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TESTING THE MODEL FOR ENHANCING TEACHER PERFORMANCE USING THE POP-SDM APPROACH WITH LOCAL WISDOM VARIABLES

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Abstract
The purpose of this study is to test/validate the teacher performance model using local wisdom variables. The instrument used was a questionnaire for each research variable. The research sample used a multi-stage random sampling technique, selecting 124 teachers in Bekasa Regency who teach at private vocational schools. The data analysis technique used is SEM-PLS (Structural Equation Modeling – Partial Least Squares). The testing included outer model, inner model, path analysis, coefficient of determination (r^2), size effect analysis (f^2), predictive relevance analysis (Q^2), goodness of fit analysis (GoF), and PLS predict analysis. Based on the tests conducted, it can be concluded that the placement of variables determined by experts is appropriate. These variables are indeed suitable as variables that can increase direct or indirect influence on teacher performance variables.
Keywords: POP-SDM; SEM-PLS; Teacher Performance; Local Wisdom; Mutual Cooperation

INTRODUCTION

Human resources are the driving force in an organization or company, and quality human resources are essential for advancing and achieving education (Fuad et al., 2017; Zikri et al., 2023). A teacher with good performance will significantly help advance educational institutions and achieve institutional goals (Aldabbagh et al., 2024; Chaudhary & Singh, 2022). Teacher performance is evident in their skills and mental attitude, which always strive to improve the quality of their work (Longinus & Anthony, 2025; Suhaimi et al., 2018). Productive and professional teachers undoubtedly can support the implementation of their duties and work (Dewi & Singh, 2022; Zulfakar, 2020). Teacher performance is a demonstration of the teacher's work in planning, implementing, and assessing learning activities (Setyaningsih et al., 2024).

The quality of teachers' performance will significantly determine the quality of educational outcomes, because teachers are the ones who have the most direct contact with students in the educational process at educational institutions (Diana et al., 2020). Because teachers have the most direct relationship with students during the educational process in educational institutions, teacher performance greatly influences educational outcomes. Teachers play an important role in shaping the character and attitudes of students (Masrum, 2021).

Data from the 2019 UKG results for vocational school teachers in West Java shows that Bekasi Regency scored 59.48% at the vocational school level. Furthermore, a preliminary survey conducted on 30 private vocational school teachers in Bekasi Regency found that efforts are needed in several areas,

including: 29% in the area of learning, 25% in the area of classroom management, 23% in the area of cooperation, 27% in the area of technology development, and 41% in the area of the role of the principal involving teachers.

All teacher performance in schools can be assessed and influenced by their careers, such as promotions (Munawir et al., 2023). The indicators of teacher performance in previous studies were planning, implementation, evaluation, assessment, and follow-up of learning (Irawan et al., 2024). Thus, teacher performance is important for teachers themselves in terms of promotion, for students in terms of providing the best learning experience, and for schools in terms of the trust of parents and the community in sending their children to that school (Platz, 2022; Ventista & Brown, 2023).

The gap between the ideal and existing conditions necessitates further study related to teacher performance research. The researcher integrated teacher performance with local wisdom, which is a characteristic of the nation, especially in West Java, namely the variable of cooperation. Thus, the researcher tested the teacher performance model by linking local wisdom variables to determine whether they could have a significant and positive impact on improving teacher performance.

LITERATURE REVIEW

Teacher performance, namely the ability of teachers to plan lessons, evaluate the learning process, and assess learning outcomes. Improve and develop academic qualifications (Indro Agustian). Teacher performance can be defined as a condition that demonstrates a teacher's ability to carry out their responsibilities at school and the activities carried out by teachers during the learning process (Suratman). Teacher performance is the ability of teachers to take action based on the objectives to be achieved, covering the aspects of planning, teaching, implementation of teaching, and assessment of learning (Puspitasari and Saleh). Based on the concepts presented above, it can be synthesized that teacher performance is the behavior of teachers in carrying out their roles, duties, and responsibilities based on their professional abilities in achieving learning targets, utilizing time, evaluating, conducting assessments, and following up on the differentiated learning process with indicators of target achievement, time utilization, evaluation, technology utilization, and work quality: time management, evaluation, technology utilization, and work quality.

