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Budgetary Participation and Leadership Style Effects on Managerial Performance: The Mediating Role of Organizational Commitment in Indonesian Public Sector Offices

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Abstract

This research seeks to examine how the independent variables—namely, budget participation and leadership style—affect managerial performance through the mediating role of organizational commitment. A quantitative methodology was employed to test the proposed hypotheses, which was deemed suitable for this investigation. The study used a field-based survey method via questionnaires, involving a total population of 42 individuals. As a saturated sample, every population member participated as a respondent. The collected data were analyzed through statistical tests, including the coefficient of determination and path analysis. In summary, the outcomes indicated that budget participation exerted a positive yet statistically insignificant influence on managerial performance within the Public Works and Public Housing Office and Tax Service Office of Wonogiri Regency, Indonesia. Conversely, leadership style showed a positive and significant relationship with managerial performance. Additionally, organizational commitment exhibited a positive but non-significant effect on performance outcomes. Moreover, organizational commitment did not act as a mediating variable between budget participation, leadership style, and managerial performance. Among the examined factors, leadership style emerged as the dominant predictor of managerial performance, with both budget participation and leadership style jointly explaining the role of intervening organizational commitment.

Keywords: Public works and public housing office, Tax service office, Managerial performance, Budget participation, Leadership style, Organizational commitment

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Introduction

The success or failure of an organization is reflected in its performance results, which represent the realization of its vision and mission. According to Gibson *et al.* [1], performance signifies the most desirable output of organizational behavior. Likewise, Hasibuan and Malayu [2] argue that performance is the final outcome of an employee completing their responsibilities with competence, dedication, and experience. Within an organization, managers bear the primary social responsibility. Achieving the institution's objectives and targets effectively depends on how well managers perform their tasks and fulfill their obligations. Based on contingency theory, leadership influences managerial performance depending on situational factors. This theory is relevant to the inconsistencies identified in prior studies that examined the impact of uncertainty on managerial outcomes through organizational commitment.

The Public Works and Public Housing Office and Tax Service Office of Wonogiri Regency play key roles in ensuring effective governance, which is inseparable from the contribution of civil and public servants. The researchers focused on these agencies



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because observations revealed that managerial performance within both offices had not yet reached its full potential. One reason identified was poor communication between operational officers and government departments regarding budgeting matters. Ideally, every government entity should practice good governance to meet citizens' expectations and achieve national objectives. However, issues such as infrequent evaluations, limited resources, and insufficient funding were evident in both offices. As a result, annual performance appraisals were not aligned with the Regulation of the Head of the State Civil Service Agency No. 01 of 2013 and Government Regulation No. 46 of 2011. Furthermore, employee performance targets and assessments were often not grounded in actual reporting outcomes.

Therefore, in improving managerial performance, an effective management control system is necessary to ensure the efficient execution of organizational goals. Given that the Wonogiri Regency Office operates as a public service institution, maintaining strong managerial oversight is essential. Performance evaluation serves as a basis for empowerment and helps determine how effectively an institution utilizes its resources. As noted by Ermawati [3], managerial performance reflects how public service organizations carry out their duties toward the community. High managerial performance indicates how effectively managers perform key functions such as planning, staffing, coordinating, investigating, and negotiating.

One crucial determinant of managerial performance is budget participation. In Wonogiri Regency, this involves subordinates' engagement in assisting superiors during budget formulation to meet financial objectives. This collaboration fosters coordination and communication between managerial levels, ensuring that the budget aligns with organizational needs. Consequently, subordinates can implement targeted initiatives more efficiently. A budget serves as a managerial instrument for distributing limited resources to achieve organizational aims and also functions as a financial planning tool [4]. Budget participation refers to an approach that allows subordinate managers to actively engage in the budgeting process, thereby encouraging innovation and ownership. Similarly, Indarto and Ayu [5] suggest that participation in budgeting demonstrates respect and responsibility toward organizational goals. As defined by WiseGEEK [6], it represents "a type of financial planning process involving broader employee participation in creating a realistic budget for a department or organization." Hence, participation is pivotal for enhancing management efficiency and remains one of the most extensively studied variables in management accounting research.

Likewise, according to Indarto and Ayu [5], one clear indicator of improved managerial outcomes lies in the precision of the budgeting process. Hence, involvement in budgeting plays a crucial role in achieving effective public sector performance. Such participation represents the joint contribution of higher and lower management levels, coordinating tasks throughout the budget development process to accomplish organizational targets more efficiently. Through this cooperative planning, top managers can easily align and oversee subordinates' activities in fulfilling the objectives established during budget formulation. Thus, budget participation acts as a strategic mechanism for elevating performance and promoting organizational effectiveness. As described by Brownell [7] (cited in Lina & Stella [8]) and Sari and Abdullah [9], participation is the evaluation and reward process based on target achievements, coupled with the degree of influence and engagement individuals possess in budget setting.

Nonetheless, empirical investigations have yielded mixed results regarding the role of budget involvement in enhancing managerial results. Several studies—Indarto and Ayu [5]; Putri and Adiguna [10]; Abata [11]; Moheri and Arifah [12]; Tarigan and Devie [13]; Manica and Hanny [14]; Ermawati [3]; and Sari and Abdullah [9]—identified a positive and significant relationship. In contrast, Syahputra [4], Yulianingsih [15], and Anderson [16] found no substantial link, while Suharman [17] and Noor and Othman [18] reported a negative association. These conflicting findings reveal a research inconsistency, implying that other factors—most notably leadership approach—might play a decisive role in influencing managerial performance.

