

THE EFFECT OF BUDGET PARTICIPATION ON BUDGETARY SLACK IN LOCAL GOVERNMENT WITH ORGANIZATIONAL COMMITMENT AND ENVIRONMENTAL UNCERTAINTY AS THE MODERATING VARIABLE

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Abstract: *The research is about relationship between budgetary participation and managerial performance as well as budgetary slack which is found that many inconsistencies occur. Researcher subsequently was developing contingency variable to reconcile these differences. The developed contingency variables are variables of organizational commitment and environmental uncertainty. Budget for the local governments is a vital factor to achieve its objectives. Therefore, it is important to know whether the budgetary participation may increase or reduce the occurrence of budgetary slack. This study tried to find inconsistencies as the result of previous study by including variables of organizational commitment and environmental uncertainty as the moderating variables. Individuals who have high organizational commitment will affect the reduction of budgetary slack. In contrast, individuals with low organizational commitment will affect the increase of budgetary slack. In high uncertainty, budgetary participation will reduce the budgetary slack (negative relationship). However, it will raise the budgetary slack when the condition has low uncertainty. The results of this study indicate that the budgetary participation will be negatively related to budgetary slack if it is moderated by organizational commitment. While environmental uncertainty does not significantly moderate the relationship between budgetary participation and budgetary slack.*

JEL Classification:

Keywords: *Budgetary participation, budgetary slack, organizational commitment, environmental uncertainty*

1. INTRODUCTION

A budget is statement of the estimated performance aimed to be achieved during a particular time period stated in the financial measures. While budgeting is a

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process or a method to prepare a budget. Budget is the main tool used by the company to conduct planning and controlling activity. A budget is a statement of what is expected, planned or forecasted to occur within a certain period in the future. Budget is an important tool for effective short-term planning and for control of the organization (Anthony *et al.*, 1992). The determination of budget which can be said as budgeting is an important part of the cycle of planning, action and management control. In public sector organizations, the budget is a stage that is quite complicated and contains a high political nuance. Public sector budgeting associated with the process of determining the amount of funds allocated to each program and activity in monetary units. Public sector budgeting process begins when the formulation of the strategy has been completed (Mardiasmo, 2002).

The budget process can be done in a *top down* or *bottom up* approaches. In *bottom-up* approach, low-level managers participated in the determination of the budget. While in a *top-down* approach, bottom-level managers just conduct what are underlined in the budget. (Anthony *et al.*, 1992). Two approaches in the preparation of the budget of course have different consequences. *Bottom-up* approach requires the participation of a subordinate in the making of budget, so in this approach opinions or information from subordinates become a major consideration in determining the budget. While in the *top-down* approach, subordinate only as the executor and also has the authority for the budget but without affecting the budget itself.

Recently, the budget implemented by local government is using the traditional approach which are *incremental* approach and *line items* with an emphasis on accountability at every input allocated (Halim, 2001). But with the release of Government Regulation No. 105 of 2000 and Act No. 17 of 2003, the budget must be prepared to approach the performance and in the preparation of the budget draft (RAPBD), and the head of the regional work units as budget users have to prepare a work plan and budget Unit for next year. Budget planning process (APBD) with the new paradigm emphasizes a *bottom-up* planning with reference to the direction and development policies of the central government.

According to Anthony *et al* (1992), subordinate participation in the budget determination has a positive influence on managerial motivation, because by arranging the budget with the participation of subordinate, this will result an effective exchange of information. Subordinate participation in budget preparation is also possible to affect managerial performance, due to the presence of subordinate participation in constructing the budget, then the subordinate should feel involved and responsible for the implementation of the budget (Chong and Chong, 2002; wentzel, 2002; Chong and Johnson, 2007). In line with that, subordinates are expected to carry out the budget better.

Besides it have a relationship with performance, participation in budget determination has also relationship with the budgetary slack. The study conducted by Onsi (1973) provides evidence that budgetary participation reduces the number of budgetary slack (Merchant, 1985; Dunk, 1993; Davis et al, 2006; Baerdemaeker and Werner, 2015). However, few studies provide contrast evidence to that budget participation turns out to have a positive relationship with the budgetary slack (Lowe, 1970; Young, 1985; Lukha, 1988). Research conducted by Collins (1978) showed it was not significant result between the two variables mentioned above.

Based on these explanations, it is still cannot be seen about the inconsistencies among the results of research on the relationship between participation in budgetary slack, whether with the participation of the budget will reduce the amount of slack or conversely. This inconsistency suggests the possibility of the presence of contingency variables that have not been included as study variables. To overcome the problem, then exploring the presence of various contingency variables is needed to be conducted. There have been many studies using contingency theory to explain the relationship between budgetary participation and budgetary slack, including organization variable commitment (Nouri & Parker, 1996; Yilmaz et al., 2014 ; Baerdemaeker and Werner, 2015), asymmetry information and budget emphasis (Wartono, 1998). Whereas Darlis (2000) incorporates moderating variable of organizational commitment and environmental uncertainty on the relationship between budgetary participation with budgetary slack. Environmental uncertainty as a moderating variable is also used by Govindarajan (1986). By using the definition of environmental uncertainties by Duncan (1972) it is concluded that the conditions of low environmental uncertainty, the relationship between budgetary participation and slack gain positive result.

