



## Modeling And Optimization Of Teacher Professional Commitment Strengthening

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### abstract

*This research focuses on modeling and optimizing teacher professional commitment strengthening through a comprehensive research methodology encompassing preliminary, qualitative, and quantitative stages. The study employs a combination of qualitative and quantitative methods, including the POP-SDM method, to develop a theoretical model and hypotheses. Data collection involves surveys, interviews, and questionnaires among school principals and experienced teachers. The study spans from October 2022 to July 2024, with data collected from 16 boarding high schools in Sukabumi Regency, West Java Province. The results reveal significant insights into various variables influencing teacher professional commitment, including empowerment, servant leadership, personality, quality of work life, and job satisfaction. Descriptive statistical analyses demonstrate high levels of commitment, empowerment, servant leadership, personality traits, work-life quality, and job satisfaction among respondents. Structural equation modeling (PLS-SEM) is employed to construct and evaluate variable constructs, assess path coefficients, and test hypotheses. The model demonstrates strong predictive power and significant direct and indirect effects on teacher professional commitment. Overall, the findings suggest that factors such as empowerment, servant leadership, personality, quality of work life, and job satisfaction significantly influence teacher professional commitment. The study provides insights for educators and policymakers to enhance teacher commitment through targeted interventions, focusing on areas identified for improvement based on expert assessments and statistical analyses.*

**Keywords: Modeling, Optimization, Professional Commitment, Teacher.**





## 1. INTRODUCTION

The essence of education lies in its ability to foster the growth and development of individuals, nurturing their talents, interests, and capabilities through interactive learning experiences. In Indonesia, education is viewed as a conscious and structured effort to cultivate learners' potential, encompassing spiritual strength, self-control, intelligence, and skills crucial for personal, societal, and national development (Yusnita et al., 2020). To achieve these educational goals, the quality of education must be ensured across its input, process, and output. This involves providing necessary resources, effective planning, management, and evaluation of educational programs. Central to this process are committed teachers who play a pivotal role in shaping the quality of education and ultimately, the caliber of graduates (Greenleaf, 2007). Professionalism among teachers is underscored by their dedication to improving education, aligning with organizational goals, and nurturing students' holistic development. However, challenges persist, particularly in ensuring teacher competence and commitment (Rachmawati & Lantu, 2014). While Indonesia has a considerable number of qualified teachers, there remains a gap in their competencies and teaching abilities, exacerbated by the disruptions caused by events like the COVID-19 pandemic. Efforts to enhance teacher competence are ongoing, with initiatives such as competency tests and continuous professional development programs (Koyuncu et al., 2014).

Professional commitment among teachers is multifaceted, encompassing affective, continuance, and normative dimensions. Affective commitment reflects emotional attachment and pride in the school, while continuance commitment relates to the perceived costs of leaving the profession (Huberts, 2018). Normative commitment entails a sense of obligation to contribute to the school's advancement. In boarding schools, where teachers have round-the-clock responsibilities, maintaining high levels of commitment is crucial (Hermawan et al., 2023). While some teachers exhibit strong professional commitment, others may switch professions or schools, highlighting the need for improvement in this aspect. Efforts to enhance professional commitment among teachers are underway, as evidenced by preliminary research on private high schools in Kab. Sukabumi. This research underscores the importance of addressing factors such as fair compensation, professional development opportunities, and a sense of contribution and obligation to the school's advancement.

The preliminary findings from the test conducted on 30 respondents across six schools shed light on the state of professional commitment among teachers in Sukabumi's





boarding schools. Three key dimensions of commitment were assessed: affective, continuance, and normative commitment. The results reveal significant areas for improvement in each dimension. Affective commitment, which pertains to the emotional bond between teachers and their work, shows that nearly 23% of teachers lack a strong connection to their schools. This is evidenced by their low levels of comfort, happiness, and pride in their work environment. Additionally, there is a notable absence of loyalty among teachers, with only 62% willing to continue their careers at the school. Continuance commitment, related to the perceived costs associated with leaving the job, highlights dissatisfaction with income as a major concern (Kobayashi et al., 2020). Over a third of teachers expressed a need for improvement in this area, with nearly half considering leaving despite financial reliance on their current income. Moreover, a significant portion of teachers face challenges and feel stagnant in terms of career development.

Normative commitment, which involves a sense of obligation and duty towards the organization, also indicates room for improvement. Many teachers demonstrate limited readiness to contribute significantly to the school's advancement, and a notable proportion lacks discipline and loyalty (Hansbrough et al., 2021). These findings underscore the need to enhance professional commitment across all dimensions. In response to these findings, there is a call for further research to identify positive factors influencing teacher commitment. The existing body of research underscores the importance of factors such as job satisfaction, organizational culture, leadership, and personal characteristics in shaping commitment. The proposed research methodology, POP-SDM, offers a comprehensive approach to address these issues ((Hajdukova et al., 2015). By combining qualitative exploration with quantitative analysis, this methodology aims to uncover influential variables and develop a mathematical model to optimize teacher commitment in Sukabumi's boarding schools. Ultimately, this research seeks to improve the overall quality of education by fostering stronger commitment among teachers.

## 2. LITERATURE REVIEW

### 2.1 Professional Commitment of Teachers

The professional commitment of teachers is vital for effective teaching and the progress of educational institutions. This commitment involves teachers' identification with and internalization of the values of their profession, leading to their engagement and willingness to uphold membership in the profession (Hardhienata, 2017).





It influences organizational effectiveness, performance, and retention rates, playing a crucial role in professional development. Professional commitment includes affective, continuance, and normative dimensions, representing emotional attachment, perceived costs, and a sense of obligation, respectively. High levels of professional commitment among teachers are associated with better performance, lower turnover intentions, and increased satisfaction, benefiting both the organization and the profession (Hasanuddin et al., 2021). Teachers demonstrate dedication, enthusiasm for improvement, willingness to stay, passion for teaching, a sense of responsibility, and loyalty to their school, reflecting their professional commitment.

## 2.2 Concept of Quality of Work-Life

The concept of Quality of Work Life (QWL) focuses on understanding how a person's job affects them personally and beyond, aiming to enhance job-related experiences and reduce psychological or social costs. Introduced in 1972 and developed by Walton, QWL includes dimensions like physical and mental well-being, fair treatment, meaningful work, job security, compensation, and safe conditions. It aims to create a positive work environment, fostering dignity, satisfaction, and humanization of work, leading to improved organizational efficiency and profitability (Farrington & Lillah, 2019). QWL emphasizes the balance between personal and professional life, recognizing individual contributions and providing opportunities for growth and self-direction, thereby enhancing overall employee well-being within the organization.

