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THE ROLE OF SCHOOL PRINCIPALS IN TEACHER WORK ACHIEVEMENT THROUGH THE PHYSICAL WORK ENVIRONMENT AND DISCIPLINE (EMPIRICAL STUDY OF CILEGON CITY ELEMENTARY SCHOOL TEACHERS)

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Abstrak

Work performance is a result obtained by an employee in carrying out the tasks assigned to him. The study aims to optimize the mediating role of the physical work environment and discipline between the school principal's role and teacher work performance. The type of research method is quantitative, using a survey method to collect respondent data via Google Form from elementary school teachers and analyze it using statistical structural equation modeling (SEM) tools to test direct and indirect influences on variables. According to the study's findings, 1) the principal's position affects the physical work environment, and 2) the principal's function has no impact on discipline. 3) The physical workspace has an impact on how well teachers execute their duties. 4) The effectiveness of teachers' work is unaffected by discipline. In conclusion, work performance is influenced by the physical environment, which is supported by the role of the school principal in enforcing discipline.

Kata Kunci: role of the principal, mediation, physical work environment, discipline, and teacher work performance.

INTRODUCTION

Every organization or company always strives to ensure that employees involved in organizational, or company activities can provide the highest possible work performance to realize the goals that have been set, so maintaining sustainable and harmonious relationships with employees is very important (Rokhimah et al., 2024). So, employees need skills that support the implementation of work or tasks well, in accordance with work procedures and can carry out work or tasks in

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accordance with expectations and can complete work or tasks in accordance with the influence of skills, work environment and training.

Teacher skills can be assessed from the teacher's teaching style which must attract students' interest, thereby creating enjoyable learning which ultimately makes it easy for students to understand the lessons taught by the teacher (Aulia & Susanti, 2022). There are different achievement motivations, but what differentiates students with greater or lesser achievement motivation is the desire within them to achieve something better. With varied teaching styles, students will be enthusiastic about learning, so that student learning outcomes will be satisfactory. Rahmi et al., (2024) states that apart from job satisfaction, there is also an organizational culture that can support employee work performance, and employee responsibilities given by leaders or managers must be taken seriously so that organizational goals can be achieved in accordance with the plans that have been prepared. Work performance needs to be developed to achieve employee performance such as training. This is in line with the research results (Ikaputri et al., 2023) Job performance has a positive and significant influence on job training. Promotions are affected by an employee's job performance, but they also affect employees whose poor performance might negatively affect their work performance (Mas'udah & Nastiti, 2024).

Previous researchers found that work performance was largely influenced by work ethic (Damare et al., 2023), work skills, promotion (Mas'udah & Nastiti, 2024), and work motivation (Damare et al., 2023). Researchers assume that an employee's job performance is the outcome of his or her completion of the tasks given to them. A person's work performance will be of good value if he or she has high work motivation, and has positive abilities and experience, and achievement is the action of carrying out a task that can be measured in general performance measures including physical work environment and discipline. This assumption refers to the opinion Pariakan et al., (2023) that obstacles to work performance occur because employees are less willing to work together for the best decisions, employees do not use work operational standards in carrying out their work. Therefore, this research aims to optimize the mediating role (physical work environment and discipline) between the role of the school principal and teacher work performance.

METHOD

This type of research is quantitative with a survey method among elementary school teachers in Cilegon City. The data collection technique was distributing questionnaires randomly, and 150 respondents were collected. This research includes the mediating variables of discipline and physical work environment as predictors that can (not) link the independent variables (work environment and teamwork) to employee competence. Hair et al., (2011) PLS-SEM estimates the loading of indicator variables for exogenous constructs, then the data analysis method uses a quantitative analysis approach to adopt *Partial Least Square* (PLS) as a research approach (Hair et al., 2011; Wold et al., 2001; Zeng et al., 2021). PLS is best suited for assessing the link and importance between variables rather than adopting theoretical explanations. Its benefit comes from the nature of the data distribution, which does not need to be typically distributed or have a large sample size. The process

of data analysis involves the application of inferential statistical methods.

Results and Discussion

Outer Model Testing

Every manifest's relationship to the latent variable is defined by the analysis's outer model. Tests performed on the external model include the following:

1. *Convergent Validity.* Based on all indications that provide a loading factor figure > 0.7 and the latent variable's manifest loading factor value, the convergent validity value is determined.

