

To cite this article: Andi Hermawan, Desi Kardini Wulansari and Budi Satryo Utomo (2025). Modeling And Optimization Strengthening Servant Leadership (Empirical Study Using The Pop-Sdm Approach On School Principals Of Private Vocational High Schools In Bogor Regency). International Journal of Education, Business and Economics Research (IJEBER) 5 (5): 26-51

**MODELING AND OPTIMIZATION STRENGTHENING SERVANT LEADERSHIP  
(EMPIRICAL STUDY USING THE POP-SDM APPROACH ON SCHOOL PRINCIPALS  
OF PRIVATE VOCATIONAL HIGH SCHOOLS IN BOGOR REGENCY)**

**Andi Hermawan<sup>1</sup>, Desi Kardini Wulansari<sup>2</sup> and Budi Satryo Utomo<sup>3</sup>**

<sup>123</sup>Universitas Pakuan Bogor, Indonesia

<https://doi.org/10.59822/IJEBER.2025.5503>

**ABSTRACT**

The Principal as a school leader is a contributing factor to the success of efforts to strengthen governance, accountability, and public image. This success is inseparable from the competence and ability in his duties, roles, and functions. Providing excellent service to all school members, optimizing the empowerment and development of school members, focusing on performance and growth as well as the impact on the progress of the school and the community, this leadership is called servant leadership. Based on preliminary research, it is known that the Principals of Private Vocational High Schools in Bogor Regency have not optimally demonstrated servant leadership. This study aims to produce ways and strategies to strengthen servant leadership by analyzing the influence of variables that have a positive and dominant influence on servant leadership. This study uses the POP-SDM (Modeling and Optimization of Strengthening Management Resources) approach with SITOREM analysis to produce optimal solutions from existing solutions. The implication of the research is, if servant leadership is to be strengthened, it is necessary to develop adversity intelligence, proactive personality, teamwork, and increased commitment to the organization, as well as work motivation.

**KEYWORDS:** Servant Leadership, Adversity Intelligence, Proactive Personality, Teamwork, Organizational Commitment, Work Motivation, SITOREM analysis.

© The Authors 2025  
Published Online: September  
2025

Published by International Journal of Education, Business and Economics Research (IJEBER) (<https://ijeber.com/>) This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licenses/by/4.0/legalcode>

## 1.0 BACKGROUND AND RESEARCH OBJECTIVES

National development through education aims to enhance the nation's intelligence and develop the whole Indonesian person. Government efforts to advance education in Indonesia are ongoing. One such effort is reforming the principal's primary duties as a school leader. The principal is a strategic key to achieving educational goals effectively and efficiently, as the quality of a school depends on how the principal performs their duties and functions as a leader. Ministerial Regulation of Education and Culture (Permendikbud) Number 6 of 2018 emphasizes that teachers appointed as principals are no longer assigned additional duties, but rather are primarily responsible for leading and managing every level of the educational unit.

Educational leadership is the ability and process of influencing, guiding, coordinating, and mobilizing others related to the development of educational science and the implementation of educational services, so that activities are carried out more efficiently and effectively in achieving educational goals. A servant principal is a principal who assists his/her staff through various efforts for the advancement of the school. Servant leadership is a management style in which leadership and service are in harmony and exist in interaction with the environment.

The concept of servant leadership is the provision of excellent service to the entire school community, optimizing the empowerment and development of the school community, with the essence of the principal serving others. The focus of servant leadership is on performance, growth, and the impact on the progress of the school and the community. In other words, teachers appointed as principals are not merely leaders with mastery of managerial, entrepreneurial, and supervisory skills; rather, they are principals who are skilled in managerial, entrepreneurial, and supervisory skills and are ready to provide service to teachers, education staff, students, parents, the community, and all stakeholders related to education.

Servant leadership developed in schools will produce principals with the following skills: 1) technical skills, which are the skills to supervise and evaluate the learning process and its progress; 2) human skills, which are the skills to build cooperation with all school members, thus creating a harmonious atmosphere between the school community and the community; 3) conceptual skills, which are the skills to resolve various problems that arise in the school with wisdom and tact. (Minister of National Education Regulation No. 13 of 2007).

Based on data and facts obtained through a preliminary survey conducted from December 16th to 21st, 2024, using a questionnaire, servant leadership in 30 private vocational high schools (SMK) in Bogor Regency is in dire need of strengthening. The initial survey consisted of statements to 30 principals as respondents. Data obtained showed that 47% of principals had not demonstrated humility, 41% had not demonstrated compassion, 48% had not demonstrated accountability, 47% had not demonstrated courage, 50% had not demonstrated integrity, and 58% had not demonstrated listening.

The survey results above indicate that principals' servant leadership still needs strengthening. Given that principals' servant leadership is a crucial element related to achieving educational goals, servant leadership is interesting to study.

This study aims to develop methods and strategies for strengthening servant leadership by analyzing the influence of variables that have a positive and dominant influence on servant leadership. Based on the results of qualitative research, the variables are adversity intelligence, proactive personality, commitment to the organization, teamwork, and work motivation. Furthermore, the methods and strategies for improving servant leadership found are used as recommendations to related parties, namely the Head of the Education Office, educational institutions, school supervisors, principals, and teachers of private vocational schools in Bogor Regency. This research focuses on methods and strategies to strengthen servant leadership, which is an important element related to achieving educational goals.

## **2.0 THEORETICAL REVIEW**

### **2.1 Theoretical Description**

#### **a) Servant Leadership (Y)**

Dierendonck (2011: pp. 1228–1261) explains that servant leadership is a leader's behavior that prioritizes service, namely service that arises from a person's desire to serve others, with the aim of enabling the individuals served to grow, be healthy, autonomous, and have a spirit of service. Indicators of servant leadership are as follows: 1) Empowering and Developing, 2) Humanizing People (Humanity), 3) Expressing One's True Self (Authenticity), 4) Developing Interpersonal Acceptance, 5) Providing Direction, and (6) Stewardship (Obedience).

Parris, D.I., and Peachey, J.W. (2013: pp. 377-393), define servant leadership as placing the needs of those being led above the leader's personal interests. The indicators of servant leadership are as follows: 1) Listening, 2) Empathy, 3) Healing, 4) Awareness, 5) Persuasion, 6) Conceptualization, 7) Foresight, 8) Stewardship, 9) Commitment to the growth of people, and 10) Building Community.

Focht, A., and Ponton, M. (2015: pp. 44-60), define servant leadership as beginning with a desire to provide service to individuals (subordinates) and then developing an aspiration to direct individuals toward specific goals. In other words, it is leadership behavior based on a desire to serve and driven by efforts to direct others toward specific goals. The indicators of servant leadership are as follows: 1) Value People, 2) Humility, 3) Listening, 4) Trust, 5) Caring, 6) Integrity, 7) Service, 8) Empowering, 9) Serve other's needs before their own, 10) Collaboration: servant leadership is about pursuing a higher purpose for the good of the whole, and because a leadership by definition collaborative process (between leaders and followers), 11) Love, Unconditional Love. This category includes acceptance, recognition, appreciation of others, trust and vulnerability, and 12) Learning: Servant Leaders know that they don't know it all so they are willing to learn from all directions in the organization. This includes comfort with ambiguity, intellectual energy and curiosity.

Stone, A.G. et al., (2004: pp. 349-361), defines servant leadership as a leader who optimally serves and fulfills the needs of others by developing the attitudes of individuals around them, hoping they will have the same attitude to serve well. The indicators of servant leadership are as follows: 1) Vision, 2) Honesty, 3) Integrity, 4) Trust, 5) Service, and 6) Style.

Spears, L.C. (2010: pp. 25-30), defines servant leadership as a leader who prioritizes service, starting with a person's natural desire to serve and prioritize service. This conscious choice then leads to aspiration and drive in leading others. Indicators of servant leadership are as follows: 1) Listening, 2) Empathy, 3) Healing, 4) Awareness, 5) Persuasion, 6) Conceptualization, 7) Insight, 8) Openness, 9) Commitment to growth, and 10) Building community.

Sendjaya, S. et.al., (2008: pp. 402-424) defines servant leadership as a leader who prioritizes the needs, aspirations, and interests of others over their own. Servant leaders are committed to serving others. The indicators of servant leadership are as follows: 1) Nurturing relationships, 2) Responsibility, 3) Morality, 4) Spirituality, and 5) Demonstrating influence.

From the various theories above, it can be synthesized that servant leadership is a leader's behavior that begins with feelings and commitment to consciously serve, directing individuals, prioritizing the interests of others, aspirations, harmony, and good character to build prosperity and the common good. The indicators of Servant Leadership are as follows: 1) Humility, 2) Compassion, 3) Accountability, 4) Courage, 5) Integrity, and 6) Listening.

#### **b) Adversity Intelligence (X<sub>1</sub>)**

Shivaranjani (2014: pp. 181-189) explains that Adversity Quotient is how well a person faces difficulties and their ability to overcome them. Indicators of Adversity Quotient are: 1) Control, 2) Origin and Ownership, 3) Reach, and 4) Endurance.

Pangma, R. et.al., (2009: pp. 466-470), Adversity Quotient is related to how well an individual can resolve and confront the problems they face. Indicators of Adversity Quotient are as follows: 1) Identifying problems and how to respond or not respond to them, 2) Finding and developing ego identity or self-control in problematic situations, 3) Adapting and adjusting to the surrounding environment, 4) Individual strength in dealing with problems (physical and mental), and 5) Adjusting to stressful situations.

