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The Effect of Budget Participation and Leadership Style on Regional Budget Performance: The Moderating Role of Accountability in the Semarang City Government

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Abstract: This study examines the influence of budget participation and leadership style on regional budget performance, with accountability as a moderating variable in the Semarang City Government. The results indicate that budget participation has a positive and significant effect on budget performance. Greater employee involvement in the budgeting process leads to improved performance by fostering a sense of ownership and responsibility, which enhances budget efficiency and effectiveness. Leadership style also positively and significantly influences budget performance, particularly transformational and collaborative leadership that provides vision, motivation, and active engagement in financial management. Furthermore, accountability moderates the relationship between budget participation and budget performance, strengthening the positive impact when a transparent and firm accountability system is in place. Similarly, accountability moderates the effect of leadership style on budget performance. The presence of a strong culture of accountability enhances the role of leadership in achieving budget targets, acting as a catalyst within the regional government bureaucracy.

Keywords: Budget Participation, Leadership Style, Budget Performance, Accountability, Local Government, Semarang City.

INTRODUCTION

Public sector accounting plays a crucial role in regional financial management. In the context of local government, accounting functions not only as a tool for recording financial transactions but also as a means to enhance transparency and accountability in budget management. According to Law Number 17 of 2003 concerning State Finance, public accounting must be capable of providing relevant, reliable, and timely information for decision-making. This is essential to ensure that public resources are managed efficiently and effectively, and to uphold accountability for budget usage to the public.

Public financial management has become a key focus in efforts to improve accountability, efficiency, and the performance of government services. According to Mahmood et al., (2021), public accountability is a fundamental pillar of transparent

governance, especially in the context of developing countries. Amid growing public demands for effective budget management, government sectors must optimize budget performance through participatory approaches and responsive leadership.

Semarang City, as the capital of Central Java Province, faces significant challenges in optimizing its locally generated revenue (PAD). According to espos.id (2023), Semarang's PAD realization in 2022 reached only IDR 2.5 trillion out of a total regional budget (APBD) of IDR 5.9 trillion, or just 42.37%. This figure falls short of the ideal fiscal independence ratio, which should be 50% or more.

Table 1. Comparison of Semarang City's Regional Original Revenue and Regional Budget (PAD) for 2022

Years	APBD (Rp Triliun)	PAD (Rp Triliun)	Ratio of PAD to APBD
2022	5,9	2,5	42,37%

Source: espos.id (2023)

According to Mikula et al. (2022), the involvement of local actors and internal organizational participation in the budgeting process is essential to achieving genuine public accountability. Budget participation fosters a sense of ownership and drives the achievement of budget targets. Furthermore, leadership style also plays a critical role—adaptive leaders are able to manage bureaucratic pressures and strengthen cross-unit coordination. However, the effectiveness of participation and leadership is highly influenced by organizational accountability. Martins et al., (2019) state that accountability serves as a bridge between internal organizational performance and public expectations. Without strong accountability, both participation and leadership style lose their significance in achieving optimal budget performance.

Most previous studies have focused on the direct impact of budget participation or leadership style on budget performance, without considering accountability as a moderating variable. This leaves a research gap in examining how accountability reinforces these causal relationships within the context of local government institutions. Therefore, this study aims to examine the influence of budget participation and leadership style on regional budget performance, with accountability as a moderating variable.

This research adopts a quantitative approach using SmartPLS analysis, as it is considered capable of capturing the complexity of relationships among latent constructs and accommodating moderation analysis within the model structure. Focusing on the Semarang City Government, this study is expected to contribute to both academic literature and the practical management of public sector finance.

Agency Theory

Agency theory, as explained by Jensen and Meckling, describes the relationship between agents and principals. It explains the interaction within an organization where the principal delegates authority to the agent to manage resources on their behalf. In the public sector, this relationship exists between the government (as the agent) and the public (as the principal). According to Mahmood et al., (2021), information and interest asymmetries between principals and agents can lead to opportunistic behaviors that threaten public accountability.

In the context of local government, participation in budget formulation and effective leadership are considered capable of reducing agency conflicts and improving public organizational performance.

Public Sector Accounting Concept

Public sector accounting has distinct characteristics compared to private sector accounting. Its main focus is to provide useful information for public decision-making and to

ensure accountability for the use of public funds. According to Mardiasmo (2022), public sector accounting must be able to deliver transparent and accountable information that can be justified to the public.

The principles of public sector accounting include transparency, accountability, and participation. Transparency requires the government to provide clear and accessible financial information to the public. Accountability means the government must take responsibility for the use of public funds and the outcomes achieved.