## 2.3 Servant Leadership

Servant leadership, as defined by various scholars, emphasizes prioritizing the needs of others above one's own and is characterized by a commitment to serving others. This leadership style involves behaviors such as active listening, emotional healing, empathy, humility, openness to change, and persuasion. Servant leaders empower and develop their followers, create a vision for the organization, build trust, care for others, and prioritize collaboration (Zhao, 2023). They demonstrate integrity, set clear goals, and foster a learning environment. Ultimately, servant leadership focuses on achieving collective goals while prioritizing the well-being and growth of individuals and the organization as a whole.

## Personality





Personality, according to scholars, refers to the distinctive and relatively consistent patterns of behavior, thoughts, and emotions displayed by individuals. It is influenced by genetic inheritance, and social, cultural, and environmental factors, leading to a complex and stable set of characteristics that shape how individuals perceive and interact with the world. Key dimensions of personality, including conscientiousness, agreeableness, extraversion, neuroticism, and openness to experience, provide insights into various aspects of an individual's temperament and behavior (Erkutlu & Chafra, 2015). These dimensions, along with indicators such as emotional stability and adaptability, help in understanding an individual's personality traits and their impact on their interactions and adaptation in different contexts.

#### **2.4 Job satisfaction**

Job satisfaction is crucial for an individual's overall well-being and is influenced by various factors defined by scholars such as Robbins, Wood, Wallace, Zeffane, Spector, Danim, and Luthan. These factors include the work environment, relationships with colleagues, promotion opportunities, pay, supervision, job nature, communication, security, and personal development opportunities. Job satisfaction encompasses feelings of enjoyment, fulfillment, and contentment regarding one's work (Dugguh & Dennis, 2014). Wibowo's two-factor theory suggests that satisfaction and dissatisfaction arise from different factors, including motivators and hygiene factors. For teachers, job satisfaction reflects their overall attitude towards their profession, shaped by factors like the work atmosphere, supervision, pay rates, advancement opportunities, and recognition of their contributions.

#### **2.5 Empowerment**

Empowerment, according to scholars, involves believing in individuals' capacity to contribute to both organizational and personal objectives. Key indicators highlighted by Colquitt, Lepine, and Watson include self-determination, finding meaning in work, competence, and the impact on outcomes. McShane and Von Glinow emphasize psychological states of feeling self-determined, meaningful, competent, and impactful (Daryanto, 2014). Amzat and Valdez, as well as Rice, see empowerment as fostering autonomy and growth. It's also recognized as a tool for building trust and equilibrium within organizations by Syafarudin, Khoo Kheng Hor, and Monje Amor, Abeal Vázquez, & Faíña. French and Raven's Five Sources of Power categorize empowerment sources. Additionally, empowerment entails involving employees in goal-setting and decision-making, as





highlighted by Meyerson and Dewettinck (Côté et al., 2021). Ultimately, empowerment offers avenues for individuals to realize their potential, with support from skill development, resource allocation, effective communication, mentoring, and motivation.

### 3. RESEARCH METHOD

The research method described encompasses four key stages: preliminary research, qualitative research, quantitative research, and analysis of research findings. Initially, a general understanding of the research theme is gained, and any gaps are identified. Qualitative research follows to gather data from informants, informing the development of a theoretical model and hypotheses. Quantitative research then collects empirical data to test these hypotheses. The findings are subsequently analyzed quantitatively. The approach combines qualitative and quantitative methods through sequential exploratory techniques, specifically utilizing the POP-SDM method. This spans from October 2022 to July 2024, involving stages such as research theme identification, modeling, and optimization. In a related study, the construction of the constellation model of inter-variable influences begins with a preliminary study involving interviews and questionnaires with school principals and experienced teachers. Data analysis, guided by the Miles and Huberman model, ensures the reliability of findings, facilitating the construction of the model. Informants include 6 school principals and 19 experienced teachers, chosen based on their knowledge of school innovation and factors affecting it. Data collection techniques involve interviews and questionnaires, with the purpose of gathering information on factors influencing professional commitment.

The qualitative research conducted from August to October 2023 involved gathering data from six Principals of Boarding School-based Senior High Schools in Kab. Sukabumi, West Java, through face-to-face interviews. The aim was to empirically obtain data and information on teachers' Professional Commitment and understand the factors influencing it positively and dominantly. Acting as the instrument in the research, the researcher followed Sugiyono's guidelines for conducting qualitative research, emphasizing the importance of broad theoretical and contextual understanding. The interviews, following the snowball method, aimed for as much naturalistic response from the informants as possible. The process concluded upon reaching saturation, where no significant differences were found in the responses. The Focus 1 interviews revealed various indicators of Professional Commitment, while Focus 2 uncovered factors positively affecting it, with Leadership as the dominant variable. Finally, Focus 3 delved into exogenous variables influencing Leadership







and Professional Commitment, leading to the refinement of a model with Leadership, Personality, and Job Satisfaction as exogenous variables and Quality of Work Life and Job Satisfaction as intervening variables. This refined model, verified by experts and proposal reviews, sets the stage for further quantitative research.

The research method employed in this study involves various analytical variables, including the location and timing of the research, the population and sample, data collection techniques, and instrument validation. The research was conducted in 16 boarding high schools (SMA) in the Sukabumi Regency, West Java Province, chosen from a total of 83 schools based on their status as private boarding schools with a fixed number of teachers from the foundation (Yayasan). The study spanned three months, starting from proposal preparation and defense to research result seminars, conducted between December 2023 and February 2024. The population comprised 167 permanent teachers from these boarding schools, with a sample size of 118 determined using proportional random sampling. Data collection utilized questionnaires to measure variables such as professional commitment, empowerment, servant leadership, personality, quality of work life, and job satisfaction. The instruments were validated through reliability and validity tests, including Pearson's product-moment correlation and Cronbach's alpha coefficient, ensuring the robustness and consistency of the data gathered.

The study employs a comprehensive data analysis approach, starting with descriptive statistics to outline the collected data's characteristics and validity and reliability assessment using Pearson's correlation and Cronbach's alpha. Subsequently, Partial Least Squares Structural Equation Modeling (PLS-SEM) is utilized, focusing on constructing variable constructs from qualitative research findings. This involves evaluating the outer and inner models, checking for multicollinearity, estimating path coefficients, and assessing model quality. Advanced analysis includes hypothesis testing and mediation pathway analysis to understand direct and indirect effects, leading to the development of a Model of Teacher Professional Commitment and strategies for enhancing related variables in response to exogenous changes.

