The Effect of School Culture and Non-Physical Work Environment on Teacher Performance Through Motivation

Study at SD An Namiroh Pekanbaru

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Abstract

Introduction/Main Objectives: This study examines how school culture and the non-physical work environment influence teacher performance, with motivation serving as an intervening variable. The objective is to understand the mechanism through which these organizational factors shape teacher outcomes.

Background Problems: The study addresses the question of how school culture, non-physical work environment, and motivation contribute to variations in teacher performance.

Research Methods: A quantitative approach was employed involving 49 teachers from SD An Namiroh 3 Pekanbaru. Path analysis using SmartPLS was conducted to evaluate the relationships among variables, supported by tests of significance and model explanatory power.

Findings/Results: The results show that school culture significantly affects motivation (t = 2.397; p = 0.017), as does the non-physical work environment (t = 2.109; p = 0.035). School culture does not directly influence performance (t = 1.852; p > 0.05), while the non-physical work environment demonstrates the strongest direct effect (t = 5.605; p < 0.001). Motivation does not directly impact performance but mediates the effect of the non-physical work environment. The model explains 72.3% of the variance in performance (R² = 0.723).

Conclusion: The study concludes that strengthening the non-physical work environment and enhancing motivation are critical for improving teacher performance.

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Keywords: school culture, non-physical work environment, motivation, teacher performance.

Introduction

Education is a strategic sector in national development, particularly in realizing Indonesia's "Golden Vision 2045," which targets the nation to become advanced with superior human resources. Efforts to improve education quality do not solely depend on the availability of infrastructure or competency-based curricula but are substantially determined by the quality of teachers as the primary actors in the learning process. Teachers are not only responsible for delivering content but also serve as facilitators, motivators, and mentors who shape students' character, attitudes, and thinking patterns. Therefore, teacher performance becomes a central aspect in ensuring the quality of learning and the success of educational processes in schools.

Teacher performance is influenced by various internal and external factors. According to Mangkunegara (2016), performance is the result of work in terms of both quality and quantity achieved by an employee in carrying out tasks according to assigned responsibilities. Two main factors determine performance: ability and motivation. Ability includes knowledge, skills, and professional competence, while motivation refers to the drive that affects one's work enthusiasm. In the context of education, a highly competent teacher does not necessarily demonstrate optimal performance if they lack strong motivation or are not supported by a conducive work environment.

Teacher motivation can be shaped by intrinsic factors such as vocation, professional commitment, and personal satisfaction, as well as extrinsic factors such as the work environment, leadership support, school culture, and organizational policies. School culture is one of the external factors that determine teacher behavior, values, and work orientation. It reflects the system of values, norms, habits, and beliefs upheld by the school community. Schools with a strong culture generally have a clear identity, consistent leadership, positive social interactions, and high expectations for achievement. Deal & Peterson (2009) state that a positive school culture can create a productive learning environment, increase teacher engagement, and strengthen the sense of ownership toward the school. However, school culture does not automatically improve teacher performance if the values adopted are merely normative or symbolic without implementation in operational teaching practices.

In addition to school culture, the non-physical work environment is an important factor influencing teacher comfort and productivity. The non-physical work environment includes psychological and social aspects, such as relationships among staff, communication with leadership, emotional support, a sense of security, and organizational climate. According to Sedarmayanti (2017), a conducive non-physical work environment can increase job satisfaction, create a harmonious atmosphere, and influence individual performance. In schools, teachers require a work environment that provides professional support, open communication, recognition of performance, and healthy interpersonal relationships. An unconducive work environment can reduce motivation, increase stress, and ultimately lower performance.

SD An Namiroh 3 Pekanbaru is a private Islamic school with a relatively large number of teachers and students. The school is known for its strong religious culture, high discipline, and structured learning programs. However, initial observations indicate variation in teacher performance. Some teachers demonstrate high pedagogical competence and creativity in teaching, while others still rely on conventional methods and show low engagement in instructional development. Additionally, teacher motivation levels are uneven, with some showing high work enthusiasm while others appear to work merely to fulfill administrative obligations.

This phenomenon raises the question of whether a strong school culture truly enhances teacher motivation and performance, or whether other factors, such as the non-physical work

environment, play a more decisive role. Previous studies have shown mixed results. Some indicate that organizational culture significantly influences motivation and performance (Susanto, 2017; Wijaya, 2020), while others report insignificant effects or only indirect roles (Dewi & Budiono, 2016). Likewise, the non-physical work environment is often found to be a strong predictor of teacher motivation and performance, especially in schools with high workloads.

Moreover, the role of motivation as a mediating variable is an important focus in educational management research. Motivation often serves as a bridge connecting external factors to teacher work outcomes. However, not all external variables significantly affect motivation, and not all changes in motivation necessarily improve performance if organizational support structures are unbalanced. Some studies find that motivation does not significantly impact performance, particularly in educational organizations with high administrative burdens and rigid performance assessment standards.

