Managerial Performance Improvement Strategy Based on Budget Participation

Aprih Santoso[1], Andre Setyo Nugroho[2]
[1](Fakultas Ekonomi, Universitas Semarang)
*corresponding author : aprihsantoso@usm.ac.id

Abstract

Regional autonomy has led to the decentralization of health services. The impact of the decentralization of health services is the emergence of differences between provinces and districts/cities in terms of the status of funding sources and changes in the structure of the health system in the regions. The main purpose of this study is to examine the relationship between budgetary participation and managerial performance in a public sector organization. It also attempts to examine whether organizational commitment and perception of innovation mediate the budgetary participation and performance relationship. As one of the government-owned public sector organizations in charge of health issues, Semarang City Health Office became the public spotlight regarding budget and performance. The study was conducted at Semarang City's Health Office, and all of the Public Health Centers, the sample size used is 60 echelon officers, using path analysis. The analysis results indicate that Budgetary participation affects managerial performance via the mediating variable of organizational commitment but not perception of innovation. There is a direct relationship between budgetary participation, managerial performance, organizational commitment and perception of innovation.

Keywords: Budgetary, managerial performance, commitment, innovation, public sector

JEL Classification: H51, H61, R10

A.   INTRODUCTION

Regional autonomy has led to the decentralization of health services. The impact of the decentralization of health services is the emergence of differences between provinces and districts/cities in terms of the status of funding sources and changes in the structure of the health system in the regions. The decentralization of health services eliminated the deconcentration offices of the Ministry of Health and transferred the authority of regional health services to the Health Office which was formed by each autonomous region, in this case the Province and District/City.

The Health Office has 4 (four) roles as emphasized by WHO, namely: (1) role in stewardship (implementer); (2) role in financing (financing); (3) role in the service provision (terms of service); and (4) roles in resource management (resources). For these four roles to be fulfilled, good budget planning is needed. It is hoped that through performance-based budgeting, the development process can run more efficiently and participatively because the budget preparation process involves the parties involved in budget execution.

The performance-based budgeting process in local government begins with capturing the community's aspirations through

the Development Planning Conference (Musrenbang). The results of the Musrenbang are summarized in preparing a strategic plan. The strategic plan identifies strategies for future activities and operations, generally covering at least the next five years. Furthermore, the strategic plan is described in a work plan to be proposed to become the General Budget Policy and Temporary Budget the Price Unit Standards and KUA PPAS that have been set by the Regional Head and the Legislature. The RKA that has been compiled is discussed jointly between the executive and the legislature to be then determined as a Budget Implementation Document (DPA), Regional APBD Regulations and Regional Head Regulations APBD.

Mardiasmo (2016), a budget is a statement regarding the estimated performance to be achieved during a certain period of time which is stated in financial measures. The budget-making process in the public sector is a fairly complicated stage and contains high political nuances. This is different from budgeting in the private sector, which is relatively less political. In the private sector, the budget is part of company secrets that are closed to the public, but on the other hand, in the public sector, the budget must be informed to the public to be criticized, discussed and given input. The public sector budget is an instrument of accountability for managing funds allocated to the public or the people and implementing programs financed by public money.

Mardiasmo (2016) suggests that the budget functions as a performance appraisal tool. The performance will be assessed based on achieving performance goals and targets, budget targets and budget execution efficiency. The performance of public sector organizations managers is assessed based on

how much was achieved in relation to the predetermined budget. Wiliams (1990) in Yahya et al. (2008) encourage researchers to examine budget behavior in public sector organizations with a bureaucratic character. Budget behavior may differ in public sector organizations from budget behavior in private sector organizations. Wiliams (1990) in Yahya et al. (2008) state that research on the relationship between budget participation and Ceiling Priority (KUA PPAS). The Budget Work Plan (RKA) is prepared based on managerial performance in the public sector is important. However, the literature has neglected research on the relationship between budget participation and managerial performance in public sector organizations, particularly in developing countries.

Organizational commitment is one of the most widely used intervening variables in budget participation research with managerial performance. Organizational commitment is a strong belief in and acceptance of the goals and values of the organization, as well as the desire to carry out efforts properly which are considered beneficial to organizational interests.

Perceptions of innovation describe the extent to which managers consider themselves innovative so they can provide new ideas in organizational development and problem-solving.

B. LITERATURE REVIEW

Budget Participation and Organizational Commitment

Participation in budgeting has a very important role. The participation of subordinates in the budgeting process will indirectly affect themselves, because they may

be considered to have the ability, so that it can motivate the subordinates to work even better impact on increasing company performance (Gunawan & Santioso, 2015). This has the impact that managers will have a higher affective commitment to the organization because they have the same values as the organization. Agustianto (2019), budget participation and organizational commitment.

H1: Budget Participation effects on Organizational Commitment

Budget Participation and Perceptions of Innovation

Budget participation is a process that involves individuals directly in it and has an influence on the preparation of budget objectives whose performance will be assessed and likely to be rewarded on the basis of achieving their budget goals. Participation in budget preparation is closely related to the performance of local government officials because the performance of government officials can be seen based on the participation of government officials in preparing the budget (Mahoney, 1963). According to Fitrianti and Mastura & Marbawi (2013) in Ermawati & Susanti (2018), several factors affect managerial performance, namely: budget participation, job satisfaction and perceived innovation. Budget participation is a budget preparation process that involves OPD employees to participate in budget preparation.