Santos, M.C.J. (2012: pp. 13-23), describes Adversity Quotient as the ability to withstand adversity. The indicators of adversity intelligence are as follows: 1) Control, 2) Origin and Ownership, 3) Reach, and 4) Endurance.

Tony Wijaya (2007: pp. 117-127) argues that Adversity Intelligence is an individual's level of persistence in facing all the challenges they face in life. The indicators of adversity intelligence are as follows: 1) Control, 2) Origin, 3) Ownership, 4) Reach, and 5) Endurance.

From the various theories above, it can be synthesized that Adversity Intelligence is an individual characteristic that responds to various difficulties and obstacles in carrying out tasks. The indicators of Adversity Intelligence are as follows: 1) Attitude to control difficulties (Control), 2) Attitude to the origin of difficulties (Origin), 3) Attitude to face difficulties (Ownership), 4) Attitude to anticipate the impact of difficulties (Reach), and 5) Endurance to difficulties (Endurance).

**c) Proactive Personality (X<sub>2</sub>)**

Schermerhorn, J.R. Jr., et.al., (2007: pp. 34-35), explains that proactive personality is a disposition that identifies whether or not individuals act to influence their environment. Indicators of proactive personality are as follows: 1) Identifying opportunities and acting on them, 2) Demonstrating initiative, 3) Taking action, and 4) Persisting until meaningful change occurs.

Covey, S.R. (2004: pp. 70-75), states that being proactive means taking initiative, taking responsibility, making choices based on principles and values, using four unique human gifts (self-awareness, conscience, imagination, and free will), creating change, and encouraging creativity. Indicators of a proactive personality are as follows: 1) Taking initiative, 2) Being responsible, 3) Making choices based on principles and values, 4) Using four unique human gifts: self-awareness, conscience, imagination, and free will, 5) Creating change, and 6) Encouraging creativity.

DuBrin, A.J. (2014: pp. 1-12), explains that a proactive personality refers to someone who has a relatively stable tendency to initiate environmental change. Indicators of a proactive personality are as follows: 1) a desire for control, 2) taking charge at work, 3) above-average cognitive skills, 4) high self-efficiency, 5) setting challenging goals, 6) opportunity seeking and breaking things that merit breaking, 7) independent judgment combined with a willingness to speak out, 8) being an early riser, and 9) assessing the probable success of proactive behavior.

Crant, M.J., and Bateman, T.S. (2001: pp. 63–75) describe a proactive personality as someone who identifies opportunities, shows initiative, takes action, and perseveres until meaningful change occurs. (Proactive personality: A person who identifies opportunities, shows initiative, takes action, and perseveres until meaningful change occurs.) Indicators of a proactive personality are: 1) identifying opportunities and acting, 2) having initiative, 3) taking action, and 4) persisting until meaningful change occurs.

From the various theories above, it can be synthesized that a proactive personality is an individual characteristic that has a tendency to strive to take action to influence the environment. Indicators of a proactive personality are as follows: 1) identifying opportunities and following up (Opportunities), 2) initiative (Initiative), 3) action (Action), and 4) working hard until change occurs (Worker).

**d) Teamwork (X<sub>3</sub>)**

Robbins, S.P., and Judge, T.A. (2013: pp. 343) explain that teamwork is a group whose members produce group performance that is greater than the sum of their individual performances. Teamwork indicators are as follows: 1) Collective performance, 2) Group members synergize, 3) Prioritize togetherness (not individual performance), and 4) Members complement each other's skills and expertise.

Gibson, J.L., et al. (2012: pp. 243–245), define teamwork as a group of individuals whose behavior and performance mutually influence each other. Teamwork indicators are as follows: 1) Members share common goals (group goals), 2) Strong interpersonal relationships between members, 3) The group fosters togetherness, and 4) Members complement each other (proximity).

Kreitner, R., and Kinicki, A. (2010: pp. 310-314) describe teamwork as a group of individuals who feel satisfied working together and are willing to contribute to the group. Factors influencing group cooperation include: 1) clearly defined group goals, 2) active participation of members, 3) informal relationships between members, 4) consensus-based decisions, 5) open interpersonal communication, 6) clear group norms, and 6) complementary skills.

Tenner, A.R., and DeToro, I.J., (2002: pp. 183) describe teamwork as a group of people working together to achieve a common goal, and this goal is more easily achieved through teamwork than by working alone. Teamwork indicators include: 1) evaluation and rewards, 2) social relationships, 3) organizational support, 4) task characteristics, and 5) leadership.

From the various theories above, it can be synthesized that teamwork is a group of individuals who collaborate by influencing each other and contributing effectively and responsibly in carrying out tasks to achieve common goals. Teamwork indicators are as follows: 1) Cooperation, 2) Trust, 3) Cohesiveness, 4) Responsibilities, and 5) Communication.

#### **e) Organizational Commitment (X<sub>4</sub>)**

Mitchell, T.R., and Larson, J.R. (2005: 144) explain that commitment to the organization is an individual's attitude of continuing to participate in the organization. Indicators of work commitment are as follows: 1) loyalty, 2) self-identification with the organization, and 3) acceptance of the organization's goals.

Hellriegel, D., and Slochun, J.W. Jr. (2011: pp. 328). Commitment to the organization is the extent of a person's involvement in their organization and the strength of their identification with it. Indicators of work commitment are as follows: 1) Belief in the organization's goals and values, which creates an emotional connection between members and the organization; and 2) Readiness and willingness to devote energy and thought to the interests of the organization, because it is needed and will impact their career development. Maintaining a strong relationship with the organization, so that members strive to be part of the organization and have no intention of leaving.

Ivancevich, J.M. et al. (2008: pp. 234), defines organizational commitment as the feelings of identification, involvement, and loyalty expressed by employees toward the organization. Indicators of organizational commitment are as follows: 1) Affective occupational commitment, 2) Continuance commitment, and 3) Normative commitment.

Luthan, F. (2006: pp. 249–250) describes organizational commitment as an attitude that reflects employee loyalty to the organization and an ongoing process in which employees express their concern for the organization and its continued success and progress. Indicators of occupational commitment are as follows: 1) Affective commitment, 2) Continuance commitment, and 3) Normative commitment.

From the various theories above, it can be synthesized that organizational commitment is a strong desire within an individual for their organization, manifested in loyalty through an active role in achieving organizational goals and maintaining membership in the organization. The indicators of



commitment to the organization are as follows: 1) sense of belonging, 2) loyalty to work, 3) togetherness in the organization and realizing organizational goals, 4) desired services, 5) feedback received from the organization, 6) suitability of abilities, 7) increased income and fulfillment of needs.

#### **f) Work Motivation ( $X_5$ )**

George, J.M. and Jones, R., (2012: pp. 157-160), explain that work motivation is a psychological force that determines the direction of a person's behavior within an organization, their level of effort, and their level of persistence. Elements of work motivation: 1) Direction of Behavior, 2) Level of Effort, and 3) Level of Persistence.

Schermerhorn, J.R. (2013: pp. 404), defines motivation as a force within an individual that determines the level, direction, and persistence of effort exerted at work. Simply put, highly motivated people work hard at their jobs, while unmotivated people do not. One of the most important managerial responsibilities is to create conditions in which others are consistently inspired to work hard. Work motivation indicators are as follows: 1) Achievement, 2) Recognition, 3) Work itself, 4) Responsibility, 5) Advancement, 6) Growth, 7) Working conditions, 8) Interpersonal relationships, 9) Organizational policies and administration, and 10) Compensation.

Greenberg, J., and Baron, R.A. (2008: pp. 248) define motivation as a process that drives, directs, and maintains human behavior toward achieving a goal. Motivation creates a stimulus, an inner drive to do something to the maximum, and is directed appropriately toward achieving the goal. Motivational factors are: 1) Stimulus, which influences a person to perform an activity; 2) Maintenance, which involves properly maintaining and caring for something; 3) Arousal, which revitalizes something within oneself in carrying out an activity/work; and 4) Direction, which provides a definite direction toward achieving the desired goal.

Wexley, K.N., and Yukl, G.A. (2005: pp. 16–18) describe work motivation as something that generates enthusiasm or drive for work. Motivation, as a form of a person's desire to do something, originates from within and from outside the self. Motivational factors include: 1) work motivation depends on the work itself, 2) achievements, 3) opportunities for advancement, and 4) recognition from others.

From the various theories above, it can be synthesized that work motivation is the drive, desire, and driving force that grows within a person, both from within and outside themselves, to carry out a job with high enthusiasm using all their abilities and skills with the aim of maximum achievement. The indicators are as follows: 1) Desire to achieve achievements (Achievement), 2) Desire to get recognition (Confession), 3) Desire to be responsible (Responsibility), 4) Desire to get progress (Progress), 5) Desire to get working conditions (Working Condition), and 6) Desire to get organizational procedures (Organizational Procedure).

## **2.2 Modeling and Optimization Theory**

Operations research is a common method used in the study and optimization of systems through system modeling. Hardhienata, S (2017), defines operations research as the application of scientific

methods to find optimal solutions and decision-making for a problem, taking into account existing resources and constraints. The analysis and solution of the aforementioned problems are typically conducted using modeling and optimization.

A statistical mathematical model is an equation formed from a conceptual framework to describe the relationship or influence of a dependent variable on an independent variable. Most research using statistical models in management, particularly in educational management, concludes with the finding that there is a positive relationship or influence between the variables studied. This results in research conclusions being merely statistical inferences and recommendations being normative in nature.

