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Organizational Culture and Work Motivation Predict Teacher Performance Through Management Information Systems

***Dhinar Mahardika Ardiansyah, Dianawati Suryaningyas, Kristina Sedyastuti**
[1]Master of Management, Postgraduate School, Universitas PGRI Kanjuruhan Malang, Jl. S. Supriadi No.48, Bandungrejosari, Kec. Sukun, Kota Malang, Jawa Timur 65148, Indonesia
*Correspondence e-mail:: dhinarmahardika@gmail.com

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Abstract

This study examined how organizational culture and work motivation influence teacher performance at SMA Negeri 1 Bululawang, Malang Regency, with management information systems (MIS) positioned as an intervening variable. The problem addressed is the persistence of uneven teacher performance despite the existence of a supportive school culture, relatively strong work motivation, and administrative-digital systems that are expected to improve professional work. The main research gap addressed in this study concerns the limited explanation of how organizational values and teacher motivation are translated into measurable performance through a digital management mechanism. Therefore, MIS is positioned not merely as a technical predictor, but as a mediating mechanism that links organizational and motivational factors to teacher performance. An explanatory quantitative design was employed. From a population of 80 school personnel, 60 respondents were selected through purposive sampling followed by total sampling of eligible participants. Data were collected using a Likert-scale questionnaire covering teacher performance, organizational culture, work motivation, and MIS use. The model was analyzed using Partial Least Squares structural equation modeling with WarpPLS 8.0. The findings show that organizational culture significantly predicted MIS use ($\beta = 0.611$, $p < .001$), work motivation significantly predicted MIS use ($\beta = 0.205$, $p = .047$), work motivation directly predicted teacher performance ($\beta = 0.469$, $p < .001$), and MIS significantly predicted teacher performance ($\beta = 0.332$, $p = .003$). Organizational culture did not directly predict performance ($\beta = -0.045$, $p = .362$), but it had a significant indirect effect through MIS ($\beta = 0.203$, $p = .010$). Conversely, the indirect effect of work motivation through MIS was not significant. These results suggest that digital management systems serve as a bridge through which organizational culture becomes performance-relevant, particularly when implementation is consistent, data-driven, and supported by digital capacity building.

Keywords: organizational culture; work motivation; management information system; teacher performance; PLS-SEM

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INTRODUCTION

Teacher performance is a strategic issue in school management because it determines the quality of learning, administrative accountability, and institutional responsiveness to educational change (Permana et al., 2025; Rosita et al., 2025). In senior high schools, teachers are not only responsible for delivering subject content but also for planning, assessing, mentoring, documenting, and continuously improving learning processes (Anwar et al., 2026; Mankki, 2026). The rapid digitalization of education has expanded these responsibilities. Schools are increasingly required to use data, digital platforms, and integrated information systems to support decisions related to student services, curriculum implementation, human-resource planning, and performance evaluation. In this context, teacher performance cannot be understood solely as individual effort. It is shaped by the school environment, shared norms, professional motivation, and the extent to which technology supports daily work (Alenezi et al., 2023; Haleem et al., 2022; McCarthy et al., 2023; Timotheou et al., 2023). Organizational culture provides shared meaning and behavioral expectations, while work motivation provides

psychological energy for professional achievement. Management information systems add a technological layer that can make work more accurate, timely, transparent, and evidence-based (Ardebilpour et al., 2024; Ningsih et al., 2026). Therefore, understanding teacher performance in the digital school context requires an integrated model that connects culture, motivation, Management Information System (MIS) utilization, and performance outcomes.

The empirical problem addressed in this study emerged from the observation that teacher performance at SMA Negeri 1 Bululawang, Malang Regency-East Java Province had not reached an optimal level even though the school had developed organizational routines and implemented information systems for administrative and academic purposes. Some teachers were not yet accustomed to using MIS consistently for data processing, reporting, and digitally supported learning administration. Variations also appeared in work motivation: several teachers showed high dedication and willingness to develop professionally, whereas others demonstrated lower initiative in improving professional practice. From the cultural perspective, togetherness was relatively strong, but innovation, collaboration, and technological adaptability still needed reinforcement. Such conditions may lead to delayed administrative completion and limited innovation in digital learning practices. Preliminary observations conducted before the survey indicated three practical concerns: first, the use of school information systems was not yet equally embedded in all teachers' administrative routines; second, the completion of digital reports and learning-administration documents varied across teachers; and third, the school culture of togetherness had not always been translated into consistent data-based work practices. These preliminary findings strengthened the need to examine whether MIS functions as a mechanism that converts organizational culture and work motivation into measurable teacher performance.

