuk menentukan bagaimana Kompetensi kepala sekolah dan penguasaan TI berdampak pada kinerja guru di SMP Negeri 1 Tigo Nagari Kab. Pasaman tahun 2024. Metode: Penelitian ini menggunakan pendekatan kuantitatif korelasi. Sampel penelitian ini berjumlah 46 orang guru.

**Pengumpulan data:** Angket digunakan dalam proses mengumpulkan data. **Analisis data:** data dianalisis menggunakan uji asumsi klasik berupa uji normalitas, uji multikolinearitas, uji heteroskedastisitas, dan analisis regresi linier berganda, uji F, dan Uji Determinasi. **Hasil dan kesimpulan:** Hasil ANOVA menunjukkan model regresi signifikan ( $F = 17,637$ ,  $p = 0,000$ ). Hasil analisis menyimpulkan bahwa kompetensi kepala sekolah (dan penguasaan teknologi informasi berpengaruh positif dan signifikan terhadap kinerja guru di SMPN 1 Tigo Nagari. **Kontribusi:** Penelitian ini berkontribusi sebagai panduan bagi kepala sekolah dalam meningkatkan kompetensinya untuk menciptakan lingkungan kerja yang produktif dan mendukung peningkatan kinerja guru.

**Kata Kunci:** Kompetensi Kepala Sekolah, Teknologi Informasi, Kinerja Guru

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## A. INTRODUCTION

Teacher performance, which includes the planning, implementation, and evaluation of learning, as well as providing guidance and counseling, is a crucial element of the educational process and plays a significant role in determining its quality. Teacher performance directly impacts student learning outcomes, particularly because Islamic education teachers often work closely with students (Xu et al., 2020). Therefore it is essential to focus on developing competent Islamic education teachers who can effectively support the overall performance of education (Asensio-Pérez et al., 2017). In addition, Islamic education teachers are responsible for achieving the expected performance standards.

From an Islamic perspective, teacher performance covers broader dimensions (Hayati & Canigo, 2012). It involves technical aspects such as planning, implementation, evaluation of learning, guidance, and counseling and also reflects spiritual and moral values (Phan et al., 2021). Islamic education teachers are regarded as educators (*murabba*), mentors (*murshid*), and role models (*uswah*) who bear a profound responsibility for developing students' morality and character (Tuna, 2022). In Islam, teacher performance is not only measured by students' academic success but also by how well Islamic education teachers build students' faith (*iman*), piety (*taqwa*), and noble character (*al-akhlaq al-fadhilah*) (Sholeh & Efendi, 2023). As the Prophet Muhammad (peace be upon him) said:

بُعِثْتُ إِنَّمَا لِأَتَمِّمَ مَكَارِمَ الْأَخْلَاقِ

Meaning: "Verily, I have only been sent to perfect righteous character." (HR. Ahmad).

High-performing Islamic education teachers, from an Islamic perspective, are those who can create a learning environment filled with wisdom (*hikmah*), patience (*sabr*), and compassion (*rahmah*). This aligns with the words of Allah SWT,

أَدْعُ إِلَى سَبِيلِ رَبِّكَ بِالْحُكْمَةِ وَالْمَوْعِظَةِ الْحَسَنَةِ وَجَادِلْهُمْ بِالَّتِي هِيَ أَحْسَنُ  
إِنَّ رَبَّكَ هُوَ أَعْلَمُ بِمَنْ ضَلَّ عَنْ سَبِيلِهِ وَهُوَ أَعْلَمُ بِالْمُهْتَدِينَ ﴿١٢٥﴾

Meaning: "Invite (all) to the Way of thy Lord with wisdom and beautiful preaching; and argue with them in ways that are best and most gracious: for thy Lord knoweth best, who have strayed from His Path, and who receive guidance" (QS. An-Nahl: 125).

A qualified teacher is proficient in pedagogical competencies and shows strong moral and spiritual integrity (Abulibdeh et al., 2024). Evaluating teacher performance from an Islamic perspective should include the assessment of intention (*ikhlas*), moral conduct (*akhlaq*), and relationships with students, and contributions to fostering a generation of faithful and pious individuals (Jaffar & Musa, 2016). Supporting Islamic education teachers in improving their performance should include spiritual development, skill enhancement, and the provision of a conducive work environment (Ahakwa, 2024). This aligns with the Islamic principle that education is a form of *amal jariyah* (ongoing charity), where the rewards continuously flow as long as the knowledge shared benefits others.

Islamic education teachers must possess social, personal, pedagogical, and professional competencies (Mulyani, 2017). According to Bakar (2024), Islamic education teachers hold a noble role in Islam as mentors, educators, and role models for future generations. Their responsibilities extend not only just in delivering knowledge but also in shaping students' personalities, morals, and spiritual values based on Islamic teachings (Sabic-El-Rayess, 2020). The National Education Ministerial Regulation of Indonesia No. 16 of 2007 explains the qualifications and competencies Islamic education teachers and educators must have. Supporting these efforts demonstrates a collective commitment to improve the quality of education in Indonesia (Sari et al., 2024).