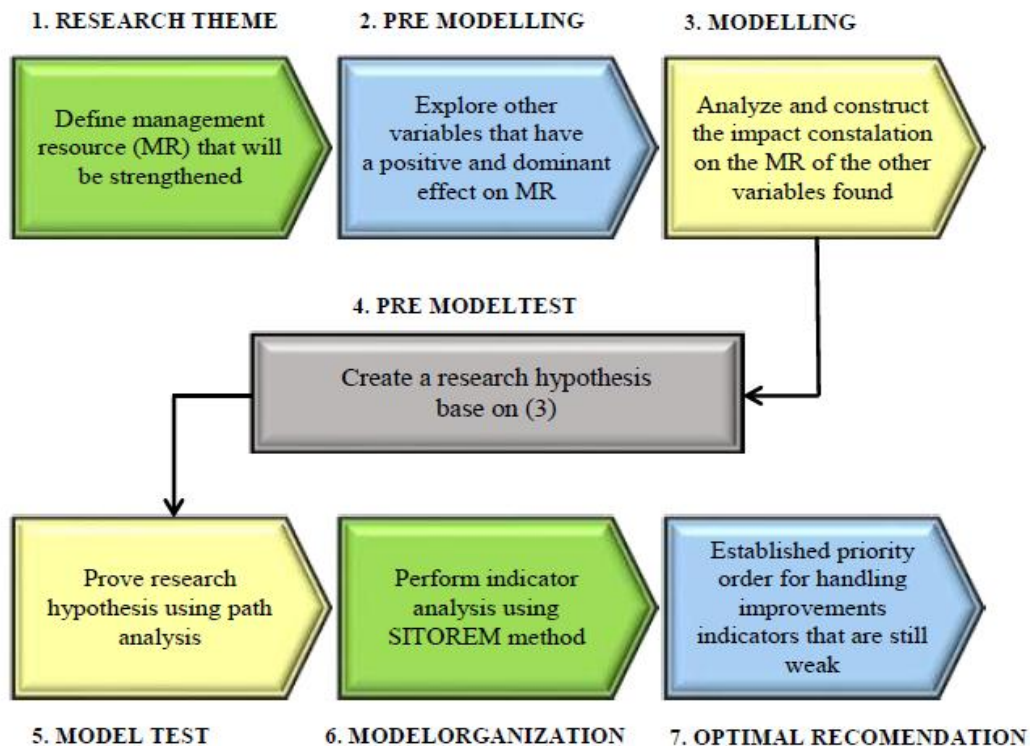
### **2.3 SITOREM**

SITOREM is an abbreviation of "Scientific Identification Theory to Conduct Operational Research in Education Management," which can generally be interpreted as a scientific method used to identify variables for conducting "Operations Research" in the field of Educational Management (Soewarto Hardhienata, 2017). In the context of correlational research and path analysis, SITOREM is used as a method to: a) identify the strength of influence between independent and dependent variables, b) analyze the value of research results for each research variable indicator, and c) analyze the weight of each indicator for each research variable based on the criteria of "Cost, Benefit, Urgency, and Importance." Based on the identification of the strength of influence between research variables, and also based on the weight of each indicator of the independent variable with the greatest contribution, a priority order of indicators can be established to determine which indicators need improvement and which to maintain or develop.

### **2.4 POP-SDM Approach**

This research uses the POP-SDM (Modeling and Optimization of Management Resource Strengthening) approach developed by Setyaningsih, S., and Hardhienata, S. in 2019. This method begins with qualitative research to explore factors suspected of having a positive and dominant influence on the resources to be strengthened. Based on the factors or variables identified, a constellation of the variables' influence on the resources to be strengthened is compiled, resulting in research hypotheses. The research hypotheses in the quasi-qualitative research stage are then tested using path analysis in the quantitative research stage. The steps in POP-SDM consist of seven stages: 1) Research Theme, 2) Pre-Modeling, 3) Modeling, 4) Pre-Model Test, 5) Model Test, 6) Model Optimization, and 7) Optimal Recommendation.

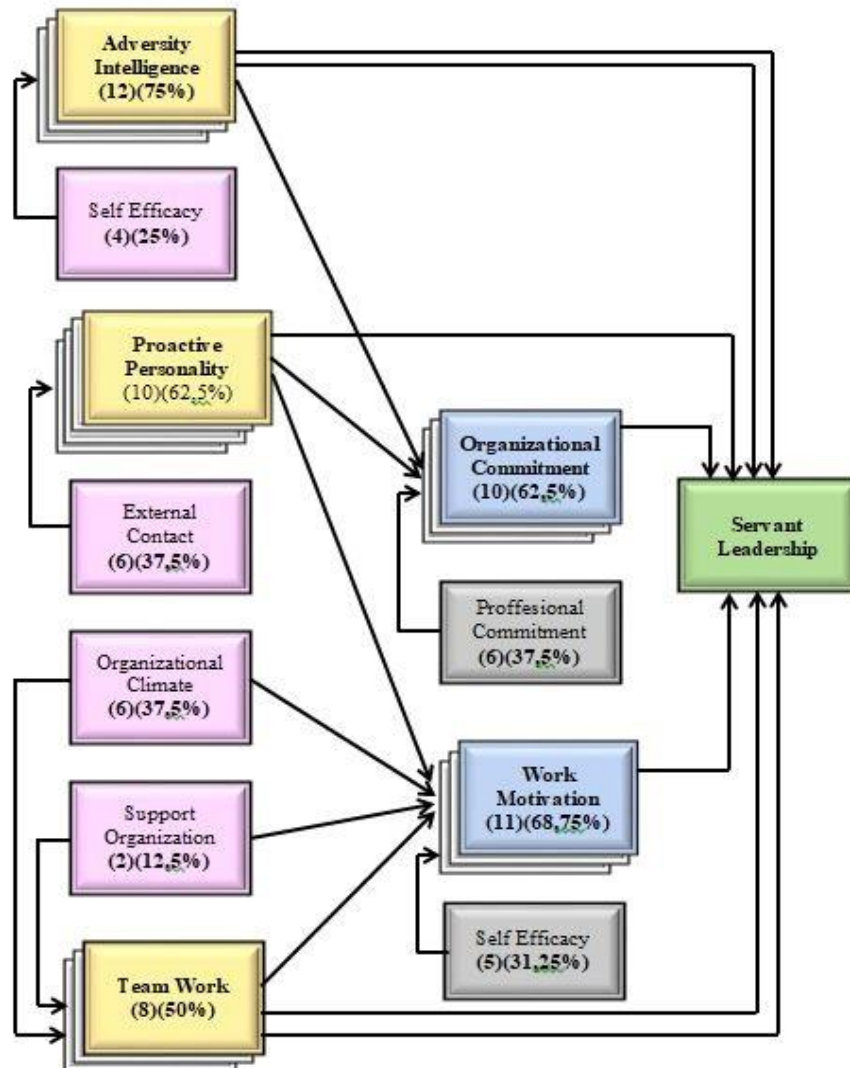




**Figure 1.** Stages of the POP-SDM approach  
**Source:** Setyaningsih, S. and Hardhienata, S (2019)

### 3.0 RESEARCH METHOD

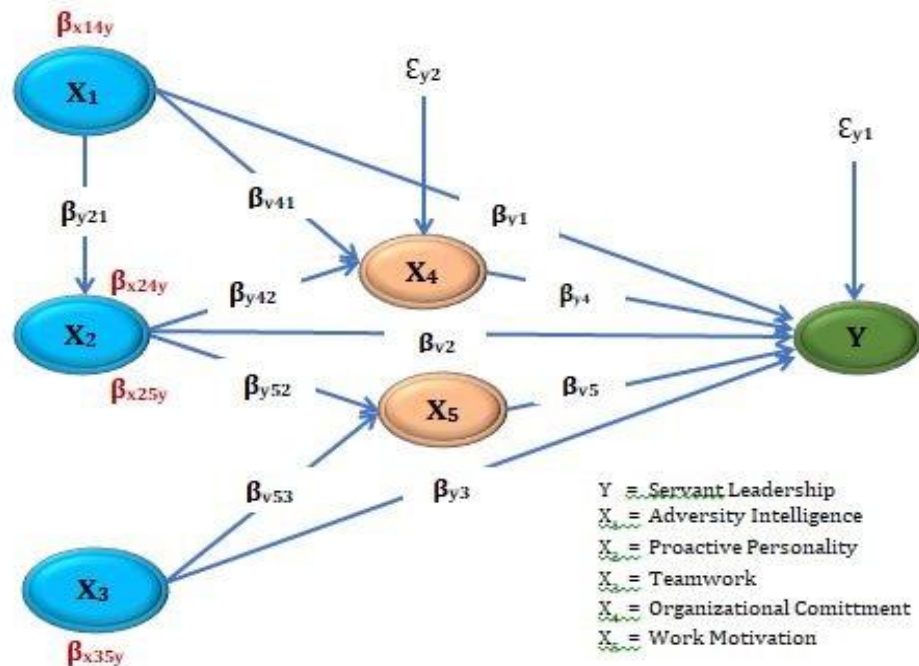
This research uses the POP-SDM (Modeling and Optimization of Management Resource Strengthening) approach developed by Setyaningsih, S., and Hardhienata, S. in 2019. This method begins with qualitative research to explore factors suspected of having a positive and dominant influence on the resources to be strengthened.



**Figure 2.** Variables obtained from qualitative research

Based on the identified factors or variables, a constellation of the variables' influence on the resources to be strengthened was compiled, resulting in research hypotheses. Qualitative research was conducted at 16 private vocational high schools (SMK) in Bogor Regency. The qualitative research was conducted over three months, from August 14 to October 28, 2024, in stages, from developing the research proposal to establishing the research hypothesis findings.