Hypothesis testing is a statistical method used to determine the significance and real influence between independent and dependent variables. In SmartPLS applications, hypothesis testing is performed on structural models using bootstrapping techniques, assessing t-statistic values and p-values. Significant results are determined based on t-values, with thresholds such as  $> 1.65$  for a 10% significance level,  $> 1.96$  for a 5% significance level, and  $> 2.58$  for a 1% significance level. A common p-value of 0.05 is used in



SmartPLS, indicating significance when  $p < 0.05$ . Hypothesis analysis entails accepting alternative hypotheses (H1) and rejecting null hypotheses (H0) when the t-statistic  $> 1.96$ . Inferential statistical analysis typically involves path analysis, illustrating the influence of independent variables (X) on dependent variables (Y). In a study assessing variables like Personality, Work Environment Quality, and Servant Leadership on Job Satisfaction and Professional Commitment, path analysis is used to determine relationships and significance levels among these variables through coefficients and statistical tests.

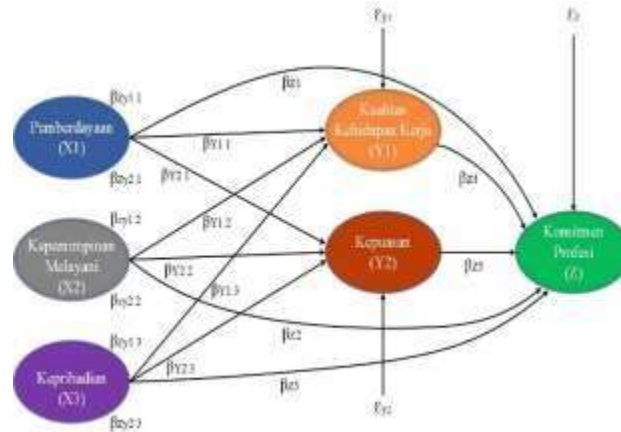


Figure 1. Path Diagram of Teacher Professional Commitment Research

#### 4. RESULT

The research conducted a qualitative study followed by a quantitative investigation from December 2023 to February 2024 involving 118 teacher respondents from 16 boarding high schools in Sukabumi Regency. The validity and reliability of the research instruments were tested using the Pearson Product Moment correlation technique on 30 GTY teachers from boarding high schools in Sukabumi Regency, who were outside the randomly selected sample group but still part of the research population. The instruments were considered valid and reliable based on the criteria where the reliability coefficient exceeded 0.70.

Additionally, descriptive statistical analysis was conducted for each variable, revealing insights into the central tendency, dispersion, and shape of the data distribution. For instance, the mean score for Teacher Professional Commitment (Z) was 122.75, with a standard deviation of 15.42, indicating a relatively narrow spread of data around the mean.

The analysis of the Teacher Professional Commitment (Z) variable reveals significant insights. With a total score of 14,484 from 29 valid items, the data spans from a minimum score of 73 to a maximum of 143, indicating a wide range of responses among the 118



teacher respondents. The mean score is 122.75, with a median of 126.5, and the most frequently occurring score is 135.5. The frequency distribution table shows that the highest frequency falls within the score range of 128-135, indicating that most respondents scored within this range. Additionally, 30.5% of respondents scored below the average, while 69.5% scored above it. The comparison between theoretical and empirical total scores suggests that the empirical median score exceeds the theoretical median, indicating a predominantly high commitment level among teachers in the study. Furthermore, the average scores for indicators of Teacher Professional Commitment, such as Enthusiasm, Desire for Improvement, Desire to Persist, Love for the Profession, Sense of Responsibility, and School Loyalty, reflect high levels of commitment among respondents.

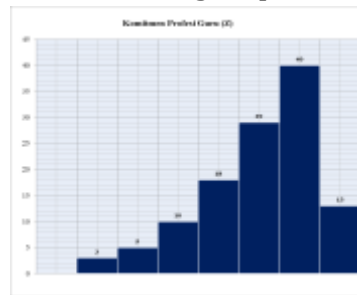


Figure 2. Graph Distribution of Total Scores of Teacher Professional Commitment Variable

The analysis of the Empowerment (X1) variable reveals valuable insights. With a total score of 14,598 from 29 valid multiple-choice items, the data ranges from a minimum score of 63 to a maximum of 145, demonstrating varied responses among the 118 teacher respondents. The mean score is 123, with a median of 119.5, and the most frequently occurring score is 114. The frequency distribution table highlights that the highest frequency falls within the score range of 111-122, indicating that most respondents scored within this range. Additionally, 50% of respondents scored below the average, while the other 50% scored above it. The comparison between theoretical and empirical total scores suggests that the empirical median score exceeds the theoretical median, indicating a predominantly high level of empowerment among teachers in the study. Furthermore, the average scores for indicators of Empowerment, such as Improvement in Teacher Skills, Provision of Facilities, Open Communication, Task Autonomy, and Motivation, reflect a significantly high level of empowerment among respondents.



Figure 3. Graph Distribution of Total Scores of Empowerment Variable

The analysis of the Servant Leadership (X2) variable reveals important findings. With a total score of 13,743 from 28 valid items, the data ranges from a minimum score of 52 to a maximum of 140, indicating a wide range of responses among the 118 teacher respondents. The mean score is 116.47, with a median of 116.5, and the most frequently occurring score is 112. The frequency distribution table highlights that the highest frequency falls within the score range of 104-116, indicating that most respondents scored within this range. Additionally, 15.25% of respondents scored below the average, while 84.75% scored above it. The comparison between theoretical and empirical total scores suggests that the empirical median score exceeds the theoretical median, indicating a predominantly high level of servant leadership among teachers in the study. Furthermore, the average scores for indicators of Servant Leadership, such as Willingness to Listen, Empathy, Emotional Healing, Openness, Wisdom, Humility, and Support for Change, reflect a significantly high level of servant leadership among respondents.

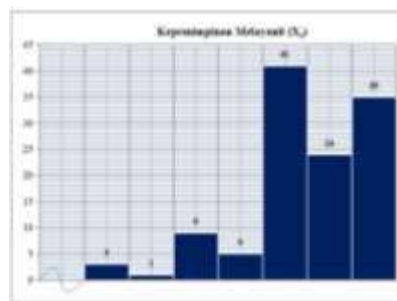


Figure 4. Graph Distribution of Total Scores of Servant Leadership Variable

The analysis of the Personality (X3) variable reveals significant insights. With a total score of 14,214 from 29 valid items, the data ranges from a minimum score of 52 to a maximum of 145, indicating a diverse range of responses among the 118 teacher

respondents. The mean score is 120.46, with a median of 122. The frequency distribution table highlights that the highest frequency falls within the score range of 108-121, indicating that most respondents scored within this range. Moreover, 19.5% of respondents scored below the average, while 80.5% scored above it. The comparison between theoretical and empirical total scores suggests that the empirical median score exceeds the theoretical median, indicating a predominantly high level of personality traits among teachers in the study. Additionally, the average scores for indicators of Personality, such as Awareness, Adaptability, Emotional Stability, Openness, and Social Interaction, reflect a significantly high level of these traits among respondents.