An effective school management system, especially through the principal's leadership, plays an important role in this context (Navaridas-Nalda et al., 2020). Principals are responsi-

ble for managing human resources, designing educational programs, and building relationships with various stakeholders (Stahl et al., 2020). A competent principal can foster a supportive work environment, enhance teacher performance, and promote professionalism among teachers (Khafidah, 2019). Furthermore, mastery of information technology (IT) has become increasingly essential in the education sector. Islamic education teachers who excel in IT can effectively integrate technology into teaching-learning, making lessons more interactive, engaging, and conducive which led to better educational outcomes (Gupta et al., 2023).

SMP Negeri 1 Tigo Nagari demonstrates optimal school management, as evidenced by high student attendance rates and the absence of Islamic education teachers arriving late. The principal engages in academic supervision, budget management, and long-term planning. Moreover, the school demonstrates effective use of IT in the learning process, including hardware and software integration. However, teacher performance remains suboptimal despite optimized school management and IT capabilities (Mayerle et al., 2022). This is apparent from inadequate lesson preparation, insufficient use of media, unconventional strategies and methods in teaching, and limited utilization of technology during class (Hennessy et al., 2022). Therefore, this research is essential for understanding how teacher performance is influenced by IT mastery and the competence of the school principal.

Research on the impact of school principals' competencies and Islamic education teachers' mastery of IT on teacher performance has been widely conducted. Still, most studies focus on one factor, either the competency of school principals or IT, without integrating both in the context of religious education (Meidiana et al., 2020; Mun'im Amaly et al., 2021; Norjanah et al., 2022; Selamet, 2017; Pasaribu, 2019). Some studies indicate that good school leadership can improve teachers' motivation and performance in Islamic education. At the same time, other research highlights that Islamic education teachers' mastery of IT can enhance the quality of teaching. However, research combining both factors in the context of Islamic education and their impact on Islamic education teachers' performance remains limited. The gap in this research lies in the lack of studies examining how principal's competency and mastery of IT collaborate to improve Islamic education teachers' performance. This study focuses on developing a model that directly links both factors and explores how they support Islamic education teachers' performance in Islamic education, using IT to create more effective and relevant learning processes in the digital era. This research contributes new insights into exploring the interdependent relationship between school leadership and information technology skills in improving the quality of Islamic religious education in schools.

## B. METHOD

The study aims to provide a quantitative overview of how much IT mastery and work culture influence teacher performance. This study uses a quantitative approach with a correlational design to examine the effect of IT mastery and work culture on teacher performance. The research was conducted in 2024 at SMPN 1 Tigo Nagari. The study involved a total population of 46 Islamic education teachers, with all members of the population included in the sample using a total sampling technique. Data were collected through questionnaires, which serves as the main instruments for gathering information from Islamic education teachers.

Classical assumption tests were conducted to ensure that the data met the requirements for statistical analysis before further processing. These tests included a normality test to assess the distribution of the data, a multicollinearity test to check for correlations between independent variables, and a heteroscedasticity test to examine the variance of the residuals. These tests ensured that the data were appropriate for regression analysis.

Once the assumptions were met, the data were analyzed using multiple linear regression to explore the relationships between the independent variables (IT mastery and work culture) and the dependent variable (teacher performance). The F-test was used to determine the overall significance of the regression model. At the same time, a coefficient of determi-

nation (R-squared) test was used to assess the contribution of the independent variables to the dependent variable.

## C. RESULTS AND DISCUSSION

### Result

#### 1) Prerequisite Analysis Test

##### a) Normality Test

The normality test is a part of the classical assumption tests. Its purpose is to determine whether the residual values are normally distributed. A good regression model should have residuals that are normally distributed. The testing criterion is as follows: if the significance value (Sig) or probability value (p) > 0.05, the data is normally distributed. The normality test results using the One-Sample Kolmogorov-Smirnov Test indicate that this study's sample size (N) is 46. The mean of the unstandardized residuals is 0.0000000, with a standard deviation of 10.88051592. The largest absolute value of the Most Extreme Differences is 0.109, with a positive difference of 0.109 and a negative difference of -0.061. The test statistic is 0.109, and the significance value (Asymp. Sig. 2-tailed) is 0.200. Since the significance value is greater than 0.05, it can be concluded that the residual data is normally distributed, meeting the assumption required for regression analysis. The detailed results can be seen in the following table:

**Table 1.** Normality Test

| One-Sample Kolmogorov-Smirnov Test |                | Unstandardized Residual |
|------------------------------------|----------------|-------------------------|
| N                                  |                | 46                      |
| Normal Parameters <sup>a,b</sup>   | Mean           | ,0000000                |
|                                    | Std. Deviation | 10,88051592             |
| Most Extreme Differences           | Absolute       | ,109                    |
|                                    | Positive       | ,109                    |
|                                    | Negative       | -,061                   |
| Test Statistic                     |                | ,109                    |
| Asymp. Sig. (2-tailed)             |                | ,200 <sup>c,d</sup>     |

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

##### b) Multicollinearity Test

The multicollinearity test is conducted to determine whether there is any correlation among the independent variables in the regression model. If correlations are present, multicollinearity issues must be addressed. Multicollinearity in a model can be assessed using the following criteria: (1) If the Tolerance value is greater than 0.10, no multicollinearity or correlation among independent variables is present; (2) If the Variance Inflation Factor (VIF) value is less than 10.00, no multicollinearity or correlation among independent variables is present. For more clarity, refer to the following table:

**Table 2.** Multicollinearity Test

| Collinearity Statistics |       |
|-------------------------|-------|
| Tolerance               | VIF   |
| ,991                    | 1,009 |
| ,991                    | 1,009 |