H2: Budget participation effects on the perception of innovation

Organizational Commitment and Managerial Performance

Organizational commitment is the degree to which a person's involvement in his organization and the strength of his identification with a particular organization. Shultz & Shultz (1993), organizational commitment is characterized by three things, namely: 1) A strong belief in the organization and acceptance of organizational goals and values, (2) A strong desire to nurture a strong relationship with the organization and (3) Readiness and willingness to give up endeavors for the benefit of the organization. Nouri & Parker (1996) state that organizational commitment positively and significantly affects managerial performance. According to Zurnali (2010), organizational commitment is a psychological condition that characterizes employee relations with the organization or its implications that affect whether employees will remain in the organization or not, which are identified in three components, namely: affective commitment, continuous commitment and normative commitment. Dewi & Ningsih (2020) stated that organizational commitment positively affects managerial performance. This shows that performance managerial who has a high commitment to the organization, helping the work unit to achieve the expected organizational performance. Meanwhile, the role of the manager of Regional financial management affects performance. This is because good financial management in SKPD helps the work unit achieve performance and shows good managerial performance.

H3: Organizational commitment effects on managerial performance

Perceptions of Innovation and Managerial Performance

Managers will be more motivated to carry out their work when the organization appreciates their ideas. This will increase the innovations in their work. Managers with a high

perception of innovation will have better work quality too. Fatimah & Wahidahwati (2019) stated that the perception of innovation positively and significantly affects managerial performance. Managers with a high perception of innovation will make them more innovative and creative in carrying out their work to increase performance.

H4: Perception of innovation effect on managerial performance

Budget Participation and Managerial Performance

Rather than imposing budgets on subordinate managers, participative budgeting allows subordinate managers considerable say

in how the budgets are established. Typically, overall objectives are communicated to the manager, who helps develops a budget that will accomplish these objectives (Hansen & Mowen, 2008). Supriyono (2018) states that in Indonesia, budget participation has a significant positive effect on manager performance. Based on the description above, the following hypothesis can be drawn:

H5: Budget participation effects on managerial performance

C. RESEARCH METHODS

Operational Definition

Table 1. Operational Definition

VARIABLE	DEFINITION	INDICATOR
Budget Participation	Manager involvement and extent of influence in the budgeting process (Milani, 1975)	1. The level of manager involvement in the budget 2. The level of logic superiors rejects the manager's budget proposal 3. The intensity of the boss discussing the budget with the manager 4. The influence of managers in budgeting 5. Manager's contribution to budgeting 6. The frequency with which superiors ask managers for opinions on budgeting issues
Managerial Performance	The results of work and efforts made by managers in carrying out their duties and functions in the organization (Mahoney *et al.*, 1965)	1. Planning 2. Investigation 3. Coordination 4. Monitoring evaluation 5. Staff arrangement 6. Negotiation 7. Representative / Representation
Organizational Commitment	Strong belief and acceptance of the goals and values of the organization and the desire to try to achieve the goals of the organization (Mowday *et al.*, 1979)	1. Strive for the success of the organization 2. Pride in working for the organization 3. Willingness to accept assignments for the sake of the organization 4. The similarity of individual values with organizational values 5. Pride in being part of the organization 6. The organization is an inspiration to carry out tasks 7. Happy for the choice of working at the organization 8. Assume that the organization is the best 9. Concern for the fate of the organization
Perceptions of Innovation	Shows how much a manager feels that he is an innovative person in carrying out the tasks that they carry out in the organization (O'Reilly et al., 1991)	*1. Innovation* *2. Opportunity* *3. Experience* *4. Risk-taking* *5. Be careful* *6. Rules orientation*

Research Object and Sample Unit

The object of research is the Semarang City Health Office. The data used are primary data from interviews and questionnaires. The sample unit of this research is structural officials within the Semarang City Health Office who are involved in the preparation of strategic plans and performance accountability reports of government agencies.

Population and Sample Determination

The population of this study were structural officials in the Semarang City Health Office, starting from the Head of the Department to the Head of the Puskesmas. The total population is 60 (sixty) structural officials. While the method of determining the sample uses disproportionate stratified random sampling.

Table 2. Number of Structural Officials of Semarang City Health Office

Position	Amount
Head of Department	1
Secretary	1
Head of Division	4
Section Chief	12
Head of subsection	3
Head of Puskesmas / UPTD	39
Amount	**60**

Descriptive Statistical Analysis

The descriptive statistical analysis aims to provide an overview or description of the research variables so that the data presented is easier to understand, using a frequency distribution table.

Validity test

The validity test is used to measure whether a questionnaire is valid or not. If the correlation between each item or indicator on the total score of the variable shows the probability result < 0.01 or <0.05, it means that the probability number is significant so that each question item is valid (Ghozali, 2016).

To complement the results of the normal probability plot graph analysis, the Kolmograv-Smirnov (K-S) non-parametric statistical test was used. In the Kolmograv-Smirnov one-sample statistical test, if the probability is significant above 0.05, then the variable is normally distributed (Ghozali, 2016).

Multicollonierity Test

The multicollinearity test aims to test whether the regression model finds a correlation between independent variables. Value is a tolerance value < 0.10 or a VIF value > 10 (Ghozali, 2016).

