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The Effect of E-Performance Usage on Teacher Performance at UPTD Smp Negeri 1 Gunungsitoli Barat

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ABSTRACT

This study aims to determine the effect of the use of E-Performance on the performance of teachers at UPTD SMP Negeri 1 Gunungsitoli Barat. The research method used is a quantitative approach. The sample in this study consists of 30 respondents. Data collection techniques were conducted through observation and the distribution of questionnaires. Data analysis techniques used instrument tests, classical assumption tests, t-tests, and the coefficient of determination with the SPSS version 31 application. Based on the data analysis, it shows that partially, the variable of E-Performance usage has a positive and significant effect on teacher performance with a significance level of 0.001 < 0.05 and a calculated t value of 8.953 > 1.697. In the coefficient of determination test, the effect of E-Performance usage on teacher performance is obtained at 0.613 or 61.3%, while the remaining 38.7% is caused by other factors not included in this study. The conclusion of this research is that the variable of E-Performance usage, both partially and based on the coefficient of determination results, has an effect on teacher performance, and it is recommended for UPTD SMP Negeri 1 Gunungsitoli Barat.

Keyword:
E-Performance, Teacher Performance, Digital Performance Management, Public Sector Education, Technology Adoption.

INTRODUCTION

Advances in information and communication technology (ICT) have accelerated digital transformation across many sectors, including education. Digital transformation is widely understood as an organizational change process in which digital technologies trigger disruptions and strategic responses that reshape work processes and performance outcomes (Vial, 2019). In education systems, this shift increasingly supports data-driven governance and school management practices, particularly in how performance is documented, monitored, and evaluated.

One practical innovation associated with this transformation is the use of

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digital performance systems, often discussed in the broader stream of electronic human resource management (e-HRM), to standardize performance documentation, improve administrative efficiency, and enable more consistent evaluation (Bondarouk et al., 2017). In public-sector settings, the success of digital governance initiatives depends not only on system design, but also on implementation capacity and user adoption factors (Gil-Garcia & Flores-Zúñiga, 2020). Moreover, digital systems are expected to strengthen transparency and accountability by creating clearer performance traces and evaluative records that can be reviewed and verified (Matheus et al., 2021; Saldanha et al., 2022). In the school context, a well-implemented e-performance system can provide structured performance data that supports managerial decision-making and professional development planning, consistent with the broader literature on data-based decision-making for school improvement (Saputra et al., 2026; Schildkamp, 2019).

Teacher performance remains a critical determinant of educational quality because it influences classroom instruction, student engagement, and learning outcomes. Empirical evidence shows that teacher competence relates to student outcomes and that teaching quality plays an important mediating role in this relationship (Fauth et al., 2019). In addition, research on professional support mechanisms indicates that targeted coaching can improve instructional practice and, in many cases, student achievement, highlighting the importance of continuous performance development rather than evaluation alone (Kraft et al., 2018).

In Indonesia, the strengthening of teacher performance governance has been reinforced through policy that integrates performance management processes with digital platforms. A Joint Circular Letter issued on December 15, 2023 (BKN No. 17/2023 and MoECRT No. 9/2023) directs local governments to implement teacher performance management through the Merdeka Mengajar Platform (PMM), integrated with the National Civil Service Agency's e-Kinerja BKN system, and emphasizes mentoring, supervision, and coaching responsibilities at the local level. This direction aligns with broader implementation efforts described by BKN regarding PMM–e-Kinerja integration to support more standardized performance management for teachers and principals. In addition, the Directorate General regulation on teacher and principal performance management specifies core teacher duties that form a basis for performance outcomes, such as lesson planning, instruction, and assessment, within a structured performance management cycle.