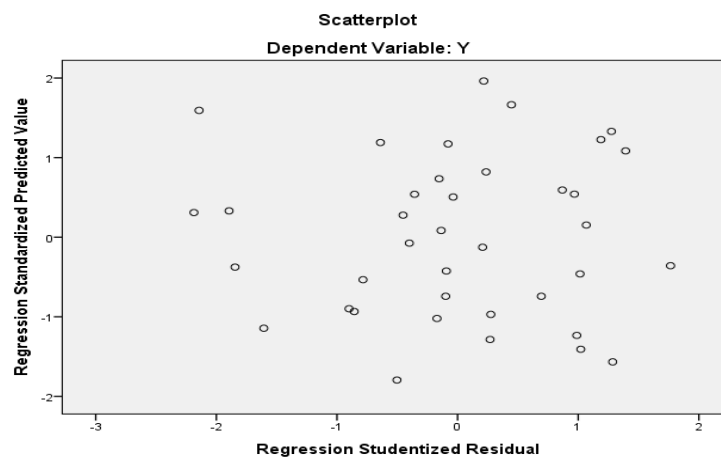
a. Dependent Variable: Y

The results of the multicollinearity statistical analysis show a Tolerance value of 0.991 for each independent variable and a Variance Inflation Factor (VIF) value of 1.009. The Tole-

rance value, which is close to 1, indicates that the independent variables have a low level of correlation with one another, meaning there is no multicollinearity issue. Similarly, the VIF value, below the threshold of 10, confirms no significant multicollinearity among the independent variables. Thus, the independent variables in the model can be used for regression analysis without affecting the reliability of the estimates.

### c) Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is an unequal variance of residuals from one observation to another in the regression model. If the variance differs, it is called heteroscedasticity. One way to detect heteroscedasticity in a regression model is by examining a scatterplot or the predicted variable values (SRESID) with residual errors (ZPRED). Heteroscedasticity is absent if there is no specific pattern and the residuals are spread equally above and below zero on the y-axis. However, heteroscedasticity is present if a specific pattern is observed and the residuals are spread above and below zero on the y-axis. For further clarity, refer to the graph below:



Graphic 2. Scatterplot

Based on the scatterplot graph obtained from the SPSS 22 output, the data points are spread above and below or around the value of 0. The points are not clustered only above or below the Y-axis, and the spread of the data points on the graph indicates that no clear pattern has been formed. Thus, it can be concluded that there is no issue with heteroscedasticity in the regression model, and this test is valid.

## 2) Hypothesis Testing

### a) Multiple Linear Regression Test

The researcher used multiple linear regression statistics, using SPSS version 22 for the analysis. In this study, multiple regression analysis was used to examine the influence of the Principal's Competency and IT Mastery on Teacher Performance at SMPN 1 Tigo Nagari as follows:

**Table 3.** Multiple Linear Regression Test

| Coefficients <sup>a</sup> |            |                             |            |                           |       |
|---------------------------|------------|-----------------------------|------------|---------------------------|-------|
| Model                     |            | Unstandardized Coefficients |            | Standardized Coefficients | t     |
|                           |            | B                           | Std. Error | Beta                      |       |
| 1                         | (Constant) | 168,339                     | 25,247     |                           | 6,668 |
|                           | X1         | ,496                        | ,087       | ,651                      | 5,735 |
|                           | X2         | ,128                        | ,061       | ,237                      | 2,091 |

a. Dependent Variable: Y



The regression analysis results show that the constant (intercept) has a value of 168.339, with a t-value of 6.668 and a significance value of 0.000, indicating statistical significance. The independent variable X1 (Principal's Competency) has an unstandardized regression coefficient (B) of 0.496, with a t-value of 5.735 and a significance value of 0.000. This indicates that X1 has a positive and significant effect on the dependent variable Y (Teacher Performance), with a relative contribution shown by the beta coefficient (Beta) of 0.651.

Meanwhile, the independent variable X2 (Information Technology Mastery) has an unstandardized regression coefficient of 0.128, with a t-value of 2.091 and a significance value of 0.000. This shows that X2 also has a positive and significant effect on Y, with a relative contribution shown by the beta coefficient (Beta) of 0.237. Therefore, the Principal's Competency and Information Technology Mastery positively and significantly affect Teacher Performance at SMPN 1 Tigo Nagari.

#### b) Simultaneous Test (F)

The researcher used multiple linear regression statistics, employing SPSS version 22 for the analysis. The F-test (simultaneous) is used to determine whether the independent variables collectively have a significant effect on the dependent variable.

**Table 4.** Simultaneous Test (F)

| ANOVA <sup>a</sup> |            |                |    |             |        |                   |
|--------------------|------------|----------------|----|-------------|--------|-------------------|
| Model              |            | Sum of Squares | df | Mean Square | F      | Sig.              |
| 1                  | Regression | 4370,060       | 2  | 2185,030    | 17,637 | ,000 <sup>b</sup> |
|                    | Residual   | 5327,353       | 43 | 123,892     |        |                   |
|                    | Total      | 9697,413       | 45 |             |        |                   |

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

The results of the ANOVA analysis show that the regression model used is statistically significant in explaining the effect of the independent variables (X1: Principal's Competency and X2: Information Technology Mastery) on the dependent variable (Y: Teacher Performance). The Sum of Squares for regression is 4370.060 with degrees of freedom (df) of 2, resulting in a Mean Square value of 2185.030.