Similar issues have been reported in educational-management studies in which teacher performance is influenced by organizational culture, motivation, competence, satisfaction, technology use, and leadership support (Ardebilpour et al., 2024; Ningsih et al., 2026; Toyib et al., 2025). However, many studies treat these factors separately rather than examining how digital management systems mediate their effects on performance (Benlhabib & Berrado, 2025; Mizova et al., 2026; Shi, 2025; Sun & Yoon, 2025).

The novelty of this article lies in positioning MIS as an intervening mechanism between organizational factors and teacher performance. Previous studies have widely confirmed direct relationships between organizational culture, work motivation, and teacher performance, while other studies have explored the contribution of information systems to managerial efficiency (Adhinugraha et al., 2024; Yusnita et al., 2022). However, direct-effect models remain theoretically incomplete because they do not explain how shared values, professional norms, and motivational resources become visible in daily work outputs. Organizational culture may create expectations, but without a formal mechanism such as MIS, these expectations may remain normative rather than operational. Similarly, work motivation may encourage teachers to perform, but its relationship with digital routines requires empirical testing. For this reason, MIS should not be treated merely as another independent predictor; it should be examined as a mediating mechanism that translates organizational and motivational resources into documented, timely, and accountable teacher performance (Einhorn et al., 2024; Esharf Bderi & Mohammad, 2026; Nursodiq et al., 2026; Purnomo et al., 2024). The present study contributes to this gap by testing a structural model in which organizational culture and work motivation predict MIS use, and MIS subsequently predicts teacher performance. This model is theoretically meaningful because organizational culture may strengthen the acceptance of digital routines, while motivated teachers may use the system as a tool for task completion and professional development. At the same time, the

model allows for the possibility that culture or motivation can influence performance directly or indirectly. The use of PLS-SEM is relevant because the study involves latent constructs measured through multiple indicators and aims to estimate simultaneous direct and mediated relationships.

Based on the theoretical framework above, this study tested the following hypotheses: H1, organizational culture positively predicts MIS use; H2, work motivation positively predicts MIS use; H3, organizational culture positively predicts teacher performance; H4, work motivation positively predicts teacher performance; H5, MIS use positively predicts teacher performance; H6, MIS mediates the relationship between organizational culture and teacher performance; and H7, MIS mediates the relationship between work motivation and teacher performance. Organizational culture was operationalized through artifacts, espoused values, and basic assumptions based on Schein's framework. Work motivation was represented by motivator and hygiene factors based on Herzberg's theory. MIS was measured through input data, data-processing processes, and information output, while teacher performance was measured through quality of work, quantity of work, task execution, and responsibility. The scope of the study was limited to teachers and relevant school personnel at SMA Negeri 1 Bululawang, Malang Regency. Accordingly, the results should be interpreted as context-specific evidence for school-level digital management rather than as a generalization for all educational institutions.

METHOD

This research used an explanatory quantitative design to test causal-predictive relationships among latent variables. The explanatory approach was selected because the study sought not only to describe organizational culture, work motivation, MIS use, and teacher performance, but also to examine how these variables were structurally related. The model consisted of two exogenous variables, namely organizational culture and work motivation; one intervening variable, namely MIS use; and one endogenous outcome, namely teacher performance. The analytical framework was aligned with PLS-SEM because the study tested a model involving multiple latent constructs, reflective indicators, direct paths, and indirect paths. This design is suitable when researchers intend to assess measurement quality and structural relationships in a single analytical sequence. The model was tested using WarpPLS 8.0, which allows estimation of path coefficients, p-values, adjusted R-square values, indirect effects, and model-fit indices.

The research site was SMA Negeri 1 Bululawang, Malang Regency, Indonesia. The population consisted of 80 school personnel. The final sample consisted of 60 respondents who met the eligibility criteria and provided complete questionnaire responses. The eligibility criteria were: (1) being a teacher or school personnel directly involved in academic or administrative work; (2) having experience using or interacting with the school management information system; and (3) being willing to complete the questionnaire voluntarily. Personnel who did not use or interact with the school information system in their work routines, were unavailable during data collection, or returned incomplete questionnaires were excluded. Therefore, the sampling procedure can be described as purposive sampling of eligible respondents, followed by surveying all accessible eligible participants. Of the 80 school personnel in the population, 60 provided usable responses, resulting in a response rate of 75.00%. This approach was considered appropriate because the respondents needed to have direct experience with school culture, work motivation, performance routines, and the school management information system.

