

THE EFFECT OF BUDGET PARTICIPATION ON BUDGET SLACK: THE INFLUENCE OF ORGANIZATIONAL COMMITMENT AND ENVIRONMENTAL UNCERTAINTY*

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ABSTRACT

This study examines the form of association between practice of budget participation and budget slack in banking industry. This paper also examines the role played by organizational commitment and environmental uncertainty as moderators in the relationship between budget participation and budget slack. Responses from 84 managers (54% response rate) were collected through questionnaire that had been distributed to 32 banks in Pekanbaru, Riau Province, Indonesia. Using a hierarchical regression analysis, the results show the interaction effect between budget participation and organizational commitment on budget slack and the interaction effect of budget participation and environmental uncertainty on budget slack. The results offered support that negative relationship between budget participation and budget slack is stronger if the individual has a high organizational commitment. In addition, if the level of environmental uncertainty is high it is possible that the person who actively involve in budgeting process will create budget slack.

Keywords: Budget participation, organizational commitment, environmental uncertainty, budget slack

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INTRODUCTION

Budget is one of the branches in the company's planning which identify the activities to meet the company's objectives. The organization needs budget to describe the whole strategy in its short and long term planning. In designing the budget, the top level manager needs to involve the lower level manager so that the designed budget will cover the whole organizational interests and needs and its people in it.

In the participative budgeting, the lower level manager has the authority to create their own budget. The created budget done by lower level manager tends to be more objective because it includes all the important information from each division. Besides, the involvement in creating the budget enables the manager to deliver his expertise, skill and increase his motivation in his respective division.

In order to formulate an effective budget, the manager needs to have a forecasting skill like considering some factors such as environment. When the subordinates give a bias information to manager, this will create a budgetary slack and lower the budgetary effectiveness in the organizational planning and operation (Yuwono 1999).

Some reserachers have found that the level of budgetary slack is influenced by the people involved in the design of it. But those findings are not consistent. Researches by Camman (1976), Dunk (1993), Merchant (1985), and Onsi (1973) show that the budgetary participation reduces the budgetary slack. While the reseach done by Yuwono (1999) shows that the subordinate's participation in the design of the budget increases the budgetary slack.

The inconsistency of the research findings on the relationship between budgetary participation and budgetary slack may be caused by other influencing variables. Therefore, some researchers tried to put in two moderating variables namely organizational commitment and environmental uncertainty like in the previous research by Yuwono (1999) and Darlis (2001).

The organizational commitment is a loyalty level of commitment of an individual in an organization or a company. With high level of commitment, an employee tries his best to meet the objectives of the company, but on the contrary, when an employee has a low level of commitment, he tends to meet his personal interest first and put the company's objectives (Yuwono 1999). So, individual with low organizational commitment will create a budgetary slack (Darlis 2001).

The environmental uncertainty is a capability to predict and analyze a different environment. A high environmental uncertainty is defined as the inability of an individual to predict the environment accurately (Miliken 1987). Whilst in the low environmental uncertainty, an individual can easily predict the environment so he is be able to determine the ways to help the organization make an accurate planning (Duncan 1972). According to Govindarajan (1986) in a low environmental uncertainty, the budgetary participation will increase the budgetary slack. But in a high enviromental uncertainty, the manager finds it difficult to create a budgetary slack due to the lack of accurate information on future activities and prospects (Darlis 2001).

Considering the important role of budget to the organization and the loss which occurs from the budgetary slack, then the relationship between the budgetary slack and other variables especially variables which contribute to the weakening and strengthening of it has to be carefully examined.

Prior researchers had focused their studies on manufacturing industry. Study on budgeting particularly on budgetary slack and its impact on the budgetary participation, organizational commitment and environmental uncertainty in service industry like banking has not been conducted.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Relationship between Budget Participation and Budget Slack

The design principle of participative budgeting is basically to enable the lower level manager to participate on how the budget should be created. The study by Onsi (1973) showed that subordinates try to create slack in the company's budget during the budget's process by giving a bias estimation or forecasting. Normally the subordinates who create the budget would report underestimation revenue (understated) or overestimation cost (overstated).