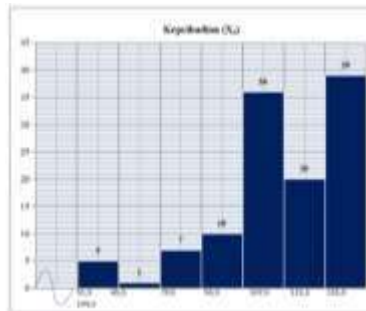


Figure 5. Graph Distribution of Total Scores of Personality Variable

The analysis of the Work Life Quality (Y1) variable unveils insightful findings. With a total score of 14,117 from 29 valid items, the data range spans from a minimum score of 43 to a maximum of 145, indicating a diverse range of perceptions among the 118 teacher respondents. The mean score is 119.64, with a median of 125. The frequency distribution table reveals that the highest frequency falls within the score range of 118-132, suggesting that most respondents scored within this range. Additionally, 36.6% of respondents scored below the average, while 63.6% scored above it. The comparison between theoretical and empirical total scores suggests that the empirical median score exceeds the theoretical median, indicating a predominantly high level of perceived work life quality among teachers in the study. Furthermore, the average scores for indicators of Work Life Quality, such as Work Environment, Job Participation, Reward System, and Career Development, reflect a significantly positive perception of these aspects among respondents.

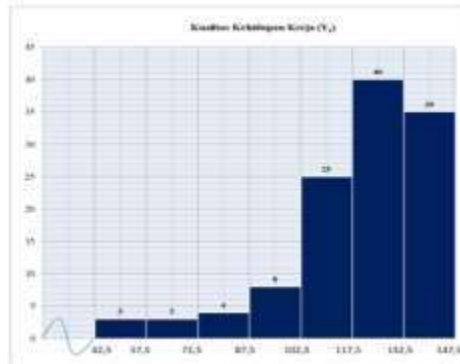


Figure 6. Graph Distribution of Total Scores of Work Life Quality Variable

The analysis of Job Satisfaction (Y2) variable reveals intriguing insights. With a total score of 13,627 from 28 valid items, the data exhibit a wide range of perceptions among the 118 teacher respondents, with scores ranging from 57 to 143. The mean score is 115.48, with a median of 114. The frequency distribution indicates that the highest frequency occurs within the score range of 105-116, suggesting that this range represents the most common perception of job satisfaction among respondents. However, 51.7% of respondents scored below the mean, while 48.3% scored above it, indicating a slightly higher prevalence of lower satisfaction levels. Comparison between theoretical and empirical total scores suggests that the empirical median score exceeds the theoretical median, signifying a predominantly positive perception of job satisfaction among teachers in the study.

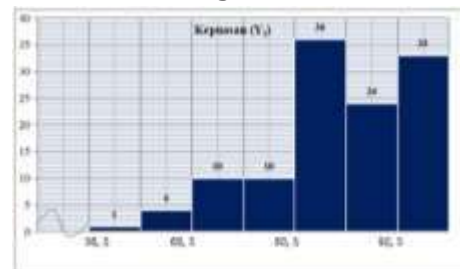


Figure 7. Graph Distribution of Total Scores of Job Satisfaction Variable

The pathway estimation in the Commitment model was established following approval from experts, as outlined previously in the final section of the exploratory research. The pathway model for Teacher Professional Commitment, presented in Figure 8, underwent Stage 5: Reflective/Formative Measurement Model Assessment. This assessment involved evaluating the outer model, following Hair's methodology (pp. 275-285, 2017,

2019), using the Embedded Two Stage technique, which employs a hierarchical component model approach. This technique divides the measurement model into levels of indicators measuring latent variables. The lowest level (Level 1) assesses the measurement between manifest indicators and indicator factors of latent variables, while the higher level (Level 2) evaluates the measurement between indicators and dimensions with their latent variables. In this study, the model constellation consists of five variables, each with dimensions, indicators, and manifest indicators to measure them, incorporating both reflective and formative indicators at Level 1 and formative indicators at Level 2. The assessment includes evaluations of both Level 1 and Level 2 for each exogenous and endogenous variable in Teacher Professional Commitment.

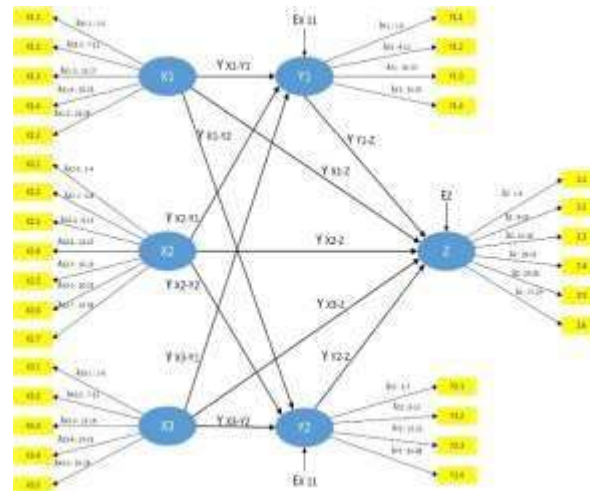


Figure 8. Estimated Path Model of Teacher Commitment along with Indicators

Based on the results of respondents' perceptions, respondents' perceptions of the Teacher Professional Commitment variable (Z) yielded an average score of 4.00, indicating a tendency to respond very positively. The most positively rated indicator by respondents was Affection for the profession with an average of 4.22, while the least positively rated was Desire to endure with an average of 3.74, still considered good by respondents. Similarly, for the Empowerment variable (X1), respondents' perceptions resulted in an average score of 4.11, indicating a very positive response, with the most positively rated indicator being Teacher skill improvement at 4.29 and the least positively rated being Provision of facilities at 3.87. Furthermore, in the variable of Servant Leadership (X2), respondents' perceptions yielded an average score of 4.06, indicating a very positive response, with the most positively rated indicator being Willingness to listen at 4.28 and the least positively rated being



Empathy at 3.72, still rated positively overall. Similarly, the Personality variable (X3) yielded an average score of 4.03, indicating a very positive response, with the most positively rated indicator being Social interaction at 4.18 and the least positively rated being Suitability at 3.81, still rated positively overall. For the variable of Job Satisfaction (Y2), respondents' perceptions resulted in an average score of 4.01, indicating a very positive response, with the most positively rated indicator being Promotion opportunities at 4.18 and the least positively rated being Wage level at 3.77, still considered good by respondents.