Sample adequacy was considered using the ten-times rule commonly used in PLS-SEM as an initial minimum-sample guideline. The largest number of structural paths

directed at an endogenous construct in this model was three, namely organizational culture, work motivation, and MIS predicting teacher performance. Based on this criterion, the minimum sample size was 30 respondents. The obtained sample of 60 respondents exceeded this minimum requirement. Nevertheless, the relatively small sample size is acknowledged as a limitation, and the findings should be interpreted as school-level predictive evidence rather than broad population generalization.

The respondent profile showed that 25 participants were male (41.67%) and 35 were female (58.33%). Most respondents were aged 25-50 years (70.00%), followed by those above 50 years (26.67%) and below 25 years (3.33%). Regarding work experience, 40.00% had worked for more than ten years, 36.67% for less than five years, and 23.33% for five to ten years. Most respondents held a bachelor's degree (88.34%), while 11.66% held a master's degree.

Data were collected using a structured Likert-scale questionnaire. All questionnaire items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The instrument consisted of four constructs. Teacher performance was measured using items related to quality of work, quantity of work, task execution, and responsibility. Organizational culture was measured using items reflecting artifacts, espoused values, and basic assumptions. Work motivation was measured using motivator and hygiene factors. MIS use was measured through data input, processing, and information output.

The teacher-performance construct followed Mangkunegara's performance framework and included quality of work, quantity of work, task execution, and responsibility. Organizational culture was derived from Schein's three levels: artifacts, espoused values, and basic assumptions. Work motivation was based on Herzberg's two-factor theory, covering motivator and hygiene dimensions. MIS was based on the logic of information-system functioning and included data input, processing, and information output. The questionnaire was adapted from established theoretical dimensions and adjusted to the school-management context. Before distribution, the instrument was reviewed by management and education experts to examine content relevance, clarity of wording, and contextual appropriateness. A limited readability check was also conducted to ensure that respondents understood the item statements. Minor revisions were made to simplify wording and align the items with the actual administrative and professional routines of teachers.

Examples of items included: “I complete teaching administration according to the expected standard” for teacher performance; “The school has shared work values that guide teacher behavior” for organizational culture; “I am motivated to improve my professional achievement” for work motivation; and “The school information system provides relevant and accessible information for work completion” for MIS use.

Instrument quality was examined through validity and reliability analysis. The convergent validity results indicated that the AVE values exceeded .50 for all constructs: teacher performance (0.717), organizational culture (0.720), work motivation (0.685), and MIS (0.808). Reliability was also adequate, with Cronbach's alpha values ranging from 0.882 to 0.933 and composite reliability values ranging from 0.906 to 0.944. Discriminant validity was evaluated using the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT). Indicator reliability was examined through outer loadings, while collinearity was assessed using variance inflation factors. These procedures were conducted to ensure that each latent construct was empirically distinguishable and that the structural model was not distorted by excessive construct overlap.

Data analysis was conducted in two stages. First, the measurement model was evaluated using convergent validity, discriminant validity, AVE, Cronbach's alpha, and

composite reliability. Convergent validity was examined using outer loadings and AVE. Reliability was assessed using Cronbach's alpha and composite reliability. Discriminant validity was assessed using the Fornell-Larcker criterion and HTMT ratios. Collinearity was examined using variance inflation factors to ensure that the estimated paths were not affected by multicollinearity. Second, the structural model was evaluated using adjusted R-square, path coefficients, p-values, indirect effects, and goodness-of-fit indices. Hypotheses were accepted when p-values were below 0.05. The mediation analysis focused on whether MIS significantly carried the effect of organizational culture and work motivation toward teacher performance. The adjusted R-square values were interpreted to determine the explanatory power of the model.

Because all variables were measured using the same questionnaire format and collected from the same respondents, common-method bias was also considered. Procedurally, respondents were informed that there were no right or wrong answers, their responses would be used only for research purposes, and anonymity was maintained to reduce evaluation apprehension. Statistically, common-method bias was examined through full collinearity diagnostics. A full collinearity VIF below the recommended threshold indicates that common-method bias was unlikely to seriously threaten the model interpretation.