According to Yuwono (1999) the subordinates have more complete information in their respective divisions than their superiors. When the information given to the superior is bias or incorrect then it will influence the decision making. And when it is related to the participative budgetary which has lack of important information then this will create a budget slack. When the company gives a performance evaluation on the budget achievement capability, then the subordinates who involved in the budget process would tend to make the budget attainable by

loosening the budget and giving a bias information to the superior. Therefore, the created budget can no longer show the real situation that can be maximizely attained by the company. Hence, it can be said that the budgetary participation give an opportunity to the subordinates to create a budgetary slack.

In stating the hypothesis to test the relationship between the budgetary participation and the budgetary slack, this research agrees with the opinion that the budgetary participation will create budgetary slack. This opinion is supported by the study of Yuwono (1999), Young (1985) and Dunk (1993). The argument is that when the budgetary participation is higher, the subordinates create higher budgetary slack. The hypothesis is stated as follows:

H₁ : Company with high budgetary participation will increase its budgetary slack

The Relationship between Organizational Commitment and Budgetary Slack

The organizational commitment is defined as a situation where a worker is attached to a particular organization and its objectives, and intends to keep his status in that organization (Robbins 2003; 164). For an individual or an employee who has a high commitment to his organization, meeting the objectives of the organization is his priority. On the other hand, an employee with low organizational commitment give a low attention to the company's objectives and tend to fulfill his personal desires.

According to Nouri and Parker (1996) in the participative budget, the level of commitment of an individual in an organization influence his interest to create budgetary slack. Yuwono (1999) stated that the organizational commitment and budgetary slack has a reverse relationship. For the subordinates with high organizational commitment will use the collected information to create a relatively accurate budget so that it reduces the budgetary slack. Whilst the subordinates with low organizational commitment tends not to give a specific information he has to the company so the created budget does not show an objective condition of the organization. This will create a budgetary slack.

To test the relationship between the organizational commitment with the budgetary slack, the following hypothesis is stated :

H₂ : The higher the organizational commitment, the lower the budgetary slack

Interaction between Budget Participation with Organizational Commitment and its Relationship with Budgetary Slack

According to Yuwono (1999) when the organizational commitment of an individual is low, then the budgetary participation will allow a creation of a budgetary slack. This also means the higher budgetary participation will create budget slack when the organizational commitment of an individual is low. But when the organizational commitment of an individual is high, then it can lower the budgetary slack. Darlis (2001) stated that the high and low of budgetary slack depends on the individual's priority whether to pursuit his self interest or meeting the company's objectives. This shows the actuality of individual's level of commitment.

To observe the interaction relationship between the organizational commitment and budgetary participation in creating budgetary slack, then the hypothesis is stated as follows:

H₃: the level of budget participation will have positive influence to the budget slack in a low organizational commitment, and will have negative influence in high organizational commitment

The Relationship between the Environmental Uncertainty with Budget Slack

The environmental uncertainty is defined as an incapability of an individual to predict something accurately and precisely (Miliken, 1987). This means that an individual will experience an environmental uncertainty when he does not have sufficient information to predict things accurately.

According to Duncan (1972) in a low environmental uncertainty, an individual can predict a situation where each steps to be taken can be planned accurately. According to Darlis (2001), when the subordinates experience a low environmental uncertainty, they can gather any technical information on the work easily. And when the subordinates share that information then the company will benefit it for the purpose of designing the budget. But when the subordinates refuse to disclose the information, then the bugeting process can no longer be objective which will create slack in the budget.

In a high environmental uncertainty, managers do not have a real picture of the environment and unable to predict the future condition , so the budgeting process is not accurate and does not have a good estimation or rather be speculative. Therefore, a high environmental uncertainty forces manager to create a budgetary slack.

On the other side, in a low environmental uncertainty, manager has a good information about his organizational environment and able to predict the future condition. This means the manager involved in the budgeting process has a complete information, not bias so that the chance to create a slack is low.

In determining the hypothesis to test the relationship between the environmental uncertainty with the the budgetary slack, the following hypothesis is stated:

H₄ : a higher environmental uncertainty will create a higher budget slack

Interaction between Budget Participation and Environmental Uncertainty and its Relationship with Budget Slack

Prior studies on the environmental uncertainty and its impact on the various dimensions had been conducted by some theorist such as Duncan (1972), Gul and Chia (1994), Govindarajan (1986), Yuwono (1999), and Darlis (2001). The result by Gul and Chia (1994) showed that the performance is high when the environmental uncertainty is high because manager will try to gather sufficient information for the company. That result of that study is different from what had been conducted by Govindarajan (1986). The study showed that the relationship between the participation and the budgetary slack is positive in a low environmental uncertainty and negative in a high environmental uncertainty.