The measurement model assessment involves evaluating the outer model using the Embedded Two Stage technique, which divides the model into low-order components (LOC) and high-order components (HOC). In this study, six variables are assessed for their convergent validity, including the Professional Commitment variable, which consists of indicators such as Enthusiasm, Desire for Scholarly Improvement, Desire to Persist, Passion for the Profession, Sense of Responsibility, and Loyalty to the School. Each indicator demonstrates loading factor values >0.5, indicating their ability to measure their respective constructs effectively. The positive coefficients and loading factors suggest that each indicator contributes positively to the performance of the Professional Commitment variable. This comprehensive assessment ensures the validity and reliability of the measurement model.

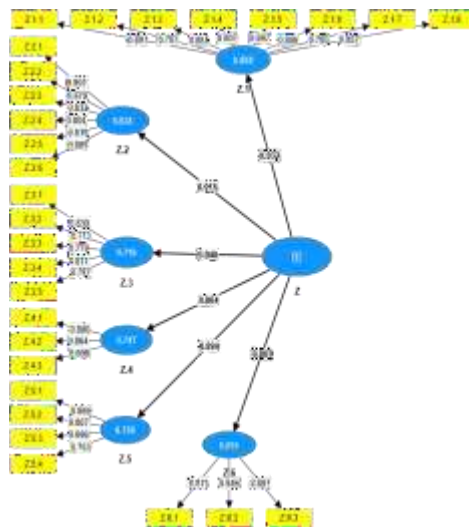


Figure 9. Outer Model Diagram of Teacher Professional Commitment Variable

The empowerment variable is assessed through convergent validity, examining the loading factors of its indicators, including Enhancement of Teacher Abilities (6 items),

Provision of Facilities (5 items), Open Communication (6 items), Task Autonomy (6 items), and Motivation Provision (6 items). Utilizing SmartPLS, all manifest indicators exhibit values exceeding 0.5, with the coefficients towards the empowerment variable showing positive and greater-than-zero values, confirming the indicators' ability to measure empowerment constructs effectively. The positive coefficients imply that an increase in indicator value enhances the performance or effectiveness of the empowerment variable. This comprehensive evaluation ensures the reliability and validity of the measurement model.

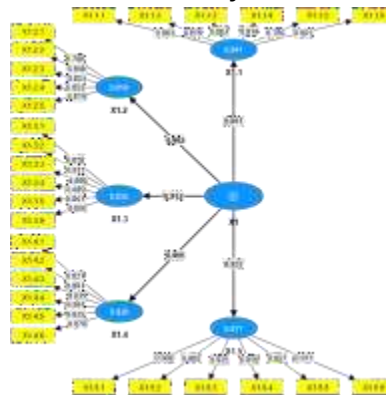


Figure 10. Outer Model Diagram of Empowerment Variable

The Servant Leadership variable is evaluated through convergent validity, examining the loading factors of its indicators, including Willingness to Listen (4 items), Empathetic Attitude (4 items), Emotional Turmoil Healing (3 items), Openness (4 items), Wisdom (5 items), Humility (3 items), and Supporting Change (6 items). Employing SmartPLS, all manifest indicators exhibit values exceeding 0.5, with the coefficients towards the Servant Leadership variable showing positive and greater-than-zero values, confirming the indicators' ability to measure Servant Leadership constructs effectively. The positive coefficients imply that an increase in indicator value enhances the performance or effectiveness of the Servant Leadership variable. This thorough assessment ensures the reliability and validity of the measurement model.

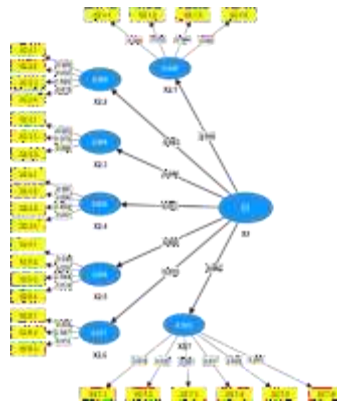


Figure 11. Outer Model Diagram of Servant Leadership Variable

The Personality variable is assessed for convergent validity, comprising indicators of Consciousness (6 items), Suitability (6 items), Emotional Stability (6 items), Openness (5 items), and Social Interaction (5 items). Utilizing SmartPLS, all manifest indicators exhibit values exceeding 0.5, and the coefficients towards the Personality variable display positive and greater-than-zero values, confirming the indicators' capability to measure each aspect of the Personality variable effectively. The positive coefficients indicate that an increase in the indicator's value enhances the performance or effectiveness of the Personality variable, ensuring the reliability and validity of the measurement model.

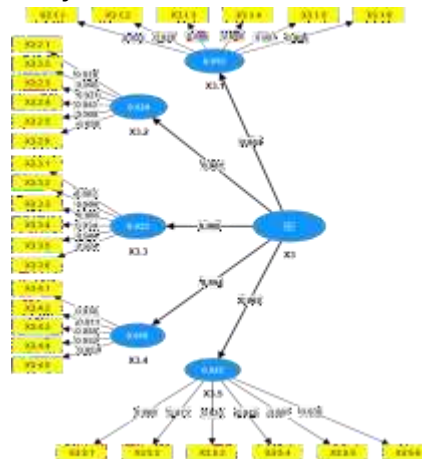


Figure 12. Outer Model Diagram of Personality Variable

The variable Quality of Work Life is evaluated for convergent validity, consisting of indicators such as Work Environment (8 items), Work Participation (7 items), Reward

System (8 items), and Career Development (6 items). Using SmartPLS, all manifest indicators exhibit values exceeding 0.5, while the coefficients towards the Quality of Work Life variable demonstrate positive values greater than zero. This signifies that the manifest indicators effectively measure each aspect of the Quality of Work Life variable and construct it as expected. The positive coefficients indicate that an increase in the indicator's value enhances the performance or effectiveness of the Quality of Work Life variable.

