

# Teacher performance analysis using Smart PLS

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**Abstract**—This study aims to conduct a study of improving teacher performance through Organizational Citizenship Behavior, Communication Organizational Culture and Leadership Style at PKLK Growing Hope Bandar Lampung, Lampung. The study was conducted on 4 variables, namely Organizational Citizenship Behavior, Communication Organizational Culture and Leadership Style to improve teacher performance at PKLK Growing Hope Bandar Lampung, Lampung. Model analysis using Structural Equation Modeling, as if the analytical tool used is Partial Least Square (PLS) with Smart PLS 3.0 software starting from the measurement model (outer model), model structure (inner model), and hypothesis testing. The results of the study indicate that there is a significant influence of Organizational Citizenship Behavior on Teacher Performance, proving that there is a significant influence of Organizational Culture on Teacher Performance, there is a significant influence of Communication on Teacher Performance. Simultaneously hypothesis testing also proves to show that there is a significant influence of Leadership Style on Teacher Performance. There is a positive and significant correlation between the variables of Organizational Citizenship Behavior, Communication Organizational Culture and Leadership Style with the improvement of teacher performance at PKLK Growing Hope Bandar Lampung, Lampung. The results of the R Square measurement have a value of 95% while 5% are outside of the variables studied. This shows that there are several other variables that can be investigated to complete this research.

**Keywords**— Organizational Culture, Communication, and Leadership Style

## I. INTRODUCTION

Performance is a universal concept which is the operational effectiveness of an organization, part of the organization, and its employees based on predetermined standards and criteria. Because organizations are basically run by humans, performance is actually human behavior in carrying out their roles in an organization to meet predetermined standards of behavior in order to produce the desired actions and results. Many factors affect performance based on previous research. These include leadership style and work motivation, career and leadership systems, self-efficacy, organizational culture, leadership, work environment, motivation and

stress, work, religiosity, etc[6]. Teacher performance is generally influenced by two factors, namely internal factors and external factors. Internal factors are factors that come from within the teacher, which are motivation, communication, job satisfaction and organizational commitment. While external factors are factors that come from outside the teacher, which includes leadership, work security and safety and organizational culture. Organizational Citizenship Behavior is an individual contribution that exceeds the demands of the role in the workplace. This OCB involves several behaviors including helping others, volunteering for extra tasks, obeying workplace rules and procedures. These behaviors describe "employee added value" which is a form of prosocial behavior, namely positive, constructive and meaningful social behavior to help. In addition to organizational citizenship behavior that can affect teacher performance, it is suspected that there is external encouragement from each teacher, namely organizational culture. Explained that organizational culture is a shared perception held by members of the organization[11]. According to Schein, organizational culture is the basic pattern accepted by organizations to act and solve problems, form employees who are able to adapt to the environment, and unite members of the organization. According to Cushway and Lodge, organizational culture is an organizational value system that influences the way employees do work and behave. Another variable that can affect teacher performance is Leadership, Leadership describes the relationship between the leader (leader) and the lead (follower) and how a leader directs followers will determine the extent to which followers achieve the goals or expectations of the leader [3]. The research objectives to be achieved in this study are: (1) To examine the effect of Organizational Citizenship Behavior on teacher performance at PKLK Growing Hope Bandar Lampung, Lampung; (2) To prove the influence of Organizational Culture on teacher performance at PKLK Growing Hope Bandar Lampung, Lampung; (3) To analyze the effect of communication on teacher performance at PKLK Growing Hope Bandar Lampung, Lampung; and (4) To evaluate the influence of Leadership Style on teacher

performance at PKLK Growing Hope Bandar Lampung, Lampung.

## II. METHOD

### 2.1 Research Type

Research is a process of collecting and analyzing data that is carried out systematically and logically to achieve certain goals. In this study, the type of research used is quantitative research where the data are expressed in numbers and analyzed by statistical techniques. This study uses an associative approach, which is a form of research using at least two variables that are connected. The Associative Approach is a research that seeks a causal relationship between independent variables (independent variables) namely organizational citizenship behavior, organizational culture, communication and leadership style with the dependent variable (the dependent variable) namely Teacher Performance.