In this regard, the efficacy of budgeting depends heavily on a leader's forecasting capability and the leadership pattern applied. Leadership style encompasses the manner and attitude with which leaders guide organizational management. The success of any institution largely depends on how leadership and subordinate cooperation align to attain shared objectives. Thus, a competent leader should be able to direct organizational efforts toward accomplishing predetermined goals [10]. Leadership style reflects a manager's behavioral approach when managing people and resources—meaning that organizational effectiveness is strongly tied to leadership quality. Furthermore, the contingency perspective suggests that other elements can act as moderators or mediators in this connection [7, 19].

Therefore, this research introduces organizational commitment as a linking factor between variables. Organizational commitment denotes employees' psychological and emotional attachment to institutional ideals and objectives. Managers demonstrating strong commitment tend to prioritize organizational welfare over personal interests, while those with weaker commitment may perform poorly when engaged in budget tasks. Acting as a mediating variable, organizational commitment suggests that leaders are more capable of meeting budgetary goals when employees show genuine involvement and dedication to collective success. Consequently, commitment is vital for establishing a supportive and productive work environment, allowing operations to run effectively and efficiently. It may also be defined as the readiness to exert sustained effort to elevate the organization's overall performance. Findings by Jannah and Rahayu [19] verified that such commitment positively and significantly influences managerial outcomes.

Based on this framework, the research is titled:

“The Effect of Budget Involvement and Leadership Style on Managerial Outcomes Through Organizational Commitment as a Mediating Factor (A Case of the Public Works and Public Housing Office and the Tax Service Office in Wonogiri Regency, Indonesia).”

Literature review and hypothesis development

Managers carry a social and professional obligation to ensure the achievement of organizational missions. When they execute their responsibilities effectively, the intended objectives can be reached successfully. As described by Gibson *et al.* [1], performance represents the end result of behavioral actions, showcasing an individual's ability to produce outcomes aligned with institutional aims. Likewise, Hasibuan and Malayu [2] explain performance as the output achieved by individuals who complete assigned duties with appropriate skill, honesty, and experience. From these definitions, performance can be understood as the quantitative and qualitative outcomes produced by individuals or groups within their defined authority.

Managerial performance, specifically, denotes the extent to which managers achieve organizational targets. It reflects how efficiently management operates in pursuit of its vision and mission. In simpler terms, managerial performance measures adherence to organizational rules, norms, and strategies while striving toward success. As highlighted by Giri and Wiguna [20], managerial performance can be identified through indicators that assess the manager's execution of key administrative and leadership functions.

From earlier findings, a research gap is evident due to divergent results across prior studies. Scholars such as Indarto and Ayu [5], Putri and Adiguna [10], Abata [11], Moheri and Arifah [12], Tarigan and Devie [13], Manica and Hanny [14], Ermawati [3], and Sari and Abdullah [9] reported a positive and significant correlation between budget participation and managerial performance. Meanwhile, studies by Syahputra [4], Jannah and Rahayu [19], Andison [16], Elwisa [21], and Yulianingsih [15] observed no significant influence, whereas Suharman [17] and Noor and Othman [18] noted a negative effect. Such inconsistent evidence underscores the necessity for continued investigation to better establish the relationship between budgeting participation and managerial outcomes.

Earlier work by Melek Eker [22], titled “The Impact of Budget Participation on Managerial Performance via Organizational Commitment: A Study on the Top 500 Firms in Turkey,” and published in the *Ankara Üniversitesi SBF Dergisi* (pp. 118–136), serves as the foundation for this research. The present study extends Eker's [22] framework by introducing leadership style as an additional independent factor. Whereas Eker's analysis focused on 500 companies in Turkey, this study examines two Indonesian institutions—the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency. Building on established theories and prior findings, the researchers formulated five hypotheses. As explained by Sugiyono [23], a hypothesis represents a provisional assumption that requires empirical verification through systematic testing.

Influence of budgetary participation on managerial performance

The budget functions as a managerial control instrument, combining elements of planning and supervision to ensure tasks are carried out efficiently. Essentially, a budget outlines projected activities and future organizational plans. As noted by Siegel (in Indarto & Ayu [5]), involvement in preparing the budget directly affects those participating in the process. Allowing employees to contribute to budgeting reflects recognition of their input and role [5]. Baiman (1982, in Indarto & Ayu [5]) argued that when subordinates are engaged, it assists superiors in constructing a more realistic and accurate budget. Indarto and Ayu [5] also found that a precise budget can lead to improved managerial achievements. Empirical results from multiple researchers — Indarto and Ayu [5]; Eker [22]; Putri and Adiguna [10]; Abata [11]; Kholidah and Murtini [24]; Moheri and Arifah [12]; Tarigan and Devie [13]; Manica and Hanny [14]; Ermawati [3]; and Sari and Abdullah [9] — consistently revealed a strong and positive relationship between participation in budgeting and managerial effectiveness. From this reasoning, the hypothesis is proposed as follows:

H1: Budgetary participation positively and significantly affects managerial performance at the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency, Indonesia.

Influence of leadership style on managerial performance

Leadership represents the mechanism that channels individuals' motivation, direction, and persistence toward achieving organizational aims. As explained by Robbins and Judge [25], effective leaders must grasp and convey the organization's mission and vision, inspire others through communication, and serve as role models through consistent behavior. The research of Syukri *et al.* [26] titled “The Influence of Budget Participation and Leadership Style on Managerial Performance with Job Relevant Information as Moderator,” confirmed that leadership behavior has a meaningful impact on managerial success. Similarly, Arfan *et al.* (2017), in their work “The Effect of Budgetary Participation, Leadership Style, and Organizational Commitment on Managerial Performance at Universitas Muhammadiyah Aceh, Indonesia,” observed significant effects of these variables on managerial results. Consistent findings by Sari and Abdullah [9]; Elwisa [21] and Syukri *et al.* [26] likewise

emphasized that leadership approach strongly influences managerial performance. Therefore, the following assumption is drawn:

H2: Leadership style has a significant positive influence on managerial performance at the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency, Indonesia.