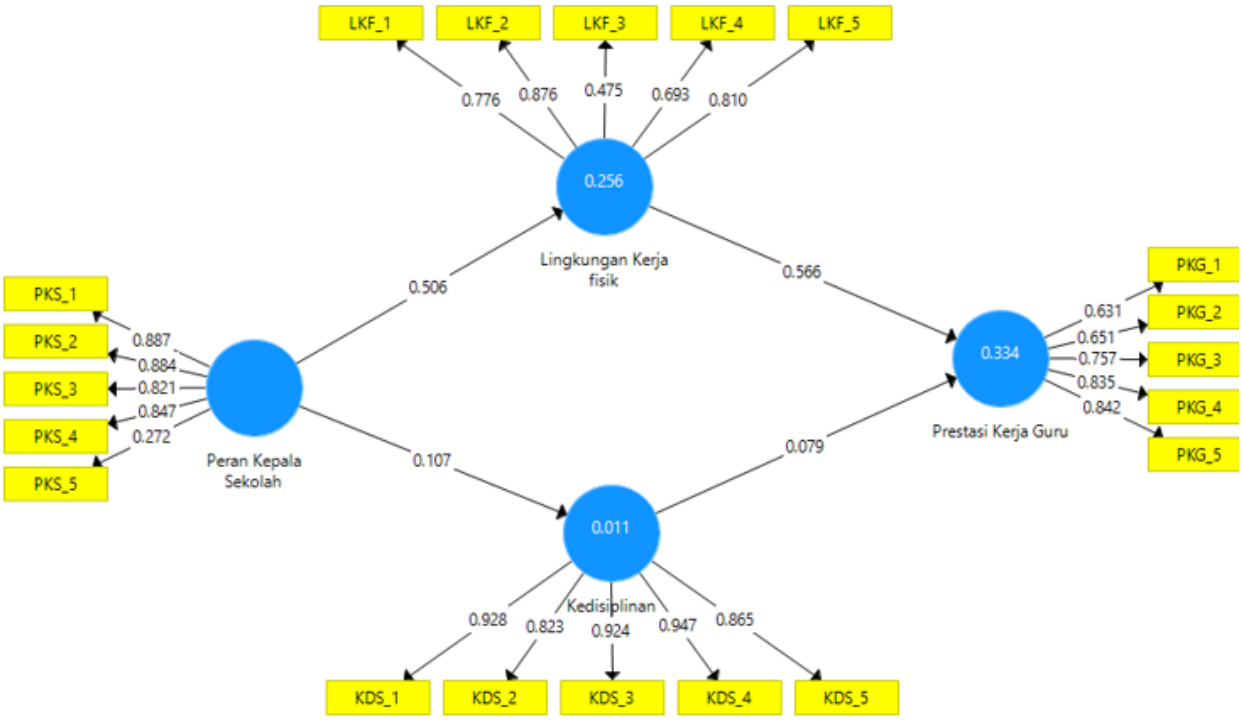

Figure 1 ***Convergent Validity***

2. *Discriminant Validity.* Mark This is a useful component for cross-loading. In order to create an acceptable discriminant, one must compare the loading values of the constructions and ensure that the goal is greater than the loading value of the other construct. The findings of the discriminant validity test will be discussed in this section. Cross-loading values are used for the discriminant validity test. If a reflective manifest has the highest manifest cross-loading value when compared to the other variables, it is said to fulfill discriminant validity. The cross-loading values for each manifest are as follows:

Discriminant* Table *Validity

	discipline	Physical work environment	The role of the school principal	Teacher work performance
Discipline	0.898			
Physical work environment	0.083	0.739		
The role of the school principal	0.107	0.506	0.779	
Teacher work performance	0.126	0.572	0.500	0.748

3. *Average Variance Extracted* (AVE). A high discriminant validity value is defined as having an AVE value greater than 0.5. The construct's validity is demonstrated by the AVE value >0.5, which suggests that it is appropriate for model usage.

Table *Average Variance Extracted* (AVE)

	Average variance extracted (AVE)
Discipline	0.807
Physical work environment	0.546
The role of the school principal	0.606
Teacher work performance	0.560

4. *Composite Reliability.* Data with composite reliability greater than 0.7 have high dependability. It is evident from the data output presentation that the composite reliability value is more than 0.7 for every study variable. All variables have a high degree of internal consistency and reliability, as shown by these results, which also show that each variable has fulfilled composite reliability.