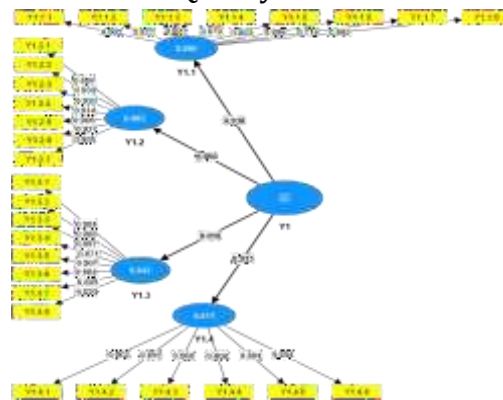


Figure 13. Outer Model Diagram of Work Life Quality Variable (Y1)

The variable Job Satisfaction is assessed for convergent validity, comprising indicators such as Work Atmosphere (7 items), Supervision by the Headmaster (7 items), Wage Level (8 items), and Promotion Opportunities (6 items). Utilizing SmartPLS, all manifest indicators demonstrate values surpassing 0.5, while the coefficients towards the Job Satisfaction variable exhibit positive values greater than zero. This indicates that the manifest indicators effectively measure each aspect of the Job Satisfaction variable and construct it as anticipated. The positive coefficients imply that an increase in the indicator's value enhances the performance or effectiveness of the Job Satisfaction variable.

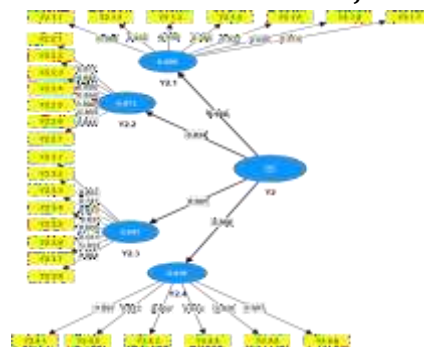


Figure 14. Outer Model Diagram of Job Satisfaction Variable



The Composite Reliability (CR) analysis, aimed at assessing the internal consistency reliability, indicates that all reflective indicator values surpass 0.7, meeting the criterion for reliability, ensuring high consistency and reliability in measuring and constructing their latent variables. Moreover, the Average Variance Extracted (AVE) values for all indicators exceed 0.5, indicating that their ability to explain the variance of their items is reliable. Thus, both CR and AVE criteria are met, affirming the reliability and validity of the constructed latent variables.

The test of discriminant validity assesses whether each variable or indicator is distinct from others. In this study, discriminant validity assessment is conducted using the Cross Loading criteria. The tables summarize the results of discriminant validity testing for exogenous and endogenous variables in the measurement model. Based on the cross-loading measurements, it is evident that, overall, the items from all indicators produce loading values higher than those of other indicators. Therefore, it can be stated that, from the test of discriminant validity, each item is capable of measuring the indicators of the respective latent variables: Empowerment, Servant Leadership, Personality, Quality of Work Life, Job Satisfaction, and Professional Commitment.

The High Order Component (HOC) measurement model assessment employs a reflective approach to evaluate the measurement model at both exogenous and endogenous variable levels. The output loading factor model diagram illustrates that all indicators exhibit loading values above 0.7, indicating convergence validity and reliability maintenance. The summary table further confirms this, showing loading factors, composite reliability, and Average Variance Extracted (AVE) values exceeding the recommended thresholds. Subsequent discriminant validity testing using Cross Loading criteria demonstrates that all indicators consistently yield higher loading values for their respective variables compared to others, affirming their capability to measure the corresponding latent variables effectively. Thus, the overall assessment confirms that each indicator adequately captures its associated latent variable, ensuring the model's robustness and validity.





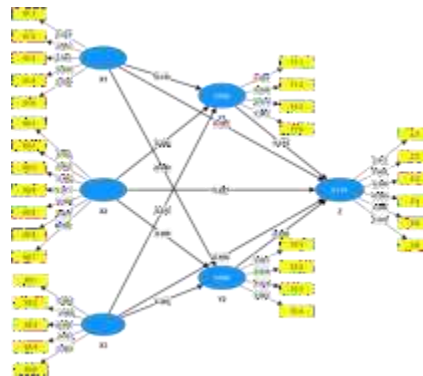


Figure 15. The diagram of the Output Loading Factor Model for HOC Measurement

The evaluation of the Structural Model involves assessing the relationship between exogenous and endogenous variables constructed within the model. The initial step in structural model testing involves examining multicollinearity through the assessment of inner VIF values within the model. All inner VIF values are below 5, indicating no multicollinearity issues in the teacher professional commitment model. Subsequently, the analysis proceeds to the determination of the coefficient of determination or R-square. The R-square value for the endogenous variable of teacher professional commitment is 0.779, categorized as strong according to the Rules of Thumb for Structural Model Evaluation. This indicates that the model can analyze and explain 77.9 percent of the variation in teacher professional commitment influenced by independent variables simultaneously.

Furthermore, direct and indirect path coefficient values are evaluated, showing that leadership in serving has the highest direct effect on professional commitment, followed by empowerment and personality. Additionally, personality has the largest indirect effect on professional commitment compared to empowerment and leadership in serving. Finally, the Goodness of Fit analysis, considering the Normed Fit Index (NFI) and Standardized Root Mean Square Residual (SRMR) values, confirms the model's suitability, with both SRMR and NFI values meeting the fit criteria, indicating a well-fitting professional commitment model.

The evaluation of the Model Strength (Power Model) involves assessing predictive relevance (Q2), size effect (f2), and PLS-predict. Table 61 provides a summary of the assessment for the Teacher Professional Commitment model. The highest f2 value, indicating size effect, is attributed to Job Satisfaction (0.079). Furthermore, all Q2 values are above 0.0, demonstrating predictive relevance of 55.6% for Quality of Work Life (Y1), 60.0% for Job Satisfaction (Y2), and 59.1% for Teacher Professional Commitment (Z). Additionally, the PLS-predict assessment compares PLS algorithm values with linear regression values using

RMSE, MAE, and Q2\_predict criteria (Table 62), where lower RMSE and MAE PLS values compared to linear regression indicate stronger predictive capability, alongside positive Q2-predict values. As all criteria are met, it can be concluded that the model's predictive power is strong.

In the advanced PLS-SEM analysis, hypothesis testing serves as the final step in evaluating a constructed model. Based on Figure 4.28, 11 paths were tested in the research using bootstrapping. Figure 16 presents the t-statistic values and coefficients for each path in the Teacher Professional Commitment model. All paths are significant, with t-statistic values exceeding 1.96. The summary of significance assessment for each path. The direct effect significance testing reveals that all direct paths have a significant positive influence on the performance of Quality of Work Life (Y1), Job Satisfaction (Y2), and Teacher Professional Commitment (Z). Thus, the hypothesis testing confirms the positive direct effects of Empowerment (X1), Servant Leadership (X2), and Personality (X3) on these variables, along with the direct effects of Quality of Work Life (Y1) and Job Satisfaction (Y2) on Teacher Professional Commitment (Z).