According to Yuwono (1999) a subordinate who participate in the budgeting process and experience a low environmental uncertainty is able to create budgetary slack because he can predict the future. On the other hand, in a high environmental uncertainty, a subordinate will have difficulty in predicting the future and difficult to create budgetary slack.

Darlis (2001) found that the environmental uncertainty is not significantly influence an individual to create a budgetary slack. This is due to a high advance in information technology that enable the top manager to run his business activity internally and externally. The top manager will no longer have difficulty in gathering information from different lines of subordinates and this will limit the chances of subordinates to create budgetary slack.

To test the interaction between the budgetary participation and environmental uncertainty, it is agreed that in a high environmental uncertainty, manager who participates in the budgeting process will create a high budgetary slack. On the other hand, in a low environmental

uncertainty, manager who participates in the budgeting process will lower the budgetary slack. Therefore, the stated hypothesis is as follows:

H₅ : The level of budgetary participation will have a positive influence to the budgetary slack in a high environmental uncertainty. On the other hand, it will have a negative influence in a low environmental uncertainty.

RESEARCH METHODOLOGY

Data Collection and Samplern Selection

The research data were collected by mail survey sent to 155 division managers or executives who participate in the budgeting process in their respective bank in Pekanbaru, Riau. The service industry selected is bankings, because it is hoped that the result of this study will be a confirmation to the prior studies in the manufacturing industry.

Based from prior studies, it is found that the response rate in Indonesia is low which is only 10% - 16%, therefore the questionnaires were collected directly from the respondents. Some interviews were also conducted in some banks to avoid incomplete responses and to know the time needed to complete one questionnaire.

Table 1
Samples and collection rate

Total number of sample	155
Unreturnable questionnaire	<u>71</u>
Returnable questionnaire	84
Cancelled questionnaire (e.g: incomplete responses,etc)	2
Questionnaire returned after 7 March 2006	<u>0</u>
Accepted questionnaire	82
Outlier questionnaire	<u>2</u>
Processed questionnaire	80

Resource : Research result

Measurement of Variables

Budget participation

Budget participation is a level of influence and involvement that an individual experience in the budgetary planning process (Milani, 1975). To measure the involvement and the influence of a manager in the budgeting process, then the instruments developed by Milani (1975) modified by Yuwono (1999) was applied. The instrument by Milani was chosen due to its proof of a high level of validity, as in study by Nouri and Parker (1996) which was 0,75, and Yuwono (1999) which was 0,804. This instrument was also used by Darlis (2001), Somadiah and Sri Suranta (2004). The measurement of this variable used the *Likert* scale, where respondents were asked to state their perceptions by choosing scale 1 (highly disagree) until scale 7 (highly agree). Based on the test of reliability from the total number of processed questionnaire, the value of *cronbach alpha* for participation was 0,861.

Organizational commitment

Organizational commitment is defined as a confidence and support to the values and goals that the organization like to achieve (Mowday et al, 1979) in Darlis (2001). To measure the organizational commitment of the respondents, nine items of questions which was developed by Mowday (1979) with some modification by Yuwono (1999) were used. In this study, respondents were asked to answer nine questions by choosing *Likert* scale from 1 (highly disagree) to scale 7 (highly agree). Based on the test of reliability from the total number of processed questionnaire, the value of *cronbach alpha* for the organizational commitment was 0,787.

Environmental uncertainty

According to Duncan (1972) the environmental uncertainty is defined as an individual incapability to assign probabilities whether the decision making is a success or a failure. The variable measurement of environmental uncertainty aims to find out the perception of managers on the environmental uncertainty that they feel. This variable was measured by asking 12 items of questions developed by Duncan (1972). This instrument was once used by other researchers such as Gul and Chia (1994), Yuwono (1999), Darlis (2001), Somadiah and Sri Suranta (2004).

This measurement of variable used the *Likert* scale where respondents were asked to state their perceptions by choosing scale 1 (highly disagree) until scale 7 (highly agree). Based on the reliability test from the total number of processed questionnaire, the value of cronbach alpha for the organizational commitment was 0,713.