Meanwhile, participation refers to the involvement of the public in decision-making processes related to budgeting. According to Government Regulation of the Republic of Indonesia No. 71 of 2010, these public sector accounting principles must be applied in regional financial management. By applying these principles, it is expected that regional budget performance will improve and public trust in government financial management will be strengthened. For instance, in several regions of Indonesia, the application of public sector accounting principles has proven to enhance the quality of financial reports and reinforce governmental accountability (Afifah & Sopiany, 2022).

Budget Participation

Budget participation is a key principle in public sector financial governance, emphasizing the involvement of various stakeholders in the planning, formulation, implementation, and evaluation of budgets. This concept stems from the need for transparency, accountability, and collaboration in government financial systems. In public organizations such as local governments, budget participation is not limited to top officials but also involves technical staff who possess deep understanding of operational needs and public service policies.

According to Mikula et al. (2022), participation in public budgeting significantly contributes to improved fiscal efficiency by reducing the risk of misallocated resources. The involvement of various organizational units and structural officials—such as division heads, treasurers, or finance sub-section heads—in sharing information and setting budget priorities fosters a participatory work environment that is more responsive to the organization's actual needs.

Budget participation also strengthens the legitimacy of financial decisions and cultivates a sense of ownership toward organizational programs. When employees are actively involved, they feel responsible for budget execution outcomes and are more motivated to realize the agreed work programs. This participation also fosters internal social control, where all parties monitor each other and ensure that budget formulation processes adhere to principles of efficiency and accountability.

In this study, budget participation is measured using several key indicators drawn from literature and empirical findings. First, the level of employee involvement in the budget preparation process, reflecting the extent to which employees are allowed to contribute to financial planning. Second, influence on budget decisions, indicating how much employee input is considered in budget allocation. Third, access to budget information, representing the degree of financial transparency within the organization, including openness regarding budget allocation, spending, and realization. Fourth, interagency or interunit coordination and communication, illustrating the extent to which budgeting processes are conducted in an integrated and cross-sectional manner rather than being limited to a single unit.

In addition, research by Aminuzzaman et al., (2021) on public governance in South Asia emphasizes that the quality of participation, rather than mere quantity, is a key factor in strengthening public financial management. Symbolic or formalistic involvement alone is insufficient to produce accurate and effective budgets. There must be an organizational structure that supports dialogue, shared understanding of policy visions, and mechanisms that enable collective decision-making.

Thus, budget participation is not merely an administrative procedure but a strategic governance practice that strengthens the relationship between employees, organizational leaders, and fiscal policy. Meaningful employee participation in budgeting directly impacts the quality of the budget and the effectiveness of its implementation on the ground.

Leadership Style

Leadership style refers to the approach or behavior used by a leader to influence, direct, and manage their members in achieving organizational goals. In the context of the public sector, leadership style plays a significant role in shaping organizational culture, improving employee morale, and enhancing administrative and financial performance, including budget management. Effective leadership not only ensures structural compliance but also motivates employees to work proactively, accountably, and results-oriented.

According to Ng et al., (2020), transformational leadership is highly relevant in modern organizations, including government bureaucracies. Transformational leaders are characterized by their ability to inspire vision, encourage innovation, build team trust, and attend to the personal development of subordinates. This style has been proven effective in enhancing team collaboration and fostering emotional attachment between employees and their organizations. In the public sector, this leadership style is crucial because it creates a work environment that is adaptive to policy changes and the dynamics of public service.

Conversely, authoritarian or bureaucratic leadership styles tend to hinder employee participation and creativity. Such models emphasize formal structure, one-way directives, and hierarchical obedience, making them less suitable in budget management contexts that demand open communication, accountability, and responsive decision-making.

Leadership in public sector organizations is also closely tied to values of integrity, transparency, and public responsibility. Public leaders are expected to build fair work systems, remain open to criticism, and prioritize public interest over personal or group interests. In this study, leadership style is assessed based on several key indicators, including:

1. The leader’s communication ability in clearly and openly conveying the organization’s vision, goals, and policies;
2. Employee involvement in decision-making processes, reflecting two-way dialogue and participatory leadership;
3. The leader’s capacity to provide direction, guidance, and motivation, enabling employees to work confidently and with high morale;
4. The leader’s attitude toward evaluation and improvement, including openness to feedback and willingness to pursue continuous improvement.