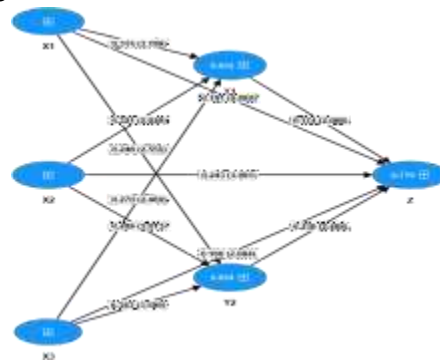


Figure 16. The chart of the Results of T-Statistics and Coefficients of Model Significance Test

The indirect influence analysis of the professional commitment model reveals significant pathways involving five exogenous variables: Empowerment (X1), Servant Leadership (X2), Personality (X3), Quality of Work Life (Y1), and Job Satisfaction (Y2). The analysis aims to construct the most effective model for enhancing professional commitment by examining these variables' effects. Through mediation testing, it is found that Empowerment indirectly affects Professional Commitment through both Quality of Work Life and Job Satisfaction, with varying degrees of mediation. Similarly, Servant Leadership and Personality also show indirect effects on Professional Commitment through Quality of Work Life and Job Satisfaction. The analysis underscores the significance of Quality of Work

Life and Job Satisfaction as partial and full mediators, respectively, in the relationship between exogenous variables and Professional Commitment, contributing to a comprehensive structural model without any eliminated pathways due to the significant direct and indirect effects observed in all paths.

The interpretation of the model for teacher professional commitment indicates significant causal relationships between variables. In the first substructural model concerning the Quality of Work Life, the analysis reveals that Servant Leadership has the strongest effect (0.321), followed by Empowerment (0.315) and Personality (0.270). In the second substructural model related to Job Satisfaction, Personality shows the most substantial impact (0.383), followed by Servant Leadership (0.296) and Empowerment (0.248). Finally, in the third substructural model regarding Professional Commitment, Servant Leadership demonstrates the most robust influence (0.243), followed by Job Satisfaction (0.238), Empowerment (0.181), Quality of Work Life (0.171), and Personality (0.166). These findings highlight the varying degrees of influence each variable has on teacher professional commitment, with Servant Leadership consistently playing a prominent role across all models.

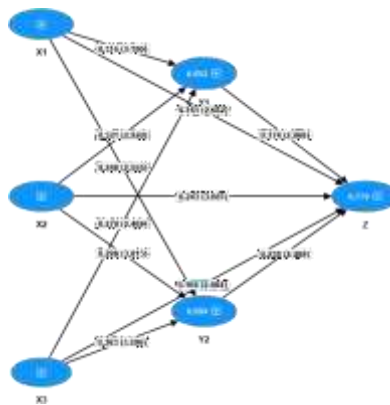


Figure 17. Interpretation of the Results of the Teacher Professional Commitment Model

In analyzing the SITOREM model, the Contribution Analysis examines the independent variables' contributions to the dependent variable by assessing correlation coefficients, determination coefficients, and effect sizes of each path. The determination coefficient is calculated based on the square of the correlation coefficient, indicating the proportion of variance in the dependent variable explained by the independent variables. Notably, Leadership in Serving ranks highest with a contribution value of 65.0, followed by Personality with 62.6. Subsequently, Job Satisfaction, Quality of Work Life, and



Empowerment follow with contribution values of 62.6, 57.8, and 52.4, respectively. Additionally, Indicator Analysis involves calculating the average score of respondents' answers for each indicator of both independent and dependent variables. This process aims to provide insight into the current conditions of research indicators from the respondents' perspective. Notably, 13 indicators scored below 4.0, indicating areas for improvement, including Enthusiasm, Desire to Persist, School Loyalty, Facilities Provision, Motivation Provision, Empathy, Openness, Awareness, Suitability, Work Environment, Reward System, Work Atmosphere, and Wage Level.

The Analysis of Indicator Weight for Research Variables involves evaluating each indicator's significance based on expert assessments considering factors like Cost, Benefit, Urgency, and Importance. Experts assess the effort, cost, time, or resources required (Cost), the contribution or usefulness of the indicator (Benefit), its urgency or necessity (Urgency), and its overall importance within the variable (Importance). The averaged weightings from experts are then used to rank indicators within each variable, compared with research scores to determine improvement needs or maintenance. The classification of indicators offers insights into which ones require attention for enhancement or upkeep. The assignment of indicator weights based on expert assessments across various research variables. For instance, in the "Leadership in Service" variable, the indicator "Willingness to Listen" holds the highest weight at 17.39%, followed by "Empathy" at 14.98%, and "Emotional Healing" at 14.49%. Similarly, in the "Job Satisfaction" variable, "Work Atmosphere" receives the highest weight at 26.23%, followed by "Principal Supervision" and "Salary Level" at 24.59%. These percentages reflect the relative importance of each indicator within its respective variable, guiding the prioritization of improvements. The subsequent table outlines the optimal solution for enhancing teacher professional commitment, prioritizing variables with the highest path coefficient correlations for improvement. It indicates 13 indicators requiring improvement and 18 indicators suitable for maintenance and development to enhance teacher professional commitment, with a primary focus on indicators within leadership serving, personality, work-life quality, job satisfaction, and professional commitment variables.

## 5. DISCUSSION

The influence of empowerment on teacher professional commitment is examined through Partial Least Squares Structural Equation Modeling (PLS-SEM). The direct effect of empowerment on professional commitment is positive, with a path coefficient of 0.181,





indicating that as empowerment increases, so does professional commitment. Moreover, the indirect effect of empowerment on professional commitment through job satisfaction is significant, as evidenced by a t-statistic value of 6.310, suggesting an indirect influence of empowerment via job satisfaction (Cheng et al., 2020). Additionally, empowerment directly affects job satisfaction with a t-statistic score of 4.314, highlighting its tangible impact on job satisfaction. However, when compared to the direct effect of empowerment on job satisfaction (0.679) and job satisfaction on professional commitment (0.561), the indirect effect of empowerment through job satisfaction (0.381) is greater than its direct effect (0.342), indicating full mediation by job satisfaction.