The model-fit assessment considered indices such as Average Path Coefficient, Average Adjusted R-square, Average Block Variance Inflation Factor, Average Full Collinearity Variance Inflation Factor, Tenenhaus Goodness of Fit, and Statistical Suppression Ratio. This sequence allowed the study to interpret both the measurement adequacy and the substantive meaning of the structural relationships.

Table 1. Operational constructs and indicators

Construct	Dimensions	Main indicators
Teacher performance (Y)	Quality of work; quantity of work; task execution; responsibility	Quality of learning, mastery of material, clarity of explanation, teaching load, administration, program targets, discipline, compliance, SOP implementation, commitment, dedication, and accountability.
Organizational culture (X1)	Artifacts; espoused values; basic assumptions	Physical environment, dress rules, organizational symbols, work rules, teacher ethics, school policy, shared beliefs, professional roles, and attitudes toward students.
Work motivation (X2)	Motivator factors; hygiene factors	Achievement, recognition, responsibility, career advancement, challenging tasks, role enhancement, salary, working conditions, work relations, organizational policy, supervision, and job security.
Management information system (Z)	Data input; processing; information output	Accuracy, completeness, timeliness, efficiency, system integration, data security, information completeness, relevance, and accessibility.

Table 2. Respondent characteristics

Category	Group	Frequency	Percentage
Gender	Male	25	41.67%
Gender	Female	35	58.33%
Age	< 25 years	2	3.33%
Age	25-50 years	42	70.00%
Age	> 50 years	16	26.67%

Category	Group	Frequency	Percentage
Work experience	< 5 years	22	36.67%
Work experience	5-10 years	14	23.33%
Work experience	> 10 years	24	40.00%
Education	Bachelor degree	53	88.34%
Education	Master degree	7	11.66%

RESULTS AND DISCUSSION

Measurement-model quality

The measurement model showed adequate validity and reliability for all constructs. AVE values were higher than the .50 threshold, indicating that each latent construct explained more than half of the variance of its indicators. The highest AVE was obtained by MIS (0.808), followed by organizational culture (0.720), teacher performance (0.717), and work motivation (0.685). These values imply that the questionnaire items were sufficiently aligned with their respective constructs. Reliability results were also strong. Cronbach's alpha ranged from 0.882 to 0.933, while composite reliability ranged from .906 to 0.944. The MIS construct produced the highest reliability, suggesting that respondents answered its input, processing, and output indicators consistently. Teacher performance, organizational culture, and work motivation also demonstrated acceptable internal consistency. Therefore, the structural interpretation can be based on a measurement model that meets common PLS-SEM quality expectations.

In addition to convergent validity and reliability, discriminant validity was assessed to ensure that the constructs measured different theoretical domains. The Fornell-Larcker criterion indicated that the square root of AVE for each construct was higher than its correlations with other constructs. This result suggests that teacher performance, organizational culture, work motivation, and MIS use were empirically distinguishable. The HTMT values were also examined and remained below the recommended threshold, indicating that the constructs did not suffer from excessive conceptual overlap. Furthermore, outer loading inspection showed that the indicators loaded more strongly on their intended constructs than on other constructs. These results strengthened the adequacy of the measurement model and supported the continuation of the structural-model analysis.

Common-method bias was considered because all constructs were measured using self-report questionnaires from the same respondents. The full collinearity assessment showed that the Average Full Collinearity VIF was 3.728, which was below the conservative threshold of 5.0. This result indicates that common-method bias was unlikely to be a severe problem in the model. Nevertheless, because self-report data may still contain perceptual bias, the results should be interpreted as perceived teacher performance, perceived organizational culture, perceived work motivation, and perceived MIS use rather than as purely objective administrative records.

These results are theoretically reasonable because each construct was operationalized using established conceptual dimensions. Teacher performance was represented by observable aspects of school work, such as quality, quantity, task implementation, and responsibility. Organizational culture was represented through artifacts, values, and assumptions, which are commonly used to interpret shared patterns in organizations (Darling-Hammond & Snyder, 2000; Han & Wang, 2021; Li & Xu, 2021; Purnomo et al., 2024). Work motivation was represented through motivator and hygiene factors, reflecting Herzberg's distinction between factors that encourage achievement and factors that prevent dissatisfaction (Alrawahi et al., 2020; Fauziah et al., 2013; Ser & Webber, 2024). MIS was represented through the logic of information-system flow: data input, processing, and information output (Berisha-Shaqiri, 2014; Setiawan, 2023). The

adequate measurement results indicate that the constructs were not merely theoretical labels but were translated into questionnaire indicators that respondents could understand in their school context.