In another study by Caillier (2021), participative and transformational leadership styles in the U.S. bureaucracy were found to positively affect operational efficiency, employee satisfaction, and policy outcomes. This suggests that democratic and collaborative leadership approaches have a strong influence on public institution performance, including in the management and realization of budgets.

Therefore, in the context of the Semarang City Government, an inclusive and communicative leadership style is seen as a vital factor in improving budget implementation effectiveness and strengthening an accountability-based work culture.

Regional Budget Performance

The definition of budget performance, according to the Regulation of the Minister of Finance No. 124 of 2017, is an activity aimed at achieving the expected results. To improve budget performance, evaluation is necessary by comparing previous year’s performance with the current year's.

Regional budget performance is a key indicator in assessing the effectiveness of local governments in managing public financial resources. Generally, budget performance reflects the extent to which budget realization aligns with strategic planning, output targets, and policy outcomes. Performance evaluation is not only limited to budget absorption but also includes the effectiveness of fund utilization, cost efficiency, and the policy impact on society.

According to Martins et al., (2019), high budget performance is achieved when well-planned budgets are actually realized through measurable work programs. They emphasize the importance of integrating performance-based budgeting with outcome evaluation so that budgets serve not only as administrative tools but also as instruments of accountability and strategic decision-making.

In the context of local government, budget performance measurement becomes increasingly critical as it is directly related to public service mandates and the legitimacy of government in the eyes of citizens. Poor budget performance—such as low budget absorption, large deviations between targets and realizations, or misaligned programs—can indicate weak fiscal governance. Conversely, regions with transparent, targeted, and efficient budget management tend to show better organizational performance.

Common indicators used to measure regional budget performance include:

1. Percentage of budget realization compared to the plan, indicating the effectiveness of budget absorption;
2. Cost efficiency in program implementation, measuring the ratio between achieved outputs and inputs used;
3. Timeliness of activity implementation, reflecting administrative discipline and technical readiness in budget execution;
4. Achievement of priority program indicators, measuring how far the budget-funded programs have met the set development targets.

A study by Lopes et al., (2021) on fiscal performance of municipal governments in Europe found that factors such as quality planning, internal participation, and accountability significantly influence budget performance. This highlights that the success of regional financial management is not solely determined by budget size but is also shaped by organizational capacity in effective management and oversight.

Thus, in this study, regional budget performance is understood as the outcome of a fiscal management process that involves employee participation, leadership effectiveness, and accountability mechanisms. This performance serves as the final reflection of the success or failure of bureaucracy in responsibly and transparently implementing development mandates.

Accountability

Accountability is one of the core principles in public sector organizational governance. Conceptually, accountability is defined as the obligation of every individual or entity within an organization to account for the use of resources, the execution of activities, and the results achieved to authorized parties or other stakeholders. In the context of local government, accountability is crucial for maintaining public trust in government institutions and ensuring that every policy and work program operates in accordance with its mandate and public interests.

According to Mahmood et al., (2021), public accountability goes beyond mere administrative reporting; it includes transparency in decision-making processes, honesty in task execution, and the presence of oversight and evaluation systems embedded throughout all organizational activities. Accountability serves as both a moral and structural foundation for every government action involving public funds, particularly in budgeting and financial reporting.

Accountability in regional financial management aims to prevent budget misuse, reduce the potential for corruption, and enhance the efficiency and effectiveness of fund utilization. A sound accountability system enables accurate and verifiable performance reporting by both internal and external auditors. It also encourages the development of an integrity-based work culture, where every official and staff member acts professionally and responsibly.

In this study, accountability is positioned as a moderating variable that strengthens the influence of budget participation and leadership style on regional budget performance. In other words, the extent to which employee participation and effective leadership impact budget performance depends heavily on the level of accountability implemented within the organization. If accountability is low, even high levels of participation and strong leadership will not produce a significant impact on budget performance.

The measurement of accountability in this study is based on several indicators, including:

1. Clarity of roles and responsibilities, reflecting the extent to which individual roles in the organization are transparently defined;
2. Regular financial performance reporting, assessing whether budget use aligns with targets and regulations;
3. Internal and external monitoring systems, such as audits, financial reviews, or public accountability forums;
4. Commitment to transparency and openness of information, including the ease of public or stakeholder access to budget data and performance outcomes.

A study by Ali et al., (2020) emphasizes that the higher the level of accountability within a government system, the better the budget performance and the greater the public's trust in government institutions. Therefore, accountability should be embedded not only as an administrative procedure but also as a core value within public organizational culture.