Despite the intended benefits, schools may face adoption barriers that reduce the practical impact of e-performance systems. At UPTD SMP Negeri 1 Gunungsitoli Barat, preliminary observations indicate constraints in fully using the e-performance application due to prolonged adjustment to technological changes, limited facilities, and insufficient training, which may affect performance targets and related administrative outcomes (e.g., career progression and incentives). Such challenges are consistent with evidence from technology adoption research showing that perceived usefulness and attitudes significantly shape behavioral intentions and actual technology use among teachers (Scherer et al., 2019). Additionally, performance management can become difficult when organizational goals are unclear or multidimensional; research in public-sector teams indicates that goal clarity is positively associated with team performance, underscoring the importance

of clear expectations in performance systems (van der Hoek et al., 2018).

Accordingly, this study aims to examine the effect of e-performance system use on teacher performance at UPTD SMP Negeri 1 Gunungsitoli Barat and to provide a clearer understanding of factors that influence system utilization (e.g., user readiness, organizational support, facilities, and training). The findings are expected to inform practical improvements in the implementation of e-performance systems at the school level and support more effective performance development for teachers.

METHODS

Research Design

This study used a quantitative approach to test the relationship between E-Performance system use (X) and teacher performance (Y) at UPTD SMP Negeri 1 Gunungsitoli Barat. The design was cross-sectional, meaning data were collected once from the respondents and analyzed to estimate the direction and strength of association between the two variables.

Study Site and Participants

The research was conducted at UPTD SMP Negeri 1 Gunungsitoli Barat. The sample consisted of 30 teacher respondents. Respondents were teachers at the study site who were involved in the school's performance management process and were willing to complete the survey.

Variables and Operational Definitions

1. E-Performance system use (X)

E-Performance system use refers to the extent to which teachers utilize the e-kinerja platform consistently and correctly as part of performance documentation and evaluation. In this study, it was operationalized using the following indicators:

a. Timeliness of reporting
b. Data transparency
c. Accuracy of performance assessment
d. Satisfaction with the assessment system

2. Teacher performance (Y)

Teacher performance refers to the quality of teachers' professional work outcomes and behaviors at school. It was operationalized using indicators commonly used to assess performance comprehensively, including:

a. Work achievement
b. Target attainment
c. Skills (technical and social competence)
d. Job satisfaction
e. Initiative
f. Attendance level
g. Compliance/discipline
h. Timeliness

Instrument and Measurement

Data were collected using a structured questionnaire that measured E-Performance system use (X) and teacher performance (Y). The study employed 8 items for E-Performance system use and 8 items for teacher performance (16 items total). Responses were captured using an ordinal agreement format (higher scores reflect stronger e-kinerja use and higher teacher performance). Composite scores for each variable were computed by aggregating item responses (e.g., summing or averaging across items) to produce one score for X and one score for Y for each respondent.

Data Collection Procedure

Two techniques were applied: observation and questionnaire distribution. Observation was used to understand the implementation context of e-kinerja at the school, while the questionnaire served as the primary quantitative instrument for analysis.

Instrument Testing (Quality Checks)

To ensure data quality before hypothesis testing, the study applied instrument and assumption testing as follows:

1. Validity test (item validity): Item validity was examined using Pearson correlation. Items were considered valid when r-calculated > r-table (0.361).
2. Reliability test: Scale reliability was assessed using Cronbach's alpha, with the commonly used criterion α > 0.70 as an indicator of acceptable internal consistency.
3. Normality test: Because the sample size was 30, normality was assessed using the Shapiro–Wilk test, consistent with standard small-sample practice.

Data Analysis

Data analysis was conducted using SPSS version 26. The analytical steps were:

1. Descriptive statistics to summarize respondent responses for each variable.
2. Instrument tests (validity and reliability) to confirm that questionnaire items and scales were acceptable.
3. Classical assumption testing, focusing on normality (Shapiro–Wilk).
4. Simple linear regression to estimate the effect of X on Y using the model:

$$Y = \beta_0 + \beta_0 X + \varepsilon$$

5. Partial t-test to test the research hypothesis (significance level α = 0.05).
6. Coefficient of determination (Adjusted R^2) to assess how much variance in teacher performance is explained by E-Performance system use.