Composite Tables Reliability

Variables	*Composite Reliability*
Discipline	0.954
Physical work environment	0.853
The role of the school principal	0.875
Teacher work performance	0.863

5. The entire Outer Model Testing results

The questionnaire items have been found to meet the standards for both the convergent validity test (AVE above 0.5 and factor loading above 0.5), which indicates that all items are deemed valid, and the composite reliability test (greater than 0.7), which indicates that all items are deemed reliable, according to the table.

Outer Model Testing results

Variable	Indicators	Factor loading	AVE	Composite Reability
The Role of the Principal	PKS_1	0.887	0.606	0.875
	PKS_2	0.884		
	PKS_3	0.821		
	PKS_4	0.847		
Physical work environment	LKF_1	0.776	0.546	0.853
	LKF_2	0.876		
	LKF_5	0.810		
Discipline	KDS_1	0.928	0.807	0.954
	KDS_2	0.823		
	KDS_3	0.924		
	KDS_4	0.947		
	KDS_4	0.865		
Teacher work performance	PKG_3	0.757	0.560	0.863
	PKG_4	0.835		
	PKG_5	0.842		

Inner Model Testing

A structural model analysis, also known as an inner model, seeks to verify the study hypothesis. The inner model is tested in four steps.

1. Collinearity

uses the Variance Inflation Factor (VIF) evaluation to determine the strength of the link between the variables. A collinearity issue exists if the VIF value is larger than 5.00, and it does not exist if the VIF value is less than 5.00. Data processing findings show that there is no possibility of a significant link between variables or collinearity. The coefficient of determination (R square) with hypothesis testing is the section of the structural model that has to be examined. The purpose of a colinearity test is to demonstrate the strength of the link between latent variables or constructs. Given that a significant correlation affects the statistical significance estimation, it indicates methodological issues with the model. We refer to this issue as collinearity. The variance inflation factor (VIF) value is the value that is used to examine it. In other words, if the VIF value is less than 5.00, there is no collinearity issue; on the other hand, if the VIF value is larger than 5.00, there is.

Table Collinearity

	Discipline	Physical work environment	Work performance
Discipline			1,007
Physical work environment			1,007
The role of the school principal	1,000	1,000	

2. Testing of the structural model (*Inner Model)* hypothesis testing

R-Square Test

The exogenous variable's degree of determination in relation to its endogenous variable is shown by the R^2 value. Higher R^2 values indicate a higher level of determination. As per Hair's findings in Latan & Ghozali (2012), a model is classified as strong when its R-square value is 0.75, moderate when it is 0.50, and weak when it is 0.25.

Table R-square

	R Square	R Square Adjusted
Discipline	0.011	-0.008
Physical work environment	0.256	0.242
Teacher work performance	0.334	0.307

Goodness of Fit (GoF) Test

The GoF test results are obtained by multiplying the root mean value of R-Square by the root mean value of AVE. The GoF value can be calculated using the following formula:

$$GoF = \sqrt{AVE\ X\ R^2}$$
$$GoF = \sqrt{0{,}629\ X\ 0{,}200}$$
$$GoF = \sqrt{0{,}126}$$
$$GoF = 0{,}354$$

The computed results for the model's GoF value of 0.354 suggest that it possesses a notably high GoF. An increased GoF value signifies that the model is more appropriate for characterizing the study sample.

Q-Square

In structural model testing, the Q-square value is computed using the Q2 (predictive relevance) value; a higher Q-square indicates a more favorable model-to-data fit. The Q-square value calculation yielded the following results:

$QSquare = 1 - \{(1 - 0.011)\ X\ (1 - 0{,}256)\}$
$QSquare = 1 - \{(0{,}989)\ X\ (0{,}744)\}$
$QSquare = 1 - \{0{,}735\}$
$QSquare = 0.264$

The Q^2 value, which is 0.264, is the result of the Q^2 calculation. According to Ghozali (2014), the Q^2 value can be utilized to assess the degree of accuracy with which the model and estimated parameters generate the observed values. An outstanding model is one whose Q^2 value is greater than zero and whose predictions are considered significant.