The process of creating, sharing, using, and managing knowledge and an organization's knowledge management (Gattermann-Perin et al.). *Knowledge Management is a set of practices aimed at discovering and utilizing the intellectual resources of an organization to the fullest extent possible using the intelligence of the people within the organization* (Bingle Van Der Walt). *Knowledge Management is a process that focuses on how knowledge can be organized and used to improve organizational performance* (Chandra Purnama1). Based on the various theories above, Knowledge Management can be synthesized as organizational activities in managing and adding value to the organization through increasing organizational knowledge, and actively acquiring,

improving, storing, evaluating, distributing and using knowledge and experience within and outside the organization.

METHOD

This study uses a mixed-method research approach using the POP-SDM (Human Resource Strengthening Modeling and Optimization Approach) model (Setyaningsih, 2020).

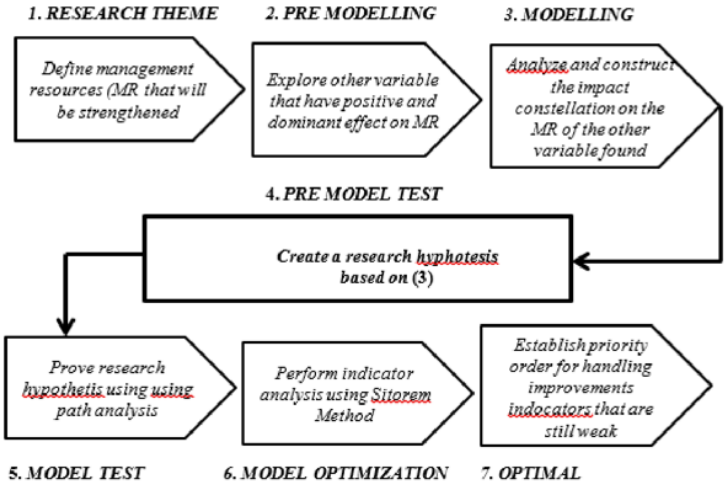


Figure 1. POP-SDM Research Model

(Aisahraspati et al., 2022; Astuti et al., 2025; Setyaningsih et al., 2021; Sjahid et al., 2021)

The activities carried out were preliminary surveys and variable exploration in the field using FGD (Focus Group Discussion) to determine the dominant variables that emerged in the field. After that, expert judgment was carried out by two experts in the field of educational management to determine the constellation of model variables to be tested in this study. Next, data processing was carried out by testing the model using SEM-PLS (Structural Equation Modeling – Partial Least Square) (Dash & Paul, 2021; J. Hair et al., 2022; J. F. Hair et al., n.d.; Suhayat et al., 2023), The tests conducted using SEM-PLS were outer model, inner model, path analysis, coefficient of determination (r^2), size effect analysis (f^2), predictive relevance analysis (Q^2), goodness of fit analysis (GoF), and PLS predict analysis.

RESULTS AND DISCUSSION

Based on the results of expert testing conducted on the teacher performance model, the variables obtained in the field resulted in the following model to be tested.