Naori and Parker (1996) found that when an organizational commitment is strong, then the participation of the budget will have a negative effect on budgetary slack. Conversely, if organizational commitment is weak then the budget would negatively impact participation towards budgetary slack. Applebaum *et al.* (1994) suggested that the issues related to the participation of the budget will increase or reduce budgetary slack perhaps particularly relevant for high involvement in the organization. While Angie and Perry (1981) suggested that the strong commitment of the organization characterized as a receiving destination and the value of the organization in order to make efforts for the benefit of the company. This shows that employees who have a strong commitment will use budget to pursue organizational goals, while employees who have a low commitment will use the budget to pursue self-purpose.

The relationship between budget participation and budgetary slack can be influenced by two variables: the budget emphasis and organizational commitment (Dunk, 1993; Yilmaz et al., 2014 ; Baerdemaeker and Werner, 2015). In participation

when budget emphasis and organizational commitment is low, the budget slack will be high. In the other side, if the participation, budget emphasis and strong organizational commitment is high, then the slack budget will be low.

This study will adopt a contingency framework for UASI to evaluate the effectiveness relationship between participation in the budget preparation with the budgetary slack by incorporating organizational commitment and environmental uncertainty as a moderating variable in public sector organizations.

The study examined the relationship between budgetary participation with budgetary slack do not produce inconsistent findings. Some researchers found a negative relationship between budgetary participation with budgetary slack. The results of this study demonstrate the lower level of participation of the budget, the greater budgetary slack will be. However, other studies have shown positive results, which means the lower budget participation, the greater budgetary slack will be.

Many researchers have tried to reconcile these inconsistencies by entering in a contingency variable in examining the relationship between budgetary participation and budgetary slack. In this study, researchers choose a contingency variable of organizational commitment and environmental uncertainty to examine the relationship between budgetary participation and budgetary slack. Based on these descriptions, the researcher tried to bring up the problem:

“What is the relationship of budgetary participation in budgeting preparation with budgetary slack influenced by environmental uncertainty and organizational commitment as a moderating variable?”.

In line with the problems that have been formulated above, the objectives to be achieved in this study is to test empirically whether organizational commitment and environmental uncertainty moderate the relationship between participation in the budgeting preparation with budgetary slack.

If the research objectives are fulfilled, then the expected benefits of this research are:

- (a) To reinforce the previous research related to the relationship between participation in the budget preparation with budgetary slack.
- (b) To clarify the contingency factor in the budget participation related to the budgetary slack. Contingency factors discussed here is the organization's commitment and environmental uncertainty.
- (c) For local government, it is expected to obtain suggestion about the need of an integrated approach between the organization's commitment of budget executive and environmental uncertainty to avoid budgetary slack that is likely to harm and restrict the creation of accountable government.

2. RELEVANT LITERATURE

2. Budget

A budget is a formal statement made by the management regarding the plans that are going to be conducted in the future under the given period, in which the plan will be used as a guide in the implementation of activities during the period (Hanson, 1966 in Lucyanda, 2001). According to Kenis (1979), budget is a statement of what is expected and planned in a certain period in the future. Furthermore, Merchant (1981) suggested that the budget is the main tool in business to describe a plan, the tools to coordinate and implement the plan, and also to evaluate the efforts being made towards the achievement of outcomes and controlling the activities of the organization. According to Mardiasmo (2002), the budget is a statement of the estimated performance to be achieved during a particular time period and is stated in the financial measures, while budgeting is a process or method to prepare a budget. Merchant Research (1981) said the budgeting system is a combination of the information flow to the procedure. Schiff and Lewin (1970), argued that the budget which has been prepared have two roles. First, the budget serves as a planning, which contains a summary of the budget plans of the organization in the future. Second, the budget serves as a performance criterion, which is used as a budgetary control system to measure managerial performance. Kenis (1979) said the budget is not only as a resource of planning and cost control and revenue in the responsibility center within an organization. On the other hand, the budget is also a tool for top-level managers to coordinate, communicate, evaluate performance and motivate subordinates.

Kenis (1979) stated that there are five characteristics of the budget:

- (a) *Budgetary participation* is the involvement of managers in determining or preparing a budget in the department under his responsibility. Budgetary participation emphasizes the participation of every manager's responsibility in the process of preparing the budget and targeting which becomes his responsibility.
- (b) *Budget goal clarity* is the extent of the objectives of the budget are clearly defined and specific, in order for making the budget to be understood by the person who is responsible for the achievement of the budgetary targets.
- (c) *Budgetary feedback* is obtained on the level of achievement of predetermined budget achievement.
- (d) *Budgetary evaluation* is the extent to which the achievement of budget traced back to each responsibility center manager and is used to evaluate performance.
- (e) *Budgetary goal difficulty* is the difficulty level of the budget that starts from the easiest thing to be achieved until the most difficult to be achieved.

2.2 Contingency Approach

Participation is one aspect that is often used in research related to budgeting. Several studies showed the important role of participation is much needed in budgeting and also influential in creating budgetary slack and improve the performance (Chow, *et al.*; Merchant, 1985; Dunk, 1993, Young, 1985; Nouriet *al.*, 1996).