Influence of organizational commitment on managerial performance

Organizational commitment refers to an employee's loyalty, emotional bond, and involvement with the organization. Andre and Hermanto [27] describe it as a pledge manifested through consistent actions and behaviors that strengthen mutual trust within the workplace. Greater commitment typically enhances individual performance. The study of Syakieb *et al.* [28], "Effect of Participative Budgeting, Organizational Commitment, and Work Motivation on Managerial Performance (Survey of Motor Vehicle Dealers in Bandung)," concluded that commitment has a substantial and favorable impact on managerial outcomes. In line with this, Brownell [7](cited in Gamayuni and Suryani [29]) explained that highly committed employees tend to be more motivated to perform optimally and assist the company in achieving its strategic goals. Findings from Jannah and Rahayu [19], Manica and Hanny [14], Sari and Abdullah [9], Giusti *et al.* [30], Syakieb *et al.* [28], and Gamayuni *et al.* [29] also showed a consistent, positive, and significant link between organizational commitment and managerial results. Hence, the following hypothesis is stated:

H3: Organizational commitment significantly and positively influences managerial performance at the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency, Indonesia.

Influence of budgetary participation on managerial performance through the mediation of organizational commitment

Managerial performance reflects the outcomes of actions and behaviors carried out by individuals or teams in fulfilling organizational goals [20]. The budget, as part of a control framework, acts as both a planning and evaluation instrument that enables managers to operate more effectively. The engagement of subordinates in the budgeting phase represents their dedication and contribution to organizational progress [5]. This involvement demonstrates their sense of belonging and commitment to the institution. Through active participation, the resulting budgets tend to be more precise and reliable [5]. Indarto and Ayu [5] emphasized that accurate budgets are expected to enhance managerial outcomes. Several empirical investigations — Indarto and Ayu [5]; Giri and Wiguna [20]; Kholidah and Murtini [24]; Jannah and Rahayu [19]; and Giusti *et al.* [30]— found that organizational commitment mediates the relationship between budgeting participation and managerial achievement. Consequently, the following hypothesis is proposed:

H4: Budgetary participation exerts a significant and positive effect on managerial performance through the mediating role of organizational commitment at the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency, Indonesia.

The effect of leadership style on managerial performance mediated by organizational commitment

To achieve optimal performance, employee commitment within an organization is crucial. Such commitment represents a key element that cannot be separated from effective leadership, as leaders guide and motivate employees toward fulfilling the organization's goals, mission, and vision. Organizational commitment also refers to an employee's sense of belonging, emotional engagement, and dedication to the institution, which supports the effective execution of assigned duties. Strong commitment is expected to encourage employees to perform their responsibilities more professionally.

Managerial performance, on the other hand, reflects how well managers accomplish organizational objectives. According to Elwisa [21], it denotes the successful realization of an organization's vision and mission, which is closely linked to how leadership directs and manages the workforce. However, optimal performance cannot be achieved without the existence of organizational commitment that sustains collective effort toward those goals. Empirical findings by Fabio and Puspitawati [31] and Elwisa [21] demonstrated that leadership exerts a significant and positive effect on managerial outcomes when mediated by organizational commitment. From this discussion, the following hypothesis is formulated:

H5: Leadership style significantly and positively influences managerial performance through the mediation of organizational commitment at the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency, Indonesia.

Research model and methodology

This study's conceptual framework integrates several variables — budgetary participation and leadership style as independent variables, managerial performance as the dependent variable, and organizational commitment as the intervening factor. The structure of the model is illustrated below in **Figure 1**.

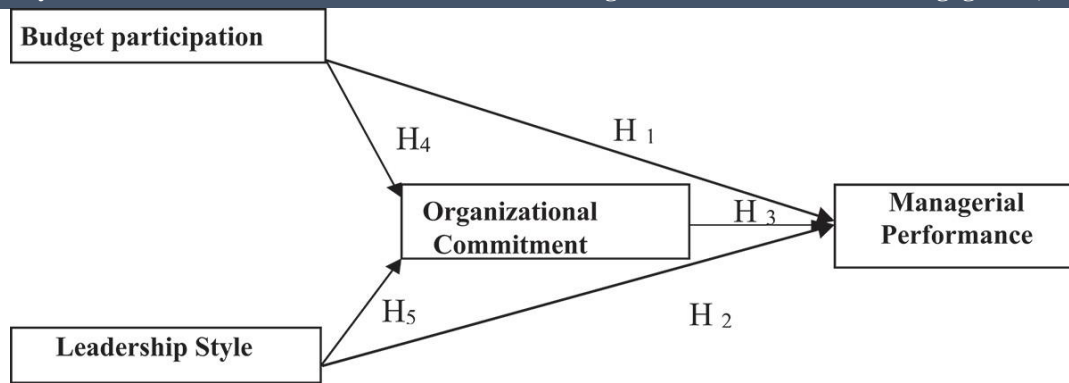


Figure 1. Research Model.

The research was conducted in Wonogiri Regency, Indonesia, focusing on employees from the Public Works and Public Housing Office and the Tax Service Office as study subjects. A quantitative exploratory design was used to examine the relationships among variables, with hypothesis testing applied to explain their interconnections. Data were collected using a survey technique, as the study aimed to evaluate the correlations between independent and dependent constructs.

The study employed primary data, which were gathered directly from the research field. Sugiyono [23] defines primary data as information obtained firsthand from original sources. The respondents consisted of employees from Wonogiri Regency who completed questionnaires about budget participation, leadership style, organizational commitment, and managerial performance. According to Sugiyono [23], a sample represents a portion of the population possessing similar traits or characteristics. Sampling was determined based on the number of subjects. For populations under 100 individuals, it is advisable to use the entire population, making the study a census approach [32]. Consequently, all 42 employees were included as research participants.