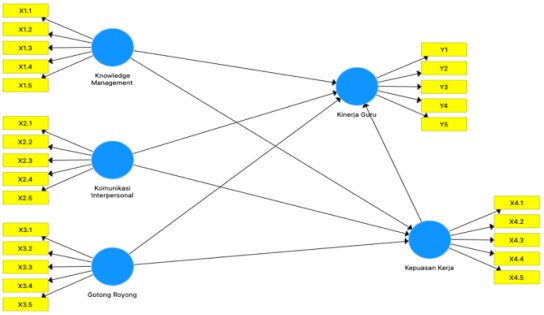
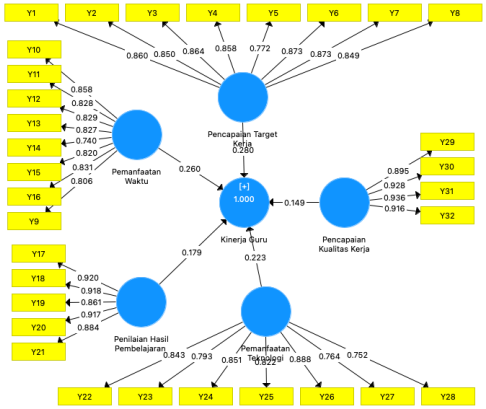
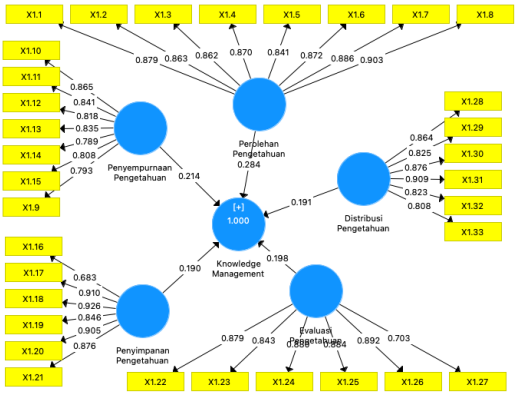


Figure 2 Teacher Performance Model

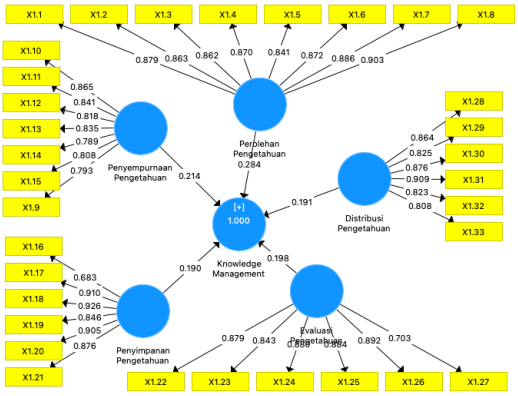
Figure 2 explains the teacher performance model to be tested, which has three independent variables, namely knowledge management (X1), interpersonal communication (X2), and cooperation (X3). Furthermore, the intervening variable is job satisfaction (X4) and the dependent variable is teacher performance (Y). Five reflective indicators represent each variable in this study. The first step in SEM is to test whether the statement items can represent/reflect the indicators or what is done in the outer model for each research variable. The following are the results of the outer model testing for each variable.