Heteroscedasticity Test

The heteroscedasticity test aims to test whether there is an inequality of variance in the regression model from one residual observation to another. If the variance from the residual of one observation to another is constant, then it is called homoscedasticity and vice versa. Detection is done with a plot graph between the predicted value of the dependent variable and its residual. The basis of plot graph analysis is that if there is a certain pattern, such as the dots forming a certain regular pattern (wavy, widened, then narrowed), then it indicates that heteroscedasticity has occurred and vice versa.

Data analysis

The Baron and Kenny (1986) method is an analysis strategy for testing mediation hypotheses. In this mediation method, there are two paths to the dependent variable. Mediation is tested through three regressions:

(1) Independent variable predicting the dependent variable. (2) Independent variable predicting the mediator. (3) Independent variable and mediator predicting the dependent variable.

Hypothesis testing in this study uses path analysis (path analysis). The regression equation used in path analysis is as follows:

$Y_{OC} = b_0 + b_{BP}X_{BP} + e1$ Regression Equations 1

$Y_{PI} = b_0 + b_{BP}X_{BP} + e_2$ Regression Equations 2

$Y_{MP} = b_0 + b_{BP}X_{BP} + b_{OC}X_{OC} + b_{PI}X_{PI} + e_3$ Regression Equations 3.

Information:

BP = Budgetary Participation
OM = Organization Commitment
PI = Perception of Innovation
MP = Managerial Performance
b_{BP} = Budgetary Participation Intercept
b_{OC} = Organization Commitment Intercept
b_{PI} = Perception of Innovation Intercept
b_{MP} = Managerial Performance Intercept
e = Error

D. RESULTS AND DISCUSSION

Description of Research Object

Semarang City Health Office's vision, "Realizing Independent Semarang City Communities for Healthy Living." Meanwhile, the missions carried out by the Semarang City Health Office are: (1) Improving quality health services; (2) Empowering people to have the will and ability to live healthily. In order to realize its vision and mission, a well-structured, well-planned and executed budget is needed.

A good budgeting process must begin with the direct participation of all management elements, which will later be involved in budget execution so that it is expected to produce good managerial performance. In addition, to achieve good performance, managers are also required to have a high commitment to the budget they compile, and managers are also expected to use the perception of innovation, both during the budgeting process and budget execution.

Table 3. Respondent Profile

Data	Amount	%
Gender		
Male	19	31,7
Female	41	68,3
Age (years)		
20-29	0	0
30-39	11	
40-49	30	50
>= 50	19	31,7
Position		
Head of Department	1	1,7
Secretary & Head of Division	5	8,3
Head of subsection	3	5
Section Chief	12	20
Head of Puskesmas & UPT	39	65
Years of Service		
≤ = 10	12	20
11-20	18	30
21-30	28	46,7
>= 30	2	3,3
Experience compiling a budget (years)		
<= 3	11	18,3
3-6	20	33,3
>=7	29	48,3

Descriptive Statistical Analysis

The table above shows the mean value of budget participation of 35.77. This indicates

that budget participation is relatively high. The mean value of organizational commitment is 56.43, which indicates that employee organizational commitment is relatively high. Perceptions of innovation The mean value of perceived innovation is 18.13. This indicates that the employees' perception of innovation is moderate or sufficient. Managerial performance The mean value of managerial performance is 49.83, which indicates that the respondents' managerial performance is relatively high. Meanwhile, the standard deviation for each variable is 1) budget participation of 3,748; 2) organizational commitment of 4.451; 3) perception of innovation of 3,427; and managerial performance of 3,431. The higher the standard deviation level, the more heterogeneity will be.

Table 4. Descriptive Statistical

Variable	Theory	Actual	Mean	Deviation standard
Budget Participation	6-42	27-42	35,77	3,748
Organizational Commitment	9-63	48-63	56,43	4,451
Perceptions of Innovation	6-30	11-25	18,13	3,427
Managerial Performance	8-56	42-56	49,83	3,431

Validity test

The validity test is used to measure whether a questionnaire is valid or not. If the correlation between each item or indicator on the total variable score shows the probability result <0.01 or <0.05, it means that each question item is valid (Ghozali, 2016):

Table 5. Data Validity Test Results

Variable	Item	Pearson Correlation	Decixion
Budget Participation	BP 1	0,677**	Valid
	BP 2	0,741**	Valid
	BP 3	0,706**	Valid
	BP 4	0,803**	Valid
	BP 5	0,849**	Valid
	BP 6	0,757**	Valid
Organizatio-nal Commitment	OC 1	0,693**	Valid
	OC 2	0,758**	Valid
	OC 3	0,810**	Valid
	OC 4	0,748**	Valid
	OC 5	0,812**	Valid

Variable	Item	Pearson Correlation	Decixion
	OC 6	0,632**	Valid
	OC 7	0,726**	Valid
	OC 8	0,784**	Valid
	OC 9	0,821**	Valid
Perceptions of Innovation	PI 1	0,875**	Valid
	PI 2	0,723**	Valid
	PI 3	0,817**	Valid
	PI 4	0,779**	Valid
	PI 5	0,699**	Valid
	PI 6	0,580**	Valid
Managerial Performance	MP 1	0,663**	Valid
	MP 2	0,596**	Valid
	MP 3	0,579**	Valid
	MP 4	0,587**	Valid
	MP 5	0,629**	Valid
	MP 6	0,723**	Valid
	MP 7	0,796**	Valid
	MP 8	0,781**	Valid

The table above shows that the correlation between each indicator/item is significant at the 0.01 level. So each indicator/question item is valid.