### 2.2 Sample

According to population is a generalization area consisting of objects/subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions. The population in this study were all PKLK Growing Hope Bandar Lampung, totaling 40 employees. While the sample refers to which states that the sample is part of the number and characteristics possessed by the population. Samples were taken using a sampling technique, where the sampling technique used in this study was to use a saturated sampling technique or better known as the census. Saturated sampling is a sampling technique. The reason the researcher uses the sampling technique with the census method is because the research population is under 100 people.

### 2.3 Sample

In a study, it is important to include data sources to be used as research subjects. This relates to how to collect data, who the source is, and what tools are used. In this study using primary data.

### 2.4 Data analysis method

In this study, there is a model that uses more than one variable, so the researcher uses the model completion using the Structural Equation Modeling technique or commonly abbreviated as SEM. And the analytical tool used is Partial Least Square (PLS) with SmartPLS 3.0 software starting from the measurement model (outer model), model structure (inner model), and hypothesis testing. Inferential Statistics. In accordance with the hypothesis that has been formulated, this research uses the SmartPLS (Partial Least Square) software starting from the measurement model (outer model), model structure (inner model) and hypothesis testing.

### 2.5 Validity test

The use of the validity test is used to determine the ability of the research instrument in measuring what should be measured. In the validity test certain criteria must indicate whether the research results can be accepted by the audience. The construct validity test in general can be measured by the loading score parameter in the research model (rule of number  $> 0.7$ ) and using the AVE, communality,  $R^2$  and redundancy parameters. The AVE score must be  $> 0.5$ , communality  $> 0.5$ , and redundancy close to 1. If the loading score is  $> 0.5$ , this indicator can be deleted and the construct because this indicator is not loaded into the construct that represents it. If the loading score is between  $0.5 - 0.7$ , the researcher should not delete the indicator that has the loading score as long as the AVE score and the communality indicator are  $> 0.5$ .

### 2.5 Reliability Test

In addition to the validity test, PLS also uses a reliability test to measure the internal consistency of the measuring instrument. Reliability shows the accuracy, consistency and accuracy of measuring instruments in using measurements. The reliability test uses two methods, namely Cronbach's alpha and Composite reliability. Cronbach's alpha measures the lower limit of the reliability value of a construct, while Composite reliability measures the actual value of the reliability of a construct but Composite reliability is considered better in estimating the internal consistency of a construct. To be able to say a reliable construct, the value of Cronbach's alpha  $> 0.6$  and the value of Composite reliability must be  $> 0.7$ .

## III. RESULT AND DISCUSSION

### 3.1 MEASUREMENT MODEL EVALUATION (OUTER MODEL)

The measurement model (outer model) tests internal validity and reliability. The validity to be tested in PLS is construct validity which consists of convergent validity and discriminant validity.

#### A. Convergent Validity

Convergent validity refers to the convergence between instruments used to measure the same construct. Indicators and values of convergent validity include loading factor  $> 0.7$ , AVE  $> 0.5$  and Communality  $> 0.5$  [24]. Based on the tests that have been carried out, the output results of convergent validity are presented as follows.

Tabel 1  
Hasil Output Loading Factor

Variabel	Item Pernyataan	loading factor	Keterangan
Organizational	OCB.1	0.973	Valid

Citizenship Behavior (X1)	OCB.2	0.972	Valid
	OCB.4	0.973	Valid
	OCB.5	0.965	Valid
	OCB.6	0.942	Valid
	OCB.7	0.937	Valid
	OCB.8	0.879	Valid
Budaya Organisasi (X2)	BO.1	0.979	Valid
	BO.2	0.976	Valid
	BO.3	0.864	Valid
	BO.4	0.958	Valid
	BO.5	0.885	Valid
	BO.6	0.915	Valid
	BO.7	0.896	Valid
	BO.8	0.953	Valid
Komunikasi (X3)	COM.1	0.800	Valid
	COM.2	0.882	Valid
	COM.3	0.909	Valid
	COM.4	0.917	Valid
	COM.5	0.869	Valid
	COM.6	0.876	Valid
	COM.7	0.833	Valid
	COM.8	0.774	Valid
	COM.10	0.778	Valid
Gaya Kepemimpinan (X4)	GK.3	0.928	Valid
	GK.5	0.873	Valid
	GK.6	0.919	Valid
	GK.7	0.911	Valid
	GK.8	0.768	Valid
	GK.10	0.915	Valid
Kinerja Guru (Y)	KG.1	0.806	Valid
	KG.2	0.881	Valid
	KG.3	0.805	Valid
	KG.4	0.880	Valid
	KG.5	0.864	Valid
	KG.6	0.876	Valid
	KG.7	0.861	Valid
	KG.8	0.901	Valid
	KG.9	0.905	Valid
	KG.10	0.906	Valid