RESULTS

This section reports the measurement checks and hypothesis testing results produced in SPSS (version 31) using the study sample (df = 30 in the normality output).

Validity Test (Item Validity)

Before testing the hypothesis, the study first evaluated whether each questionnaire item properly measured its intended construct using item–total correlation (Pearson correlation). Items were considered valid when r-calculated > r-table (0.361).

Table 1. Item Validity for E-Performance Use (X)

Item	r-calculated	r-table	Decision
1	0.529	0.361	Valid
2	0.899	0.361	Valid
3	0.65	0.361	Valid
4	0.701	0.361	Valid
5	0.729	0.361	Valid
6	0.823	0.361	Valid
7	0.844	0.361	Valid
8	0.893	0.361	Valid

All eight items for E-Performance use (X) are valid because each item's r-calculated value exceeds the r-table value (0.361). This means every statement item is sufficiently aligned with the overall E-Performance construct and can be retained for further analysis.

Table 2. Item Validity for Teacher Performance (Y)

Item	r-calculated	r-table	Decision
1	0.887	0.361	Valid
2	0.884	0.361	Valid
3	0.81	0.361	Valid
4	0.64	0.361	Valid
5	0.696	0.361	Valid
6	0.637	0.361	Valid
7	0.817	0.361	Valid
8	0.56	0.361	Valid

All eight items for Teacher Performance (Y) are valid because every r-calculated value is greater than 0.361. This indicates that the teacher performance items consistently represent the same

construct and are appropriate to be used in the regression model.

Reliability Test (Internal Consistency)

After establishing validity, the study assessed the internal consistency of each scale using Cronbach's alpha, where values above 0.70 generally indicate acceptable reliability for research instruments.

Table 3. Reliability Test Results (Cronbach's Alpha)

Variable	Cronbach's Alpha	Number of Items
E-Performance use (X)	0.897	8
Teacher performance (Y)	0.881	8

The reliability coefficients are 0.897 (X) and 0.881 (Y), both exceeding 0.70. This shows strong internal consistency, meaning respondents' answers across items were stable and the instruments are reliable for measuring both variables in this study context.

Normality Test (Regression Assumption)

Before running regression, the study tested whether the data approximated a normal distribution using the Tests of Normality output (Kolmogorov–Smirnov and Shapiro–Wilk). For a sample size of 30, Shapiro–Wilk is commonly used as the main reference.

Table 4. Tests of Normality (n = 30)

Variable	Kolmogorov–Smirnov Sig.	Shapiro–Wilk Statistic	Shapiro–Wilk Sig.
E-Performance use (X)	0.002	0.922	0.3
Teacher performance (Y)	0.009	0.919	0.25

The Shapiro–Wilk significance values are 0.30 (X) and 0.25 (Y), both > 0.05, indicating no evidence that the data deviate meaningfully from normality. Therefore, the normality assumption for simple linear regression is considered satisfied.

Simple Linear Regression (Effect of X on Y)

To test whether E-Performance use predicts teacher performance, the study estimated a simple linear regression model with Teacher Performance (Y) as the dependent variable and E-Performance use (X) as the predictor.

Table 5. Regression Coefficients (Dependent Variable: Teacher Performance Y)

Predictor	B	Std. Error	Beta	t	Sig.
Constant	10.278	2.22	,	4.63	0.001
E-Performance use (X)	0.767	0.086	0.861	8.953	0.001

The slope coefficient for E-Performance use (X) is B = 0.767 and is statistically significant (t = 8.953; p = 0.001). This indicates a positive and significant relationship: higher E-Performance use is associated with higher teacher performance scores. In practical terms, a one-unit increase in E-Performance use predicts an average increase of 0.767 units in teacher performance, based on this model.

The regression equation is:

$$Y = 10.278 + 0.767X + e$$

Coefficient of Determination (Model Explanatory Power)

After estimating the model, the study examined the coefficient of determination to quantify how much variance in teacher performance is explained by E-Performance use.