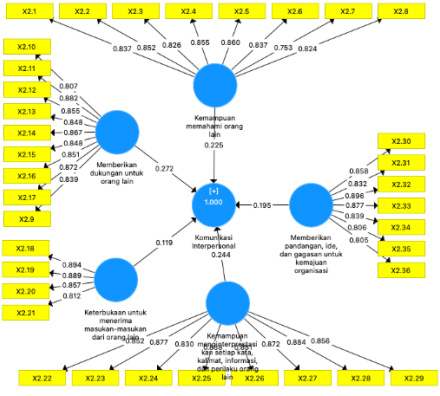
Teacher Performance Variables



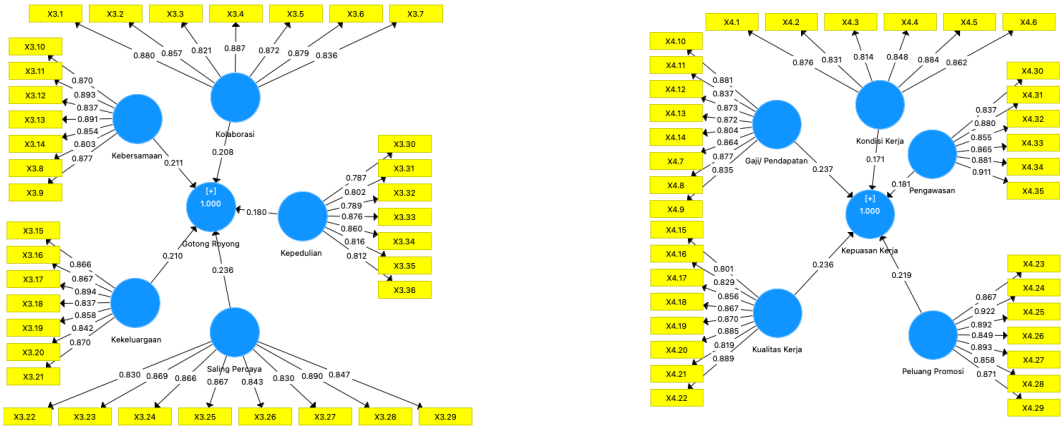
Knowledge Management Variables



Knowledge Management Variables



Interpersonal Communication Variables



Mutual Cooperation Variables Job Satisfaction Variables

Figure 3 Outer Model Results for Each Research Model Variable

Figure 3 shows that the statement items on each indicator in the research variable have met the requirement where the Loading Factor value is >0.70. The next step is to test the structural model to see whether the indicators meet the requirements. It can be seen in Figure 4.

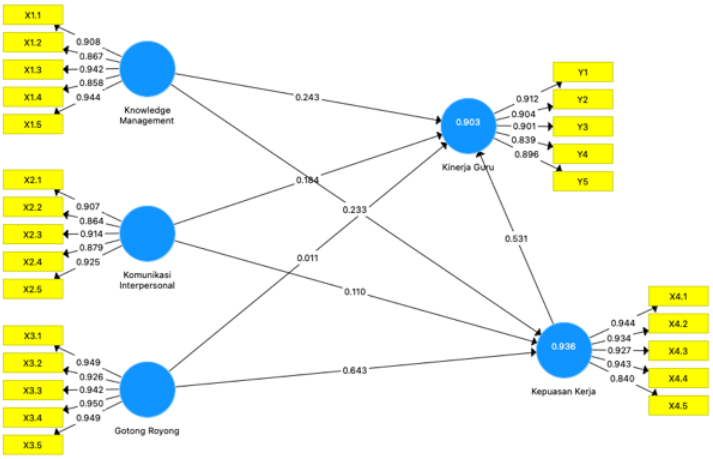


Figure 4. Structural Model of Indicator Testing Results for Latent Variables

Figure 4 shows that the factor loading values for each latent variable indicator fully meet the factor loading value requirement of >0.70. Based on this, the indicators for each latent variable have demonstrated good convergent validity, meaning that these indicators can be accepted to reflect the latent variables in the structural model. The next step is to perform an inner model analysis/structural model testing, as shown in Figure 5.