## B. Collecting Data

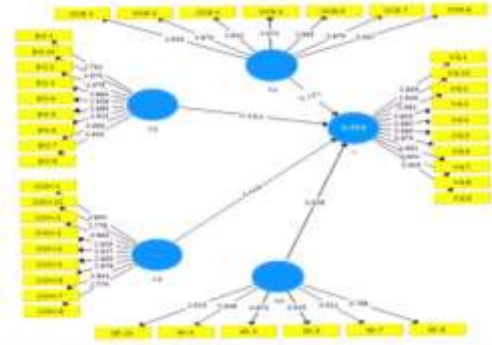


Table 2 Communality and AVE Output Output Results

Variabel	Average Variance Extracted (AVE)
Organizational Citizenship Behavior (X1)	0.891
Organizational culture (X2)	0.830
Komunikasi (X3)	0.723
Gaya Kepemimpinan (X4)	0.788
Kinerja Guru (Y)	0.755
Kinerja Guru (Y)	0.755

In table 4.10 it can be seen that the loading factor value of each indicator is more than 0.7 which means it is valid. Previously, researchers had removed indicators that represented invalid questions from the tested data. That's because the indicator is worth less than 0.7. While in table 4.11 it can be seen that the test results for the AVE value and communality in each of these constructs are greater than 0.5 so it can be said that the convergent validity of each indicator in this study has met the requirements.

## C. Discriminant Validity

Discriminant validity refers to the discrimination of the instrument when measuring different constructs. Discriminant validity is measured from AVE with a value that must be greater than the correlation of latent variables and cross loading which must be greater than 0.7 [24]. Based on the tests that have been carried out, the output results of discriminant validity are presented as follows:

Table 3 Discriminant validity

Variabel	Organizational Citizenship Behavior	Organizational culture	Communication	Leadership Style	Teacher Performance
Organizational Citizenship	0.944				

<i>ip Behavior</i>					
Organizational culture	0.970	0.915			
Communication	0.878	0.885	0.850		
Leadership Style	0.909	0.927	0.862	0.887	
Teacher Performance	0.960	0.958	0.906	0.819	0.960

#### D. Cross Loading

Table 4 cross loading

	<i>Organizational Citizenship Behavior</i>	Organizational culture	Communication	Leadership Style	Teacher Performance
OC B.1	0.973				
OC B.2	0.972				
OC B.4	0.973				
OC B.5	0.965				
OC B.6	0.942				
OC B.7	0.937				
OC B.8	0.879				
BO. 1		0.979			
BO. 2		0.976			
BO. 3		0.864			
BO. 4		0.958			
BO. 5		0.885			
BO. 6		0.915			
BO. 7		0.896			
BO. 8		0.953			
BO. 10		0.975			
CO M.1			0.800		
CO M.2			0.882		
CO M.3			0.909		
CO M.4			0.917		
CO M.5			0.869		
CO M.6			0.876		
CO M.7			0.833		
CO M.8			0.774		
CO M.10			0.778		
GK.				0.928	

3					
GK. 5				0.873	
GK. 6				0.919	
GK. 7				0.911	
GK. 8				0.768	
GK. 10				0.915	
KG. 1					0.806
KG. 2					0.881
KG. 3					0.805
KG. 4					0.880
KG. 5					0.864
KG. 6					0.876
KG. 7					0.861
KG. 8					0.901
KG. 9					0.905
KG. 10					0.906

In table 4 it can be seen that the square root value of the AVE of all constructs is greater than the correlation value of each construct, which means that the value is valid. Meanwhile, from table 4.12 it can be seen that the value of the cross loading results on each of the indicators of this study is greater than 0.7 so it can be said that the value of the discriminant validity of this study has met the requirements.