Conceptual Framework

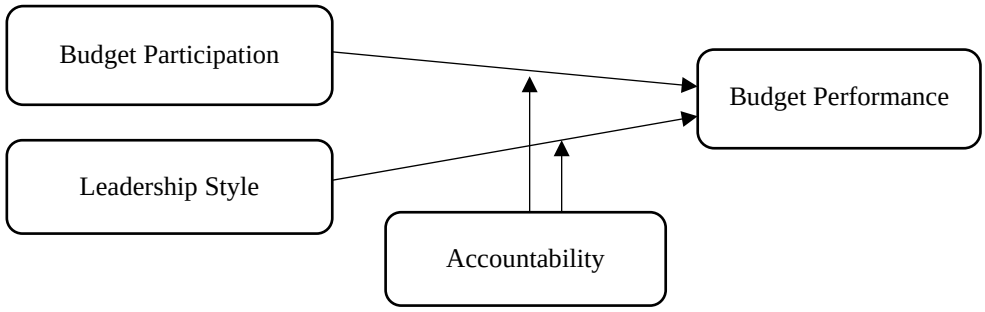


Figure 1. Conceptual Framework

Research Hypothesis

H1: Budget participation influences regional budget performance
H2: Leadership style influences regional budget performance
H3: Budget participation influences regional budget performance with accountability as a moderating variable
H4: Leadership style influences regional budget performance with accountability as a moderating variable

METHODS

Type and Source of Data

This research is an explanatory quantitative study aimed at examining the relationship between budget participation and leadership style on regional budget performance, with accountability as a moderating variable. A quantitative approach is used to process and analyze numerical data through statistical hypothesis testing. According to Sugiyono (2021), a quantitative approach is appropriate when the research aims to test theories by measuring the relationships between variables and producing generalizable conclusions.

The data used in this study is primary data, collected directly from respondents through an online questionnaire. Data collection was conducted by the researcher using Google Forms, which was distributed to employees of the Semarang City Government who met the research criteria. The distribution was carried out online via the internal organizational network to efficiently and evenly reach respondents. According to Arikunto (2020), primary data is data obtained directly from the first source by providing a list of questions (questionnaires) that respondents answer based on their experience and knowledge.

Before filling out the questionnaire, respondents were informed about the purpose of the study and assured of the confidentiality of their responses. The questionnaire was developed based on relevant theoretical indicators and used a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). The data collected through Google Forms was then exported to Excel format for analysis using the latest version of SmartPLS.

Research Subjects and Objects

The population in this study includes all civil servants (PNS) working within the Semarang City Government. This population covers employees from various Regional Government Organizations (Organisasi Perangkat Daerah or OPD) directly involved in regional financial management.

The sampling technique used in this study is purposive sampling, which involves selecting samples based on specific criteria relevant to the research objectives. The sample criteria are as follows:

1. Employees directly and technically involved in financial management, budgeting, budget evaluation, and financial reporting within each OPD under the Semarang City Government.
2. The sample includes Heads of Departments, Department Secretaries, Division Heads, Subdivision Heads, Expenditure Treasurers, and financial managers from each OPD who meet the criteria.

Based on the above criteria, the researcher selected five (5) respondents from each OPD, resulting in a total sample of 124 civil servants (PNS). This number was determined to ensure the data collected could proportionally represent the actual conditions regarding budget participation, leadership style, accountability, and regional budget performance.

District-level institutions (kecamatan) were not included in this study due to geographical considerations, as they are spread across the entire Semarang City area and could hinder the effectiveness of data collection. Therefore, only central OPDs located in the city center, which are more accessible and play a primary role in budget planning and management, were involved.

The object of this study is the phenomena or variables under investigation, namely the influence of Budget Participation (X1) and Leadership Style (X2) on Regional Budget Performance (Y), with Accountability (M) as a moderating variable. These objects were chosen due to their relevance to strategic issues in strengthening accountable and transparent regional financial governance.

Data Collection Techniques

The data collection method used in this study is the collection of primary data. The data collection technique employed is a survey using an online questionnaire. The questionnaire instrument was developed based on the indicators of each research variable, namely budget participation, leadership style, accountability, and regional budget performance. Each indicator was developed into several closed statements measured using a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5).

The data collection process was conducted by distributing the digital questionnaire via Google Forms, which was sent to respondents selected through purposive sampling. Distribution was carried out through official communication channels of each Regional Government Organization (OPD) within the Semarang City Government. The form also included a brief introductory letter explaining the purpose of the study and assuring that all data provided by respondents would be kept confidential and used solely for academic purposes. Respondents were given sufficient time to fill out the questionnaire independently. After the filling period ended, the data submitted via Google Forms were automatically saved in spreadsheet format (Google Sheets) and then exported to Microsoft Excel for data cleaning before being analyzed using the SmartPLS application.