Baiman (1982) defined that budgetary participation encourages subordinates to give accurate information (no slack) to assist supervisors in order to line up the budget. However, Young (1985), stated the opposite, that the subordinate does not report its information to superiors. Luthans(1998) supports the Young by saying that it is often a conflict of interest between superiors and subordinates as a harmonic result. In addition, reward and punishment based on budget will encourage subordinates to provide biased information to make the budget is getting easier to accomplished (Dunk, 1993) and the risk is easily avoided (Young, 1985).

Several empirical studies have been conducted. Camman (1967) and Dunk (1993) found that participation in budgeting can reduce the slack of budgets (negatively related). This happens because the subordinate information helps provide personal (private information) about the prospects for the future so that more accurate budget prepared. While Lowe & Shaw (1968), Lukha (1988) and Young (1985) found different results that budgetary participation and budgetary slack s showed a positive relationship. Wartono (1998) found similar evidence that the participation of subordinates will find it easy to reach a budget when doing budgetary slack.

The inconsistency of these findings encourages future researchers include some contingency variable (the moderating variable) in the research. Several moderating variable used is the organizational structure (Brownell, 1982; Gulet *al.*, 1995), organizational culture (Frucot&Shearon, 1991; Indriantoro, 1993; Supomo, 1998), and individual and personal factors (Murray, 1990), organizational commitment (Nouri, 1996), information asymmetry (Young, 1993) and the influence factors and all uncertainty information in environment (Rahayu, 1997).

Research by identifying the existence of contingency variables such as environmental aspects in influencing attitudes and behavior of subordinates have been carried out (Magneret *al.*, 1995). High uncertainty is defined as the individual sense of incompetence to predict something that will happen in their environment accurately (Milliken, 1987). In contrast, in the relatively stable environment (low uncertainty), the individual can predict the future state that this can help organizations plan more accurately (Duncan, 1972).

Variable of uncertainty environment has already been used by the researchers, and starts to moderate relationship with budgetary slack and budgeting

participation. In this context, Govindarajan (1986) concluded that the budget participation and budgetary slack is negative on the environmental conditions of high uncertainty. In contrast to the conditions of low environmental uncertainty, budgetary participation has a positive relationship to budgetary slack. The inability to predict the future make subordinates feels the difficulty in performing budgetary slack. The study did not successfully proven by Darlis (2000), using variables of organizational commitment and environmental uncertainty as a moderating between budget participation and budgetary slack.

2.3 Hypothesis Formulation

Referring to previous studies, the researchers wanted to examine the effect of organizational commitment and environmental uncertainty on the relationship between budgetary participation with budgetary slack in the non -profit organization that is local government. Suspected that the high budgetary participation and organizational commitment is low and low environmental uncertainty will increase budgetary slack. From the above description it can be formulated as the following hypothesis:

- H1: Organizational commitment moderate the relationship between budgetary participation and budgetary slack.
- H2: Uncertainty environment moderate the relationship between budgetary participation and budgetary slack.

3. METHOD

3.1 Data Sample

The data in this study were obtained from primary data through a survey method. The population was middle-level managers in local government in the city and district of Yogyakarta Province. Sampling was done by purposive sampling, which is the selection of the sample with certain considerations (Indriantoro and Supomo, 1999). Such considerations are as follows:

- (a) Respondents of this study is a middle-level managers and lower-level officials from the local government level, that are the chief, chief of agency/ department/ offices and sub-agency chief / sub-department / sub-offices, departments and local government offices in the city / district of the Province of Yogyakarta Special Region (DIY). Election of the field, section and offices is conducted because the agency is a governmental unit, that means using and report the budget or as the budget executive of the local government. (Abdullah, 2004).
- (b) Upper-level managers in local government are not included in the study respondents. Regent or mayor is a political position that is selected by parliament and political parties at a certain time.

- (c) Structural functioner of regional secretariat unit is not included as the respondents. This consideration is because the secretariat areas are not directly related to provide services to the community compared with the agency / department / office (Darma, 2004).

Information related to the respondent obtained from the organization's secretariat and the regional government BAPPEDA of city / local district. Furthermore, the number of agency / department / office is presented in the following

Table 1.
Number of Agency / Department / Office in the City / Regency of DIY

<i>City/Regency</i>	<i>Agency</i>	<i>Department</i>	<i>Office</i>	<i>Total</i>
Jogjakarta	4	15	7	26
Sleman	5	9	5	19
Bantul	3	12	7	22
Kulon Progo	4	9	8	21
Gunung Kidul	3	12	9	24
Jumlah	19	57	36	112

Source: Local Government of Yogyakarta, Sleman, Bantul, Kulon Progo, and Gunung Kidul

3.2 Operational Definition and Variable of Measurement

Budget Participation

Budgetary participation is defined as involvement of the central managers of the responsibility in matters relating to budgeting (Govindarajan). While Kenis (1979) defines participation as budgeting partition level managers in preparing budgets and they have an influence in the achievement of determine the budget target. Measurement instrument used was a questionnaire developed by Milani (in Darlis, 2000). The questionnaire consisted of 6 questions with a value item scale of 1 to 5, where 1 means strongly disagree, while 5 means strongly agree.