Quantitative research was conducted with 352 private vocational high school principals in Bogor Regency, with a sample size of 188 principals calculated using the Cochran formula. Data collection in this study utilized a questionnaire distributed to the principals as respondents. The research instrument items were derived from the research indicators to be explored. Before being distributed to respondents, the research instrument was pre-tested to determine its validity and reliability. Validity was tested using the Pearson Product Moment technique, while reliability was calculated using the Cronbach's Alpha formula.



**Figure 3.** Framework of Thinking / Constellation of Research Variables

Kerangka berpikir dapat diartikan sebagai penggambaran alurberpikir peneliti yang memberikan penjelasan tentang objek (variabel/fokus) permasalahan, mengapa peneliti mempunyai dugaan sebagaimana diutarakandalam hipotesis penelitian. Berdasarkan konstelasi penelitian yang sudahdikonfirmasi oleh *Expert* maka dapat disusun, kerangka berpikir atau *konstelasi*.

Setelah data terkumpul, selanjutnya dilakukan uji homogenitas, uji normalitas, uji linieritas model regresi, analisis korelasi, analisis pengaruh langsung dan pengaruh tidak langsung, serta uji hipotesis statistik kemudian dilakukan analisa SITOREM. Berdasarkan kerangka berpikir / konstelasi variabel penelitian diatas, selanjutnya dapat disusun model matematika statistik sebagai berikut :

- 1) Persamaan Substruktural 1  

$$\hat{y} = \beta_{y1}x_1 + \beta_{y2}x_2 + \beta_{y3}x_3 + \beta_{y4}x_4 + \beta_{y5}x_5 + \epsilon_y$$
- 2) Persamaan Substruktural 2  

$$X_4 = \beta_{41}X_1 + \beta_{42}X_2 + \epsilon_4$$
- 3) Persamaan Substruktural 3  

$$X_5 = \beta_{52}X_2 + \beta_{53}X_3 + \epsilon_5$$
- 4) Persamaan Substruktural 4  

$$X_2 = \beta_{21}X_1 + \epsilon_2$$

A conceptual framework can be defined as a depiction of the researcher's thought process, explaining the object (variable/focus) of the problem and why the researcher has the assumptions stated in the research hypothesis. Based on the research constellation confirmed by experts, a conceptual framework or constellation can be developed.

After data collection, homogeneity tests, normality tests, regression model linearity tests, correlation analysis, direct and indirect influence analysis, and statistical hypothesis testing are conducted. SITOREM analysis is then performed. Based on the conceptual framework/constellation of the research variables above, a statistical mathematical model can be constructed as follows:

- 1) Substructural Equation 1  

$$\hat{y} = \beta_{y1x1} + \beta_{y2x2} + \beta_{y3x3} + \beta_{y4x4} + \beta_{y5x5} + \epsilon_y$$
- 2) Substructural Equation 2  

$$X_4 = \beta_{41x4} + \beta_{42x4} + \epsilon_{y4}$$
- 3) Substructural Equation 3  

$$X_5 = \beta_{52x5} + \beta_{53x5} + \epsilon_{y5}$$
- 4) Substructural Equation 4  

$$X_2 = \beta_{21x1} + \epsilon_{y2}$$

## 4.0 RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

Based on the results of the statistical description analysis for the research variables, the following table reveals the symptoms of central tendency in the data:

**Table 1.** Summary of Statistical Descriptions of Research Variables

No	Description	Adversity Intelligence $X_1$	Proactive Personality $X_2$	Teamwork $X_3$	Organizational Comittment $X_4$	Work Motivation $X_5$	Servant Leadership $Y$
1.	Mean	122.91	126.75	122.80	121.05	126.28	118.65
2.	Standard Error	1.19771	1.75046	1.77186	1.21728	1.25326	0.97599
3.	Median	126.5	134	130	124	130	123
4.	Mode	130	150	149	121	136	129
5.	Stand Deviation	16.4221	24.001	24.2945	16.6906	17.1838	13.3821
6.	Sample Variance	269.687	576.049	590.223	278.575	295.284	179.081
7.	Kurtosis	1.64832	1.64903	0.5498	0.58266	0.85695	0.19120
8.	Skewness	-1.3927	-1.4904	-0.7772	-0.9844	-1.0468	-1.0205
9.	Range	81	101	101	70	77	59
10.	Minimum Score	64	52	59	74	75	77
11.	MaximumScore	145	153	160	144	152	136

### 4.2 Classical Assumption Test

#### a. Validity & Reliability Test

The results of the validity and reliability tests for the research instruments are described in the following table:

**Table 2.** Results of the Validity and Reliability Tests for Research Instruments

No	Variable Name	Number Question	of Items Valid	Statements Reliability Value	Conclusion
1	Servant Leadership	40	34	0,946	<i>valid&amp;reliable</i>
2	Adversity Intelligence	40	35	0,944	<i>valid&amp;reliable</i>
3	Proactive Personality	40	37	0,943	<i>valid&amp;reliable</i>
4	Teamwork	40	37	0,939	<i>valid&amp;reliable</i>
5	Organizational Commitment	40	35	0,922	<i>valid&amp;reliable</i>
6	Work Motivation	40	36	0,952	<i>valid&amp;reliable</i>

### b. Normality Test

Based on the overall calculation results, the error normality test in this study can be seen in the summary in the following table:

**Table 3.** Normality Test for Estimated Standard Errors

No	Estimation Error	n	L <sub>count</sub>	L <sub>table</sub>		Decision
				$\alpha = 0,05$	$\alpha = 0,01$	
1	$Y - \hat{Y}_1$	188	0.011	0.065	0.075	Normal
2	$Y - \hat{Y}_2$	188	0.011	0.065	0.075	Normal
3	$Y - \hat{Y}_3$	188	0.010	0.065	0.075	Normal
4	$Y - \hat{Y}_4$	188	0.012	0.065	0.075	Normal
5	$Y - \hat{Y}_5$	188	0.008	0.065	0.075	Normal
6	$X_4 - X_1$	188	0.009	0.065	0.075	Normal
7	$X_4 - X_2$	188	0.012	0.065	0.075	Normal
8	$X_5 - X_2$	188	0.010	0.065	0.075	Normal
9	$X_5 - X_3$	188	0.008	0.065	0.075	Normal
10	$X_2 - X_1$	188	0.012	0.065	0.075	Normal
Normal distribution requirements: $L_{count} < L_{table}$						

### c. Homogeneity Test

Based on the overall calculation results of the error normality test in this study, the following table summarizes the results:

**Table 4.** Summary of the Homogeneity Test for Data Variance

No	Grouping	X <sup>2</sup> <sub>Count</sub>	X <sup>2</sup> <sub>table</sub>	Decision
			$\alpha = 0,05$	
1.	Y on X <sub>1</sub>	3710.50	6132.59	Homogen
2.	Y on X <sub>2</sub>	4469.28	7288.01	Homogen
3.	Y on X <sub>3</sub>	4912.17	8451.28	Homogen
4.	Y on X <sub>4</sub>	3787.16	6313.26	Homogen

No	Grouping	$\chi^2_{\text{Count}}$	$\chi^2_{\text{table}}$	Decision
			$\alpha = 0,05$	
5.	Y on $X_5$	3714.91	6192.48	Homogen
6.	$X_4$ on $X_1$	3823.33	6132.59	Homogen
7.	$X_4$ on $X_2$	4592.84	7288.01	Homogen
8.	$X_5$ on $X_2$	4613.17	7288.01	Homogen
9.	$X_5$ on $X_3$	5145.55	8451.28	Homogen
10.	$X_2$ on $X_1$	3977.44	6132.59	Homogen
Requirements for a homogeneous population : $\chi^2_{\text{count}} < \chi^2_{\text{table}}$				

#### d. Regression Model Test

The overall results of the regression model calculations in this study can be seen in the summary in the following table:

**Table 5.** Regression Model

No	Model of Relationships Between Variables	Regression Model	Significance Test Results
1.	Y on $X_1$	$\hat{Y} = 1,162 + 0,664 X_1$	Significant
2.	Y on $X_2$	$\hat{Y} = 1,833 + 0,487 X_2$	Significant
3.	Y on $X_3$	$\hat{Y} = 2,121 + 0,416 X_3$	Significant
4.	Y on $X_4$	$\hat{Y} = 1,433 + 0,598 X_4$	Significant
5.	Y on $X_5$	$\hat{Y} = 1,358 + 0,611 X_5$	Significant
6.	$X_4$ on $X_1$	$X_4 = 0,920 + 0,721 X_1$	Significant
7.	$X_4$ on $X_2$	$X_4 = 1,562 + 0,554 X_2$	Significant
8.	$X_5$ on $X_2$	$X_5 = 1,631 + 0,548 X_2$	Significant
9.	$X_5$ on $X_3$	$X_5 = 2,008 + 0,452 X_3$	Significant
10.	$X_2$ on $X_1$	$X_2 = 0,731 + 1,180 X_1$	Significant
11.	Y on $X_1$ through $X_4$	$\hat{Y} = 3,412 + 0,365 X_1 + 0,328 X_4$	Significant
12.	Y on $X_2$ through $X_4$	$\hat{Y} = 5,145 + 0,342 X_2 + 0,197 X_4$	Significant
13.	Y on $X_3$ through $X_5$	$\hat{Y} = 4,677 + 0,304 X_2 + 0,264 X_5$	Significant
14.	Y on $X_3$ through $X_5$	$\hat{Y} = 4,308 + 0,195 X_3 + 0,409 X_5$	Significant

#### e. Regression Model Significance Test

The overall results of the linearity test for the regression model in this study can be seen in the following table:

**Table 6.** Summary of Regression Model Significance Test Results

No	Model of Relationships Between Variables	$F_{\text{count}}$	$F_{\text{table}}$		Significance Test Results
			$\alpha=0.05$	$\alpha=0.01$	
1.	Y on $X_1$	17,562	3,952	6,939	Very Significant
2.	Y on $X_2$	27,153	3,952	6,939	Very Significant
3.	Y on $X_3$	40,134	3,952	6,939	Very Significant



No	Model of Relationships Between Variables	$F_{count}$	$F_{table}$		Significance Test Results
			$\alpha=0.05$	$\alpha=0.01$	
4.	Y on $X_4$	24,399	3,952	6,939	Very Significant
5.	Y on $X_5$	26,564	3,952	6,939	Very Significant
6.	$X_4$ on $X_1$	5,931	3,952	6,939	Significant
7.	$X_4$ on $X_2$	12,070	3,952	6,939	Very Significant
8.	$X_5$ on $X_2$	17,157	3,952	6,939	Very Significant
9.	$X_5$ on $X_3$	23,067	3,952	6,939	Very Significant
10.	$X_2$ on $X_1$	16,906	3,952	6,939	Very Significant
11.	Y on $X_1$ through $X_4$	14,551	3,952	6,939	Very Significant
12.	Y on $X_2$ through $X_4$	18,218	3,952	6,939	Very Significant
13.	Y on $X_3$ through $X_5$	20,402	3,952	6,939	Very Significant
14.	Y on $X_3$ through $X_5$	15,885	3,952	6,939	Very Significant
Significant Conditions: $F_{count} > F_{table}$					

#### f. Uji Linieritas

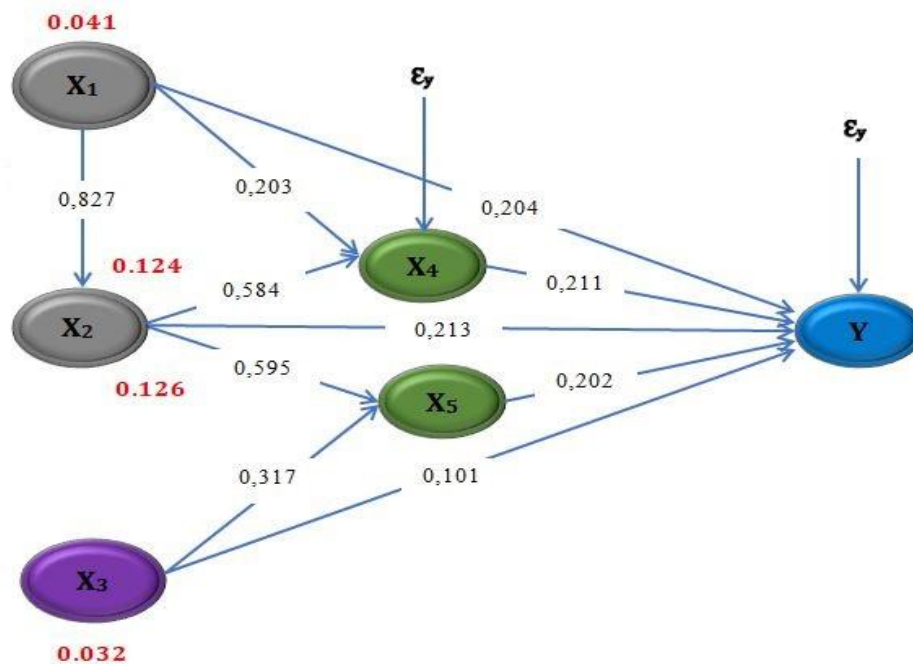
Hasil perhitungan secara keseluruhan uji linearitas model regresi dalam penelitian ini dapat dilihat pada rangkuman pada tabel berikut :

**Tabel 7.** Rangkuman Hasil Uji Linearitas Model Regresi

No	Model of Relationships Between Variables	$F_{count}$	$F_{table}$		Linearity Pattern Test Results
			$\alpha=0.05$	$\alpha=0.01$	
1.	Y on $X_1$	0,248	1,450	1,688	Linear
2.	Y on $X_2$	0,288	1,429	1,655	Linear
3.	Y on $X_3$	0,294	1,412	1,629	Linear
4.	Y on $X_4$	0,307	1,442	1,675	Linear
5.	Y on $X_5$	0,322	1,439	1,671	Linear
6.	$X_4$ on $X_1$	0,089	1,450	1,688	Linear
7.	$X_4$ on $X_2$	0,138	1,429	1,655	Linear
8.	$X_5$ on $X_2$	0,191	1,429	1,655	Linear
9.	$X_5$ on $X_3$	0,250	1,429	1,655	Linear
10.	$X_2$ on $X_1$	0,189	1,429	1,655	Linear
11.	Y on $X_1$ through $X_4$	0,000	0,005	0,001	Linear
12.	Y on $X_2$ through $X_4$	0,000	0,005	0,001	Linear
13.	Y on $X_3$ through $X_5$	0,000	0,005	0,001	Linear
14.	Y on $X_3$ through $X_5$	0,000	0,005	0,001	Linear
Syarat Linier : $F_{count} < F_{table}$					

#### 4.3 Path Analysis Test

The overall path effect, combining the analysis results for each substructure, can be described as follows:



**Figure 4.** Path Analysis Results

The influence between the independent variable and the dependent variable when viewed from the path analysis, then the relationship is a functional relationship where Servant Leadership (Y) is formed as a result of the working of the Adversity Intelligence (X1), Proactive Personality (X2), Teamwork (X3) Organizational Commitment (X4) and Work Motivation (X5) functions. The discussion of the research results can be described as follows:

**a. Direct Effect of Adversity Intelligence (X1) on Servant Leadership (Y)**

The calculation results show a path coefficient ( $\beta_{y1}$ ) of 0.204, with a calculated t of 3.629. At a significance level of  $\alpha = 0.05$ , the ttable is 1.972. Therefore,  $t_{count} > t_{table}$  indicates that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of Adversity Intelligence (X1) on Servant Leadership (Y). This means that stronger Adversity Intelligence (X1) in an individual principal will improve the principal's Servant Leadership (Y).

**b. Direct Effect of Proactive Personality Variable (X2) on Servant Leadership Variable (Y)**

The calculation results show a path coefficient ( $\beta_{y2}$ ) of 0.213, with a calculated t of 2.879. At the significance level of  $\alpha = 0.05$ , the ttable is 1.972. Therefore,  $t_{count} > t_{table}$  means that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of Proactive Personality (X2) on Servant Leadership (Y). This means that a stronger Proactive Personality (X2) in an individual principal will improve the principal's Servant Leadership (Y).

**c. Direct Effect of Teamwork (X3) on Servant Leadership (Y)**

The calculation results show a path coefficient ( $\beta_{y3}$ ) of 0.101, with a calculated t of 4.237. At the significance level of  $\alpha = 0.05$ , the ttable is 1.972. Therefore,  $t_{count} > t_{table}$  indicates that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a positive direct effect of Teamwork (X3) on Servant Leadership (Y). This means that stronger Teamwork (X3) within an individual principal will improve the principal's Servant Leadership (Y).

**d. Direct Effect of Organizational Commitment (X4) on Servant Leadership (Y)**

The calculation results show a path coefficient ( $\beta_{y4}$ ) of 0.211, with a calculated  $t$  of 3.848. At the significance level of  $\alpha = 0.05$ , the  $t$  table is 1.972. Therefore,  $t_{\text{count}} > t_{\text{table}}$  indicates that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of organizational commitment (X4) on Servant Leadership (Y). This means that a stronger commitment to the organization (X4) among individual principals will improve the principal's Servant Leadership (Y).

**e. Direct Effect of Work Motivation (X5) on Servant Leadership (Y)**

The calculation results show a path coefficient ( $\beta_{y5}$ ) of 0.202, with a calculated  $t$  of 3.987. At the significance level of  $\alpha = 0.05$ , the  $t$  table is 1.972. Therefore,  $t_{\text{count}} > t_{\text{table}}$  indicates that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of Work Motivation (X5) on Servant Leadership (Y). This means that stronger Work Motivation (X5) in an individual principal will improve the principal's Servant Leadership (Y).

**f. Direct Effect of Adversity Intelligence (X1) on Organizational Commitment (X4)**

The calculation results show a path coefficient ( $\beta_{y41}$ ) of 0.203, with a calculated  $t$  of 2.389. At a significance level of  $\alpha = 0.05$ , the  $t$  table is 1.972. Therefore,  $t > t_{\text{table}}$  means that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of Adversity Intelligence (X1) on organizational commitment (X4). This means that the stronger the Adversity Intelligence (X1) of an individual principal, the greater the principal's commitment to the organization (X4).

**g. Direct Effect of Proactive Personality Variable (X2) on Organizational Commitment Variable (X4)**

The calculation results show a path coefficient ( $\beta_{y42}$ ) of 0.584, with a calculated  $t$  of 6.869. At the significance level of  $\alpha = 0.05$ , the  $t$  table yields 1.972. Therefore,  $t > t_{\text{table}}$  indicates that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of Proactive Personality (X2) on organizational commitment (X4). This means that a stronger Proactive Personality (X2) in an individual principal will increase the principal's commitment to the organization (X4).

**h. Direct Effect of Proactive Personality Variable (X2) on Work Motivation Variable (X5)**

The calculation results show a path coefficient ( $\beta_{y52}$ ) of 0.595, with a calculated  $t$  of 9.133. At the significance level of  $\alpha = 0.05$ , the  $t$  table yields 1.972. Therefore,  $t > t_{\text{table}}$  indicates that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a direct positive effect of Proactive Personality Variable (X2) on Work Motivation (X5). This means that a stronger Proactive Personality (X2) in an individual principal will increase the principal's Work Motivation (X5).