Sugiyono [23] notes that questionnaires are a means of collecting data through structured statements to which respondents provide answers. Similarly, Arikunto [32] describes questionnaires as a set of questions designed to obtain self-reported information or knowledge from respondents. This research used a questionnaire to gather data from participants.

Path analysis was applied as the primary statistical method since it enables the examination of more complex causal relationships than standard regression. It allows researchers to compare multiple models, assess which provides the best fit, and identify which variables exert meaningful influence. Path analysis also helps determine the relative importance of causal relationships while testing the logical consistency of proposed models. The technique assumes that relationships among variables are linear, additive, and causal.

To test causality between independent and dependent variables, regression analysis was employed. This approach identifies the degree and significance of the influence of one variable on another and helps interpret the underlying patterns in the dataset.

The study utilized a Likert scale to measure participants' attitudes, perceptions, and opinions regarding social and organizational factors. Respondents rated each item using the following scale:

Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1.

Operational definition of variables

Managerial performance (Y2)

Managerial performance represents the result of effective management activities encompassing planning, budgeting, administration, reporting, accountability, and supervision. The level of managerial performance was assessed through a questionnaire employing an interval scale. The instrument was adapted from Mahoney [33] and Syakieb *et al.* [28]. Indicators reflecting managerial performance in this research include planning, investigation, coordination, evaluation, staffing, negotiation, supervision, and representation.

Budget participation (X1)

Budget participation refers to the involvement of unit managers in the budgeting process, such as subordinate managers contributing to target and budget determination, as well as activity planning. The measurement of this construct used an interval scale to show the extent of participation in budget preparation. The indicators, derived from Hidrayadi [34], are:

1. Managers' and employees' participation in preparing the budget,
2. Degree of influence in formulating the budget,
3. Contribution to defining goals and budgets,
4. Opportunities given to subordinates in the budgeting process,
5. Control over determining budget objectives, and

6. Frequency of proposal and opinion submission.

Leadership style (X2)

Leadership style reflects how leaders influence employee behavior, specifically within the Public Housing and Settlement Areas Office of Wonogiri Regency. It describes the leaders' behavioral patterns when engaging or responding to various work situations. Indicators were adjusted from the Hersey & Blanchard model, as cited by Hakim *et al.* [35], including:

1. Directive style,
2. Consultative style,
3. Participative style, and
4. Delegative style.

Organizational commitment (X3/Y1)

Organizational commitment pertains to an employee's emotional attachment, identification, and loyalty toward the organization. The indicators, adapted from Hakim [36], include:

1. Sense of belonging,
2. Emotional connection,
3. Feeling of purpose,
4. Identification as part of the organization,
5. Involvement in achieving organizational objectives,
6. Viewing the organization as a second home, and
7. Active participation.

Results and Discussion

This section presents a descriptive analysis of the 42 valid responses collected from distributed questionnaires. The classifications of respondents based on various characteristics are summarized below.

Respondents by age

As shown in Table A1 (Appendix), the respondents aged 20–39 years numbered 19 (45.23%), those aged 40–49 years totaled nine (21.42%), and respondents above 50 years were 14 (33.35%). These results indicate that most participants were within the 20–30 age range.

Respondents by gender

According to Table A2 (Appendix), 19 respondents (45.23%) were male, while 23 (54.77%) were female. Thus, the majority of respondents were women.

Respondents by marital status

As outlined in Table A3 (Appendix), 27 respondents (64.29%) were married, while 15 (35.71%) were unmarried, indicating that married employees dominated the sample.

Respondents by educational level

Table A4 (Appendix) presents the educational background of respondents: 11 individuals (26.20%) had completed high school, five (11.90%) held a Diploma III, 17 (40.48%) possessed a bachelor's degree (S1), and nine (21.41%) had a master's degree. Hence, most participants were bachelor's degree holders.

Respondents by years of service

Table A5 (Appendix) details the length of service: 17 respondents (40.48%) had worked 0–10 years, six (14.29%) had 10–15 years of service, five (11.90%) had 15–20 years, and 14 (33.33%) had more than 20 years. The dominant group consisted of employees with 0–10 years of work experience.

Instrument testing (Validity and reliability)

All six statements related to budget participation (X1) were found valid, as reported in Table A6 (Appendix). The highest validity values were observed for statements 4, 2, and 3, suggesting that these items best represent budget participation behavior.

Similarly, all 35 items used to measure leadership style (X2) were validated (see Table A7 in the Appendix). The statements with the highest scores were items 17, 6, and 7, implying they most strongly define leadership behavior.

Lastly, all seven items assessing organizational commitment (X3) were valid, as summarized in **Table 1** (Appendix).

Table 1. Correlation of Organizational Commitment Statement Items (X3)

Items	Correlation	Status
P1	0.507	Valid
P2	0.478	Valid
P3	0.779	Valid
P4	0.851	Valid
P5	0.856	Valid
P6	0.748	Valid
P7	0.716	Valid

The validity evaluation for the organizational commitment variable showed that the 5th, 4th, and 3rd items recorded the strongest correlation scores. These results imply that these three items were the most influential indicators representing organizational commitment behavior. The test for the managerial performance variable (Y) involved eight items, and every one of them was confirmed as valid. The full statistical output is shown in **Table 2**.

Table 2. Correlation of Managerial Performance Statement Items (Y)

Items	Correlation	Status
P1	0.463	Valid
P2	0.392	Valid
P3	0.721	Valid
P4	0.513	Valid
P5	0.451	Valid
P6	0.331	Valid
P7	0.724	Valid
P8	0.378	Valid

For managerial performance, the analysis revealed that the highest correlations appeared in items 7, 3, and 4. Hence, these items most accurately reflect the core dimensions of managerial performance.