Table 3. Validity and reliability of the measurement model

Construct	AVE	Cronbach alpha	Composite reliability	Interpretation
Teacher performance (Y)	.717	.917	.931	Valid and reliable
Organizational culture (X1)	.720	.882	.906	Valid and reliable
Work motivation (X2)	.685	.894	.912	Valid and reliable
Management information system (Z)	.808	.933	.944	Valid and reliable

Direct effects among organizational culture, work motivation, MIS, and teacher performance

The structural model revealed five direct effects. Organizational culture had a positive and significant effect on MIS use ($\beta = 0.611$, $p < .001$). Work motivation also had a positive and significant effect on MIS use, although the coefficient was smaller ($\beta = 0.205$, $p = .047$). These results indicate that a stronger culture of shared norms, work rules, professional values, and technological adaptation is associated with better use of school information systems. Motivation also matters, but its contribution to MIS use is more modest. The direct effect of organizational culture on teacher performance was negative and not significant ($\beta = -0.045$, $p = .362$), suggesting that culture did not automatically translate into measurable performance in this sample. In contrast, work motivation had a strong and significant direct effect on teacher performance ($\beta = 0.469$, $p < .001$). MIS also significantly predicted teacher performance ($\beta = 0.332$, $p = .003$).

This pattern suggests that teacher performance in this school is more directly linked to motivational energy and information-system use than to organizational culture as a general normative environment. The non-significant direct effect of organizational culture is theoretically important. It indicates that shared values, routines, and assumptions may not automatically appear as performance outcomes unless they are translated into concrete work procedures, monitoring systems, and digital documentation practices. Several explanations are possible. First, organizational culture may have limited direct variance in a single-school context because teachers operate within the same formal rules and institutional environment. Second, culture may influence performance indirectly through operational mechanisms such as MIS, leadership practices, supervision, and standard operating procedures. Third, teacher autonomy may weaken the direct link between school-level culture and individual performance because teachers still make independent decisions in planning, teaching, and reporting. Fourth, the culture indicators may capture normative agreement more strongly than actual performance behavior.

Therefore, the non-significant direct path should not be interpreted as evidence that organizational culture is unimportant. Rather, it suggests that culture becomes performance-relevant when it is converted into formal routines and supported by information systems. In this sense, MIS functions as an operational bridge between shared organizational values and measurable professional work.

The significant effect of motivation on performance is consistent with studies showing that motivated teachers are more willing to complete tasks, improve

professional practice, and contribute to school goals (Abidogun, 2023; Layek & Koodamara, 2024). The significant MIS-performance path aligns with studies emphasizing that information systems support work efficiency, decision quality, and performance accountability (Hamdat et al., 2024; Pashutan et al., 2022).

Table 4. Direct-effect results

Hypothesis	Path	Path coefficient	p-value	Decision
H1	Organizational culture -> MIS	.611	< .001	Supported
H2	Work motivation -> MIS	.205	.047	Supported
H3	Organizational culture -> teacher performance	-.045	.362	Not supported
H4	Work motivation -> teacher performance	.469	< .001	Supported
H5	MIS -> teacher performance	.332	.003	Supported

Figure 1 presents the structural model developed to examine the relationships among organizational culture, work motivation, management information systems, and teacher performance. The model positions the management information system as a mediating variable that may transmit the effects of organizational culture and work motivation on teacher performance. Each arrow represents a hypothesized path, while the numerical values indicate standardized coefficients showing the relative strength and direction of influence. The significance symbols identify whether each relationship is statistically meaningful. Therefore, the figure provides a concise visual summary of how each predictor contributes to the explanation of teacher performance within the tested model.