**i. Direct Influence of Teamwork Variable (X3) on Work Motivation Variable (X5)**

The calculation results show a path coefficient ( $\beta_{y53}$ ) of 0.317, with  $t_{\text{count}} = 3.323$ , while  $t_{\text{table}}$  at the significance level of  $\alpha = 0.05$  yields  $t_{\text{table}} = 1.972$ . Therefore,  $t_{\text{count}} > t_{\text{table}}$  means  $H_0$  is rejected and  $H_1$  is accepted. Thus, there is a positive influence.

**Table 8.** Research Hypothesis

No	Hypothesis	Path Coefficient	Statistical Test	Decision	Conclusion
1.	Adversity Quotient (X1) to Servant Leadership (Y)	0,204	$H_0 : \beta_{Y1} \leq 0$ $H_1 : \beta_{Y1} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
2.	Proactive Personality (X2) to Servant Leadership (Y)	0,213	$H_0 : \beta_{Y2} \leq 0$ $H_1 : \beta_{Y2} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
3.	Teamwork (X3) to Servant Leadership (Y)	0,101	$H_0 : \beta_{Y3} \leq 0$ $H_1 : \beta_{Y3} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
4.	Organizational Commitment (X4) to Servant Leadership (Y)	0,211	$H_0 : \beta_{Y4} \leq 0$ $H_1 : \beta_{Y4} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
5.	Work Motivation (X5) to Servant Leadership (Y)	0,202	$H_0 : \beta_{Y5} \leq 0$ $H_1 : \beta_{Y5} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
6.	Adversity Quotient (X1) to Organizational Commitment (X4)	0,203	$H_0 : \beta_{X4X1} \leq 0$ $H_1 : \beta_{X4X1} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
7.	Proactive Personality (X2) to Organizational Commitment (X4)	0,584	$H_0 : \beta_{X4X2} \leq 0$ $H_1 : \beta_{X4X2} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
8.	Proactive Personality (X2) to Work Motivation (X5)	0,595	$H_0 : \beta_{X5X2} \leq 0$ $H_1 : \beta_{X5X2} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
9.	Teamwork (X3) to Work Motivation (X5)	0,317	$H_0 : \beta_{X5X3} \leq 0$ $H_1 : \beta_{X5X3} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
10.	Adversity Quotient (X1) to Proactive Personality (X2)	0,827	$H_0 : \beta_{X2X1} \leq 0$ $H_1 : \beta_{X2X1} > 0$	$H_0$ is rejected $H_1$ is accepted	Directly Positive Impact
11.	Adversity Quotient (X1) to Servant Leadership (Y) through Organizational Commitment (X4)	0,011	$H_0 : \beta_{Y1} \leq 0$ $H_1 : \beta_{Y1} > 0$	$H_0$ is rejected $H_1$ is accepted	Indirect Positive Effect
12.	Proactive Personality (X2) to Servant Leadership (Y) through Commitment to Organization (X4)	0,124	$H_0 : \beta_{Y1} \leq 0$ $H_1 : \beta_{Y1} > 0$	$H_0$ is rejected $H_1$ is accepted	Indirect Positive Effect

No	Hypothesis	Path Coefficient	Statistical Test	Decision	Conclusion
13.	Proactive Personality (X2) towards Servant Leadership (Y) through Work Motivation (X5)	0,126	$H_0 : \beta_{YI} \leq 0$ $H_1 : \beta_{YI} > 0$	$H_0$ is rejected $H_1$ is accepted	Indirect Positive Effect
14.	Teamwork (X3) towards Servant Leadership (Y) through Work Motivation (X5)	0,032	$H_0 : \beta_{YI} \leq 0$ $H_1 : \beta_{YI} > 0$	$H_0$ is rejected $H_1$ is accepted	Indirect Positive Effect

#### 4.4 Statistical Mathematical Model

Based on the constellation of influences between variables, the following statistical mathematical model is generated:

a) Substructural Equation 1

$$\hat{y} = \beta_{y1}x_1 + \beta_{y2}x_2 + \beta_{y3}x_3 + \beta_{y4}x_4 + \beta_{y5}x_5 + \varepsilon_y$$

$$\hat{y} = 0,204x_1 + 0,213x_2 + 0,101x_3 + 0,211x_4 + 0,202x_5 + \varepsilon_y$$

b) Substructural Equation 2

$$X_4 = \beta_{41}x_1 + \beta_{42}x_2 + \varepsilon_4$$

$$X_4 = 0,203x_1 + 0,584x_2 + \varepsilon_4$$

c) Substructural Equation 3

$$X_5 = \beta_{52}x_2 + \beta_{53}x_3 + \varepsilon_5$$

$$X_5 = 0,595x_2 + 0,317x_3 + \varepsilon_5$$

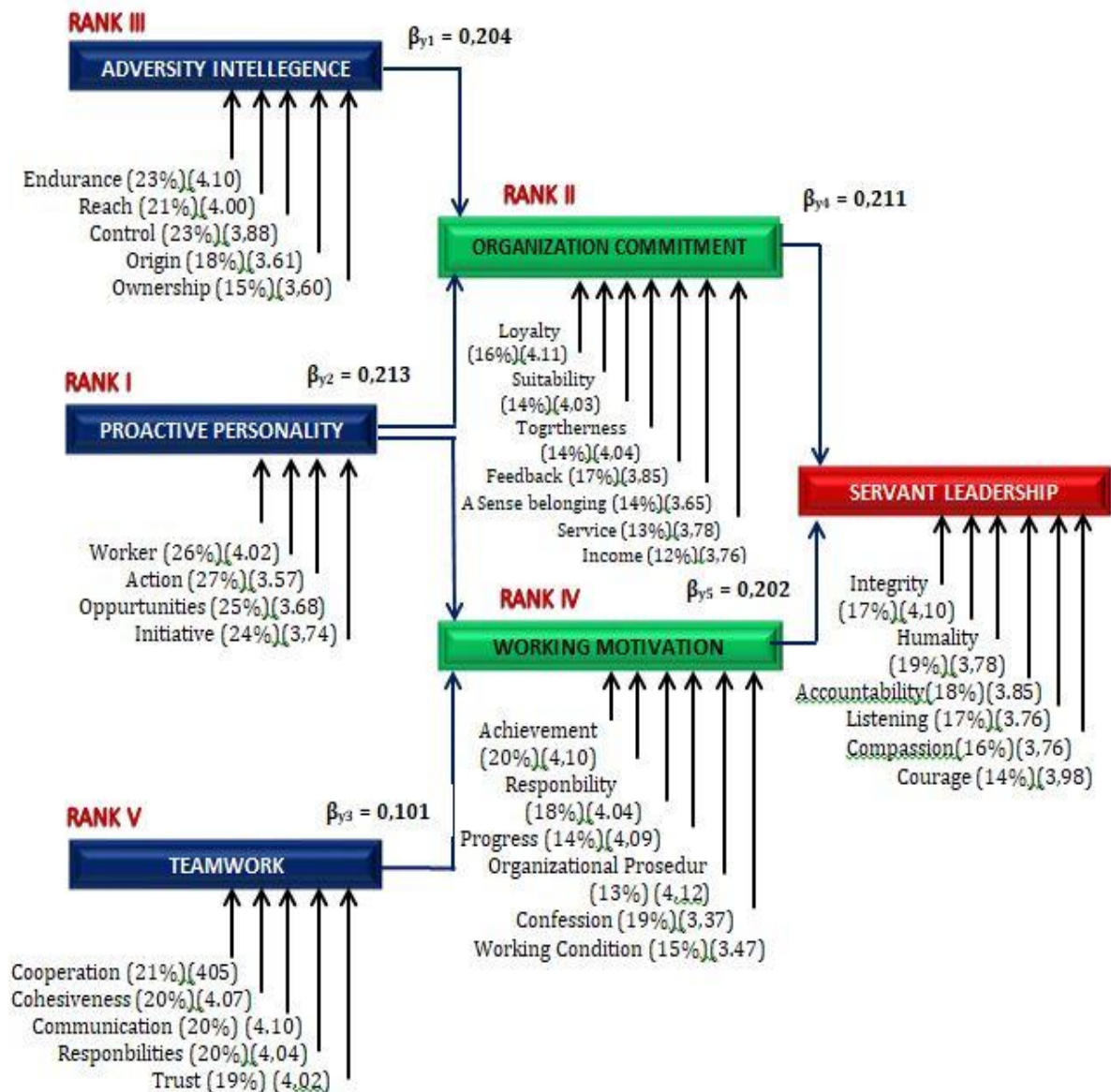
d) Substructural Equation 4

$$X_2 = \beta_{21}x_1 + \varepsilon_2$$

$$X_2 = 0,827x_1 + \varepsilon_2$$

#### 4.5 Optimal Solutions for Strengthening Servant Leadership

Based on the results of statistical hypothesis testing, indicator prioritization, and indicator value calculations outlined above, a summary of the research findings provides an optimal solution for strengthening the Principal's Servant Leadership as follows:



**Figure 5.** Constellation of Research Variables and Indicators

**Table 9.** SITOREM Analysis

SERVANT LEADERSHIP				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value
1	Humility	1 <sup>st</sup>	Integrity (16.77%)	4.10
2	Compassion	2 <sup>nd</sup>	Humility (18.48%)	3.78
3	Accountability	3 <sup>rd</sup>	Accountability (17.93%)	3.85
4	Courage	4 <sup>th</sup>	Listening (16.77%)	3.76
5	Integrity	5 <sup>th</sup>	Compassion (15.59%)	3.76
6	Listening	6 <sup>th</sup>	Courage (14.45%)	3.98