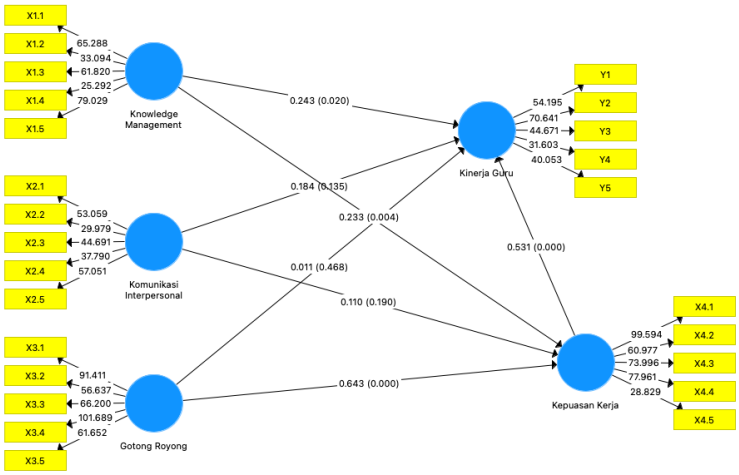


Figure 5. Path Coefficients (β) of the Teacher Performance Model Test

Based on Figure 5, it can be seen that the most significant path coefficient value that is more dominant in the teacher performance variable is 0.531, which is from the job satisfaction variable, followed by 0.243, which is knowledge management, then 0.184, which is interpersonal communication, and 0.011, which is the smallest, which is cooperation. The coefficient of determination (R Square) is a way to assess how much of the endogenous construct can be explained by the exogenous construct. The value of the coefficient of determination (R Square) ranges from 0 to 1. An R^2 value of 0.75 is indicated as substantial (strong), a value of 0.50 is indicated as moderate, and a value of 0.25 is indicated as weak. (J. Hair et al., 2022).

Size Effect is a measure used to assess the relative impact of an influencing variable (exogenous) on an influenced variable (endogenous). The criteria according to Cohen (Ghozali, 2012) are 0.02, 0.15, and 0.35, representing small, moderate, and significant effects of exogenous latent variables, respectively. Effect size values less than 0.02 indicate that there is no measurable effect. The following is a table of the Effect Size of each Exogenous Variable on the Endogenous Variable. The f^2 value or effect size shows that the largest effect size on teacher performance is job satisfaction at 0.188, which means it has a moderate effect because it is in the range of 0.15-0.35. Meanwhile, those with a small effect are knowledge management (0.054) and interpersonal communication (0.021) because they are in the range of 0.02-0.15. Meanwhile, some have no effect, namely, cooperation (0.000), which is less than 0.02. As for the size effect on the job satisfaction variable, the strongest variable is cooperation at 0.648>0.35. Next is knowledge management (0.081), which has a negligible effect because it is in the range of 0.02-0.15, and interpersonal communication has an effect of 0.011<0.02.

Blindfolding is an analysis used to assess the relevance level of a construct model's predictions. This analysis process uses the Q Square value. If Q Square>0.05, it can be concluded that a construct model is relevant. It means that the exogenous variables used to predict endogenous variables are appropriate. Predictive Relevance Analysis (Q^2) is one of the evaluation methods used in Partial Least Squares Structural Equation Modeling (PLS-SEM) to measure how well the PLS-SEM model can

predict endogenous (dependent) variables. It provides information on how well the exogenous (independent) variables in the model can explain and predict the variability in the endogenous variables. In a structural model, a Q2 value greater than zero for an endogenous latent variable indicates the predictive relevance of the path model to a particular dependent construct. The Q^2 value is obtained using the blindfolding procedure (J. Hair et al., 2022). Therefore, all Q Square values for both construct X4 and Y are greater than 0.05. It means that the predictions for construct X4 and Y are accurate or relevant. In detail, it can be concluded as follows: 1) The relevance of the predictions of X1, X2, X3, and X4 to Y based on the Q Square value is 0.782>0.05, so accept H0. It can be concluded that the exogenous variables X1, X2, X3, and X4 are accurate or relevant when used as predictors of the Y construct as an endogenous variable. 2) The relevance of the prediction of X1, X2, X3 to X4 based on the Q Square value is 0.701>0.05, so accept H0. It can be concluded that the exogenous variables X1, X2, X3, and X4 are appropriate or relevant when used as predictors of the endogenous variable X4.

Goodness of Fit or Model Fit analysis shows the suitability or fit of the model constructed with the supporting construct variables. Model suitability is indicated by the Standardized Root Mean Square Residual (SRMR). According to Hu and Bentler (Ghozali, 2021), values less than 0.10 or 0.08 (in a more conservative version, this is considered appropriate). Based on Ravel 4.33, it can be seen that the SRMR value is 0.043<0.08 or below 0.1, so it can be concluded that the model tested in this study fits the existing data.