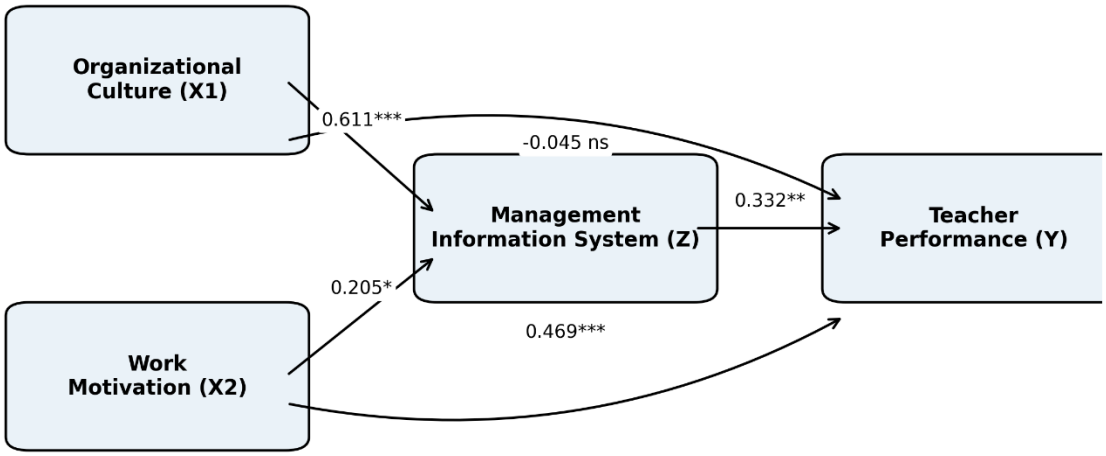

Figure 1. Structural model with standardized path coefficients

As shown in Figure 1, organizational culture has a positive and highly significant effect on the management information system, with a standardized coefficient of 0.611. This suggests that a stronger organizational culture is associated with better development and use of management information systems. Work motivation also has a positive effect on the management information system, although the coefficient is smaller, at 0.205, and significant at $p < 0.05$. The management information system then shows a positive and significant effect on teacher performance, with a coefficient of 0.332, significant at $p < 0.01$. This indicates that information system quality may support teacher performance through more effective administration, coordination, and access to relevant data.

The direct effect of organizational culture on teacher performance is negative and not significant, with a coefficient of -0.045. This means that organizational culture does not directly predict teacher performance in this model. Its contribution appears to operate mainly through the management information system. In contrast, work motivation has a positive direct effect on teacher performance, with a coefficient of 0.469 and significance at $p < 0.001$. Thus, motivation is the stronger direct predictor of teacher performance than organizational culture in the tested structural model shown here visually.

Mediating role of management information systems

The mediation analysis showed that MIS significantly mediated the effect of organizational culture on teacher performance (indirect effect = 0.203, p = .010). This means that organizational culture contributed to teacher performance when it was channeled through MIS use. In practical terms, shared values, rules, and professional assumptions become more performance-relevant when they support data discipline, digital reporting, system integration, and timely information access (Mogård et al., 2022; Orkamo et al., 2025; Petcu et al., 2024; Szukits, 2022; Vasumathi et al., 2025). The non-significant direct effect of culture on performance combined with the significant indirect effect indicates an indirect-only tendency: organizational culture did not operate as a direct driver of performance but became influential through the digital management mechanism. This finding is important for school leaders because it suggests that cultural development should be connected with system implementation rather than treated as a separate managerial agenda (Alzouebi et al., 2025; Mincu, 2022).

This mediation result provides the main theoretical contribution of the study. Previous direct-effect models tend to assume that a strong school culture directly improves teacher performance. The present finding refines this assumption by showing that culture may require a managerial-digital mechanism before it becomes visible in performance outcomes. In other words, organizational culture may create expectations about discipline, responsibility, and collaboration, but MIS helps transform those expectations into recorded tasks, timely reporting, accessible information, and accountable work completion. This finding advances prior research by shifting the explanation from “culture affects performance” to “culture affects performance when it is operationalized through digital management routines.”

The second mediation path was not significant. Work motivation did not significantly affect teacher performance through MIS (indirect effect = 0.068, p = 0.224), even though motivation significantly affected both MIS and teacher performance directly. This result implies that motivated teachers may perform better because they possess internal commitment, achievement orientation, and responsibility, not necessarily because MIS carries that motivation into performance outcomes. Motivation may encourage teachers to use MIS, but the system is not the main channel explaining why motivated teachers perform better. This interpretation aligns with Herzberg's theory, in

which motivator factors such as achievement, recognition, responsibility, and advancement can directly influence work outcomes. The result also warns that digital systems cannot replace intrinsic and professional motivation. Instead, MIS should be positioned as an enabling tool that complements but does not substitute for teachers' motivational resources.