Questionnaire reliability was assessed using Cronbach's Alpha, which represents the internal consistency of each variable. As stated by Nunnally Han & Cao [37], the reliability of an instrument can be determined through a one-time measurement approach. A construct is considered reliable when its Cronbach's Alpha (α) value is above 0.60. Therefore, any variable surpassing this threshold is judged dependable. The reliability outputs obtained from data processing are summarized in Tables 3 and 4. All research variables demonstrated alpha coefficients higher than 0.60, proving that each set of items achieved satisfactory reliability according to the standard rule of thumb.

Table 3. Reliability Test Results

Items	Alpha Cronbach	Description
Budget Participation (X1)	0.889	Reliable
Leadership Style (X2)	0.931	Reliable
Organizational Commitment (X3)	0.888	Reliable
Managerial Performance (Y)	0.780	Reliable

Table 4. Path Analysis Results for Equation 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.645	3.967		2.935	.006
	JMLPPA	.194	.217	.182	.891	.378
	JMLGK	.113	.030	.541	3.781	.001
	JMLKO	.063	.223	.063	.280	.781

Path equation findings

Path analysis, an advanced form of regression analysis, was implemented to identify and evaluate the causal effects among the studied variables and determine the significance of these relationships.

$$Y = \beta_1 Y_1 + \beta_2 X_1 + \beta_3 X_2 + e \quad \text{Equation I: } X_3 = \beta_4 X_1 + \beta_5 X_2 + e \quad (1)$$

Path analysis output for equation 1

The resulting equation is expressed as:

$$Y_2 = 0.182 X_1 + 0.541 X_2 + 0.063 Y_1 + \epsilon_1 \text{Sig } (0.378) (0.001)** (0.781)$$

Legend:

Y_2 = Managerial Performance

X_1 = Budget Participation

X_2 = Leadership Style

Y_1 = Organizational Commitment

ϵ_1 = Error Term

Significance Level = 5%

The budget participation coefficient of 0.186 implies that when leadership style and organizational commitment are controlled, managerial performance improves by a fixed constant plus 0.186. The leadership style coefficient of 0.541 suggests that, holding other factors constant, managerial performance rises by 0.541. Meanwhile, the organizational commitment coefficient of 0.063 signifies that, in the absence of budget participation and leadership style, managerial performance increases by a constant of 0.063.

Path analysis output for equation 2

$$Y_1 = 0.703X_1 + 0.278 X_2 + \epsilon_2 \text{Sig } (0.000)** (0.004)** Y_2 = \text{Managerial performance } X_1 = \text{Budget}$$

Explanation:

Y_2 = Managerial Performance

X_1 = Budget Participation

X_2 = Leadership Style

Y_1 = Organizational Commitment

ϵ_1 = Error Term

Significance Level = 5%

The regression coefficient of 0.703 for budget participation shows that if leadership style remains unchanged, organizational commitment rises by a constant of 0.703. In contrast, the leadership style coefficient of 0.278 indicates that when budget participation is not considered, organizational commitment increases by a constant of 0.278.

Hypothesis testing

T-test procedure

To analyze the independent variables' partial influence on the dependent variable, a t-test was conducted. The test relies on p-values—a significance level of ≤ 0.05 indicates that the independent variable significantly affects the dependent variable. All statistical computations were carried out using SPSS.

Budget participation and managerial performance

From the regression analysis in Equation 1, the t-value for budget participation was 0.891, with a p-value of 0.378 (>0.05). This demonstrates that budget participation has a positive but statistically insignificant relationship with managerial performance. Therefore, Hypothesis 1 is rejected.

Leadership style and managerial performance

The regression results revealed that the t-value for leadership style was 3.781, with a p-value of 0.001 (<0.05). This confirms that leadership style significantly and positively influences managerial performance. Hence, Hypothesis 2 is accepted.

Organizational commitment and managerial performance

The t-value for organizational commitment was 0.280, with a significance value of 0.781 (>0.05). These results imply that organizational commitment has a positive but statistically insignificant impact on managerial performance. Consequently, Hypothesis 3 is rejected.

Effect of budget participation on organizational commitment

Based on the analysis of the second regression equation, the t-value obtained for the budget participation variable was 7.668, with a probability value of 0.000, which is below 0.05. This outcome confirms that budget participation has a strong and statistically significant effect on organizational commitment.

Effect of leadership style on organizational commitment

Results from the second regression equation indicate that the leadership style variable produced a t-statistic of 3.036 and a significance level of 0.004, which is less than 0.05. These figures imply that leadership style meaningfully influences organizational commitment.

Sobel test

The Sobel test was applied to verify whether organizational commitment serves as a mediating factor in the connection between independent and dependent variables. The test was computed using the following formula.

$$Sab = \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2} \quad (2)$$

The significance of mediation was assessed using the formula:

$$= \frac{ab}{Sab} \quad (3)$$

A mediating relationship is considered present when the computed t-value is greater than the critical t-value.