Budgetary Slack

Budgetary slack (*budgeting slack*) is a subordinate action to minimize the productive capability when the subordinates were given the opportunity to define standard work (Young, 1985). While Anthony and Govindarajan (1998) defines as the difference between the reported budgetary slack and the budget in accordance with the best estimation for the company to determine the lower income and budget the costs higher than the true estimation in order to make the target can be easily achieved. Measurement instrument or methodology refers to a questionnaire developed by Dunk (1993) which consists of 6 questions. The

questionnaire using a Likert scale with a score of 1 to 5, where 1 indicates strongly disagree answers and 5 is strongly agree.

Organizational Commitment

Organizational commitment can be defined as a loyalty of the member of organization to the organization that is characterized by three aspects as proposed by Mowday, Porter, Steers (Luthans, 1998). Instrument measurements will be conducted using questionnaires used by Mowdays (1979) which consists of 9 points measured by questions and a Likert scale of 1 to 5

Environmental Uncertainty

Duncan (1972) defines environmental uncertainty as the inability of the individual to assess the probability of how much the decision was made will fail or succeed because of the difficulties on predicting the possibilities that will happen. Meanwhile Luthans (1998) defines environmental uncertainty is a situation where one is constrained to predict the surrounding circumstances to try to do something to deal with this uncertainty. In this condition, the individual will face problems in obtaining the information, so it is unable determine the success and failure of the results from decisions that have been made (Fisher, 1996). Instruments used to measure the perceptions of environmental uncertainty. Duncan (1972) has developed a questionnaire with 11 items to these questions, using a Likert scale from 1 (strongly disagree) up to the value of a scale of 5 (strongly agree).

4. RESULTS

Validity is a measurement that indicates the level of validity or the useable of the instrument. Validity is also concerned with how well a concept can be defined by a measure (Hair *et al.*, 1998). An instrument said to be valid if it is able to measure what is expected. In this study the validity of testing performed using analysis of factors that aims to ensure that each question classifiable on the variables that have been determined before.

If the validity has been obtained, the researcher must also consider the reliability of the measurement. Reliability testing aims to determine the consistency of results variables after the measurement. Reliable measuring instrument will show that the variable are trusted and can generate credible data.

Validity testing performed using factor analysis with *varimax rotation*. Another tools to measure the degree intercorrelations between the variables and the feasibility of the factor analysis is the *Kaiser - Meyer - Olkin Measure of Sampling Adequacy (Kaiser's MSA)*(Hair ET. Al, 1998). A data can be determined the analysis factor by using *Kaiser's MSA* values above 0.5. The point of questions to be included

in the final analysis is an item that has a factor loading of more than 0.4 (Chia, 1995). It shows the level of concordance between the variables and the factors (Hair et al, 1998). While the reliability testing is done by calculating Cronbach alpha to test the feasibility of the consistency of the whole scale used. An instrument is confirmed as reliable if Cronbach alpha is of more than 0.5 (Nunnally, 1976).

4.1 Budgetary Slack

Before the factor analysis is conducted, each variable of instrument is expected to have a MSA value more than 0.5. In this study, MSA was 0.691. From the construct validity of the measurements, 6 the questions have factor loading above 0.4, 0.4, (0,540; 0,565; 0,621; 0,726; 0,725; and 0,682). All the questions are grouped into a single factor. Cronbach's alpha is used to determine the internal reliability of the variable, and it is recommended to have a value above 0.5 (Nunnally, 1967). In this study, budgetary slack variables have a Cronbach alpha value of 0.7183.

4.2 Budget Participation

In this study, the MSA value of 0.660 was obtained, which is greater than 0.5. This value exceeds that requirement so that the data collected can be performed factor analysis. The five points of questions on budgetary participation variables, respectively, have factor loading 0.716; 0.615; 0.550; 0.696, and 0.608, and all the questions grouped into a single factor. Cronbach's alpha indicates the instrument is reliable because it has a value of 0.6234, above the 0.5 as required by Nunnally (1967).

4.2 Organizational Commitment

In a factor analysis of the instrument of organizational commitment, the researchers failed to combine the point of questions into a factor, so it is unable to explain that the instruments are joining in one variable as done by Mowday et al. (1979) and Nouri and Parker (1996). In this study, the questions are divided into 3 factors.

Previously, in the research of Cook and Wall (1980), they are using instruments Porter et al. (1974) and simplified the question from 15 items to 9 questions, and the results of factor analysis of the instrument organizational commitment is also not clustered into one factor. The research also shows that organizational commitment is divided into 3 factors, so the grouping is conducted into 3 dimensions, i.e. dimensions of organizational identification in question X_{2A} , X_{2E} , X_{2H} (questions can be found in the appendix), the dimensions of involvement in the organization in question X_{2C} , X_{2F} , X_{3i} dimensions of loyalty to the organization in question X_{2B} , X_{2D} , X_{2G} . Meyer and Allen (1991) in their research using the entire instrument (15 questions) in accordance with developed by Porter et al, (1974). Dimensions of organizational commitment obtained from the study consisted of affective commitment dimension, continuance commitment dimension, and

normative commitment dimension. By Luthans (1998) of each dimension is called the dimension of emotions attachment, cost and leaving, and obligations to stay.