Table 5. Indirect-effect results

Hypothesis	Indirect path	Indirect effect	p-value	Decision
H6	Organizational culture -> MIS -> teacher performance	.203	.010	Supported
H7	Work motivation -> MIS -> teacher performance	.068	.224	Not supported

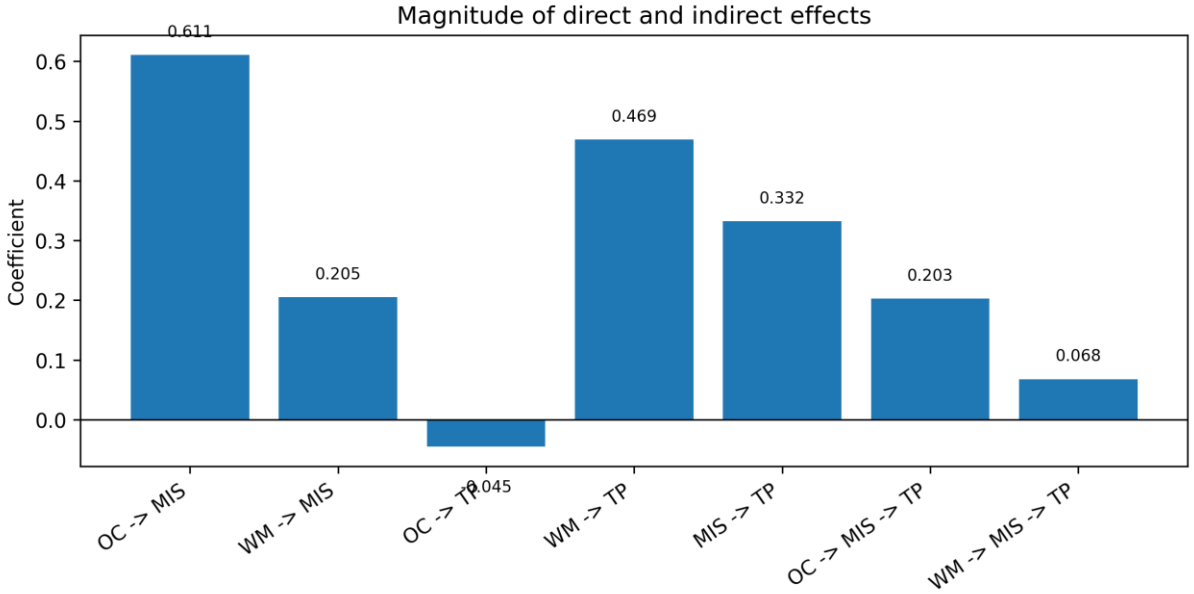

Figure 2. Direct and indirect effect magnitudes

Explained variance, model fit, and managerial interpretation

The adjusted R-square results showed that organizational culture and work motivation explained 53.3% of the variance in teacher performance when considered as direct predictors. When MIS was included as an intervening variable, the explanatory value increased to 62.2%, with an Average Adjusted R-square of 57.8%. This increase suggests that the model becomes more informative when digital management is considered as part of the performance mechanism. In school-management terms, teacher performance cannot be explained adequately by cultural and motivational factors alone. It is also shaped by whether the school provides a reliable system for recording, processing, integrating, and communicating data. The goodness-of-fit results also supported model adequacy: Average Path Coefficient and Average Adjusted R-square met significance criteria, AVIF and AFVIF were within acceptable limits, Tenenhaus GoF reached .566, and the Statistical Suppression Ratio was 1.000.

The managerial implication is that school leaders should avoid treating MIS as a purely technical platform. MIS is a socio-technical system: it works well when embedded in organizational norms, leadership support, professional routines, and user capacity.

The strong effect of organizational culture on MIS indicates that shared values and basic assumptions influence whether teachers use digital systems consistently. The significant effect of MIS on performance indicates that system use contributes to administrative quality, task completion, and performance accountability. However, the absence of a significant direct culture-performance path suggests that culture must be operationalized through concrete mechanisms. Schools should therefore integrate culture-building programs with digital literacy training, standard operating procedures, peer mentoring, and data-based monitoring. Such integration can help ensure that organizational values are not only declared but also translated into measurable professional performance (Cahyono et al., 2026; Konopik et al., 2022; Nwankpa & Datta, 2017; Sacavém et al., 2025; Saghafian et al., 2021).