Influence of budget participation on managerial performance through organizational commitment

Referring to **Tables 5, 6, and 7**, the effect of budget participation on managerial performance, with organizational commitment acting as the mediating variable, was determined using the following calculation.

$$\begin{aligned} Sab &= \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2} \\ Sab &= \sqrt{(0,754)^2(0,223)^2 + (0,063)^2(0,098)^2 + (0,223)^2(0,098)^2} \\ Sab &= \sqrt{0,5685 \times 0,0497 + 0,0040 \times 0,0096 + 0,0497 \times 0,0096} \\ Sab &= \sqrt{0,028272 + 0,000038 + 0,00478} \\ Sab &= \sqrt{0,028787} \end{aligned} \quad (4)$$

Table 5. Path Analysis Results for Equation 2

Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	3.513	2.787		1.260	.215
	JMLPPA	.754	.098	.703	7.668	.000
	JMLGK	.059	.019	.278	3.036	.004

a. Dependent Variable: JMLKO

Table 6. Coefficients from T-Test

Model		t-count	Sig.
1	(Constant)	2.935	.006
	JMLPPA	.891	.378
	JMLGK	3.781	.001
	JMLKO	.280	.781

Table 7. Coefficient Analysis of T-Test

Model		T	Sig.
1	(Constant)	1.260	.215
	JMLPPA	7.668	.000
	JMLGK	3.036	.004

$$Sab = 0.169669$$

$$\text{Lookingfort - count} = \frac{ab}{Sab}$$

$$t_{hit} = \frac{0.063 \times 0.754}{0.169669} = \frac{0.047502}{0.169669} = 0.279969$$

With 42 observations (df = 39), the t-table value was 2.023.

Since t-count (0.279969) < t-table (2.023),

it can be inferred that budget participation did not exhibit a mediating effect on managerial performance. Thus, the fourth hypothesis, proposing that organizational commitment mediates the positive link between budget participation and managerial effectiveness, is rejected.

Budget participation impact on managerial performance mediated by organizational commitment

Using **Tables 6, 7, and 8**, the relationship between budget participation and managerial performance, with organizational commitment as a mediator, was computed as follows.

$$\begin{aligned}
 Sab &= \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2} \\
 Sab &= \sqrt{(0,059)^2(0,223)^2 + (0,063)^2(0,019)^2 + (0,223)^2(0,019)^2} \\
 Sab &= \sqrt{0,0035 \times 0,0497 + 0,0040 \times 0,0004 + 0,0497 \times 0,0004} \\
 Sab &= \sqrt{0,000173 + 0,000001 + 0,000018} \\
 Sab &= \sqrt{0,000192}
 \end{aligned}
 \tag{5}$$

Table 8. F-Test Results for the First Equation

	Model	F	Sig.
1	Regression	10.777	.000 ^b
	Residual		
	Total		

$$Sab = 0.013874$$

The magnitude of t-count is sought as follows:

$$t - \text{count} = \frac{0.063 \times 0.059}{0.013874} = \frac{0.003717}{0.013874} = 0.267909 \tag{6}$$

Because $t = 0.267909$ is lower than $t\text{-critical} = 2.023$,

the leadership-style variable does not exhibit a mediating function in the link between organizational commitment and managerial output.

Accordingly, the fifth proposition, which proposed a positive indirect influence of leadership style on managerial performance through organizational commitment, was rejected (**Tables 9–11**).

Table 9. Second-Equation F-Test Output

	Model	F	Sig.
1	Regression	49.885	.000 ^b
	Residual		
	Total		

a. Dependent Variable: JKO

b. Predictors: (Constant), JMLGK, JPPA

Table 10. Determination Coefficient for Equation 1

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 ^a	.460	.417	2.72189

a. Predictors: (Constant), JKO, JMLGK, JPPA

b. Dependent Variable: JKIN

Data Source: Processed 2021

Table 11. Determination Coefficient for Equation 2

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.848 ^a	.719	.705	1.95082

a. Predictors: (Constant), JMLGK, JPPA

b. Dependent Variable: JKO

Data Source: Processed 2021

7.3 F-Test

Results for the first equation

The overall test (F-statistic) for Equation 1 showed $F = 10.777$ with $p = 0.000 < 0.05$, confirming that the combined predictors significantly influenced managerial performance.

Results for the second equation

The computed F-value = 49.885 with a significance value = 0.000 < 0.05, implying that budget participation together with leadership style exerts a joint significant effect on organizational commitment.

Coefficient of determination (R^2)

$$e_1^2 = 1 - R_1^2 = 1 - 0.460 = 0.540 e_1 = 0.7348 \quad (7)$$

$$e_2^2 = 1 - R_2^2 = 1 - 0.719 = 0.281 e_2 = 0.5301 \quad (8)$$

Overall determination

Combining both equations yields:

$$R^2_{\text{total}} = 1 - (e_1^2 \times e_2^2) = 1 - (0.540 \times 0.281) = 1 - 0.1517 = 0.8483$$

Hence, 84.83 % of managerial-performance variance can be explained by budget participation, leadership style, and organizational commitment, while the residual 15.17 % stems from unobserved aspects (e.g., communication, discipline, etc.).

Path-analysis summary

Based on the prior results, the findings can be summarized as follows:

Direct effects

A direct effect measures the influence of one predictor on the dependent construct without mediation.

Budget Participation → Managerial Performance

From **Tables 12–13**, the path coefficient was 0.182 with $p = 0.352$, indicating a positive yet insignificant association.

Table 12. Recap of Path-Analysis Results

No.	Relationship Direction	Regression	
		Beta	Sig
1	Budget Participation → Managerial Performance	0.186	0.352
2	Leadership Style → Managerial Performance	0.541	0.000
3	Organizational Commitment → Managerial Performance	0.063	0.903
4	Budget Participation → Organizational Commitment	0.703	0.000
5	Leadership Style → Organizational Commitment	0.278	0.004

Table 13. Direct, Indirect, and Overall Effects

No.	Between Variables	Direct Influence	Indirect influence	Total Influence
1	Budget Participation → Performance	0.186		
2	Leadership Style → Performance	0.541		
4	Budget Participation → Organizational Commitment → Performance		$0.703 \times 0.063 = 0.019$	$0.182 + 0.019 = 0.205$
5	Leadership Style → Organizational Commitment → Performance		$0.278 \times 0.063 = 0.008$	$0.541 + 0.008 = 0.602$

Leadership Style → Managerial Performance

As reflected in **Tables 12–13**, the leadership-style coefficient was 0.541 with $p = 0.000$, confirming a strong positive and significant relationship.