Hayim and Berman (1992) tried to test the findings of Cook and Wall, but the results do not support the notion Cook and Wall (1980). Although the factor has been analyzed with varimax rotation they do still find 3 factors, together with the findings Cook and Wall (1980), but the spread of loading, the factors are not being grouped according to three dimensions of organizational commitment as found Cook and Wall (1980). Based on the factor loading that they find, grouping items in their research questions consisted of X_{2A} , X_{2E} , X_{2F} , and X_{2G} to factor 1, X_{2B} , X_{2C} , X_{2H} to a factor of 2, and X_{2D} and X_{2G} for factor 3.

Based on the explanation, the researcher believes that the determination of the dimensions of organizational commitment has been no uniformity in making it possible for other researchers to carry out the determination of the new dimension that refers to the instrument used by the researchers.

In the factor analysis for organizational commitment variables, the researchers also found that there are 3 factors that arise so there are 3 dimensions arising which are dimension 1 in question X_{2E} , X_{2F} , X_{2G} , dimension 2 for question X_{2H} and X_{2C} , and dimension 3 in question X_{2A} , X_{2B} , X_{2D} , and X_{2G} .

Factors that emerged in the factor analysis shows the dimensions of the variable in question. In determining the name of the variable dimensions of the organizational commitment, researchers refer to the dimensions of the theory defined by Luthans (1998), because of the results of the factor analysis using varimax rotation, understanding/meaning can be inferred from the grouping of question which is inclined within the meaning/definition of the dimensions described by Luthans (1998). At one factor researchers propose dimensions of organizational commitment as a dimension of emotion attachment (EA). Luthans (1998) describes as the various dimensions of emotional bonding that occurs due to a conscious awareness of the individual self to try to help and get involved to promote the organization. Loyalty in the individual against the organization arising from within (intrinsic motivation).

In factor 2, the questions that has got answer which is reversed score items are X_{2C} and X_{2H} . Results grouping of the factor analysis are broadly similar to the findings of the factor analysis and Baiman-Hayim. Researchers argue that questions are summarized into two factors is not strong enough to explain these dimensions. Besides that, the items questions that are clustered is the item with reversed scores that is also described a weak measurement quality (Hayim and Baiman, 1992). But researchers tried to propose these factors as the dimensions obligatory to stay (OS). In this dimension, the commitment is limited to liability arising which is only the responsible. Not including the conduction of business innovation or

breakthrough that is out of the obligations (Luthans, (1998)). For factor 3, researchers propose a dimension like the cost of leaving (CL). In this case, Individuals working is based on consideration of how the sacrifices must be removed. The basis of this commitment is, in the working process, individuals must first do the benefit of cost considerations, so there must be a balance between them (Luthans, 1998).

Reliability for each dimension are: Dimension emotion attachments Cronbach alpha has a value 0.770, the obligatory to stay dimension has a Cronbach alpha value of 0.6911, and the cost of leaving dimensions have Cronbach alpha value of 0.7540.

4.4 The Environmental Uncertainty

The results of factor analysis with varimax rotation did show the uncertainty of the environment consists of 2 factors. The first factor consists of question items $X_{3A'}$, $X_{3C'}$, $X_{3D'}$, $X_{3H'}$ and X_{3C} . Factor 2 consisted of the questions $X_{3A'}$, $X_{3E'}$, $X_{3F'}$, $X_{3G'}$, $X_{3I'}$ and X_{3K} (can be seen in Table 2).

By grouping these factors, the researchers named factor 1 as the external dimension of the uncertainty effect (KE), and factor 2 as the internal dimension of the uncertainty effect (KI). Considerations of making the external dimensions as environmental uncertainty is due to the items in question reflect more dominant external influences that affect the individual in making a decision on the environmental situation of uncertainty. While the dimensions of the internal uncertainty, illustrate more about the influence of the internal organization that is more dominant in decision-making under uncertainty environment. Reliability for each dimension is a dimension of 0.8299 for the effect of external uncertainty, and 0.8189 for the effect of internal uncertainty.

4.3 Hypothesis Testing

The test is performed to determine the effect of the moderating variable is organizational commitment to the environment and the uncertainty of the relationship between budgetary participation and budgetary slack.

The first hypothesis tested the influence of organizational commitment on the relationship between budgetary participation and budgetary slack. The second hypothesis examines the effect of environmental uncertainty on the relationship between budgetary participation and budgetary slack.

Researchers have conducted a factor analysis on each of the variables used in this study. The results obtained from factor analysis showed the dimensions of organizational commitment variables and variable environmental uncertainty which are the moderating variables in this study. Regression equation to test the first and second hypothesis is as follows

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_1X_2 \quad (1)$$

$$Y = b_0 + b_1X_1 + b_2X_3 + b_3X_1X_3 \quad (2)$$

In this case,

Y = budgetary slack

X₁ = budget participation

X₂ = organizational commitment

X₃ = environmental uncertainty

X₁X₂ = interaction X₁ and X₂

X₁X₃ = Interaction X₁ and X₃

b = regression coefficient

5. RESULTS AND DISCUSSION

5.1 First Hypothesis Testing

The hypothesis to be tested in this study performed in two forms, first to see whether the effect of organizational commitment on the relationship between the participation of the budget and budgetary slack. The second hypothesis testing is done by observing the effect of the interaction between environmental uncertainties by multiple regressions.