The Residual Sum of Squares is 5327.353 with degrees of freedom of 43, resulting in a Mean Square value of 123.892. The obtained F-value is 17.637, with a significance level (Sig.) of 0.000 below 0.05. This indicates that the regression model is significant in predicting Teacher Performance, suggesting that the independent variables, the Principal's Competency and Information Technology Mastery, make a meaningful contribution to Teacher Performance.

#### c) Coefficient of Determination ( $R^2$ ) Test

The Determination Test measures how the model explains the variation in the dependent variable. The coefficient of determination is between  $0 < R^2 < 1$ , where a small  $R^2$  value indicates that the independent variable cannot explain the dependent variable. The independent variables are considered to provide the necessary information to predict the dependent variable when  $R^2$  approaches 1. If  $R^2 = 0$ , there is no relationship between the independent and dependent variables, while if  $R^2 = 1$ , there is a strong relationship between the independent and dependent variables.

**Table 5.** Coefficient of Determination ( $R^2$ )

| Model Summary <sup>b</sup> |                   |          |                   |                            |
|----------------------------|-------------------|----------|-------------------|----------------------------|
| Model                      | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1                          | ,671 <sup>a</sup> | ,451     | ,425              | 11,131                     |

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

The analysis from the Model Summary table shows that the correlation coefficient (R) value of 0.671 indicates a strong relationship between the independent variables (X1: Principal's Competency and X2: Information Technology Mastery) and the dependent variable (Y: Teacher Performance). The R Square value of 0.451 indicates that 45.1% of the variation in Teacher Performance can be explained by combining the Principal's Competency and Information Technology Mastery. Meanwhile, the Adjusted R Square value of 0.425 reflects a slightly smaller percentage after adjusting for the number of variables in the model. The error of the Estimate value of 11.131 represents the standard error in predicting the dependent variable. Overall, this regression model is quite good at explaining the relationship between the independent and dependent variables.

## Discussion

According to the analysis, the principal's competency is essential for improving teacher performance at SMPN 1 Tigo Nagari, as it significantly influences teacher performance at the school. To further improve teacher performance at SMPN 1 Tigo Nagari, it is recommended that the Principal's Competency be improved through appropriate placement and continuous development. This finding has important practical implications for school management. Principals can enhance teacher performance by focusing on developing their managerial skills, including leadership training and development, human resource management, effective communication, and other management skills. Thus, investing in the development of principal's competency can be an effective strategy to improve the quality of education at SMP Negeri 1 Tigo Nagari.

Therefore, principals with strong managerial skills are more likely to build positive relationships with staff and other members of school community (Sanders, 2016). This can help create a collaborative and supportive work environment where Islamic education teachers feel supported and motivated to contribute their best (Massouti et al., 2024). As a result, principals can use this finding to encourage collaboration and adopt a collaborative leadership to improve teacher performance and student achievement (Gillies, 2019).

This study is in line with Sari (2016), who examined the influence of principal's competency on teacher performance at state elementary schools in Bambang Lipuro Subdistrict, Bantul. This results that Principal Competency had an effect on teacher performance, accounting for 18.5% of the variance. Additionally, a study by Faisal (2013) on the influence of principal competency on teacher performance at state elementary schools in Kota Gede Yogyakarta also found a significant effect of principal competency on school staff performance, particularly in administration.

Several previous studies have highlighted that teacher performance, particularly from an Islamic perspective, is greatly influenced by the principal's competency as an educational leader. Ferdinand (2024) emphasizes the importance of the principal's competency in building a work environment that supports teacher performance, where Islamic values such as *amanah* (trust), *ikhlas* (sincerity), and responsibility serve as the foundation. A principal with strong managerial and supervisory competencies can motivate Islamic education teachers to work professionally while upholding Islamic values in educating students (Alazmi, 2023). This idea is also affirmed by Suwartiningsih (2022), who states that principals with personal and social competencies can become role models in creating an Islamic work culture, as reflected in the commitment of Islamic education teachers in performing their duties responsibly. Similarly, Yani (2021) also found that principals competent in strategic planning based on Islamic values can enhance teacher performance. This is achieved through a leadership approach that emphasizes aspects of *tarbiyah* (education) and *tazkiyah* (purification of the soul), ensuring that Islamic education teachers focus not only on worldly tasks but also on the *ukhrawi* (spiritual) aspect as a form of worship to Allah SWT.

Meanwhile, the independent variable X2 (Information Technology Mastery) has an unstandardized regression coefficient of 0.128, with a t-value of 2.091 and a significance value of

0.000. This indicates that X2 also has a positive and significant effect on the dependent variable Y, with the relative contribution shown by the beta coefficient (Beta) of 0.237.

According to the analysis, Islamic education teachers' mastery of IT significantly influences their performance at SMP Negeri 1 Tigo Nagari, which is important in improving teacher performance. To further enhance teacher performance at SMP Negeri 1 Tigo Nagari, annual training sessions are recommended to improve Islamic education teachers' IT skills.