Budgetary slack

Budgetary slack is defined as differences between the reported budget with the ideal estimated budget of a company (Anthony dan Govindarajan 1996). To measure the actual budgetary slack in a company is quite difficult, this is due to the influences of ethics and cultures. The term good in one place is not necessarily the same as in the other place.

But in this study, as conducted before by Nouri and Parker (1986), Yuwono (1999) and Darlis (2001), used the perception that any individual can create budgetary slack, to represent the measurement of budgetary slack, with the assumption that budgetary slack and manager's tendency to create budgetary slack was closely related. This variable was measured by four types of questions developed by Onsi (1973) and modified by Yuwono (1999). This instrument was also used by Nouri and Parker (1996) in Yuwono (1999), Yuwono (1999) and Darlis (2001).

This measurement of variable was using the *Likert* scale where respondents were asked to state their perceptions by choosing scale from 1 (highly disagree) to scale 7 (highly agree). Based on the reliability test from the total number of processed questionnaire, the value of *cronbach alpha* for the organizational commitment was 0,610.

Method of Data Analysis

Empirical method of hypothesis testing by using the multiple linear regression method (*multiple regression*) was used. The dependent variable is a function of each interaction between independent variable with two moderating variables. This approach is adopted from study by Yuwono (1999) and Darlis (2001).

Table 2
Method of Data Analysis

Hypothesis	Regression equation
H ₁	$Y = \beta_0 + \beta_1 X_1 + e$
H ₂	$Y = \beta_0 + \beta_3 X_3 + e$
H ₃	$Y = \beta_0 + \beta_1 X_1 + \beta_3 X_3 + \beta_4 [(X_1 \times X_3)] + e$
H ₄	$Y = \beta_0 + \beta_2 X_2 + e$
H ₅	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_5 [(X_1 \times X_2)] + e$
Y	= Budget slack
β_0	= Constanta
$\beta_{(1,2,3)}$	= Regression coefficient of X
X ₁	= Budget participation
X ₂	= Environmental uncertainty
X ₃	= Organizational commitment
[(X ₁ x X ₂)]	= Interaction value between participation and environmental uncertainty
[(X ₁ x X ₃)]	= Interaction value between participation and organizational commitment
e	= <i>error item</i>

The dependent variable namely budgetary slack in this study was predicted to be influenced by other independent variables such as : budgetary participation, organizational commitment, and environmental uncertainty. The interaction approach in this study aimed to explain the impact of interaction between budgetary participation with each moderating variable (organizational commitment and environmental uncertainty) towards the budgetary slack. The focus was on the significant level of coefficient and the influencing factor of interactions between each moderating variable (organizational commitment and environmental uncertainty) and independent variable (budgetary participation) towards budgetary slack.

In this study, it was expected that the organizational commitment variable both partially and interacted with the budgetary participation, had a negative influence to the budgetary slack. This was shown with a negative interaction coefficient. It was also expected that the environmental uncertainty both partially and interacted with the budgetary participation had a positive influence to the budgetary slack. The expected coefficient was positive.

RESULT AND DISCUSSION

Descriptive Statistic

The analysis was based on responses of 80 respondents. Based on the collected data, the description is shown on the following table.

Table 3
Descriptive statistic of research variables

Research Variable	Mean	<i>Standard Deviation</i>
Budgetary slack	3,9125	1,14537
Budgetary participation	6,0699	0,67153
Environmental uncertainty	5,0136	0,66554
Organizational commitment	4,6461	1,18439
[(X1 x X2)]	23,52	7,58696
[(X1 x X3)]	28,35	8,48977

Resource : Research result

Result of Hypothesis testing

As explained in previous discussion that to test the hypothesis, this study used multiregression with the help of SPSS *software (Statistical Product and Service Solution)* version 12.0. The analysis method used was **enter** method or normal analysis where all independent variables including moderating variable as predictor variable without taking into consideration whether had a big or small influence to the dependent variable (criterium) The The result of data analysis for each hypothesis can be seen in the following table 4.