From the results of factor analysis that is performed for each variable, found 3 dimensional organizational commitment variables, so the regression model for the interaction between organizational commitment to the participation of the budget outlined by the dimensions resulting from factor analysis. In the other words, the first hypothesis testing for 3 regression models, which are, the first is the influence of emotions dimensional interaction organizational commitment attachment (EA) with the participation of the budget on budgetary slack, secondly, the effect of the interaction of the dimensions of organizational commitment obligation to stay (OS) with the participation of the budget to the budgetary slack; third, the interaction effect of organizational commitment dimension cost of leaving (CL) with budgetary participation on budgetary slack.

Each regression equation for the first hypothesis is

$$\text{Regression Equation Ia: } Y = b_0 + b_1X_{PA} + b_2X_{EA} + b_3X_{PA}X_{AE}$$

$$\text{Regression Equation Ib: } Y = b_0 + b_1X_{PA} + b_4X_{OS} + b_5X_{PA}X_{OS}$$

$$\text{Regression Equation Ic: } Y = b_0 + b_1X_{PA} + b_6X_{CL} + b_7X_{PA}X_{CL}$$

In this case,

Y = budgetary slack

X_{PA} = Budget participation

X_{EA} = emotions attachment dimensions of organizational commitment

X_{OS} = dimensions of organizational commitment obligation to stay

X_{CL} = dimensions of organizational commitment cost of leaving

$X_{PA}X_{EA}$ = interaction between X_{PA} and X_{EA}

$X_{PA}X_{OS}$ = interaction between X_{PA} and X_{OS}

$X_{PA}X_{CL}$ = interaction between X_{PA} and X_{CL}

B_{1-7} = coefficient regression

Test results using multiple regressions are shown in Table 4.

Table 4.
Result of First Hypothesis Regression

The results of the regression equation Ia: Effects of Organizational Commitment Dimension EA (X_{EA}) on the Relationship between Budgetary participation and Budget slack.

Variable	Coefficient	Beta Coefficient	Error Standard	<i>t-value</i>	<i>p</i>
Constants	-19,384	b_0	17,301	-1,121	0,268
Budget Participation (X_{PA})	2,346	b_1	0,971	2,417	0,019
Org. Com. Dim. EA (X_{EA})	2,297	b_2	1,411	1,982	0,053
Interaction X_{PA} and X_{EA}	-0,179	b_3	0,079	-2,259	0,028
$R^2 = 17,4\%$	$F = 3,499$	$p = 0,022$		$n = 54$	

The results of the regression equation Ib: The Effect of Organizational Commitment Dimension OS (X_{OS}) on the Relation of Budget Partisipation and Budget Slack

Variable	Coefficient	Beta Coefficient	Error Standard	<i>t-value</i>	<i>p</i>
Constants	13,068	b_0	15,037	0,869	0,389
Budget Participation (X_{PA})	0,504	b_1	0,850	0,592	0,556
Org. Com. Dim. OS (X_{OS})	0,150	b_4	2,049	0,073	0,942
Interaction X_{PA} with X_{OS}	0,04127	b_5	0,115	-0,359	0,721
$R^2 = 10,2\%$	$F = 1,896$	$p = 0,142$		$n = 54$	

The results of the regression equation Ic: The Effect of Organizational Commitment Dimension CL (X_{CL}) on the Relation between Budget Partisipation and Budget Slack

<i>Variable</i>	<i>Coefficient</i>	<i>Beta Coefficient</i>	<i>Error Standard</i>	<i>t-value</i>	<i>p</i>
Constants	34,534	b_0	12,391	2,787	0,008
Budget Participation (X_{PA})	-1,408	b_1	0,751	-1,876	0,067
Org. Com. Dim. CL (X_{CL})	-0,779	b_4	0,846	-0,922	0,361
Interaction X_{PA} with X_{CL}	0,081	b_5	0,051	1,196	0,117
$R^2 = 25,7\%$	$F = 5,766$	$p = 0,002$		$n = 54$	

The results of the regression analysis on the first hypothesis suggests that the interaction coefficient b_3 (the regression equation IA) is the interaction between the dimensions of organizational commitment attachment emotions with significant budgetary participation. This means that the interaction between the dimensions of organizational commitment attachment emotions with budget participation significantly affects the occurrence of budgetary slack with a regression coefficient of -0.179 at p of 0.028 significant ($p < 0.05$). F value of 3.499 with significant at $p = 0.022$.

The results of the first hypothesis testing for regression equation IB shows that the interaction coefficient b_5 is the interaction between organizational dimensions commitment obligation to stay with the participation of the budget is not significant. In this case the interaction coefficient of 0.0413 was significant at the level of p value of 0.721, which showed $p > 0.05$, whereas that required a significant level is $p < 0.05$. Therefore, the conclusions from the results of this regression are that the interaction between the dimensions of organizational commitment obligation to stay with budget participation has no effect on budgetary slack.