Therefore, developing IT proficiency among Islamic education teachers can become an effective strategy to improve their performance at SMP Negeri 1 Tigo Nagari. The school should consider providing training and development programs to enhance teachers' IT skills, thereby improving the effectiveness of teaching and learning. Furthermore, integrating information technology into the learning process can help create a more dynamic and engaging learning environment for students. Thus, Islamic education teachers' understanding and mastery of IT are crucial for improving the quality of education at the school (Munastiwi, 2015).

This study aligns with previous research, such as Marwan's (2017) study on the impact of information technology utilization and classroom supervision on the performance of Islamic education teachers at high schools in Palu City. The study found that the combined use of information technology and implementing classroom supervision contributed 40.5% to the teachers' performance. In comparison, the remaining 59.5% was influenced by other variables not addressed in the study. Furthermore, Toyo et al. (2022) reported that the use of information technology at SMP Negeri 1 Tomia was at a good level. Both partial and overall utilization of information technology positively impacted teacher performance. Although teacher performance at SMP Negeri 1 Tomia was high, several areas required improvement, including responsibility for workload, time management, creativity, task completion, lesson planning, and the development of logical, contextual, and up-to-date teaching materials. Islamic education teachers were also encouraged to improve the effectiveness of their learning activities, use appropriate learning resources, and design evaluative tools for student progress (Moslimany et al., 2024).

Isti'ana (2024) found that Islamic education teachers who master IT can improve learning effectiveness based on Islamic values. IT was a vital tool in helping these teachers integrate educational content with values such as honesty, responsibility, and *ihsan*, ensuring learning focuses not only on academic achievement but also on the character-building of students in accordance with Islamic teachings. Similarly, Lisyawati (2023) found that mastery of IT positively influenced the ability of Madrasah Aliyah Islamic education teachers to prepare teaching materials based on the Qur'an and Sunnah. Technology, such as interactive Islamic applications, helped teachers to achieve educational objectives more efficiently while aligning with the Islamic principle of utilizing knowledge as a form of worship to Allah. Sholeh & Efendi (2023) also revealed that Islamic education teachers who used IT in *pesantren*-based schools were able to present Islamic material engagingly and profoundly. This research emphasized that IT is important in supporting education and *da'wah*, as it allows Islamic education teachers to integrate modern methods with Islamic values, such as noble character (*akhlak karimah*), patience, and sincerity in teaching students.

The ANOVA analysis results show that the regression model used is statistically significant in explaining the influence of the independent variables (X1: School Principal Competence and X2: Information Technology Mastery) on the dependent variable (Y: Teacher Performance). The Sum of Squares for the regression is 4370.060 with 2 degrees of freedom (df), yielding a Mean Square value of 2185.030. The Residual Sum of Squares is 5327.353 with 43 degrees of freedom, resulting in a Mean Square of 123.892. The obtained F value is 17.637 with a significance level (Sig.) of 0.000, below 0.05. This indicates that the regression model is significant in predicting Teacher Performance, and the School Principal Competence and Information Technology Mastery variables jointly contribute meaningfully to Teacher Performance.



The analysis from the Model Summary table shows that the correlation coefficient ( $R$ ) is 0.671, indicating a strong relationship between the independent variables ( $X_1$ : School Principal Competence and  $X_2$ : Information Technology Mastery) and the dependent variable ( $Y$ : Teacher Performance). The  $R$  Square value of 0.451 indicates that the combination of School Principal Competence and Information Technology Mastery can explain 45.1% of the variation in Teacher Performance. Meanwhile, the Adjusted  $R$  Square value of 0.425 shows a slightly smaller percentage after adjustment for the number of variables in the model. The Std. Error of the Estimate value of 11.131 indicates the standard error in predicting the dependent variable. Overall, this regression model is quite good in explaining the relationship between the independent and dependent variables.

This study aligns with previous research examining the relationship between school principal competence, information technology mastery, and teacher performance. A relevant study by [Manan \(2023\)](#) showed that Islamic education teachers' mastery of IT could improve teaching quality and enhance the efficiency of the teaching-learning process. The appropriate use of technology in education enriches teaching methods and supports the development of Islamic education teachers' skills ([Zedan et al., 2015](#)). This is consistent with the findings of this study, which indicates that both the variables of school principal competence and information technology mastery significantly contribute to teacher performance.

[Priyambodo \(2023\)](#) also found that school principals with high professional competence can improve Islamic education teachers' teaching performance by implementing policies and strategies that support their professional development. In this context, Islamic education teachers' performance can be improved through strong leadership from the school principal. Similarly, [Sholeh & Efendi \(2023\)](#) stated that optimal use of information technology can positively impact teaching performance. Islamic education teachers can use various digital tools to enhance the quality of teaching materials and interaction with students. Furthermore, [Permatasari et al. \(2023\)](#) argued that a transformational leadership model from the principal can enhance teacher motivation and performance through empowerment and inspiration. These findings reinforce the results of the present study, which indicate that both school leadership and information technology mastery have a positive relationship with teacher performance.

#### D. RESEARCH IMPLICATIONS AND CONTRIBUTIONS

##### 1. Research Implications

This study provides input for policymakers in designing training programs that target the improvement of principals' competencies and Islamic education teachers' mastery of technology. It also offers a foundation for further research on additional factors influencing teacher performance, such as school organizational culture, work motivation, and physical environment.

##### 2. Research Contribution

The results of this study serve as a basis for formulating data-based education policies that support the professional development of both principals and Islamic education teachers. Moreover, this study contributes to the literature on the influence of principals' leadership competence and mastery of information technology on teacher performance.