Reliability Test

A reliability test is conducted to measure the reliability or consistency of the item as a research instrument. Statement items that have been declared reliable or reliable if the Cronbach Alpha coefficient is > 0.6 **(**Ghozali, 2016**).**

Table 6. Reliability Testing Results

Variable	Cronbach Alpha	Information
BP	0,846	Reliable
OC	0,894	Reliable
PI	0.843	Reliable
MP	0,825	Reliable

These results show that all variables have an Alpha coefficient > 0.60, so all the concepts of measuring the variables are reliable.

Normality test

The normality test aims to test whether the regression model, the dependent variable (dependent) and the independent variable (independent) have a normal distribution. To test whether the data is normally distributed or not with graphical analysis and statistical tests. By looking at the distribution of data (points) on the diagonal axis of the normal probability plot graph. Decision-making in the normality test using graphical analysis is based on if the data spreads around the diagonal line and follows the diagonal line. The regression model fulfils the normality assumption and vice versa.
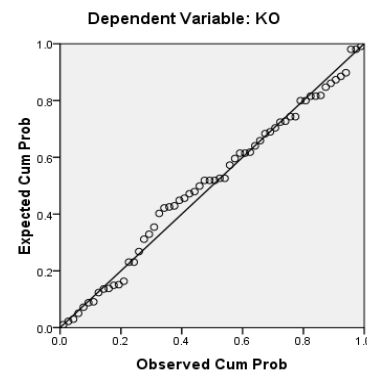
Figure 1.The Results of Normality-Regression Equation Test 1
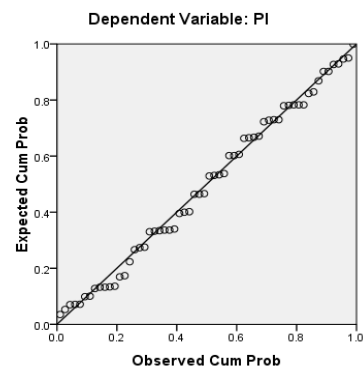
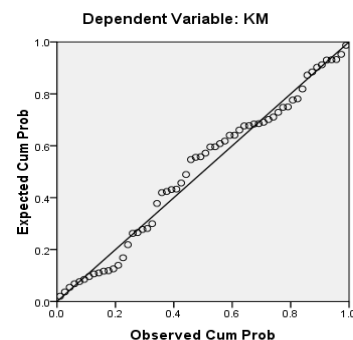**Figure 2.** Normality-Regression Equation Test Results 2

Figure 3. Normality-Regression Equation Test Results 3

Figure 1 - 3 shows the points (data) spread around the diagonal line and follow or approach the direction of the diagonal line, meaning that the regression models meet the normality assumption.

Table 7. Normality Test Results

Regression Equation	Asymp. Sig.
1	0,747
2	0,956
3	0,611

The normality test results showed that the Kolmogorov-Smirnov value for all regression equations is significant > 0.05, meaning that the regression model meets the normality assumption.

Multicollinearity Testing

In the multicollinearity test results, the tolerance value shows that no independent variables have a tolerance value < 0.1. The calculation results of the VIF value also show that there is not one independent variable with a VIF value > 10, so there is no multicollinearity.

Table 8. Multicollinearity Test Results

Model	Variable Independent	Variable Dependent	Collinearity Statistics	
			Tolera-nce	VIF
Regression Equation 1	Budget Participation	Organizational Commitment	1,000	1,000
Regression Equation 2	Budget Participation	Perceptions of Innovation	1,000	1,000
Regression Equation 3	Budget Participation		0,509	1,965
	Organizational Commitment	Managerial Performance	0,471	2,122
	Perceptions of Innovation		0,621	1,611

Heteroscedasticity Testing

Figure 4 - 6 shows that the dots spread randomly and are spread above or below the number 0 on the Y axis, so there is no heteroscedasticity.
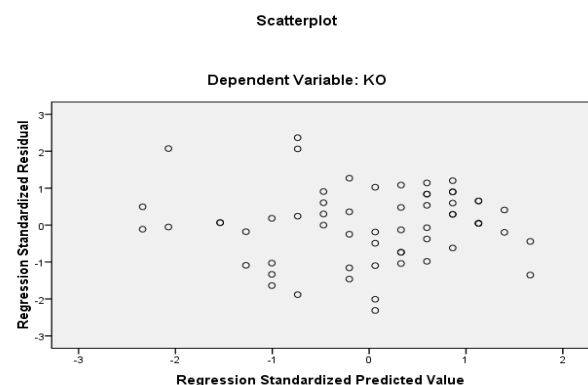

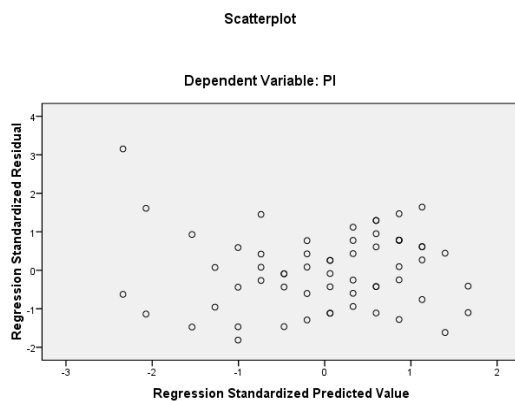**Figure 4.** Heteroscedasticity Test – Regression Equation 1