F-Square

The f-square model value is utilized to determine the magnitude of the impact that the endogenous latent variable has on the exogenous latent variable. It is believed that the latent variable predictor exerts a substantial influence when the f square value falls within the range of 0.35 to 1.00. The value exhibits a moderate impact when ranging from 0.02 to 0.15, while a negligible influence is observed when it falls within the range of 0.15 to 0.35 (Ghozali, 2014).

Table Effect Size

	discipline	Work environment	Work performance
Discipline			0.009
Physical work environment			0.477
The role	0.012	0.345	

of the school principal			

The effect size can be interpreted as follows:

a. The work environment and the job of the school principle are positively correlated, with a large effect size of 0.345.
b. The impact of the principal's involvement in the school and discipline is very minimal, with an effect size value of 0.012.
c. Work performance and the physical work environment are correlated with a substantial effect size of 0.477.
d. With an impact size value of 0.009, the association between job performance and discipline is quite weak.

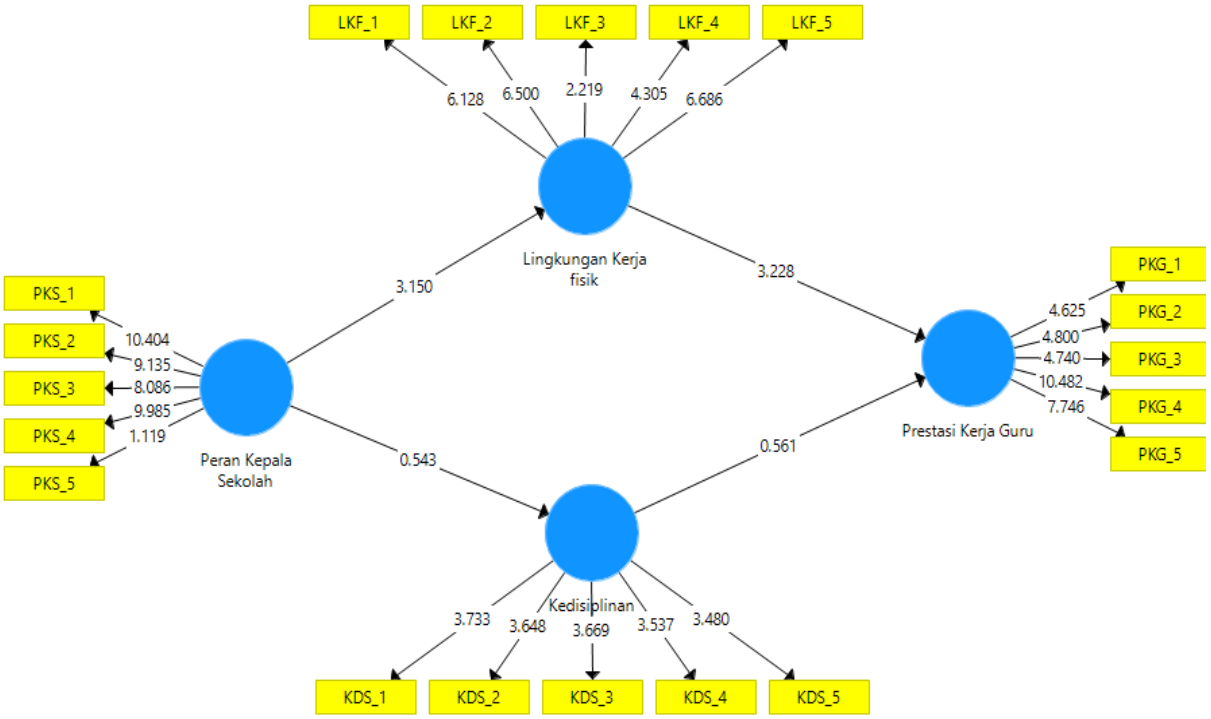

Image of *Bootstrapping Inner Model*

Evaluate *Path Coefficients*

To illustrate the extent to which the dependent variable is impacted or influenced by the independent variable; the path coefficient evaluation is applied. The significance of the path coefficient value of 3,150 in illustrating the impact of the principal's function on the tangible work environment is evident from the image. The influence of the principal's position on discipline is 0.543. The physical work environment influences the productivity of educators by 3,228 percent. The influence of discipline on the academic productivity of teachers is 0.561.