#### E. RECOMMENDATIONS FOR FUTURE RESEARCH DIRECTIONS

Further research could also explore the influence of principals' competence and mastery of information technology on students' learning outcomes in Islamic education. By examining the direct relationship between these factors and students' academic achievement, future studies can provide stronger evidence of the important role of principals and technology in improving the quality of religious education. Additionally, expanding the scope of research

to compare the effects of principals' competencies and IT mastery across schools with different characteristics, such as location, size, and educational level (e.g., primary, secondary, or tertiary), may offer deeper insights into how these variables impact teacher performance in diverse educational contexts.

## **F. CONCLUSION**

The results of this study indicate that the competence of school principals and mastery of information technology has a significant positive impact on Islamic education teachers' performance at SMPN 1 Tigo Nagari. The competence of the school principal proves to play a more dominant role, as competent principals can create a supportive work environment, provide effective supervision, and serve as role models for Islamic education teachers. Meanwhile, teachers' mastery of information technology is also an important factor in improving the quality of teaching. Islamic education teachers who optimally utilize information technology can deliver learning materials in a more engaging, relevant, and appropriate way to meet the demands of the digital age. These factors collectively contribute to improve Islamic education teachers' performance, reflecting the importance of synergy between good leadership and adaptation to technological developments.

Principal competence is important in creating an educational environment that supports, motivates, and facilitates Islamic education teachers in effectively performing their duties. Competent principals tend to improve teacher performance through strong leadership, good management, and appropriate decision-making. Islamic education teachers' ability to master information technology positively also impacts teaching effectiveness and the management of other educational responsibilities. Teachers who are proficient in information technology can more easily adapt to modern teaching methods and enrich students' learning experiences.

This research emphasizes the importance of continuous training for principals and Islamic education teachers to improve their leadership and information technology competencies. Local governments and related parties are expected to provide the necessary support to achieve this objective. The combination of strong principal competence and high levels of IT mastery among Islamic education teachers contributes significantly to the overall improvement of teacher performance. This finding suggests that supportive leadership and sufficient technological capabilities complement each other in creating better quality education.

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## **AUTHOR CONTRIBUTIONS STATEMENT**

All authors discussed the results and contributed to the final manuscript. NSF: Conceptualization, Research framework & Writing - Original Draft. IW: Conceptualization & Review. AJ: Conceptualization. FHI: Conceptualization.

## **DECLARATION OF COMPETING INTEREST**

The authors declare that they have no significant competing financial, professional or personal interests that might have influenced the performance or presentation of the work described in this manuscript.

## REFERENCES

- Abulibdeh, A., Zaidan, E., & Abulibdeh, R. (2024). Navigating the confluence of artificial intelligence and education for sustainable development in the era of industry 4.0: Challenges, opportunities, and ethical dimensions. *Journal of Cleaner Production*, 140527. <https://doi.org/10.1016/j.jclepro.2023.140527>
- Ahakwa, I. (2024). Enhancing teachers' commitment: Autonomy and learning in Ghana's basic schools. *Teaching and Teacher Education*, 143, 104556. <https://doi.org/10.1016/j.tate.2024.104556>
- Alazmi, A. A. (2023). School leadership in context: the influence of Islamic values and beliefs on Kuwaiti school principal practices. *International Journal of Leadership in Education*, 1-21. <https://doi.org/10.1080/13603124.2023.2292148>
- Asensio-Pérez, J. I., Dimitriadis, Y., Pozzi, F., Hernández-Leo, D., Prieto, L. P., Persico, D., & Villagrà-Sobrino, S. L. (2017). Towards teaching as design: Exploring the interplay between full-lifecycle learning design tooling and teacher professional development. *Computers & Education*, 114, 92-116. <https://doi.org/10.1016/j.compedu.2017.06.011>
- Bakar, M. Y. A., Nayyiroh, A. A., & Kamila, K. I. (2024). Kedudukan Dan Peranan Guru Dalam Pandangan Islam. *IJELAC: Indonesian Journal of Education, Language, and Cognition*, 1(1), 1-16. <https://edujavare.com/index.php/Ijelac/article/view/406>
- Faisal, A. A. (2013). Pengaruh Kemampuan Manajerial Kepala Sekolah Terhadap Kinerja Guru Sekolah Dasar Negeri Se-Kecamatan Kotagede Yogyakarta. *Hanata Widya*. <https://journal.student.uny.ac.id/index.php/fipmp/article/view/461>
- Ferdinan, F., Rahman, A., & Pewangi, M. (2024). Integrasi Nilai-Nilai Islam pada Supervisi Pendidikan Kepala Sekolah dalam Meningkatkan Kinerja Guru. *Didaktika: Jurnal Kependidikan*, 13(3), 4031-4044. <https://doi.org/10.58230/27454312.713>
- Gillies, R. M. (2019). Promoting academically productive student dialogue during collaborative learning. *International Journal of Educational Research*, 97, 200-209. <https://doi.org/10.1016/j.ijer.2017.07.014>
- Gupta, T., Shree, A., Chanda, P., & Banerjee, A. (2023). Online assessment techniques adopted by the university teachers amidst COVID-19 pandemic: A case study. *Social Sciences & Humanities Open*, 8(1), 100579. <https://doi.org/10.1016/j.ssaho.2023.100579>
- Hayati, K., & Caniago, I. (2012). Islamic work ethic: The role of intrinsic motivation, job satisfaction, organizational commitment and job performance. *Procedia-Social and Behavioral Sciences*, 65, 1102-1106. <https://doi.org/10.1016/j.sbspro.2012.11.122>
- Hennessey, S., D'Angelo, S., McIntyre, N., Koomar, S., Kreimeia, A., Cao, L., ... & Zubairi, A. (2022). Technology use for teacher professional development in low-and middle-income countries: A systematic review. *Computers and Education Open*, 3, 100080. <https://doi.org/10.1016/j.caeo.2022.100080>
- Isti'ana, A. (2024). Integrasi Teknologi dalam Pembelajaran Pendidikan Islam. *Indonesian Research Journal on Education*, 4(1), 302-310. <https://doi.org/10.31004/irje.v4i1.493>
- Jaffar, M. A., & Musa, R. (2016). Determinants of attitude and intention towards Islamic financing adoption among non-users. *Procedia Economics and Finance*, 37, 227-233. [https://doi.org/10.1016/S2212-5671\(16\)30118-6](https://doi.org/10.1016/S2212-5671(16)30118-6)
- Khafidah, W. (2019). Manajemen Kepala Sekolah Dalam Pengembangan Tenaga Administrasi. *Serambi Tarbawi*, 7(2), 245-264. <https://doi.org/10.32672/tarbawi.v7i2.1806>
- Lisyawati, E., Mohsen, M., Hidayati, U., & Taufik, O. A. (2023). Literasi Digital Pembelajaran Pendidikan Agama Islam Pada MA Nurul Qur'ân Bogor. *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan*, 21(2), 224-242. <https://doi.org/10.32729/edukasi.v21i2.1618>
- Manan, A. (2023). Pendidikan Islam dan Perkembangan Teknologi: Menggagas Harmoni