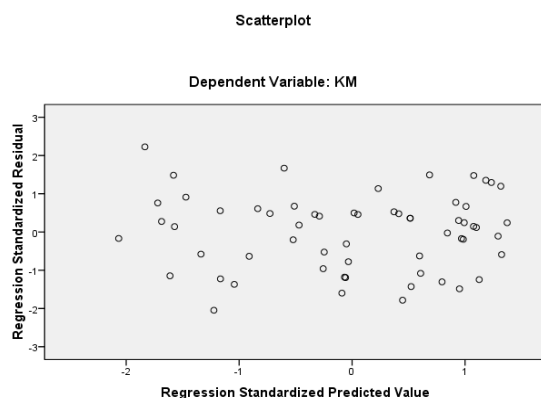**Figure 5.** Heteroscedasticity Test - Regression Equation 2

Figure 6. Heteroscedasticity Test – Regression Equation 3

Results of Data Analysis

The results of multiple linear regression analysis obtained equations:

Y_{KO} = 27, 601 + 0,806 X_{PA} + e
Y_{PI} = 0,531 + 0,492 X_{PA} + e
Y_{KM} =17,036+0,240X_{PA} + 0,416X_{KO} + 0,043X_{PI} + e

Regression equation 1, analyses the effect of budget participation on organizational commitment. The table above shows the adjusted R square test value of 0.452, which means that the organizational commitment variable of 45.2% can be explained by the budget participation variable,

while the remaining 54.8% is explained by other variables. The results of the individual significance test (t-test) regression equation 1 have a value of 7.040 with a significance of 0.000. This means that budget participation significantly and positively affects organizational commitment. As for the feasibility test, the F value test is 49.566 with a significance of 0.000. The significance value <0.05 indicates that the regression equation model 1 is feasible (goodness of fit).

The regression equation 2, which is used to analyze the effect of budget participation on perceptions of innovation, based on the table above shows the adjusted R square test value of 0.277. This means that 27.7% of the innovation perception variable can be explained by the budget participation variable, while the remaining 72.3% is explained by other variables. The results of the individual significance test (t-test) regression equation 2 have a value of 4,864 with a significance of 0,000. This means that budget participation significantly and positively affects the perception of innovation. The value of the feasibility test with the F-value test is 23.654 with a significance of 0.000, which means that the regression equation model 2 is feasible (goodness of fit).

Regression equation 3 examines the effect of budget participation on managerial performance through organizational commitment and perceptions of innovation. Based on the table above, it can be seen that the adjusted R square value is 0.570. This means that 57% of managerial performance variables can be explained by the variables of budget participation, organizational commitment and perceptions of innovation, while the remaining 43% can be explained by other variables outside of this study. Based on

the results of the individual significance test (t-test) on the recession 3 equation, only the perception of innovation variable has no significant effect on managerial performance. This is because the significance value of the perception of innovation is > 0.05, which is 0.693. The budget participation variable has a t-value of 2.186 with a significance of 0.033, and the variable of organizational commitment with a t-value of 4.334 with a significance of 0.000, so the two variables have a positive and significant effect on managerial performance.

Table 9. Regression Equation Test Results

Model	Independent variable	Dependent variable	Coefficient	t-value	Sig.	F-value	Sig.	Adjusted R Square
Regression Equation 1	Budget Participation	Organizational Commitment	0,679	7,040	0,000	49,566	0,000	0,452
Regression Equation 2	Budget Participation	Perceptions of Innovation	0,538	4,864	0,000	23,654	0,000	0,277
Regression Equation 3	Budget Participation		0,262	2,186	0,033	27,057	0,000	0,570
	Organizational Commitment	Managerial Performance	0,539	4,334	0,000			
	Perceptions of Innovation		0,043	0,397	0,693			

In the regression equation test results in 1, the standardized beta value for the effect of budgetary participation on organizational commitment is 0.679 and is significantly below 0.05. The standardized beta value of 0.679 is the path value or path p1. In the results of the regression equation test 2, the standardized beta value for the effect of budget participation on the perception of innovation is 0.538 and is significantly below 0.05. The standardized beta value of 0.538 is the path value or path p2. In the results of the regression equation test 3, the standardized beta values are 0.262 respectively; 0.539, and 0.043. The standardized beta value of 0.262 is the path value or path of p5 and is significant <0.05. The standardized beta value of 0.539 is the path value or path p3 and is significant <0.005. The standardized beta value of 0.043 is the path value or path p4 and is not significant. The value of e = √1-R2 so that e1 = √1 - 0.461 = 0.734; the value of e2 = √1 - 0.290 = 0.843; and the magnitude of e3 = √1 - 0.592 = 0.638.