Based on these empirical and theoretical conditions, this study was conducted to comprehensively analyze the effect of school culture and the non-physical work environment on teacher performance at SD An Namiroh 3 Pekanbaru, both directly and through motivation as a mediating variable. Specifically, the study aims to: (1) examine whether school culture affects teacher motivation and performance; (2) examine whether the non-physical work environment affects teacher motivation and performance; and (3) investigate whether motivation mediates the relationship between school culture, the non-physical work environment, and teacher performance.

This study is expected to provide theoretical contributions to the development of organizational behavior and educational management theories, as well as practical contributions for schools in formulating strategies to improve teacher performance. The findings may serve as a foundation for schools to strengthen organizational culture, create a supportive work environment, and develop motivation enhancement programs integrated with performance assessment systems.

Research Methods

This study employs a quantitative approach using path analysis based on Structural Equation Modeling (SEM) with the latest version of SmartPLS. A quantitative approach was chosen because it allows for the objective measurement of causal relationships between variables through statistical testing. The SEM-PLS model is considered appropriate due to its ability to process small sample sizes, complex models, and latent variables measured through reflective indicators.

The population of this study consists of all teachers at SD An Namiroh 3 Pekanbaru, totaling 49 individuals. Given the relatively small and homogeneous population, this study applied a census sampling technique, in which all members of the population were included as research samples. This technique ensures that the data obtained accurately represent the actual conditions without sample selection bias.

The population was selected based on the consideration that all teachers share the same work environment and are exposed to the same school culture, yet exhibit variations in motivation and performance responses. This makes the population relevant for investigating the influence of school culture and the non-physical work environment.

Data Analysis Techniques

Data analysis was conducted in two main stages, namely the outer model and the inner model, following the SEM-PLS procedure.

Outer Model Analysis

Outer model analysis is used to ensure that the research instruments are valid and reliable. The tests conducted include:

Convergent Validity Test Assessed through outer loading values, which must be greater than 0.60. All indicators met this criterion.

Discriminant Validity Test Conducted using the Fornell-Larcker method, comparing the square root of the AVE with the correlations among constructs.

Reliability Test Evaluated using Composite Reliability and Cronbach's Alpha with a minimum threshold of 0.70.

Inner Model Analysis

This stage is used to test the relationships between latent variables. The analysis includes:

R-Square, to assess the contribution of exogenous variables to endogenous variables.

Path Coefficients, to examine the direct effects between variables.

T-Statistics and P-Values, using the bootstrapping method to determine the significance of the relationships.

Mediation Test, to examine the role of motivation as a mediator using indirect effect values.

The SEM-PLS method was chosen because it is more robust to non-normal data distributions, suitable for small sample sizes, and allows for flexible testing of complex models.

Result

3.1 Respondent Profile

The majority of respondents were female (69.4%), aged 20–30 years (46.96%), and had a work experience of 0–3 years (44.88%). This composition indicates that most teachers are at the early stages of their careers and are developing toward professional competence.

3.2 Outer Model Test Results

The results of the convergent validity analysis showed that all indicators for the variables of School Culture, Non-Physical Work Environment, Motivation, and Teacher Performance had outer loading values above 0.60. The highest loadings were observed in several indicators of the Non-Physical Work Environment and Teacher Performance, ranging from 0.80 to 0.90, while other indicators were between 0.65 and 0.79. Therefore, all indicators meet the criteria for convergent validity according to Hair et al. (2014), which requires a minimum outer loading value of 0.60. These results confirm that each indicator adequately represents its construct, and all questionnaire items are deemed valid and suitable for use in the structural model (inner model) analysis stage.

After all indicators were confirmed valid, a reliability test was conducted to assess the internal consistency of each variable using Composite Reliability (CR), Cronbach's Alpha, and Average Variance Extracted (AVE). A construct is considered reliable if CR and Alpha > 0.70 and AVE > 0.50. The results are presented in Table 2.

Table 1. Construct Reliability and AVE Values

Variabel	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Motivation (Z)	0.924	0.932	0.941	0.730
School Culture (X1)	0.946	0.948	0.953	0.627
Non-Physical Work Environment (X2)	0.929	0.933	0.943	0.702
Teacher Performance (Y)	0.969	0.970	0.972	0.717

Source: processed by the researcher (2025)

Discriminant validity was also tested using the Fornell-Larcker criterion to ensure that each variable is conceptually distinct from the others. The square root of the AVE must be higher than the correlations between constructs. The results are presented in Table 3.