- dalam Era Digital. *SCHOLASTICA: Jurnal Pendidikan Dan Kebudayaan*, 5(1), 56–73. <https://jurnal.stitnualhikmah.ac.id/index.php/scholastica/article/view/1865>
- Marwan, M. (2017). Pemanfaatan Teknologi Informasi dan Supervisi Kelas terhadap Kinerja Guru PAI SMA Kota Palu (Doctoral dissertation, IAIN SALATIGA). <http://e-repository.perpus.uinsalatiga.ac.id/id/eprint/2036>
- Massouti, A., Shaya, N., & Qareiny, S. M. A. (2024). Exploring the nexus between female school leaders' perceptions of distributed instructional leadership, socio-cultural dynamics, and student achievement in the Arab world. *International Journal of Educational Research Open*, 7, 100372. <https://doi.org/10.1016/j.ijedro.2024.100372>
- Mayerle, S. F., Rodrigues, H. F., de Figueiredo, J. N., & Chiroli, D. M. D. G. (2022). Optimal student/school/class/teacher/classroom matching to support efficient public school system resource allocation. *Socio-Economic Planning Sciences*, 83, 101341. <https://doi.org/10.1016/j.seps.2022.101341>
- Meidiana, M., Ahmad, S., & Destiniar, D. (2020). Pengaruh kompetensi manajerial kepala sekolah dan supervisi akademik terhadap kinerja guru. *JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan)*, 5(2), 112-119. <http://dx.doi.org/10.31851/jmksp.v5i2.3754>
- Moslimany, R., Otaibi, A., & Shaikh, F. (2024). Designing a holistic curriculum: Challenges and opportunities in islamic education. *Journal on Islamic Studies*, 1(1), 52-73. <https://doi.org/10.35335/beztg009>
- Mulyani, F. (2017). Konsep kompetensi guru dalam Undang-Undang Nomor 14 Tahun 2005 tentang Guru dan Dosen (kajian ilmu pendidikan Islam). *Jurnal Pendidikan UNIGA*, 3(1), 1–8. <https://doi.org/10.52434/jp.v3i1.16>
- Munastiwi, E. (2015). The management model of vocational education quality assurance using 'holistic skills education (Holsked)'. *Procedia-Social and Behavioral Sciences*, 204, 218-230. <https://doi.org/10.1016/j.sbspro.2015.08.144>
- Mun'im Amaly, A., Muhammad, G., Erihadiana, M., & Zaqiah, Q. Y. (2021). Kecakapan guru pendidikan agama islam dalam mengoptimalkan pembelajaran berbasis teknologi. *Jurnal Pendidikan Agama Islam Al-Thariqah*, 6(1), 88-104. [https://doi.org/10.25299/al-thariqah.2021.vol6\(1\).6712](https://doi.org/10.25299/al-thariqah.2021.vol6(1).6712)
- Navaridas-Nalda, F., Clavel-San Emeterio, M., Fernández-Ortiz, R., & Arias-Oliva, M. (2020). The strategic influence of school principal leadership in the digital transformation of schools. *Computers in Human Behavior*, 112, 106481. <https://doi.org/10.1016/j.chb.2020.106481>
- Norjanah, N., Nasir, M., & Mauizdati, N. (2022). Kompetensi Guru dalam Mengembangkan Pendidikan Agama Islam Berbasis Teknologi Informasi dan Komunikasi di Sekolah Dasar. *Jurnal Basicedu*, 6(3), 5130-5137. <https://doi.org/10.31004/basicedu.v6i3.3051>
- Pasaribu, S. (2019). Pemanfaatan Media Teknologi Informasi Komunikasi Dalam Peningkatan Kinerja Guru Pendidikan Agama Islam. *Studi Multidisipliner: Jurnal Kajian Keislaman*, 6(2), 92-110. <https://doi.org/10.24952/multidisipliner.v6i2.2087>
- Permatasari, F., Lestari, N. A., Christie, C. D. Y., & Suhaimi, I. (2023). Kepemimpinan transformasional kepala sekolah dalam meningkatkan mutu kinerja guru: studi meta analisis. *Indonesian Journal of Humanities and Social Sciences*, 4(3), 923–944. <https://doi.org/10.33367/ijhass.v4i3.5133>
- Phan, H. P., Ngu, B. H., Chen, S. C., Wu, L., Shih, J. H., & Shi, S. Y. (2021). Life, death, and spirituality: A conceptual analysis for educational research development. *Heliyon*, 7(5). <https://doi.org/10.1016/j.heliyon.2021.e06971>
- Priyambodo, P. (2023). Strategi kepemimpinan kepala sekolah dalam pengembangan profesionalisme guru. *Tirai: Jurnal Program Studi Manajemen Pendidikan Islam*, 2(1), 34–58. <https://www.jurnal.stit-lingga.ac.id/index.php/tirai/article/download/23/21>