To test the mediating power of the intervening variables, the Sobel test was performed by analyzing the regression data as follows:

Table 10. SPSS Regression Model Output Results 1

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	27.601	4.117	6.703	.000
BP	.806	.115	7.040	.000

a. Dependent Variable: OC

Table 11. SPSS Regression Model Output Results 2

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	.531	3.639	.146	.885
BP	.492	.101	4.864	.000

a. Dependent Variable: PI

Table 12. SPSS Regression Model Output Results 3

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	17.036	3.846	4.429	.000
BP	.240	.110	2.186	.033
OC	.416	.096	4.334	.000
PI	.043	.108	.397	.693

a. Dependent Variable: MP

The Effect of Organizational Commitment in Mediating Budget Participation on Managerial Performance.

From tables 9 and 10, the following data can be obtained:

- Unstandardized Coeff. B. BP The regression equation 1 = a = 0,806
- Unstandardized Coeff. Std.Error BP The regression equation 1 = Sa = 0,115
- Unstandardized Coeff. B. OC The regression equation 3 = b = 0,416
- Unstandardized Coeff. Std.Error OC The regression equation 3 = Sb = 0,096

The effect of mediation that is shown by the multiplication of the coefficient (ab) needs to be tested with the Sobel test as follows :

$Sab = \sqrt{b^2 Sa^2 + a^2 Sb^2 + Sa^2 Sb^2}$

$Sab = \sqrt{(0,416)^2(0,115)^2 + (0,806)^2(0,096)^2 + (0,115)^2(0,096)^2}$

$Sab = 0,09055$

To calculate the t statistical effect of mediation using the following formula:

$t = ab/Sab$

$t = (0,806)(0,416) / 0,09055$

$t = 0,3353 / 0,09055$

$t = 3,7029$

From the above calculations, it is known that the t-value (3.7029) is greater than the t-table value (1.96), so it can be concluded that the mediation coefficient of ab (0.3966) means that there is an influence of partial mediation or intervening organizational commitment in relation to budgetary participation.

The Effect of Perceptions of Innovation in Mediating Budget Participation on Managerial Performance.

From table 10 and 11 above, the following data can be obtained:

- Unstandardized Coeff. B. BP
  Regression Equations 1 = c = 0,492
- Unstandardized Coeff. Std.Error BP
  Regression Equations 2 = Sc = 0,101
- Unstandardized Coeff. B. PI
  Regression Equations 3 = d = 0,043
- Unstandardized Coeff. Std.Error PI
  Regression Equations 3 = Sd = 0,108

The effect of mediation, which is shown by the multiplication of the coefficient (cd), needs to be tested using the Sobel test as follows:

$$Scd = \sqrt{dSc^2 + c^2Sd^2 + Sc^2 Sd^2}$$
$$Scd = \sqrt{(0,043)^2(0,101)^2 + (0,492)^2(0,108)^2 + (0,101)^2(0,108)^2}$$
$$Scd = 0,002941$$

To calculate the t-statistical effect of mediation using the following formula:

$$t = cd / Scd$$
$$t = (0,492)(0,043) / 0,002941$$
$$t = 0,02116 / 0,002941$$
$$t = 7,1935$$

From the above calculations, it is known that the t-value (7.1935) is greater than the t-table value (1.96), so it can be concluded that the mediation coefficient of cd (0.02116) means that there is an effect of partially mediating or intervening on the perception of innovation in relation to budgetary participation.

Discussion

The Effect of Budget Participation on Organizational Commitment

Hypothesis 1, namely that there is a positive and significant influence between budgetary participation and organizational commitment, can be proven and accepted through the results of regression equation analysis 1. This is indicated by the results of the individual significance test (t-test) regression equation 1 has a value of 7.040 with a significance below 0.05, which is equal to 0.000, which means that budget participation has a significant and positive effect on organizational commitment. Thus, the higher the level of budget managers' participation, the higher the organizational commitment they have. These results are consistent with the research of Yahya et al. (2008) that participation in the budgeting process allows managers to be more in line with organizational goals. Then the goals and values of the organization are indirectly believed to increase organizational commitment. Also, according to Hariyanti (2002), budget participation has a significant positive relationship with organizational commitment. Managers involved in and participating in the budgeting process will better understand budget objectives that reflect organizational goals. With managers understanding budget goals and organizational goals, managers will have alignment between personal manager goals and organizational goals. This has the impact

that managers will have a higher organizational commitment.

The Effect of Budget Participation on Perceptions of Innovation

Hypothesis 2, namely that there is a positive and significant influence between budget participation and perceptions of innovation, can be proven and accepted through regression equation analysis 2. This is indicated by the results of the individual significance test (t-test) regression equation 2 has a value of 4,864 with a significance below 0.05, which is equal to 0.000, which means that budget participation has a significant and positive effect on the perception of innovation. Thus, the higher the level of managerial budget participation, the higher the perception of innovation they have. This result is in line with the research by Yahya et al. (2008) that budget participation positively affects perceptions of innovation.

The Effect of Organizational Commitment on Managerial Performance

Hypothesis 3, namely that there is a positive and significant influence between organizational commitment and managerial performance, can be proven and accepted through the results of regression equation analysis 3. This is indicated by the results of the individual significance test (t-test) regression equation 3 has a value of 4.334 with a significance below 0.05, which is equal to 0.000, which means that organizational commitment has a significant and positive effect on managerial performance. Thus, the higher the level of managerial organizational commitment, the higher the managerial performance. The acceptance of the results of

this study shows that the higher the level of commitment of managers to the organization, the managers feel they belong to the organization where they work so that the managers will provide better results of efforts and performance. This research is in line with Sinaga (2013), which states that organizational commitment positively and significantly affects managerial performance. Research by Nouri & Parker (1996) shows that organizational commitment has a significant positive relationship with managerial performance. The results of his research state that organizational commitment and performance have a positive and significant relationship. The higher the commitment to the organization, the manager feels that he belongs to the organization in which he works so that the manager will provide better results and performance. Likewise, Amelia (2015) and Supriyono (2018) show that organizational commitment positively affects managerial performance. A strong organizational commitment will encourage individuals to strive to achieve organizational goals, through organizational commitment will indirectly improve managerial performance.