The use of online questionnaires was chosen because it is considered efficient, flexible, and capable of reaching respondents more quickly, especially in organizations with high mobility and limited direct interaction. This technique is also in line with the digitization of government administration, making the data collection method effective and appropriate to the characteristics of the population.

According to Sugiyono (2021), questionnaires are one of the most suitable data collection techniques for quantitative research because they enable researchers to obtain statistically measurable data collected systematically from a large number of respondents.

Research Variables

This study consists of four main variables: two independent variables, one dependent variable, and one moderating variable. These variables were developed based on relevant theories, such as Agency Theory, and previous research findings.

1. Independent Variables (X)
   Independent variables are variables that influence or predict other variables.
   X1: Budget Participation
   This refers to the level of employee involvement in the process of preparing and managing the regional budget. Participation includes aspects of planning, access to information, coordination, and influence in budget decision-making. According to Mikula et al. (2022), budget participation plays an important role in strengthening fiscal efficiency and public financial accountability.
   X2: Leadership Style
   Leadership style reflects the approach a leader uses to influence, direct, and manage organizational human resources. In the context of public sector organizations, transformational leadership is considered capable of driving more effective budget performance. Ng et al. (2020) showed that collaborative and inspirational leaders positively impact work culture and budget implementation.

2. Moderating Variable (M)
   M: Accountability
   Accountability functions as a moderating variable between budget participation and leadership style on regional budget performance. Accountability refers to the extent to which public officials can transparently account for budget usage to stakeholders.

Mahmood et al. (2021) stated that accountability suppresses corruption opportunities and strengthens effective governance.

3. Dependent Variable (Y)
   Y: Regional Budget Performance
   Budget performance is the achievement of the implementation of the regional government budget measured based on cost efficiency, output realization, and the achievement of priority activity targets. Martins et al. (2019) noted that budget performance measurement is an important indicator in assessing the effectiveness of local government financial management.

Measurement Scale Technique

This study used a Likert scale as the measurement scale for all items in the questionnaire. The Likert scale is a commonly used attitude measurement scale in social and organizational research because it is able to measure respondents' perceptions, opinions, and level of agreement with a statement.

According to Sugiyono (2021), the Likert scale is used to measure the attitudes, opinions, and perceptions of an individual or group of people toward social phenomena that have been specifically defined by the researcher. In this study, each statement in the questionnaire was structured as a positive statement and measured using a five-level assessment range as follows:

Table 2. Likert Scale

Score	Assessment Categories
5	Strongly Agree (SS)
4	Agree (S)
3	Neutral (N)
2	Disagree (D)
1	Strongly Disagree (SD)

Analytical Method Design

Data analysis in this study is conducted using a quantitative approach with Structural Equation Modeling – Partial Least Squares (SEM-PLS) method. SEM-PLS is a multivariate analysis technique used to examine causal relationships among latent constructs and to estimate both structural and measurement models simultaneously. This method is chosen because it can handle relatively small sample sizes, non-normal data distributions, and complex research models involving moderating variables.

According to Ghozali & Latan (2021), SEM-PLS is more flexible compared to conventional statistical methods as it does not require the assumption of multivariate normality and is more suitable for exploratory and predictive research in social sciences.

Data analysis is carried out using SmartPLS software version 4.0 and involves several stages as follows:

1. Outer Model Evaluation (Measurement Model)
   The purpose of outer model evaluation is to test the validity and reliability of indicators in measuring latent constructs. This stage includes:
   a. Convergent Validity Test: Assessed by the loading factor values (≥ 0.70) and Average Variance Extracted (AVE) (≥ 0.50).
   b. Construct Reliability Test: Using Composite Reliability (CR) and Cronbach's Alpha values, with a minimum threshold of ≥ 0.70.
   c. Discriminant Validity Test: Using the Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT), where HTMT values should preferably be < 0.90.

2. Inner Model Evaluation (Structural Model)
   The inner model evaluation aims to test the relationships between constructs (hypotheses). Several measures used include:
   a. R^2 (R-Square) Value: To assess the predictive power of the model on the dependent variable.
   b. Q^2 (Predictive Relevance) Value: To measure the model's predictive capability.
   c. f^2 (Effect Size) Value: To evaluate the strength of the effect of exogenous constructs on endogenous constructs.