Indirect effects

Budget Participation → Managerial Performance via Organizational Commitment

According to **Table 13**, budget participation significantly affected organizational commitment, while organizational commitment's link to managerial performance was weak (coefficient = 0.019).

Leadership Style → Managerial Performance via Organizational Commitment

Table 13 indicates that leadership style had a significant positive influence on organizational commitment, which in turn positively contributed to managerial performance (coefficient = 0.008).

Total effects

The cumulative influence of budget participation on managerial performance through organizational commitment equaled 0.205.

The overall impact of leadership style on managerial performance through organizational commitment was 0.602 (**Figure 2**).

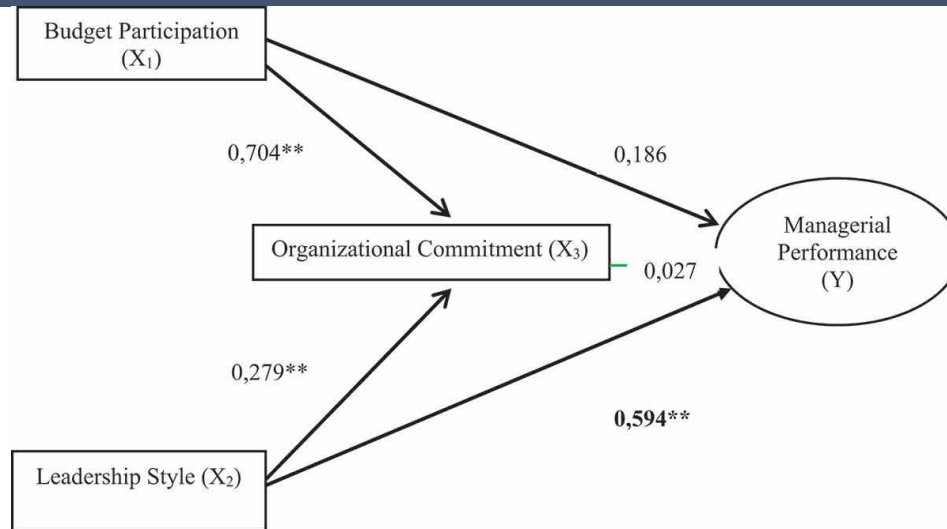


Figure 2. Results of Path Analysis

8.4 Summary of path-analysis findings

Budget participation and managerial performance

The analysis indicated that the direct coefficient for the relationship between budget participation and managerial performance was 0.182, but it was statistically insignificant because the p-value (0.352) exceeded $\alpha = 0.05$. This insignificance may be attributed to the behavior of subordinate managers who, instead of actively finding solutions to challenges in meeting budget targets, treat the budgeting process merely as a formality. Within the Public Works and Public Housing Office and the Tax Service Office of Wonogiri Regency, budgeting seems to be perceived as a routine administrative process rather than a performance-driven mechanism. Consequently, subordinates appear less motivated to ensure target achievement. This differs from private-sector organizations, where the budgeting process is directly tied to measurable performance outcomes.

The findings are consistent with studies by Syahputra [4], Yulianingsih [15], and Anderson [16], which also concluded that budget participation does not significantly influence managerial effectiveness. However, the current results contradict those of Indarto and Ayu [5], Putri and Adiguna [10], Abata [11], Moheri and Arifah [12], Tarigan and Devie [13], Manica and Hanny [14], Ermawati [3], and Sari and Abdullah [9], who found a positive connection. Likewise, they oppose the negative associations reported by Suharman [17] and Noor and Othman [18].

Overall, the influence of budget participation on improving managerial performance is ineffective, given its insignificance. Therefore, maintaining participatory behavior remains crucial for sustaining managerial involvement in budgeting. Attention should be paid to the most valid indicators, namely statement items 4, 2, and 3, which most strongly shape participation behavior. Recommended managerial actions include:

- Ensuring subordinates have opportunities to be involved in the budgeting process.
- Engaging subordinates in joint formulation of organizational budgets.
- Allowing subordinates to participate in goal setting and target determination during budgeting.

Leadership style and managerial performance

The results demonstrated that the leadership style coefficient was 0.541, which is statistically significant, indicating that improvements in leadership style lead to significant increases in managerial performance within the Department of Public Housing and Settlement in Wonogiri Regency. These results reinforce the conclusions of Sari and Abdullah [9] and Elwisa [21], both of whom confirmed the positive role of leadership in enhancing managerial outcomes.

Since the relationship is statistically significant, the leadership style variable effectively enhances performance. Hence, maintaining and reinforcing leadership behaviors is necessary. The validity indicators associated with this variable—statement items 17, 6, and 7—represent the behavioral aspects most associated with strong leadership. Specific strategies to sustain them include:

- Encouraging subordinates to take accountability for their assigned tasks.
- Planning clear and firm supervisory actions, such as anticipating issues before they arise.
- Consistently overseeing and monitoring subordinate progress to ensure task completion.

Organizational commitment and managerial performance

The data revealed that the organizational commitment coefficient was 0.063, with a p-value of $0.903 \geq 0.05$, confirming the relationship as statistically insignificant. This suggests that many employees perceive commitment merely as a formal

obligation rather than a motivator for improved performance. The dominance of younger employees (20–39 years; 45.23%) with shorter tenure (0–10 years; 17 individuals or 45.23%) further explains the weaker sense of attachment to the organization. These factors likely contributed to the low level of organizational commitment.