The Influence of Perceptions of Innovation on Managerial Performance

Hypothesis 4, namely that there is a positive and significant influence between the perception of innovation and managerial performance is rejected and cannot be proven through the results of regression equation analysis 3. This is indicated by the results of the individual significance test (t-test) regression equation 3 has a value of 0.397 with more significance. Greater than 0.05, namely 0.693, which means that the perception of innovation has a positive but not significant effect on

managerial performance. This study's results align with the research by Yahya et al. (2008) that budget participation affects managerial performance but not through perceptions of innovation.

Effect of Budget Participation on Managerial Performance

Hypothesis 5, namely that there is a positive and significant influence between budgetary participation and managerial performance, can be proven and accepted through the results of regression equation analysis 3. This is indicated by the results of the individual significance test (t-test) regression equation 3 has a value of 2.186 with a significance below 0.05, which is 0.033, which means that organizational commitment has a significant and positive effect on managerial performance. The results of this study are consistent with the results of research by Yusfaningrum (2005), which states that budget participation has a significant positive relationship with managerial performance. Budgeting involving superiors/power holders and subordinates/executors of the budget is one tool that can be used as a benchmark in improving managerial performance. To prevent functional or dysfunctional impacts on the attitudes and behavior of organizational members in budgeting, it is necessary to involve management at a lower level so that participatory budgets can be considered as a managerial approach that can improve the performance of each organization. The results of this study are consistent with the results of research by Supriyono (2018) and Yahya et al. (2008), which state that budgetary participation has a positive and significant effect on managerial performance. Yusfaningrum (2005)

also found a relationship between budget participation and managerial performance.

E. CONCLUSION

Budget participation has a positive and significant effect on organizational commitment. The higher the level of budget participation, the organizational commitment will increase.

Budget participation has a positive and significant effect on perceptions of innovation. This means that the level of budget participation is in line with the perceived level of innovation.

Organizational commitment has a positive and significant effect on managerial performance. The higher the organizational commitment, the managerial performance will increase.

Perceptions of innovation do not have a significant effect on managerial performance.

Budget participation has a positive and significant effect directly on managerial performance. This means that the higher the level of budget participation, the higher the managerial performance.

Organizational commitment and perceptions of innovation are intervening variables proven to be able to mediate the relationship between budget participation and managerial performance.

Research Suggestions

It is hoped that the Semarang City Health Office can optimize budget participation not only at the level of managers or echelon officials but also for all parties with interest in the

budget so that the performance of budget execution and organization is getting better.

The Semarang City Health Office should periodically hold activities that foster a commitment to the organization, such as outbound activities. In addition, it is also necessary to carry out periodic monitoring and evaluation of the main tasks and workloads so that it can increase organizational commitment.

Semarang City Health Office is expected to provide flexibility for each employee to develop their perception of innovation to improve performance.

Research Limitations

The limitation of this study is the use of a self-rating scale to measure managerial performance variables, which may result in personal bias to reduce data objectivity.

Future Research Agenda

For the research results to be more objective, it is hoped that further research can add interview techniques to obtain data in addition to questionnaires. Future research is intended to expand the scope of research in order to contribute to public sector services.

REFERENCES

Agustianto. AA. (2019). Pengaruh Partisipasi Anggaran, Partisipasi Perencanaan Strategis Dan Komitmen Organisasi Terhadap Budgetary Slack. *JRA TIRTAYASA, 04*(02). 180-195.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Brownell, P. & McInnes, M. (1986). "Budgetary Participation, Motivation, and Manajerial Performance". *The Accounting Review*, LXI(4), 587-600.

Campbell.D.J, & K.F.Gingrich. (1986). The Interactive Effects of Task Complexity and Participation on Task Performance: A field experiment. Organizational Behavior and Human Decision Processes 38, 162-80.

Dewi, Mw & Ningsih, S. (2020). The Influence Of Budget Participation And Organizational Commitment To Managerial Performance (Case Study at PT. Adhi Karya Persero Tbk). *International Journal of Economics, Bussiness and Accounting Research (IJEBAR), 4*(2). 414-422.

Ermawati, N. & Susanti, DA. (2018). The Impact of Budget Participation towards Managerial Performance: Job Satisfaction and Perception of Innovation as the Intervening Variables (A Case Study for the Regional District Organization (OPD), Districts of Kudus). *JAAF (Journal of Applied Accounting and Finance), 2*(2), 138-152.

Erwati, M.. (2009). Pengaruh Partisipasi Penyusunan Anggaran Berbasis Kinerja (ABK) Terhadap Kinerja Kepala Satuan Kerja Perangkat Daerah (SKPD) Pemerintah Daerah dengan Komitmen Organisasi dan Gaya Kepemimpinan Sebagai Variabel Moderating (Survey Pada Aparatur Pemerintah Kota Jambi). *Jurnal Percikan, 10*(2), 1-14.