3. Hypothesis Testing
   Hypothesis testing is conducted through path analysis using bootstrapping with 5,000 subsamples. The criteria for hypothesis acceptance are a t-statistic value ≥ 1.96 (at 5% significance level) and a p-value ≤ 0.05. For moderating variables, testing is performed on the interaction between independent variables and the moderator variable.

RESULTS AND DISCUSSION

Respondent Description

This study involved 124 respondents who were Civil Servants (PNS) within the Semarang City Government. Respondents were selected purposively based on their direct involvement in the budget preparation, management, evaluation, and reporting processes in their respective Regional Apparatus Organizations (OPD). Respondents included Department Heads, Department Secretaries, Division Heads, Sub-Division Heads, as well as OPD Treasurers and Financial Managers.

Data Analysis Results with SmartPLS

Measurement Model Test (Outer Model)

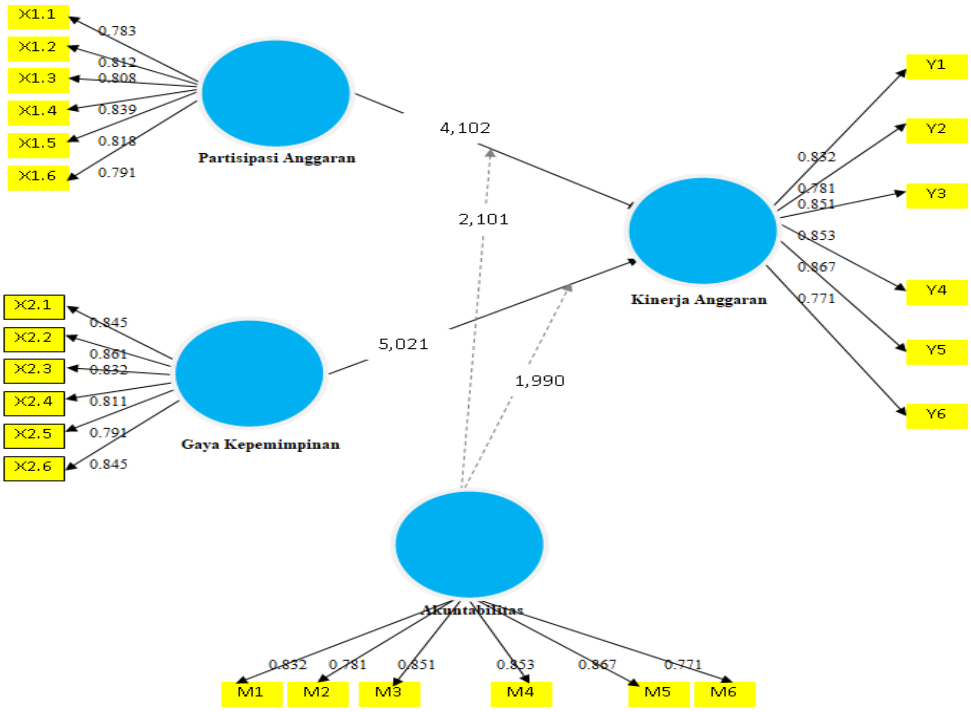


Figure 2. Outer Model

The outer model test aims to determine the extent to which indicators (questionnaire items) reflect the construct or latent variable being measured. The test is conducted through three main stages:

Convergent Validity Test

Convergent validity indicates the extent to which indicators within a construct are highly correlated with each other. An indicator is considered convergently valid if it meets two criteria: a Loading Factor ≥ 0.70 and an Average Variance Extracted (AVE) ≥ 0.50.

Table 3. Convergent Validity Results (Loading Factor and AVE)

Indicator	Construct	Loading Factor
X1.3	Budget Participation	0.783
X1.4	Budget Participation	0.812
X1.3	Budget Participation	0.808
X1.4	Budget Participation	0.839
X1.5	Budget Participation	0.818
X1.6	Budget Participation	0.791
X2.1	Leadership Style	0.845
X2.2	Leadership Style	0.861
X2.3	Leadership Style	0.832
X2.4	Leadership Style	0.811
X2.5	Leadership Style	0.791
X2.6	Leadership Style	0.845
M1	Accountability	0.863
M2	Accountability	0.837
M3	Accountability	0.819
M4	Accountability	0.790
M5	Accountability	0.845
M6	Accountability	0.861
Y1	Budget Performance	0.832
Y2	Budget Performance	0.781
Y3	Budget Performance	0.851
Y4	Budget Performance	0.853
Y5	Budget Performance	0.867
Y6	Budget Performance	0.771

The factor loading values for all indicators were above 0.70, indicating a strong correlation with their respective constructs. The AVE values for all indicators were also above 0.50, indicating that more than 50% of the indicator's variance was explained by the construct.