ADVERSITY INTELLIGENCE ( $\beta_{y1} = 0,204$ ) (rangk.III)		
Indicator in Initial State	Indicator after Weighting by Expert	Indicator



				Value
1	Control	1 <sup>st</sup>	Endurance (22.54%)	4.10
2	Origin	2 <sup>nd</sup>	Reach (20.96%)	4.00
3	Ownership	3 <sup>rd</sup>	Control (23.17%)	3.88
4	Reach	4 <sup>th</sup>	Origin (18.12%)	3.61
5	Endurance	5 <sup>th</sup>	Ownership (15.21%)	3.60

**PROACTIVE PERSONALITY ( $\beta y2 = 0,213$ ) (rangk.I)**

Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value
1	Opportunities	1 <sup>st</sup>	Worker (25.07%)	4.02
2	Initiative	2 <sup>nd</sup>	Action (26.67%)	3.57
3	Action	3 <sup>rd</sup>	Opportunities (24.88%)	3.68
4	Worker	4 <sup>th</sup>	Initiative (23.38%)	3.74

**TEAMWORK ( $\beta y3 = 0,101$ ) (rangk.V)**

Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value
1	Cooperation	1 <sup>st</sup>	Cooperation (21.45%)	4.05
2	Trust	2 <sup>nd</sup>	Cohesiveness (20.24%)	4.07
3	Cohesiveness	3 <sup>rd</sup>	Communication (19.78%)	4.1
4	Responsibilities	4 <sup>th</sup>	Responsibilities (19.64%)	4.04
5	Communication	5 <sup>th</sup>	Trust (18.88%)	4.02

**ORGANIZATION COMMITMENT (X4) ( $\beta y4 = 0,211$ ) (rank.II)**

Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value
1	a sense of belonging	1 <sup>st</sup>	Loyalty (16.36%)	4.11
2	Loyalty	2 <sup>nd</sup>	Suitability (13.78%)	4.03
3	Togetherness	3 <sup>rd</sup>	Togetherness (13.73%)	4.04
4	Service	4 <sup>th</sup>	Feedback (16.95%)	3.85
5	Feedback	5 <sup>th</sup>	a Sense of belonging (14.31%)	3.65
6	Suitability	6 <sup>th</sup>	Service (12.70%)	3.78
7	Income	7 <sup>th</sup>	Income (12.16%)	3.76

**WORK MOTIVATION ( $\beta y5 = 0,202$ ) (rank.IV)**

Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value
1	Achievement	1 <sup>st</sup>	Achievement (20.01%)	4.10
2	Confession	2 <sup>nd</sup>	Responsibility (18.27%)	4.04
3	Responsibility	3 <sup>rd</sup>	Progress (13.89%)	4.09
4	Progress	4 <sup>th</sup>	Organizational Procedur (13.41%)	4.12

PROACTIVE PERSONALITY ( $\beta_2 = 0,213$ ) (rangk.I)				
Indicator in Initial State		Indicator after Weighting by Expert		Indicator Value
5	Working Condition	5 <sup>th</sup>	Confession (19.27%)	3.37
6	Organizational Procedur	6 <sup>th</sup>	Working Condition (15.15%)	3.47

SITOREM ANALYSIS RESULT		
Priority order of indicator to be Strengthened		Indicator remain to be maintained
1 <sup>st</sup>	Action	1. Worker
2 <sup>nd</sup>	Oppurtinities	2. Loyalty
3 <sup>rd</sup>	Initiative	3. Suitability
4 <sup>th</sup>	Feedback	4. Togetherness
5 <sup>th</sup>	a Sense of belonging	5. Endurance
6 <sup>th</sup>	Service	6. Reach
7 <sup>th</sup>	Income	7. Achievement
8 <sup>th</sup>	Control	8. Responsibility
9 <sup>th</sup>	Origin	9. Progress
10 <sup>th</sup>	Ownership	10. Organizational Procedur
11 <sup>th</sup>	Confession	11. Cooperation
12 <sup>th</sup>	Working Condition	12. Cohesiveness
13 <sup>th</sup>	Humility	13. Communication
14 <sup>th</sup>	Accountability	14. Responsibilities
15 <sup>th</sup>	Listening	15. Trust
16 <sup>th</sup>	Compassion	16. Integrity
17 <sup>th</sup>	Courage	

## 5.0 CONCLUSIONS, IMPLICATIONS, AND SUGGESTIONS

Based on the analysis, discussion of research results, and tested hypotheses, the following conclusions can be drawn:

1. Strengthening servant leadership can be achieved by developing adversity intelligence, proactive personality, and teamwork as exogenous variables by increasing commitment.
2. Using path analysis, the following direct effects were obtained: 1) There is a direct effect of adversity intelligence on servant leadership with a path coefficient ( $\beta_1$ ) of 0.304, indicating that developing adversity intelligence can strengthen servant leadership. 2) There is a direct effect of proactive personality on servant leadership with a path coefficient ( $\beta_2$ ) of 0.311, indicating that developing proactive personality can strengthen servant leadership. 3) There is a direct effect of teamwork on servant leadership with a path coefficient ( $\beta_3$ ) of 0.201, indicating that developing teamwork can strengthen servant leadership. 4) There is a direct effect of work motivation on servant leadership with a path coefficient ( $\beta_4$ ) of 0.502, indicating that increasing work motivation can strengthen servant leadership. 5) There is a direct influence of Organizational Commitment on servant leadership with a path coefficient

( $\beta y5$ ) of 0.213, so that increasing work commitment can strengthen servant leadership. 6) There is a direct influence of Adversity Intelligence on Organizational commitment with a path coefficient ( $\beta y41$ ) of 0.203, so that developing adversity intelligence can strengthen work commitment. 7) There is a direct influence of Proactive Personality on Organizational commitment with a path coefficient ( $\beta y42$ ) of 0.584, so that developing proactive personality can strengthen work commitment. 8) There is a direct influence of Proactive Personality on work motivation with a path coefficient ( $\beta y52$ ) of 0.595, so that developing proactive personality can strengthen work motivation. 9) There is a direct influence of Teamwork on work motivation with a path coefficient ( $\beta y53$ ) of 0.317, so that increasing teamwork can strengthen work motivation. 10) There is a direct influence of Proactive Personality on adversity intelligence with a path coefficient ( $\beta y21$ ) of 0.827, so that increasing proactive personality can strengthen adversity intelligence. 3. Using path analysis, the indirect effects are as follows: 1) There is an indirect effect of adversity intelligence on servant leadership through commitment to the organization with a path coefficient ( $\beta x41y$ ) of 0.061, so that the development of adversity intelligence can strengthen servant leadership through increased commitment to the organization. 2) There is an indirect effect of proactive personality on servant leadership through commitment to the organization with a path coefficient ( $\beta x42y$ ) of 0.182, so that the development of proactive personality can strengthen servant leadership through increased commitment to the organization. 3) There is an indirect effect of proactive personality on servant leadership through work motivation with a path coefficient ( $\beta x52y$ ) of 0.185, so that the development of proactive personality can strengthen servant leadership through increased work motivation. 4) There is an indirect effect of teamwork on servant leadership through work motivation with a path coefficient ( $\beta x53y$ ) of 0.064, so that the development of teamwork can strengthen servant leadership through increased work motivation.

The implication of the conclusion above is that if servant leadership is to be improved, it is necessary to develop adversity intelligence, proactive personality, teamwork, and increased commitment to the organization, as well as work motivation.

The SITOREM analysis yielded the following optimal solutions:

1. Prioritize indicator management to strengthen servant leadership, adversity intelligence, proactive personality, teamwork, organizational commitment, and work motivation. are as follows: 1st Action, 2nd Opportunities Identification and follow-up, 3rd Initiative, 4th Feedback received from the organization, 5th Sense of belonging, 6th Desired services, 7th Income increase and fulfillment of needs, 8th Control, 9th Origin, 10th Ownership, 11th Desire for recognition, 12th Desire for working conditions, 13th Humility, 14th Accountability, 15th Listening, 16th Compassion, and 17th Courage.
2. Indicators that are in good condition and need to be maintained or developed are as follows: 1) Work hard until change occurs (Worker), 2) Loyalty to work (Loyalty), 3) Suitability of abilities (Suitability), 4) Togetherness in the organization and realizing organizational goals (Togetherness), 5) Endurance against difficulties (Endurance), 6) Attitude of anticipating the impact of difficulties (Reach), 7) Desire to achieve achievements (Achievement), 8) Desire to be responsible (Responsibility), 9) Desire to get progress (Progress), 10) Desire to get

organizational procedures (Organizational Procedure), 11) Cooperation (Cooperation), 12) Cohesiveness (Cohesiveness), 13) Communication (Communication), 14) Responsibilities (Responsibilities), 15) Trust (Trust), and 16) Integrity behavior (Integrity)

Suggestions or recommendations that can be provided to relevant parties are as follows:

1. School principals need to improve servant leadership by developing adversity intelligence, proactive personality, and teamwork, as well as increasing commitment to the organization and work motivation by improving: Action, Opportunity Identification and Follow-up, Initiative, Feedback from the organization, Sense of Ownership, Desired Services, Increased Income and Fulfillment of Needs, Attitude of Managing Difficulties, Attitude towards the Origin of Difficulties, Attitude in Facing Difficulties, Desire for Recognition, Desire for Working Conditions, Humility, Accountability, Listening, Compassion, and Courage.
2. School supervisors, school administrators, and the Department of Education need to foster principals in strengthening servant leadership by providing appropriate guidance to strengthen the development of adversity intelligence, proactive personality, and teamwork, as well as increasing commitment to the organization and work motivation, in accordance with the findings of this study.