PLS Predict is a model validation stage that aims to evaluate the extent to which the proposed PLS model has optimal predictive power. The evaluation of the model's strength is done by comparing the PLS algorithm with the regression values of the linear model (LM) through the Root Mean Square Error (RMSE), Mean Absolute Error (MAE), and Q^2_predict criteria. To see this, the PLS model values must be higher in the RMSE and Q^2_predict sections, while the MAE must be smaller. It can be seen that the RMSE and MAE values in the PLS model are lower than the RMSE and MAE values in the LM model. In reading the table, you can choose to look at the RMSE alone, the MAE alone, or both, because the RMSE and MAE are the standard errors of the prediction.

Meanwhile, the Q^2_predict value in the PLS model is greater than the Q^2_predict value in the LM model. Therefore, the model's power to predict is strong. This finding indicates that the PLS model is not only valid as a structural representation but also capable of providing better predictive power, strengthening the model's reliability in an applied context.

This research model tests teacher performance based on four independent variables: management knowledge, interpersonal communication, cooperation, and job satisfaction. It makes it a complex structural model with many variables. The PLS Structural Equation Modeling (SEM) method was chosen because it is very effective in processing predictive models involving many latent constructs. It is especially true for small research samples or when the assumption of data normality is

not fully met (J. Hair et al., 2022). PLS-SEM is highly relevant to education because it focuses on predicting performance (teacher performance) driven by behavioral and cultural variables. Thus, PLS-SEM produces robust results that can be used to make practical suggestions.

Knowledge Management (KM) among teachers is considered to have a significant positive impact on their performance. Because KM creates best practices, teaching experiences among teachers, and mechanisms for sharing and storing knowledge, which in turn improve teacher competence (Sudargini, 2021). However, good and open interpersonal communication is essential for building a healthy organizational culture that supports high performance (Wibisono et al., 2025). With PLS-SEM, path coefficient strength testing will be used to determine how dominant cognitive aspects (KM) and social aspects (Communication) are in determining teacher performance.

A unique and innovative feature of this model is the incorporation of the variable of cooperation (cooperation) as a representation of local wisdom. This model incorporates cultural values into the performance management framework. Cooperation, defined as a spirit of cooperation and collaboration without expecting anything in return, greatly helps to improve work harmony and team spirit in schools. In theory, this value enhances the dimension of collaboration in KM and the quality of interaction in interpersonal communication. Thus, it will have a direct impact on improving teacher performance. It is especially true for indicators related to active roles and interpersonal relationships outside of the primary teaching duties (Windia et al., 2024).

Job satisfaction is often considered a key motivational factor that can increase productivity and act as an important mediator in performance models. Other studies show that job satisfaction is positioned as a variable that is influenced by KM, Communication, and Mutual Cooperation, before KM, Communication, and Mutual Cooperation (Kristianingrum, 2024). The R^2 value for teacher performance (model predictive power), as well as the p-value and t-statistic for each path coefficient, will be used to evaluate the final results of the SEM PLS testing. This model shows that, if all hypotheses are accepted, improvements in teacher performance must be achieved overall through an organized knowledge-sharing system, an open communication culture, and, most importantly, by enhancing the values of cooperation in schools. These results provide a basis for education managers (principals) to make technical and professional (KM) as well as cultural and emotional (cooperation and job satisfaction) interventions to build a strong learning organization.

CONCLUSION

Based on the description in the discussion, the thesis researcher's final step entitled the effect of Based on the results of testing the teacher performance enhancement model with local wisdom variables using SEM-PLS, it can be concluded that the modeling and enhancement of teacher performance variables with other variables are in accordance with the provisions and requirements in the model testing used in SEM-PLS, meaning that the placement of variables determined by experts is

appropriate. These variables are indeed appropriate to be used as variables that can improve, either directly or indirectly, teacher performance variables.

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