Construct Reliability Test

Reliability indicates the internal consistency of a construct's measurement. There are two main measures: Cronbach's Alpha ≥ 0.70 and Composite Reliability (CR) ≥ 0.70.

Table 4. Construct Reliability Test Results

Variable	Composite Reliability	Cronbach's Alpha	Information
Budget Participation	0.884	0.846	Reliable
Leadership Style	0.901	0.861	Reliable
Accountability	0.872	0.835	Reliable
Budget Performance	0.911	0.879	Reliable

All variables in the model had composite reliability and Cronbach's alpha values > 0.70, thus concluding that the constructs in this model are reliable.

Discriminant Validity Test

Discriminant validity is used to ensure that indicators within a construct do not have a high correlation with other constructs. Two methods are used:

1. Fornell-Larcker Criterion
   The AVE value of each construct must be greater than the correlation between the other constructs.
2. Heterotrait-Monotrait Ratio (HTMT) < 0.90
   Used for more sensitive and accurate discriminant validity.

Table 5. Results of the Discriminant Validity Test (HTMT)

Construct 1	Construct 2	HTMT Value	Information
Budget Participation	Leadership Style	0.716	Valid
Budget Participation	Accountability	0.684	Valid
Budget Participation	Budget Performance	0.742	Valid
Leadership Style	Budget Performance	0.768	Valid
Leadership Style	Accountability	0.721	Valid
Accountability	Budget Performance	0.735	Valid

All HTMT values are <0.90, indicating good discrimination between constructs. Based on the results of convergent validity, construct reliability, and discriminant validity tests, it can be concluded that all indicators in this model meet the requirements for being valid and reliable. Therefore, the analysis can proceed to the next stage, namely evaluation of the structural model (inner model) and hypothesis testing.

Evaluation of the Structural Model (Inner Model)

Evaluation of the structural model, or inner model, is conducted to determine the relationships between latent constructs, the model's predictive power, and the influence of each exogenous variable on the endogenous variables. This test is conducted after the measurement model (outer model) has been declared valid and reliable. This structural model evaluation includes analysis of R-square (R^2), Q-square (Q^2), f-square (f^2), and VIF (Variance Inflation Factor) values to detect multicollinearity.

R-Square (R^2)

The R-square (R^2) value indicates how much of the variance in the endogenous construct can be explained by the exogenous construct in the model. A higher R^2 value indicates better predictive ability.

Table 6. R^2 Values for Endogenous Constructs

Endogenous Construct	R-Square (R^2)	Information
Budget Performance	0,572	Strong enough (moderate)

Based on Table 6, the R^2 value for the Budget Performance construct is 0.572. This means that 57.2% of the variation in Budget Performance can be explained by Budget Participation, Leadership Style, and Accountability (moderation). The remaining 42.8% is explained by other variables outside the research model.

Q-Square (Q^2 Predictive Relevance)

Q^2 is used to assess the model's predictive ability for endogenous constructs. A model is considered to have predictive relevance if the Q^2 value is >0 (Sarstedt et al., 2022).

Table 7. Q^2 Predictive Relevance Values

Endogenous Construct	Q-Square (Q^2)	Information
Budget Performance	0,410	Have a good prediction

The results in Table 7 indicate that this model has good predictive relevance, as indicated by a Q^2 value > 0.40.

f-Square (f^2 Effect Size)

Table 8. f^2 Values Between Variables

Relationship Between Variables	f-Square (f^2)	Information
Budget Participation → Budget Performance	0,180	Currently
Leadership Style → Budget Performance	0,210	Currently
Moderation Accountability (X1*M)	0,132	Small–Medium
Moderation Accountability (X2*M)	0,102	Small

Table 8 shows that Leadership Style and Budget Participation have a moderate influence on Budget Performance. Meanwhile, the Accountability variable, as a moderator, has a small but significant influence.

Hypothesis Testing (Bootstrapping)

Hypothesis testing was conducted using the bootstrapping method in SmartPLS 4.0 with 5,000 subsamples. The purpose of this analysis was to determine the significance of the relationships between constructs in the model. A hypothesis is considered significant if the t-statistic is ≥ 1.96 (at a 5% significance level) and the p-value is ≤ 0.05 (Shmueli et al., 2020).