This outcome diverges from prior research by Jannah and Rahayu [19], Manica and Hanny [14], Sari and Abdullah [9], Giusti *et al.* [30], Hartini (2018), Syakieb *et al.* [28], and Gamayuni and Suryani [29], which found a significant and positive relationship between organizational commitment and managerial performance.

In summary, organizational commitment did not yield a significant effect on managerial effectiveness, implying an inefficient influence on performance enhancement. Therefore, it is important to maintain commitment-related behaviors that could eventually strengthen performance. The most valid indicators for this construct—statement items 5, 4, and 3—should be prioritized. Recommended managerial actions include:

- a. Sustaining employee participation in achieving organizational goals despite implementation challenges.
- b. Reinforcing employees' sense of purpose through active engagement in the budgeting process.
- c. Strengthening employee involvement in ensuring the successful realization of set targets.

Budget participation and managerial performance with organizational commitment as a mediator

The study outcomes showed that the regression value for budget participation's effect on organizational commitment was 0.278, with a significance level of $0.004 < 0.05$, while the influence of organizational commitment on managerial performance stood at 0.063, with a significance level of $0.781 > 0.05$. These figures imply that budget participation had a significant positive relationship with organizational commitment, whereas organizational commitment exhibited a positive yet statistically insignificant link to managerial performance.

The indirect relationship between budget participation and managerial performance via organizational commitment was calculated by multiplying both regression coefficients, resulting in an indirect coefficient of 0.018, smaller than the direct influence value of 0.182. Using the Sobel test, the t-count value (0.279969) was lower than the t-table value (2.023). Therefore, it can be inferred that organizational commitment did not act as an effective mediator in the connection between budget participation and managerial performance.

The lack of mediation can be linked to employees perceiving commitment merely as a formal duty rather than an inner motivation. The limited sense of identification with the organization prevents employees from feeling genuinely driven to meet collective goals. As explained by Han and Cao [37] a mediating variable is one that helps explain how an independent factor relates to a dependent outcome. Since the t-count (0.279969) is below the t-table (2.023) for 42 samples ($df = 39$), it is evident that budget participation does not indirectly affect managerial performance through organizational commitment.

These results contrast with those reported by Indarto and Ayu [5], Kholidah and Murtini [24], Jannah and Rahayu [19], and Giusti *et al.* [30], who found that organizational commitment significantly mediated the positive relationship between budget participation and managerial performance. Consequently, the fourth hypothesis, predicting that organizational commitment mediates the positive effect of budget participation on managerial performance, was rejected.

Leadership style and managerial performance with organizational commitment as a mediator

Findings revealed that the regression coefficient of leadership style on organizational commitment equaled 0.703, with a significance value of $0.000 < 0.05$, and the influence of organizational commitment on managerial performance was 0.063, with a significance value of $0.781 > 0.05$. This means that leadership style had a strong and significant positive impact on organizational commitment, while organizational commitment again showed a non-significant positive relationship with managerial performance.

The indirect coefficient, obtained by multiplying the two regression values, was 0.044, which is smaller than the direct coefficient (0.541) between leadership style and managerial performance. This result suggests that organizational commitment did not effectively mediate the influence of leadership style on managerial performance.

Verification using the Sobel test yielded $t\text{-count} < t\text{-table}$, reinforcing the conclusion that organizational commitment failed to act as a meaningful mediator in this context. The absence of mediation likely stems from the fact that employees' commitment had not developed into a deep emotional or motivational bond that sustains performance efforts, even under supportive leadership. The existing level of commitment, therefore, did not generate the needed enthusiasm for consistent work improvement.

Conclusion

From the findings and discussion, the following conclusions are drawn:

1. Budget participation had a positive yet insignificant impact on managerial performance. This indicates that although greater participation might improve performance within the Public Works and Public Housing Office and Tax Service Office of Wonogiri Regency, the increase is not statistically meaningful. To enhance its effect, leaders should:

2. a. Continue giving staff opportunities to be engaged in the budget planning process.
3. b. Maintain collaboration between supervisors and team members in preparing budgets.
4. c. Involve subordinates actively in target setting and budget determination.
5. Leadership style demonstrated a positive and significant impact on managerial performance. Hence, improving leadership practices can substantially raise managerial outcomes in both offices. To sustain this, leaders should:
 6. a. Encourage responsibility and independent problem-solving among subordinates.
 7. b. Employ structured, forward-looking supervision and clear action plans.
 8. c. Keep track of subordinates' progress to ensure accountability and steady performance.
9. Third, the study found that organizational commitment had a positive and significant effect on managerial performance. Fourth, organizational commitment was not found to serve as a mediator in the impact of budget participation on managerial performance. Finally, organizational commitment also did not mediate the effect of leadership style on managerial performance at the Public Works and Public Housing Office and Tax Service Office in Wonogiri Regency, Indonesia.
10. For future research, the authors recommend using a larger and more diverse sample to better reflect the broader population. Additionally, exploring other variables, such as competence, compensation, communication, loyalty, and others, could provide a more comprehensive understanding. The contribution of this study lies in offering new insights into how budget participation and leadership style affect managerial performance, with organizational commitment serving as an intervening variable. This research underscores the importance of internal control and organizational commitment to enhance managerial performance, particularly in public service organizations.
11. Moreover, this study introduces a novel approach by using organizational commitment as a mediating variable. Organizational commitment reflects an employee's emotional attachment to the organization's values and goals. Managers with strong commitment demonstrate a positive attitude toward the organization's benefits. As such, organizational commitment acts as a key factor in achieving budgetary goals by fostering employee engagement in organizational success, prioritizing the organization's needs over personal interests. Commitment plays a pivotal role in creating a supportive work environment, ensuring that the organization operates efficiently and effectively. It reflects an individual's dedication to putting in the effort for the organization's progress.

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