Faizzah, N. & Mildawati, T. (2007). "Pengaruh Partisipasi Penyusunan Anggaran Terhadap Kinerja Manajemen dengan Variabel Pemoderasi Gaya Kepemimpinan dan Komitmen Organisasi pada Pemkot Surabaya". *Jurnal Akuntansi, Manajemen Bisnis dan Sektor Publik,* STIE Indonesia, *3*(3), 349-372.

Fatimah, A. & Wahidahwati. (2019). Pengaruh Partisipasi Anggaran Terhadap Kinerja Manajerial Melalui Job Relevant Informationdan Persepsi Inovasi. *Jurnal Ilmu dan Riset Akuntansi, 8*(9). 3-21.

Ghozali, I. (2016). Aplikasi Analisis Multivariete dengan Program SPSS. Edisi 8. Semarang: Badan Penerbit Universitas Diponegoro.

Govindarajan, V. (1986). Impact of Participation in the Budgetary Process on Managerial Attitudes and Performance: Universalistic and Contingency erspectives, Decision Sciences, 17, 496–516.

Gunawan, AC. & Santioso, L. (2015). Pengaruh Partisipasi Anggaran Terhadap Kinerja Manajerial Melalui Komitmen Organisasi Dan Motivasi Sebagai Variabel Moderating (Studi Empiris Pada Perusahaan Manufaktur di Jakarta dan Tangerang). *Jurnal Akuntansi.* XIX(01), 144-159.

Hansen & Mowen. (2008). *Cost Manajement.* USA: Thomson South Western.

Hariyanti, W. (2002). *Pengaruh Partisipasi Penyusunan Anggaran terhadap Kinerja Manajerial: Peran Kecukupan Anggaran dan Komitmen Organisasi sebagai Variabel Intervening.* Tesis S2. Universitas Diponegoro. Semarang.

Mahoney, TA. Jerdee, T.H. & Caroll, S.J. (1963). *Development of Managerial Performance: A Research Approach.* Cincinnati: South Western Publishing.

Mardiasmo. (2018). *Akuntansi Sektor Publik* (Edisi Terbaru). Yogyakarta: ANDI.

Milani, K. (1975). The Relationship of Participation in Budget Setting to Industrial Supervisor Performance Attitudes: A. Field Study. *Accounting Review.* April, 274 - 284.

Mowday, R.T., Steers R.M., Porter L.W. (1979). "The Measure of Organizational Commitment". *Journal of Vocational Behavior,* 14:224-247.

Nouri, H. & Parker, R.J. (1996). The Effect of Organizational Commitment and Relation Between Budgetary Participation and Budgetary Slack. *Behavior Research in Accounting.* 8. 74-89.

O'Reilly, C.A., Chatman, J. and Caldwell, D.F.. (1991). People organization culture: a profile comparison approach to assessing person organization fit". *Academy of Management Journal, 34*(3).

Sardjito, B. & Osmad Muthaher. (2007). Pengaruh Partisipasi Penyusunan Anggaran terhadap Kinerja Aparat Pemerintah Daerah: Budaya Organisasi dan Komitmen Organisasi sebagai Variabel Moderating. *Simposium Nasional Akuntansi X.* Makasar.

Shultz, D.P. & Shultz,S.E. (1993). *Psychology and Work Today an Introduction to Industrial and Organizational* 6th Edition. Newyork: Mc Milan Publishing.

Sinaga, Mardongan Tua. (2013). Pengaruh Partisipasi Anggaran terhadap Senjangan Anggaran dengan Locus Of Control dan Budaya Organisasi Sebagai Variabel Pemoderasi (Studi Empiris pada SKPD Kota Pematang Siantar). *Jurnal Akuntansi. Fakultas Ekinomi Universitas Negeri Padang*. *1*(2), 1-23 http://ejournal.unp.ac.id/students/index.php/akt/article/view/605.

Subramaniam, N. & Ashkanasy, N.M. (2001). "The effect of organizational culture perceptions between budgetary participation and manajerial jobrelated outcomes". *Australian Journal of Management*, *26*(1), 35-55.

Supriyono, R. A. (2018). Akuntansi Keprilakuan. Gajah Mada University Press.

Williams, J.J., Macintosh, N.B. and Morce, I.C. (1990). Budget Related Behavior in Public Sector Organizations: Some Empirical Evidence. *Accounting, Organizations and Society*, *15*(3), 221-46.

Yahya, M., Nor, Nik Nazli Nik Ahmad and Abdul Fatima. (2008). Budgetary Participation and Performance: some Malaysian Evidence. *International Journal of Public Sector Management*, *21*(6), 658-673.

Yusfaningrum, K.. (2005). *Analisis Pengaruh Partisipasi Anggaran terhadap Kinerja Manajerial melalui Komitmen Tujuan Anggaran dan Job Relevant Information (JRI) sebagai Variabel Intervening (Penelitian terhadap Perusahaan Manufaktur di Indonesia)*. Tesis S2. Universitas Diponegoro. Semarang.

Zurnali, C. (2010). Knowledge Worker: Kerangka Riset Manajemen Sumber Daya Manusia Masa Depan. Bandung: Penerbit Unpad Press.