Table 9. Results of Hypothesis Testing with Bootstrapping

Code	Influence Relationship	Path Coefficient	t-Statistic	p-Value	Information
H1	Budget Participation → Budget Performance	0,364	4,102	0,000	Significant
H2	Leadership Style → Budget Performance	0,392	5,021	0,000	Significant
H3	Budget Participation * Accountability → Budget Performance	0,185	2,101	0,036	Significant Moderation
H4	Leadership Style * Accountability → Budget Performance	0,128	1,990	0,048	Significant Moderation

Hypothesis Test Results from the Table Above:

H1: The Effect of Budget Participation on Budget Performance

The results show that Budget Participation has a positive and significant effect on Regional Budget Performance, with a path coefficient of 0.364, t-statistic of 4.102, and p-value of 0.000 < 0.05. This indicates that the higher the budget participation, the better the budget performance achieved by the local government. These findings support Mikula et al. (2022), who stated that active involvement of employees in the budgeting process contributes to increased fiscal efficiency and transparency.

H2: The Effect of Leadership Style on Budget Performance

Leadership Style has a positive and significant effect on Budget Performance, with a coefficient value of 0.392, t-statistic of 5.021, and p-value of 0.000. This means that effective leadership, particularly transformational leadership, promotes better coordination in budget management. This result aligns with the study by Ng et al. (2020), which emphasized the role of leadership in the successful implementation of public programs.

H3: The Moderating Role of Accountability on the Relationship between Budget Participation and Budget Performance

The interaction between Budget Participation and Accountability on Budget Performance shows a significant effect (β = 0.185; t = 2.101; p = 0.036). This means that Accountability strengthens the effect of Budget Participation on Budget Performance. This finding confirms that a clear accountability mechanism enhances the positive impact of participation in budget planning.

H4: The Moderating Role of Accountability on the Relationship between Leadership Style and Budget Performance

The interaction between Leadership Style and Accountability also has a significant effect on Budget Performance (β = 0.128; t = 1.990; p = 0.048). This indicates that Accountability strengthens the relationship between leadership and budget performance, meaning that leadership style will be more effective when accompanied by a strong accountability system.

All hypotheses in this study are accepted as they meet the statistical criteria (t > 1.96 and p < 0.05). These results confirm that Budget Participation and Leadership Style have a significant direct effect on Budget Performance. The variable Accountability acts as a significant moderator, strengthening the relationship between these two independent variables and budget performance.

CONCLUSION

Based on the results of the research conducted on the Effect of Budget Participation and Leadership Style on Budget Performance, with Accountability as a Moderating Variable in the Semarang City Regional Government, the following conclusions can be drawn:

1. Budget Participation has a positive and significant effect on Regional Budget Performance. The higher the level of employee involvement in the budget preparation process, the higher the resulting budget performance. This indicates that budget participation fosters a sense of ownership and responsibility for budget implementation, which ultimately impacts the effectiveness and efficiency of budget use.
2. Leadership Style has a positive and significant effect on Budget Performance. Leadership oriented toward transformation and collaboration has been shown to improve budget execution performance. Leaders who are able to provide vision, motivation, and active involvement in regional financial management contribute to the achievement of budget targets.
3. Accountability moderates the effect of Budget Participation on Budget Performance. These findings indicate that employee participation in the budget process will have a more positive impact on budget performance when accompanied by a transparent and assertive accountability system. Accountability strengthens the positive impact of this participation.
4. Accountability also moderates the effect of Leadership Style on Budget Performance. This means that the positive influence of leadership style on performance will be stronger if the organization has an effective culture and accountability system. In the context of regional bureaucracy, accountability is a catalyst for the relationship between leadership quality and budget target achievement.

Recommendations

Based on the conclusions outlined, the researcher offers the following recommendations:

1. For the Semarang City Regional Government
   It is recommended to increase employee participation in the planning and budgeting process, particularly by involving more technical elements in each Regional Apparatus

Organization (OPD). This involvement can be achieved through budget discussion forums, budget preparation training, and transparency of financial information.

2. Bureaucratic Leadership Development
   Regional governments need to develop competency-based leadership training programs that are oriented toward results and collaboration. Inspirational and adaptive bureaucratic leaders will encourage better and more measurable budget performance.
3. Strengthening the Accountability System
   Strengthening the internal accountability system must be continuously carried out through stricter supervision, structured reporting, and fair reward and sanction mechanisms. Good accountability not only prevents irregularities but also improves performance in achieving budget targets.
4. For Further Research
   Future research is recommended to include other variables such as organizational culture, fiscal transparency, or budget literacy as factors that could potentially influence budget performance. Furthermore, the scope of the study could be expanded to include other sub-districts or regencies for comparison.

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