Table 2 Multiple Linear Regression Analysis Results

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	8.402	6.207	–	1.354	0.186
Curriculum Management (X_1)	0.336	0.099	0.390	3.401	0.002
Classroom Management (X_2)	0.240	0.211	0.181	1.138	0.264
Learning Media (X_3)	0.380	0.138	0.420	2.742	0.010

Source: processed by the researcher (2025)

Based on Table 2, curriculum management and learning media significantly influence learning quality, while classroom management does not. Specifically:

Table 3. Validitas Diskriminan (Fornell-Larcker)

Variabel	Z	X1	X2	Y
Z	0.854			
X1	0.821	0.792		
X2	0.901	0.802	0.838	
Y	0.826	0.792	0.756	0.847

Source: processed by the researcher (2025)

3.3 Inner Model Test Results (R-Square)

To assess the ability of the exogenous variables in explaining the endogenous variables, an R-Square test was conducted. The higher the R-Square value, the better the model's quality in predicting the dependent variables. The results are presented in Table 4.

Table 4 Coefficient Regression

Variable Endogen	R-Square	R-Square Adjusted
Motivation (Z)	0.840	0.833
Teacher Performance (Y)	0.723	0.704

Source: processed by the researcher (2025)

An R-Square value of 0.840 indicates that school culture and the non-physical work environment explain 84% of the variation in motivation. Meanwhile, teacher performance is explained by 72.3% through school culture, the non-physical work environment, and motivation. According to the classification by Hair et al. (2014), these values fall into the strong category.

3.4 Direct Effect Test Results

After the outer model was confirmed to be valid and reliable, the direct effects were tested using path coefficients. This test determines the direction and strength of the influence of each variable and its significance is assessed using T-Statistics and P-Values. The results are presented in Table 5.

Table 5 Path Analysis

Relationships Between Variables	Original Sample	T Statistics	P Values	Keterangan
X1 → Z	0.582	2.397	0.017	Significant
X2 → Z	0.277	2.109	0.035	Significant
X1 → Y	0.359	1.852	0.065	Not Significant
X2 → Y	0.680	5.605	0.000	Significant
Z → Y	-0.056	0.200	0.842	Not Significant

Source: processed by the researcher (2025)

The results indicate that the non-physical work environment has the strongest direct effect on teacher performance (T = 5.605). Meanwhile, school culture does not have a significant effect on performance. Motivation also does not serve as a direct predictor of teacher performance.

3.5 Mediation Test Results (Indirect Effect)

To determine whether motivation acts as a mediator in the relationship between school culture and the non-physical work environment on teacher performance, an indirect effect test was conducted using bootstrapping. The results of the test are presented in Table 6.

Table 6 Mediation

Mediating Relationships	Original Sample	T Statistics	P Values	Description
X1 → Z → Y	0.161	1.745	0.082	Not Significant
X2 → Z → Y	0.396	2.192	0.029	Significant

Source: processed by the researcher (2025)

The results indicate that motivation mediates the relationship between the non-physical work environment (X2) and teacher performance (Y), but does not mediate the relationship between school culture (X1) and teacher performance. This means that the effect of the non-physical work environment on performance increases when teacher motivation is positively developed.

Discussion

4.1 The Effect of School Culture on Teacher Performance

The results indicate that school culture does not have a significant effect on teacher performance. The values adopted by the school have not yet been integrated with formal performance indicators, and therefore do not produce a direct impact. The internalization of culture is also suspected to be uneven, particularly among newly joined teachers. These findings support previous research suggesting that organizational culture often influences performance indirectly through motivation, commitment, or employee perception, rather than directly.

4.2 The Effect of Non-Physical Work Environment on Teacher Performance

The non-physical work environment has been proven to be the strongest factor affecting teacher performance. Positive interpersonal relationships, leadership support, effective communication, and emotional comfort create a psychological environment that enables

teachers to work optimally. These findings are consistent with Sedarmayanti (2017), who explains that non-physical work environment conditions strongly determine productivity.

4.3 The Effect of Motivation on Teacher Performance

Motivation does not have a significant effect on teacher performance. This indicates that even though teachers possess internal drive, external factors such as administrative workload and performance evaluation systems have a more dominant influence on work performance. Motivation alone is not strong enough to improve productivity without adequate support from the work environment.

4.4 The Mediating Role of Motivation

Motivation was found to mediate only the effect of the non-physical work environment on performance. A comfortable and supportive social environment enhances motivation, which in turn improves performance. Conversely, motivation does not mediate the effect of school culture on performance, as the school culture has not yet been strongly internalized to drive productive work behaviors.

Conclusion

This study concludes that:

School culture has a significant effect on motivation but does not directly affect teacher performance.

The non-physical work environment significantly affects motivation and is the strongest factor influencing teacher performance.

Motivation does not have a direct effect on teacher performance.

Motivation only mediates the relationship between the non-physical work environment and teacher performance, but it does not mediate the relationship between school culture and performance.

Acknowledgement

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