Table 6. Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.791	0.626	0.613	1.926

The model yields Adjusted R^2 = 0.613, meaning E-Performance use explains 61.3% of the variance in teacher performance (after adjustment). The remaining 38.7% is attributable to other factors not included in this study model.

Hypothesis Test (t-test for the Regression Coefficient)

Finally, hypothesis testing was conducted using the t-test on the regression coefficient to determine whether the predictor has a statistically significant effect on the dependent variable.

Table 7. Hypothesis Testing Summary (H1)

Hypothesis	t-calculated	t-table	p-value (Sig.)	Decision
H1: E-Performance use (X) affects teacher performance (Y)	8.953	1.697	0.001	Supported

Because t-calculated (8.953) > t-table (1.697) and p = 0.001 < 0.05, H1 is supported. This confirms that E-Performance use has a statistically significant effect on teacher performance in the study setting.

DISCUSSION

This study examined whether the use of the e-performance (e-kinerja) system is associated with teacher performance at UPTD SMP Negeri 1 Gunungsitoli Barat. The regression results show a positive and statistically significant relationship: e-performance use significantly predicts teacher performance (B = 0.767; t = 8.953; p = 0.001).

The model explains a substantial share of variance (R^2 = 0.626; Adjusted R^2 = 0.613), indicating that differences in teacher performance in this sample are strongly aligned with differences in e-performance use.

In practical terms, the coefficient implies that stronger engagement with e-performance is associated with higher teacher performance scores in this setting. The finding is particularly relevant because implementation at this school is not "frictionless": the article notes constraints such as limited facilities, limited training, and slower adaptation to technological change, which can reduce motivation and delay effective use. Even under these constraints, the relationship remains strong, suggesting that e-performance can function as a meaningful lever for improving performance, provided the supporting conditions are strengthened.

Methodologically, the measurement and model assumptions reported in the article support confidence in the statistical inference (e.g., instrument reliability and normality).

Why e-performance may improve teacher performance: plausible mechanisms

The results align with broader evidence on digital transformation in organizations: performance gains typically arise not from technology alone, but from technology-enabled changes in workflows, accountability, and decision-making routines (Vial, 2019). In HR and performance management specifically, e-HRM research argues that digitized systems can improve efficiency, consistency, and strategic HR decision-making, if adoption and implementation

quality are addressed (Bondarouk et al., 2017).

In the context of e-performance for teachers, three mechanisms are especially relevant:

1. Goal clarity and structured expectations

Digitized performance systems tend to translate abstract goals into measurable targets and regular reporting cycles. In public-sector teams, clearer goals are linked to stronger performance because they reduce ambiguity and coordinate effort (van der Hoek et al., 2018). In this study's setting, e-performance use likely supports goal clarity by standardizing what counts as performance (e.g., planning, implementation, evaluation), making expectations more concrete and monitorable.

2. Transparency, traceability, and accountability, when metrics are credible

Digital transparency research highlights that systems can strengthen accountability when information is accessible, understandable, and usable (Matheus et al., 2021). Evidence from digital public services similarly shows that transparency and accountability depend on the quality of information practices embedded in the system (Saldanha et al., 2022).

Importantly, performance management can also generate resistance if staff perceive metrics as unfair or low-quality. Recent evidence indicates that metric quality (accuracy, sensitivity, verifiability) can shape whether performance management enhances trust and, indirectly, performance (van Elten & van der Kolk, 2025). This is highly relevant for schools: when indicators are perceived as valid and verification is consistent, e-performance is more likely to motivate improvement rather than compliance-only behavior.

3. Feedback loops and professional development targeting

The article's context emphasizes the need for training and facility support to make e-performance workable in practice. This matches teacher learning evidence: well-designed professional development, especially online/structured formats, can predict changes in teachers' practices when it includes cognitive activation and collaboration (Meyer et al., 2023). In addition, teacher competence matters for instructional quality, which is a pathway to better student outcomes (Fauth et al., 2019).

In other words, e-performance can become more than an administrative tool if the resulting data is used to identify development needs, assign coaching/mentoring, and track growth over time.