Similarly to the first hypothesis testing results for the regression equation Ic. The results indicate that the interaction coefficient b_7 is the coefficient of interaction between the dimensions of organizational commitment cost of leaving with no budget participation significantly in this interaction coefficient of 0.081 was significant at the level of p value of 0.117, which indicates $p > 0.05$, while the rate of required is significant $p < 0.05$. Therefore, the conclusions obtained from the results of this regression are that the interaction between the dimensions of organizational commitment cost of leaving with budgetary participation has no effect on budgetary slack.

5.2 Second Hypothesis Testing

From the results of factor analysis is performed for each variable, found 2 dimensional variable environmental uncertainty on budget participation separated into two according to the dimensions resulting from the factor analysis. Both regression models are described as follows: first, a regression model to explain the influence of the external dimension of environmental uncertainty with budgetary participation and budgetary slack, secondly, a regression model to explain the interaction of environmental uncertainty influence the internal dimensions of budgetary participation on budgetary slack. Each regression equation for the first hypothesis, described as follows:

$$\text{Regression Equation Iia: } Y = b_0 + b_1X_{PA} + b_2X_{KE} + b_3X_{PA}X_{KE}$$

$$\text{Regression Equation Iib: } Y = b_0 + b_1X_{PA} + b_4X_{KI} + b_5X_{PA}X_{KI}$$

In this case,

Y = budgetary slack

X_{PA} = Budget participation

X_{KE} = external dimensions of environmental uncertainty

X_{KI} = Internal dimensions of environmental uncertainty

$X_{PA}X_{KE}$ = Interaction X_{PA} and X_{KE}

$X_{PA}X_{KI}$ = Interaction X_{PA} and X_{KI}

B_{1-5} = Coefficient Regression

The second hypothesis testing results are summarized in Table 5.

Table 5. Result of the second Hypothesis Regression

Regression equation Iia : Effect of Environmental Uncertainty Interaction External Dimensions with Budget Participation on Budgetary slack

<i>Variable</i>	<i>Coefficient</i>	<i>Beta Coefficient</i>	<i>Error Standard</i>	<i>t-value</i>	<i>p</i>
Constants	23,238	b_0	17,166	1,354	0,182
Budget Participation (X_{PA})	-0,547	b_1	0,954	-0,573	0,569
Env. Unc.Int. Ext. Dim. (X_{KE})	-0,437	b_2	0,890	-0,491	0,626
Interaction X_{PA} and X_{KE}	-0,037	b_3	0,049	0,756	0,453
$R^2 = 31,4\%$	$F = 1,820$	$p = 0,156$		$n = 54$	

Regression equation IIb: Effect of Interaction Environmental Uncertainty with External Dimensions Budget Participation on Budgetary Slack.

Variable	Coefficient	Beta Coefficient	Error Standard	t-value	p
Constants	46,486	b_0	24,293	1,914	0,610
Budget Participation (X_{PA})	-0,982	b_1	1,299	-0,526	0,133
Env. Unc. Ext. Dim(X_{KI})	-1,367	b_4	1,012	-0,351	0,183
Interaksi X_{PA} dengan X_{KI}	0,093	b_5	0,54	1,716	0,092
$R^2 = 23,2\%$	$F = 5,031$	$p = 0,004$		$n = 54$	

Test results for the second hypothesis IIa regression equation shows that the regression coefficient b_3 is the interaction between the external dimensions of environmental uncertainty with budget participation is not significant. In this case the coefficient of the interaction between the external dimensions of environmental uncertainty budget of 0.03726 participations is at a significant level of p value of 0.453 which indicates $p < 0.05$. Therefore, the conclusions obtained from the results of this regression are that the interaction with the external dimensions of environmental uncertainty budget participation does not significantly affect the budgetary slack.

While the results of testing two hypotheses for the regression equation IIb results obtained indicate that the interaction coefficient b_5 is the interaction between the internal dimensions of environmental uncertainty with the participation of a budget of 0.0929 was significant at the level of p value of 0.092, which indicates $p > 0.05$, while the rate of implied is significant $p < 0.05$. Therefore, the conclusions obtained from the results of this regression are that the interaction between uncertain environmental internal dimensions does not significantly affect the budgetary slack.

5.3 Discussion of The Hypothesis

Influence of Organizational Commitment to the Relationship between Participation Budgets with Budgetary Slack

In the first hypothesis, from three dimensional variable of organizational commitment proposed in this hypothesis, only on the dimension of attachment emotions that have a significant effect when interacting with budgetary participation in influencing budgetary slack.

Allegations that can be explained from these findings is: an attachment emotions dimension commitments arising from within the individual without coercion from outside individuals itself. Individuals will remain loyal to the

organization despite the organization is experiencing difficulties. Individual's motivation in this work is intrinsic, which worked to the satisfaction of himself and did not pay much attention to other material or social rewards to be gained from the results of the operation (Pinder, 1984).

From the analysis that the researchers did, this showed great commitment that grow from the individual itself, without any influence from outside the individual, will cause the individuals involved in the arrangement of the budget, and tend to lose his desire to perform budgetary slack.

The results of the analysis on the relationship dimensions of organizational commitment obligation to stay and the cost of leaving shows results that do not support the hypothesis that the researchers propose. The dimensions are not significant influencing interaction with budget participation associated with the behavior of individuals in making budgetary slack. Allegations pointed to researchers from these findings are that the dimensions obligation to stay an individual's commitment to grow only on the fulfillment of the obligations assigned to him alone.