- Sabic-El-Rayess, A. (2020). Epistemological shifts in knowledge and education in Islam: A new perspective on the emergence of radicalization amongst Muslims. *International Journal of Educational Development*, 73, <https://doi.org/10.1016/j.ijedudev.2019.102148>
- Sanders, M. (2016). Leadership, partnerships, and organizational development: Exploring components of effectiveness in three full-service community schools. *School Effectiveness and School Improvement*, 27(2), 157-177. <https://doi.org/10.1080/09243453.2015.1030432>
- Sari, G. I., Winasis, S., Pratiwi, I., & Nuryanto, U. W. (2024). Strengthening digital literacy in Indonesia: Collaboration, innovation, and sustainability education. *Social Sciences & Humanities Open*, 10, 101100. <https://doi.org/10.1016/j.ssaho.2024.101100>
- Sari, P. (2016). Pengaruh kemampuan manajerial kepala sekolah terhadap kinerja guru sdn se-kecamatan bambanglipuro bantul. *Basic Education*, 5(17), 1-648. <https://journal.student.uny.ac.id/pgsd/article/view/2118>
- Selamet, M. (2017). Pengaruh kompetensi supervisi manajerial dan supervisi akademik pengawas sekolah terhadap kinerja guru (studi deskriptif kuantitatif pada SMP Negeri di Kota Banjar). *Administrasi Pendidikan: Jurnal Ilmiah Mahasiswa Pascasarjana*, 2(1), 73-86. <http://dx.doi.org/10.25157/adpen.v2i1.197>
- Sholeh, M. I., & Efendi, N. (2023). Integrasi Teknologi dalam Manajemen Pendidikan Islam: Meningkatkan Kinerja Guru di Era Digital. *Jurnal Tinta: Jurnal Ilmu Keguruan Dan Pendidikan*, 5(2), 104-126. <https://ejournal.alqolam.ac.id/index.php/jurnaltinta/article/view/1049>
- Stahl, G. K., Brewster, C. J., Collings, D. G., & Hajro, A. (2020). Enhancing the role of human resource management in corporate sustainability and social responsibility: A multi-stakeholder, multidimensional approach to HRM. *Human resource management review*, 30(3), 100708. <https://doi.org/10.1016/j.hrmr.2019.100708>
- Suwartiningsih, S. (2022). Islamic Religious Education Teacher's Strategy for Improving Students' Faith and Devotion. *Jurnal Paradigma*, 14(2), 189-207. <https://doi.org/10.53961/paradigma.v14i2.122>
- Toyo, J., Reza, R., Fitriani, F., Lifanda, L., & Mardan, L. M. W. (2022). Pengaruh pemanfaatan teknologi informasi terhadap kinerja guru pada smkn 1 tomia. *Jurnal Multidisipliner Kapalamada*, 1(01), 62-70. <https://azramediaindonesia.com/index.php/Kapalamada/article/view/82>
- Tuna, M. H. (2022). The professionalisation of Islamic religious education teachers. *British Journal of Religious Education*, 44(2), 188-199. <https://doi.org/10.1080/01416200.2021.1999905>
- Xu, B., Chen, N. S., & Chen, G. (2020). Effects of teacher role on student engagement in WeChat-Based online discussion learning. *Computers & Education*, 157, 103956. <https://doi.org/10.1016/j.compedu.2020.103956>
- Yani, M. (2021). Hakikat Guru dalam Pendidikan Islam. *Sulawesi Tenggara Educational Journal*, 1(2), 34-38. <https://doi.org/10.54297/seduj.v1i2.158>
- Zedan, A. M., Yusoff, M. Y. Z. B. M., & Mohamed, M. R. B. (2015). An innovative teaching method in Islamic Studies: The use of PowerPoint in University of Malaya as case study. *Procedia-Social and Behavioral Sciences*, 182, 543-549. <https://doi.org/10.1016/j.sbspro.2015.04.776>

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