Table 6. Explained variance and model-fit summary

Index	Value	Interpretation
Adjusted R-square: OC and WM -> teacher performance	.533	Explains 53.3% of performance variance
Adjusted R-square with MIS mediation	.622	Explains 62.2% of performance variance
Average Adjusted R-square (AARS)	.578	Moderate-to-strong explanatory value
Average Path Coefficient (APC)	p < .001	Fit
Average Adjusted R-square (AARS)	p < .001	Fit
Average Block VIF (AVIF)	4.374	Acceptable (<= 5.0)
Average Full Collinearity VIF (AFVIF)	3.728	Acceptable (<= 5.0)
Tenenhaus Goodness of Fit (TGoF)	.566	Large fit (>= .36)
Statistical Suppression Ratio (SSR)	1.000	Fit (>= .70)

This study has several limitations. First, the study was conducted in a single public senior high school; therefore, the findings cannot be generalized to all schools without further testing in different institutional contexts. Second, the sample size was relatively small, although it met the minimum PLS-SEM guideline used in this study. Third, all variables were measured using self-report questionnaires, which may contain social desirability bias and common-method bias. Fourth, the cross-sectional design limits the ability to infer causal relationships over time. Although the model uses causal-predictive terminology, the findings should be interpreted as predictive associations among latent variables rather than definitive causal effects. Fifth, teacher performance was measured based on respondents' perceptions rather than objective performance records. Future studies should combine questionnaire data with school documents, MIS usage logs, classroom observations, and interviews to provide stronger triangulation.

CONCLUSION

This study concludes that teacher performance at SMA Negeri 1 Bululawang was associated with and predicted by motivational and digital-management factors, while organizational culture was linked to teacher performance when mediated when mediated by MIS. Organizational culture significantly predicted MIS use, but it did not directly predict teacher performance. Work motivation significantly predicted both MIS

use and teacher performance, with the strongest direct effect on performance. MIS significantly predicted teacher performance and served as a significant mediator between organizational culture and teacher performance. However, MIS did not significantly mediate the effect of work motivation on performance.

These findings should be interpreted cautiously because the study used a cross-sectional self-report survey in one school context. Therefore, the results indicate predictive associations rather than definitive causal effects. The strongest implication is that school culture becomes performance-relevant when it is converted into consistent MIS-supported routines, such as data entry discipline, digital reporting, administrative monitoring, and evidence-based decision-making. Meanwhile, teacher motivation remains a direct professional resource that should be strengthened through recognition, responsibility, career development, meaningful tasks, and supportive working conditions. Overall, MIS should be understood not merely as an administrative tool but as a strategic mechanism that connects organizational values with teacher-performance accountability.

RECOMENDATION

Future school-management programs should integrate cultural strengthening with digital-system optimization. The most important practical recommendation from this study is that school leaders should not stop at building shared values, rules, and commitments. These cultural elements need to be converted into clear MIS-supported routines, including standardized digital reporting, regular data updating, transparent performance documentation, and constructive feedback based on system data. School leaders should provide regular digital-literacy training, develop clear MIS-based administrative procedures, monitor system use constructively, and create peer-support mechanisms for teachers who still face technological barriers. Performance management should combine motivational strategies with data-based evaluation so that teachers experience MIS as a support system rather than as an additional bureaucratic burden. Future researchers are encouraged to test this model in multiple schools, compare public and private institutions, include leadership and digital competence as additional variables, and use mixed methods to capture how teachers experience MIS in everyday professional practice. Future studies should also include objective data such as school performance records, digital-system usage logs, and supervisor evaluations to reduce dependence on self-report data. A longitudinal design would be useful to examine whether changes in organizational culture, motivation, and MIS use are followed by changes in teacher performance over time. A larger sample would also strengthen generalizability and allow multi-group comparison across teacher age, experience, and educational background.

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AUTHOR CONTRIBUTION

DMA contributed to conceptualization, methodology, investigation, data curation, formal analysis, writing - original draft, writing - review and editing, and final approval of the manuscript. DS contributed to conceptualization, methodology, investigation, data curation, formal analysis, writing - original draft, writing - review and editing, and final approval of the manuscript. KS contributed to conceptualization, methodology,

investigation, data curation, formal analysis, writing - original draft, writing - review and editing, and final approval of the manuscript.

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