Adoption challenges explain "how" the system works, not whether it matters

A key nuance is that the study identifies real barriers, especially technology adaptation, facilities, and training limitations. This is consistent with teacher technology adoption research: perceived usefulness and ease of use are central drivers of actual technology use (Scherer et al., 2019). When infrastructure is weak or support is limited, perceived ease of use drops, slowing adoption even if the system is mandated.

This also aligns with digital government success research, which emphasizes that outcomes depend on both implementation conditions (resources, institutional arrangements) and user adoption factors (usability and perceived value) (Gil-Garcia & Flores-Zúñiga, 2020). The strong association found in this study suggests that, within the school, variation in how effectively teachers engage with the system is meaningfully linked to performance, so improving adoption conditions is a logical next policy lever.

Policy and management implications for e-kinerja in schools

At the national policy level, Indonesia has strengthened the governance of teacher performance management through joint directives and integration initiatives. For example, BKN communications describe the integrated performance management approach for teachers/school leaders, tied to national performance management regulations and system integration. The joint circular document circulated publicly also emphasizes staged performance management (planning, implementation/monitoring/coaching, follow-up evaluation).

Based on the study's evidence (high explained variance and strong coefficient) and the school's barriers, the most actionable implications are:

1. Prioritize adoption support, not just compliance

Provide recurring, hands-on training and peer support mechanisms (short clinics, mentoring, "champion teachers") to reduce adaptation time, directly addressing the constraints reported in the study.

2. Improve infrastructure and ensure minimum service quality

Since facilities limitations reduce motivation and system use, districts should ensure baseline access (devices, stable internet, helpdesk). This is aligned with digital government success logic: implementation capacity is a prerequisite for adoption and impact.

3. Strengthen indicator credibility and verification practices

To avoid "tick-box" reporting or trust erosion, the school and district should focus on metric quality, transparency-by-design, and consistent validation routines.

4. Use e-performance data for targeted professional development

Convert performance records into development plans (coaching, collaborative lesson study, online PD), which is supported by evidence that quality professional development predicts changes in practice.

Limitations and directions for future research

The findings are compelling but should be interpreted within the study's boundaries: (1) the sample is limited to one school and a relatively small N, (2) the design is correlational, so the results support association rather than definitive causation, and (3) a single predictor model means other determinants of performance (leadership, workload, climate, incentives, teacher competence) remain unmodeled. Future research should test the model across multiple schools, use longitudinal designs to examine change over time, and include mediators (e.g., digital competence, motivation, perceived usefulness/ease of use) consistent with established adoption theory.

CONCLUSION

This study set out to examine whether E-Performance (e-kinerja) system use affects teacher performance at UPTD SMP Negeri 1 Gunungsitoli Barat. The findings provide clear evidence that E-Performance use has a positive and statistically significant effect on teacher performance ($p = 0.001 < 0.05$; $t = 8.953 > 1.697$).

In terms of explanatory power, the model indicates that E-Performance use accounts for 61.3% of the variance in teacher performance (0.613 / 61.3%), while 38.7% is explained by other factors not included in the model.

These results imply that strengthening teachers' effective engagement with the e-kinerja system is not merely an administrative matter; it is strongly associated with better performance outcomes within this school context. This conclusion is particularly relevant given that e-kinerja has been

mandatory at the school since 2023 following official notification from BKN.

RECOMMENDATIONS

Based on the empirical results and the implementation context described in the article, the following practical steps are recommended:

1. Capacity building and routine technical guidance

   Provide structured training and ongoing assistance so teachers can use the system accurately and consistently, reducing delays and errors in documentation.
2. Make e-kinerja a development tool, not only a compliance tool

   Encourage teachers to regularly update personal data, document instructional activities, and actively use self-evaluation and online training features so that e-kinerja supports reflection and continuous professional improvement.
3. Strengthen infrastructure and facilitation

   Ensure adequate access to devices, stable internet connectivity, and practical support at the school level so system use is feasible and not burdensome.

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