#### Reliability Test

Reliability testing is carried out to test whether the measuring instrument used to measure the construct has consistency. The measure of the reliability of an instrument is to use the value of Cronbach's alpha and composite reliability. Based on the tests that have been carried out, the output results of Cronbach's alpha and composite reliability are presented as follows:

Table 5. Output Cronbach's Alpha Dan Composite Reliability

Variabel	Cronbach's Alpha	Composite Reliability
<i>Organizational Citizenship Behavior</i>	0.979	0.983
Budaya Organisasi	0.974	0.978
Komunikasi	0.954	0.959
Gaya Kepemimpinan	0.949	0.957
Kinerja Guru	0.964	0.969

Table 5 shows that all variables have Cronbach Alpha and Composite Reliability values above 0.7 so that it

can be said that all measuring indicators of each variable from the questionnaire are reliable.

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
X1 -> Y	0.359	0.405	0.153	2.354	0.022
X2 -> Y	0.448	0.432	0.123	3.631	0.001
X3 -> Y	0.199	0.169	0.080	2.500	0.016
X4 -> Y	0.125	0.358	0.121	2.562	0.015

Based on the results of the path analysis above, it can be concluded that: It is known that, the t-statistic value is 2.354 and P-Values ( $0.022 < 0.05$ ), then there is a significant effect of organizational citizenship behavior on teacher performance, so the hypothesis H1 is accepted. It is known that the value of t-statistics is 3.631 and P-Values ( $0.001 < 0.05$ ), then there is a significant influence of organizational culture on teacher performance, so hypothesis H1 is accepted. It is known that the t-statistic value is 2.500 and the P-Values ( $0.016 < 0.05$ ), then there is a significant effect of communication on teacher performance, so the hypothesis H1 is accepted. It is known that the t-statistic value is 2.562 and P-Values ( $0.015 < 0.05$ ), then there is a significant influence of Leadership Style on Teacher Performance, so the hypothesis H1 is accepted.

Simultaneous Test. The F statistical test basically shows whether all the independent variables included in the model have a simultaneous (simultaneous) effect in explaining the information content of the dependent variable. Simultaneous testing in this study uses the results of the outer R-Square model:

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Y	0.955	0.951	0.023	42.241	0.000

Based on the output above, we can see the value of the results of the bootstrap analysis of the complete R Square method. The value of P value R Square simultaneous effect on Y is less than 0.05 so that H1 is accepted. So it can be concluded that there is a significant influence of organizational citizenship behavior, organizational culture, communication, and leadership style on teacher performance

#### IV. CONCLUSION

Based on the results of research on the analysis of organizational citizenship behavior, organizational culture, communication and leadership style on the performance of Growing Hope teachers in Bandar Lampung, some conclusions can be drawn as follows:

- (1) Testing the first hypothesis proves that there is a significant effect of Organizational Citizenship Behavior on Teacher Performance. With these results, it can be concluded that OCB can improve teacher performance, so the higher the OCB perceived by the teacher will be able to improve performance;
- (2) Testing the second hypothesis proves that there is a significant influence of Organizational Culture on Teacher Performance. With these results it can be interpreted that a good work culture will improve work, so that job satisfaction and attitudes also tend to be positive;
- (3) Testing the third hypothesis proves that there is a significant effect of communication on teacher performance. With these results, it shows that the better the communication carried out by the company, the positive impact will be wider for employees which can later affect the performance of each employee; and
- (4) Testing the fourth hypothesis proves that there is a significant influence of Leadership Style on Teacher Performance. These results indicate that teacher performance will continue to increase in line with the increase in the leadership style used by school principals.

#### SUGGESTION

1. Based on the results of the study, the management of PKLK Growing Hope Bandar Lampung, the next research will add subjects to the study. Next, look for other factors that can affect teacher performance such as motivation, responsibility and ability and so on in subsequent research.
2. School managers through their leadership style variables because the results of this study on teacher performance have a positive influence, it can be suggested trying to improve teacher performance by giving a positive influence through their leadership to improve teacher performance.
3. For teachers to be able to always improve their performance because with an increase in good performance, education will be achieved in accordance with the goals that have been set together. This performance improvement must be supported by the obedience of the teacher as a subordinate to the principal as his superior. This can be done by complying with all policies given by the principal's leadership, in order to achieve goals in education.

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