Servant Leadership significantly impacts teacher professional commitment directly, with a coefficient value of 0.243, the highest among exogenous variables influencing commitment. Chiniara & Bentein (2016) emphasize its role in employee performance and career satisfaction, leading to commitment. Teachers with high commitment exhibit enthusiasm, loyalty, passion, and responsibility, highlighting leaders' pivotal role. Servant Leadership, measured by indicators like Willingness to Listen and Humility, influences commitment through job satisfaction and work-life quality. While mediation by job satisfaction and work-life quality is observed, the direct impact of servant leadership remains prominent. Strategies for enhancing commitment may entail strengthening servant leadership indicators, work-life quality, and job satisfaction.

Personality, characterized by its unique and relatively stable patterns in behavior, thoughts, and emotions, exerts a direct positive influence on teacher professional commitment, with a coefficient value of 0.166, as Eason et al. (2015). This influence encompasses traits like Conscientiousness, Agreeableness, Emotional Stability, Openness, and Social Interaction, impacting commitment significantly. The direct effect is corroborated by significant hypothesis test results, with work-life quality and job satisfaction serving as intervening variables, demonstrating a positive impact through partial mediation, while the direct influence of personality on professional commitment remains prominent. Strategies for bolstering commitment involve enhancing personality traits, aligned with Barbuto & Wheeler (2006) findings, and SITOREM analysis suggests empowerment as a means to improve teacher commitment.

Quality of Work Life (QWL) plays a crucial role in shaping teacher professional commitment by influencing their perceptions of physical and mental well-being at work. Mily Velayudhan & Yameni (2017) define QWL as crucial for employees to meet their essential life needs within their organization. Research demonstrates a direct positive







impact of QWL on professional commitment, with a coefficient value of 0.174, indicating significance. Improvement in QWL factors like Work Environment, Job Participation, Rewards System, and Career Development can significantly enhance teacher commitment. Al-Makhdamah et al. (2020) findings reinforce this positive relationship. QWL also acts as an intervening variable, mediating the effects of empowerment, servant leadership, and personality on commitment. While QWL partially mediates these relationships, the direct influence of exogenous variables on commitment remains prominent (Bogler & Somech, 2004). Therefore, strategies for boosting teacher commitment should focus on strengthening QWL indicators like the Rewards System and Work Environment while also nurturing factors such as Job Participation and Career Development.

In this study, the direct positive influence of Job Satisfaction on Teacher Professional Commitment is evident through significant coefficient values and t-statistic results. Job Satisfaction, as defined by (Ali, 2016), encompasses various factors like work environment, supervision, fair pay, opportunities for promotion, and positive relationships with colleagues. The coefficient value of 0.238 indicates a substantial positive impact of Job Satisfaction on professional commitment, supported by a significant t-statistic of 2.488. Furthermore, Job Satisfaction acts as an intervening variable, mediating the effects of empowerment, servant leadership, and personality on commitment. The strongest mediating role of Job Satisfaction is observed in the pathway from empowerment to professional commitment. While Job Satisfaction partially mediates these relationships, its direct impact on commitment remains significant (Adiguzel et al., 2020). Strategies to enhance teacher commitment involve improving indicators of Job Satisfaction such as fair pay and work environment while also focusing on factors like promotion opportunities and supervision.

The process of optimizing teacher commitment involves strategically addressing weak indicators identified through SITOREM analysis, prioritizing those below a score of 4.0 while maintaining or improving indicators above this threshold. This prioritization is guided by expert weights assigned to each indicator, starting with those of highest importance and lowest scores. For example, in Servant Leadership, areas like Openness and Empathy are targeted for improvement, while factors such as Pay Level and Working Atmosphere are highlighted in Job Satisfaction. By systematically improving these areas, schools can effectively enhance teacher commitment (Akdol & Arikboga, 2015). Additionally, in boarding school contexts, leadership, whether by a principal or a religious figure like a Kiai, significantly influences commitment, particularly through practices like Servant Leadership.





Job Satisfaction, including elements like Pay Level and Promotion Opportunities, also plays a crucial role. By addressing these aspects meticulously, school administrators can create an environment where teachers feel valued and supported, leading to increased commitment and performance.

## 6. CONCLUSION

Based on the results of both qualitative and quantitative research through data processing, statistical calculations, hypothesis testing, and discussion of research findings followed by SITOREM analysis, strategies and methods for enhancing the Professional Commitment of Teachers in Boarding High Schools in Sukabumi District were identified. The following conclusions can be drawn: first, Strategies to enhance Teacher Professional Commitment through Empowerment, servant leadership, personality, quality of work life, and job satisfaction were identified. There is a direct positive influence of Empowerment on Quality of Work Life with  $\beta_{y1.1} = 0.315$ . This means that strengthening Empowerment will increase the Quality of Work Life. Thus, higher Empowerment levels will enhance the Quality of Work Life for teachers in Boarding High Schools in Sukabumi District; There is a direct positive influence of Empowerment on Job Satisfaction with  $\beta_{y2.1} = 0.248$ . This means that stronger Empowerment will increase Job Satisfaction. Thus, higher Empowerment levels will enhance Job Satisfaction for teachers in Boarding High Schools in Sukabumi District; There is a direct positive influence of Empowerment on Teacher Professional Commitment with  $\beta_{z1} = 0.181$ . This means that stronger Empowerment will increase Teacher Professional Commitment. Thus, higher Empowerment levels will enhance Teacher Professional Commitment for teachers in Boarding High Schools in Sukabumi District; And so forth for the other variables mentioned.

Second, Methods to increase professional commitment involve strengthening variables by improving weak indicators and maintaining and developing strong indicators. 13 Indicators that need improvement include variables such as servant leadership (e.g., Openness, Empathy), Job Satisfaction (e.g., Wage level, Working atmosphere), Empowerment (e.g., Motivation provision, Facilities provision), Quality of Work Life (e.g., Reward system, Work environment), Personality (e.g., Awareness, Adaptability), and Teacher Professional Commitment (e.g., Desire to Persist, Loyalty to the school, Enthusiasm); 18 Indicators that need to be maintained and developed include variables such as servant leadership (e.g., Wisdom, Willingness to listen, Support for change, Emotional turbulence healing, Humility), Job Satisfaction (e.g., Promotion opportunities, Principal supervision),





Empowerment (e.g., Open communication, Flexibility in completing tasks, Teacher skill improvement), Quality of Work Life (e.g., Work participation, Career development), Personality (e.g., Emotional stability, Social interaction, Openness), and Teacher Professional Commitment (e.g., Desire for knowledge improvement, Responsibility, Love for the profession).

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