## REFERENCES

- Adam Focht and Micheal Ponton. "Identifying Primary Characteristics of Servant Leadership: Delphi Study, *International Journal of Leadership Studies*, Vol. 9, Issue 1, 2015, pp. 44-60
- Covey, R. Steven, *The 7 Habits of Highly Effective People*, 2004, New York: Free Press, A Division Simon & Schuster, Inc. pp. 70-75
- Crant, J. Michael and Tomas S. Bateman, Charismatic Leadership View From Above : The Impact of Proactive Personality, *Journal of Organizational Behavior* 21 (1), 63 – 75
- Creswel, J.W. (2008). *Educational Research, Planning, Conducting and Evaluating Quantitative and Qualitative Research*, Third Edition. New Jersey : Pearson Education Merrill Prentice Hall
- Dirk van Dierendonck. *Servant Leadership: A Review and Synthesis. Journal of Management*, Vol. 37, No. 4, July 2011, pp. 1228-1261.
- Don Hellriegel dan John W. Slochun Jr. *Principles of Organizational Behavior. Thirteenth Edition*. South-Western. Cengage Learning: (2011 : 328)
- DuBrin, Andrew J., *Proactive Personality and Behavior for Individual and*
- Fred Luthan, *Organizational Behavior. Seventh Edition*. Singapore: McGraw-Hill (2006 : 249 – 250)
- Greenberg J & Baron Robert.A (2008). *Behavior In Organizations*. New Jersey. Pearson Prentice Hall.h.248.
- Hardhienata, S. *The Development of Scientific Identification Theory to Conduct Operation Research in Education Management*, IOP Conf. Series: Materials Science and Engineering 166 (2017) 012007 doi : 10.1088/1757-899X/166/1/012007
- Hermawan, A(2023), Model Kepemimpinan Melayani Kepala Sekolah. Penerbit Deepublish Anggota IKAPI (076/DIY/2012) HAKI : 000301002
- Hermawan, A(2022), Peningkatan Organizational Citizenship Behavior (OCB) Guru, Penerbit : Bukit Mas Mulia ISBN : 978-623-5812-12-0 HAKI : 000301002
- S Subandi, A Hermawan , (2023), [Strategi dan Cara Menurunkan Stres Kerja Melalui Penguatan Kecerdasan Adversitas, Komunikasi Interpersonal, Interdependensi Tugas dan Kualitas Layanan](#),- Jurnal Syntax Admiration, 2023

- AK Wardani, A Hermawan, S Setyaningsih (2024), [Strategy to increase teachers'professional commitment through strengthening transformational leadership, personal value and job satisfaction](https://virtus-interpress.org). [virtus-interpress.org](https://virtus-interpress.org)
- M Alwi, A Hermawan, (2023), [Optimasi Penguatan Kualitas Layanan Guru Melalui Pengembangan Kepribadian dan Keadilan Organisasi](#). Jurnal Syntax Admiration, 2023
- Rusnadi, S., & Hermawan, A. (2023). Strategi Optimal Peningkatan Kualitas Layanan Guru Sekolah Menengah Kejuruan (SMK) Melalui Penguatan Knowledge Management, Komunikasi Interpersonal, Dukungan Organisasi dan Kepuasan Kerja. *Jurnal Syntax Admiration*, 4(11), 2127–2146.
- Rusnadi, S., Sumiati, & Hermawan, A. (2023). Optimal Strategy to Improve the Quality of Vocational Teacher Services through Knowledge Management, Interpersonal Communication, Organizational Support and Job Satisfaction. *International Journal of Social Science And Human Research*, 6(1), 6888–6899. <https://doi.org/10.47191/ijsshr/v6-i11-42>
- Radnawati, D., & Hermawan, A. (2023). The Optimal Solution for Strengthening the Quality of Teacher Services Through Personality Development and Organizational Justice. *International Journal of Social Science Research and Review*, 6(12), 161–173.
- Hermawan, A. (2023). *Pemodelan Kepemimpinan Melayani Kepala Sekolah*. Penerbit Lembaga Kajian DIALEKTIKA.
- Hermawan, A., Ghazali, A. F., & Sayuti, M. A. (2023). Optimization for Increasing Teacher Performance through Strengthening Teamwork, Interpersonal Communication, Adversity Intelligence, and Work Motivation. *International Journal of Scientific Research and Management (IJSRM)*, 11(10), 5239–5248.
- Hermawan, A., Muhammadi, A. M., & Indrati, B. (2023). Modeling and Optimization of Service Investigation Services: Empirical Study Using Pop-Hrm Approach at Head of Private Smk School in Bogor District, Indonesia. *International Journal of Business and Social Science Research*, 4(9), 15–28.
- Hermawan, A., Setyaningsih, S., & Hardhienata, S. (2021). Exploratory Sequential Analysis Of Servant Leadership Reviewing From Adversity Intelligence, Proactive Personality, Team Work, Organizational Commitment And Work Motivation. *Journal of Positive Psychology and Wellbeing*, 5(4), 969–986.
- Hermawan, A., Setyaningsih, S., & Hardhienata, S. (2022a). Modeling and of Strengthening Servant Leadership. *Edunity: Social and Educational Studies*, 1(03).
- Hermawan, A., Setyaningsih, S., & Hardhienata, S. (2022b). Servant Leadership Strengthening Modeling. *IJMIE: International Journal of Management, Innovation, and Education*, 1(1), 42–50.
- Hermawan, A., Sunaryo, W., & Hardhienata, S. (2023). Optimal Solution for OCB Improvement Through Strengthening of Servant Leadership, Creativity, and Empowerment. *Aptisi Transactions on Technopreneurship (ATT)*, 5(1Sp), 11–21.
- Hermawan, A., & Susanti, E. (2023). Pemodelan dan Optimasi Penguatan Kepemimpinan Melayani. *Jurnal Penelitian, Pendidikan Dan Pengajaran: JPPP*, 4(3), 232–250.
- Ivancevich, John M. Robert Konopaske and Michael T. Matteson, *Organizational Behavior and Management*, New York: McGraw-Hill. (2008 : 234).
- J.L. Gibson, J.M. Ivancevich, J.H. Donnelly, Jr. and R. Konopaske. *Organizations: Behavior, Structure and Processes*. New York: McGraw-Hill, 2012
- Jennifer M. George dan R. Jones, *Understanding and Managing Organizational Behavior*, 6th Ed. Boston: Prentice Hall, 2012, pp. 157-160
- John R Schermerhorn, Jr., James G. Hunt, Richard N. Osborn, Mary Uhl-Bien, *Organizational Behavior 11<sup>th</sup> Edition*, USA: John Wiley & Sons, Inc. 2007, pp. 34-35
- John R. Schermerhorn, Jr., James G. Hunt, Richard N. Osborn, Mary Uhl - Bien, *Organizational Behavior 11<sup>th</sup> Edition*, USA : John Wiley & Sons, Inc. 2007, pp. 108 - 115



- Maria C.J. Santos (2012). "Assessing the Effectiveness of the Adapted Adversity Quotient Program in Special Education School", *International Referred Journal*, Vol. 3, Issue 4(2), October 2012, pp. 13-23
- Peraturan Menteri Pendidikan dan Kebudayaan RI Nomor 06 tahun 2018 tentang Kepala Sekolah/Madrasah
- Peraturan Menteri Pendidikan Nasional RI Nomor 13 tahun 2007 tentang Standar Kepala Sekolah/Madrasah
- R. Kreitner & A. Kinicki. *Organizational Behavior*. New York: McGraw-Hill, 2010, pp. 310-314
- Rachapoom Pangma Sombat Tayraukham, and Prasar Nuangchalerm (2009). "Causal Factors Influencing Adversity Quotient of Twelfth Grade and Third-Year Vocational Students", *Journal of Social Science*, Vol. 5, No. 4, 2009, pp. 466-470
- Sendjaya, S., Sarros, J.C., & Santora, J.C. (2008). Defining and measuring servant leadership behavior in organizations. *Journal of Management Studies*, 45(2), 402-424
- Setyaningsih, S. hardhienata, S (2019), *Development of modeling and optimization method for strengthening management resources using a simple exploratory sequential analysis and sitorem analysis (POP-SDM)*. ISSN : 1315-5216 ISSN – electronico 2477-9555
- Shivaranjani (2014), "Adversity Quotient : One Stop Solution To Combat Attrition Rate Of Women In Indian It Sector", *International Journal of Business and Administration Research Review*, Vol.1, Issue.5, April June, 2014. Pp. 181- 189
- Stephen P. Robbins and Timothy A. Judge. *Organizational Behavior*. London: Pearson Education Ltd., 2013, h. 343.
- Stone, A.G., Russell, R.F., & Patterson, K. (2004). Transformational versus servant leadership. A difference in leader focus. *The Leadership & Organizational Development Journal*, 25(4), 349-361
- Sugiyono (2015). *Metode Penelitian Kombinasi (Mix Methods)*. Bandung: Alfabeta.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta
- Tenner, A.R., & DeToro, I.J., 2002, *Total Quality Management: Three Steps to Continuous Improvement*. Addison-Wesley Publishing Company Inc., Reading, M.A. p.183
- Terence R. Mitchell dan James R. Larson, (2005) *People in Organizations: An Introduction to Organizational Behavior*, Singapore: McGraw-Hill Book Co. p.144