As the explanation of the results demonstrates, each variable in this model possesses path coefficients that are in the positive. This demonstrates

Bootstrapping Results

Simulation is used to evaluate each connection in SmartPLS using a sample and the bootstrapping method. By minimizing the impact of the non-normality of the study data, this test aims to address this concern. The subsequent results are the outcomes of the tests conducted utilizing SmartPLS software and the bootstrapping technique:

that the influence of an independent variable on the dependent variable grows in proportion to the value of its path coefficient.

Hypothesis testing

Utilizing P-values, the significance value of accepting a hypothesis is computed. It is possible to adopt the study hypothesis when the P-value is below 0.05.

The P-value is calculated in SmartPLS via a bootstrapping procedure on a valid, dependable model that satisfies the model's feasibility. The following table presents the outcomes of the bootstrapping process:

Path Coefficients **Table**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
The role of the principal in the physical work environment	0.506	0.525	0.161	3,150	0.002
The role of the school principal in discipline	0.107	0.100	0.197	0.543	0.587
Physical work environment on teacher work performance	0.566	0.581	0.175	3,228	0.001
Discipline on teacher work performance	0.079	0.070	0.141	0.561	0.575

Source: Data processed by SmartPLS

H1: Influence of the principal's role on the physical work environment

The school principal's function in the physical work environment is 3,150, with a P-value value of 0.002 < 0.05, based on path coefficient data. H1 has been approved because it has been determined that the physical work environment affects the school principal's position.

H2: The influence of the principal's role on discipline

With a P-value of 0.587 greater than 0.05, the path coefficient results indicate that the school principal influences discipline by 0.543. H2 is rejected on the grounds that the principal's responsibility regarding school discipline remains unaltered.

H3: The influence of the physical work environment on teacher work performance

Based on the path coefficient's results, with a P-value of 0.001 < 0.05, the physical work environment has an impact on teacher work performance of 3,228. Since it has been determined that the physical work environment affects teachers' productivity, H3 is approved.

H4: The influence of discipline on teacher work performance

The path coefficient is obtained from the results. The discipline factor on the work performance of teachers is 0.561, and the P-value is 0.575 > 0.05. Since discipline has no bearing on how well teachers perform at work, hypothesis H4 is rejected.

Mediation Test

In the mediation examination, the mediating variables are job performance and discipline. Full mediation (fully mediating) occurs if the total effects indicate that there is no significant relationship between the independent and dependent variables; partial or pseudo mediation (partially mediating) occurs if the relationship is found to be significant. This implies that the independent variable can directly influence the dependent variable without involving or passing through the

variable mediator (intervening) (Hartono and Abdillah, 2014). P values of 0.061 and 0.773, both of which are greater than 0.05, indicate that the mediation variable is suitable for use and that the independent variable cannot have a direct effect on the dependent variable. The results of the mediation test regarding the physical work environment and discipline support these conclusions.

Total effect table

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (| O/STDEV |)	P Values
The role of the principal in teacher work performance through the physical work environment.	0.287	0.326	0.153	1,875	0.061
The role of the principal in teacher work performance through discipline	0.008	0.014	0.029	0.289	0.773

The ability of an educator to engross pupils and establish a stimulating educational atmosphere, which ultimately aids pupils in comprehending the material covered, can be assessed through their instructional approach. While students may differ in their motivations for striving for success, a common thread among them is the aspiration to enhance their performance (Aulia & Susanti, 2022). Obstacles to work performance are created by employees who are unwilling to collaborate to make the best decisions and who do not adhere to work operational standards when performing their duties. Therefore, the primary objective of this research endeavor is to optimize the influence of the physical work environment and discipline as mediators in the relationship between the school principal role and teacher work performance.

CONCLUSION

An employee's work performance is the outcome of completing the tasks that have been delegated to him. seeks to maximize the role that discipline, and the physical work environment play as mediators between the principal's role and the performance of the teachers. The study's conclusions are as follows: 1) The principal's role affects the physical work environment; and 2) the principal's role has no effect on discipline. 3) The physical workspace has an impact on how well teachers perform at work. 4) Discipline has no bearing on how well teachers perform at work. In summary, the physical environment has an impact on work performance, and the school principal's role in enforcing discipline supports this. The commitment variable can be included by future researchers as an independent variable that directly affects how well teachers perform at work.

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