To the effects of the interaction of organizational commitment dimensions and participation in cost of leaving budget, it also did not find any significant results towards individual behavior to make budgetary slack. Cost of leaving by Luthans (1998) is an individual's commitment to the organization, based on the calculation of the consideration to be issued individual sacrifice. In this case the cost benefit considerations take precedence. Reviewing the results of the analysis carried out, the alleged researcher, individual dimensions of organizational commitment is not strong enough to support individuals to perform budgetary slack. When involved in budget participation, individuals who have committed these dimensions susceptible to outside influences because individuals can be influenced by factors that originate from outside himself, whether from within or from outside the organization.

Environmental Effect of Uncertainty on the Relationship between Participation Budgets with Budgetary Slack

From the expectations before, researchers stated that the coefficient of the interaction between environmental uncertainty with budget participation is negative which explains that the increase in environmental uncertainty will negatively affect the relationship between budgetary participation and budgetary slack, in terms the increasing of environmental uncertainty will cause the individuals involved in the budgetary participation will reduce budgetary slack, and conversely, a decrease in the uncertainty of the environment will lead to the participation of individuals involved in the budget will increase budgetary slack.

Regression results for the second hypothesis test results are not significant, which means that the uncertainty of the environment is not a moderating variable interaction between budgetary participation and budgetary slack. These findings are not consistent with the results shown in the study Govindarajan (1986) which states that the participation of the budget will have a positive impact on budgetary slack if it is in a low uncertainty. In this case, the condition of the lower environmental uncertainty will cause the individuals participating in the preparation of the budget will undergo a budgetary slack. Likewise, the participation of the budget will have a negative effect on budgetary slack in high uncertainty.

The reasons can be given by the researcher because of the interaction between environmental uncertainty low budget by participating is unable affected from on the behavior of individuals to perform budgetary slack which has been being influenced by advances in information technology. At present, the development of information technology has been very rapid and has been reaching out to various sectors including the public sector.

In addition, the authors of this research also have opinion that inconsistency with research conducted by Govindarajan (1986) lies in the differences of the ability and the role of information technology in the present and when Govindarajan was doing the research. The existence of information technology when Govindarajan did research may not be as sophisticated as today, so the previous researcher was difficult to obtain information beyond the information provided by the subordinate. In these conditions, for the sake of personal interests, subordinates can take advantage of the situation to do budgeting slack. One way is to provide biased information to superiors in the preparation of the budget.

To the environmental conditions of high uncertainty, in the preparation of the budget, the increase or decrease slack budget is not a deliberate thing but more due to the inaccuracy of the planning that had been developed previously and also has been caused by circumstances which is unable be predicted because organizations face high uncertainty.

6. CONCLUSION

This study has two objectives, to test whether increased organizational commitment will reduce the individual's desire to perform budgetary slack when he participated in the preparation of the budget. Second, to know the uncertainty will affect whether an individual to perform budgetary slack when he participated in the preparation of the budget.

From the test results and the discussion in the previous chapter, this study find no significant effect on the interaction between organizational commitments. The results of the regression analysis showed that the first hypothesis, the interaction

coefficient b_3 of the regression equation shows the value of -0.179 significant at the p level of 0.028 ($p < 0.05$). Value of 3.499 with F significant at $p = 0.022$.

To the second hypothesis test, it showed no significant results in support of the proposed hypothesis. Low environmental uncertainty, both in its internal and external are unable significantly affect the individuals involved in the preparation of the budget. The results of the regression analysis findings in this study are not in accordance with the results found by Govindarajan (1986). Allegations that the researcher can make is the current state of development of information technology is advancing rapidly so that difficulties can be overcome to obtain information, especially in conditions of low environmental uncertainty that previously researchers assume can cause middle-level managers to perform budgetary slack by exploiting weaknesses in obtaining information. After analysis of the results obtained, the researchers concluded that the leader is no longer difficult to obtain information on each department underneath, due to the utilization of information technology easier and more accurate.

This study certainly has limitations, therefore, these limitations need to be considered for subsequent studies. Limitations of this study include:

- (a) The sample used in this study only executive officers involved in the preparation of the budget. In fact in local government budgeting also involves the legislature in this case is the Parliament as a relatively dominant parties to agree on whether or not the budget is acceptable for approval.
- (b) These results can not be used to make general conclusions, because the sample used is limited to one region, the possibility of a different situation with other regions.

Budgetary slack will lead to organizational dysfunction especially if it occurs continuously. So it should be attempted to be eliminated or at least minimized. From the results of this study can be taken as the following suggestions:

- (a) Budget participation should be limited, because of budgetary participation empirically resulted in budgetary slack. Or in any other way with the participation of the budget should be clear limits on the targets to be achieved so that the presence of this target will be pressing budgetary slack.
- (b) There should be attempted to create the commitment of the drafters of the budget. The commitment will be achieved when the relative needs are met. So, it is necessary that the employees were satisfied with what they have learned from the work.
- (c) There is still needed to do research to take sample the sample at different areas. This needs to be done to generalize the results of research in each local government.

- (d) It is needed to consider the sample not only involves of local government executives but also of the legislature that in reality have a role in local government budgeting.

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