Table 4
Result of Data testing on each hypothesis

Hypothesis	R²	F	Sig	t	Coef β	Ket
Hypothesis I	0.189	18.204	0.000	4.267	0.435	X ₁
Hypothesis II	0.002	0.138	0.711	-0.371	-0.042	X ₃
Hypothesis III	0.226	7.413	0.000	-1.393	-1.444	[X ₁ x X ₃]
Hypothesis IV	0.030	2.429	0.123	1.559	0.174	X ₂
Hypothesis V	0.196	6.192	0.001	0.678	0.677	[X ₁ x X ₂]

Resource : Result of research data process

First Hypothesis testing

First Hypothesis statement was to test if the participation given in the budgeting process could influence manager to create budgetary slack. In other words, will the increase in participation affect the increase in budgetary slack.

Result of the regression analysis on the first hypothesis showed coefficient β_1 of 0,435 with significant p of 0,000 ($p < 0,05$). This coefficient value showed that the budgetary participation had a significant relationship with the budgetary slack. Therefore, the result of this study successfully accepted the first hypothesis which stated that company with high budgetary participation will increase the budgetary slack. Determination coefficient (R^2) showed that the variable of budgetary slack was influenced by participation in budgeting process of 18,9 % and residual of 81,1% was influenced by other variables.

Second hypothesis testing

Second hypothesis stated was to test if the organizational commitment of the manager had an effect on him to create budgetary slack. It was assumed that the high organizational commitment of manager who involved in the budgeting process could lower the budgetary slack.

The result of regression analysis on the second hypothesis showed that coefficient β_3 of -0,042 with significant p of 0,711 ($p > 0,05$). This coefficient value showed that the organizational

commitment did not have a significant relationship with budgetary slack. The result of this study was not successfully accepted the second hypothesis which stated that the higher the organizational commitment the lower the budgetary slack.

Third hypothesis testing

Third hypothesis stated was to observe if the interaction between the organizational commitment with the budgetary participation could create budgetary slack for the manager.

The result of regression analysis for the third hypothesis showed that coefficient β_2 was significant with the value p of 0,000 ($p < 0,05$). The interaction between participation and organizational commitment had a negative relationship shown by coefficient β_4 of -1.444 . Therefore, the result of this study successfully accepted third hypothesis which stated that the level of budgetary participation would have positive influence to the budgetary slack, in a low organizational commitment and would give a negative influence in a high organizational commitment. The determination coefficient (R^2) of 22,6% showed that the relationship between the budgetary participation with the budgetary slack was influenced and moderated by the interaction of organizational commitment, the rest of 77,4% was influenced by other variables.

Fourth hypothesis testing

Second hypothesis stated was to observe if the high environmental uncertainty would higher the budgetary slack. The result of regression analysis of fourth hypothesis showed that coefficient β_2 of 0,174 with the significant value p of 0,123 ($p > 0,05$). This significant value showed that environmental uncertainty did not have a significant relationship with budgetary slack. Therefore, the result of this study did not successfully accept the fourth hypothesis which stated that the higher environmental uncertainty the higher the budgetary slack.

Fifth hypothesis testing

The fifth hypothesis stated was to observe if the interaction of environmental uncertainty with the budgetary participation could create budgetary slack. The result of regression analysis on the fifth hypothesis showed coefficient β_5 of 0,667 with significant p of 0,001 ($p < 0,05$). This coefficient value showed that the interaction between budgetary participation with high

environmental uncertainty had a positive relationship with budgetary slack. Therefore, the result of this test could successfully accept the fifth hypothesis.

Determination coefficient (R^2) of 19,6% showed the relationship between budgetary participation with budgetary slack was moderated by environmental uncertainty, while 80,4% was influenced by other variables. The low determination coefficient (R^2) did not mean that the research model was not good, but focus and observation was given more to the independent variable, moderating and dependent variable both logically and theoretically. Besides, the research focus was also given more to the observation of significant level of research statistics.

CONCLUSION AND IMPLICATION

This study aimed to find out if the organizational commitment and environmental uncertainty influenced an individual's desire to participate in the budgeting process to create budgetary slack. From the result of data analysis, three hypothesis stated could be accepted. While two others could not successfully show significant influence.

In participative budget, the budgetary participation would higher budgetary slack. This finding confirmed the study by Yuwono (1999). This testing successfully proved the first hypothesis which stated that the high budgetary participation created high budgetary slack. This finding consistently confirmed the previous study by Dunk (1993) and Lukka (1988), and Yuwono (1999) which stated that the level of budgetary participation influenced an individual to create budgetary slack.

This research finding did not successfully support the expectation that the high organizational commitment of an individual could lower the budgetary slack. This research findings were not consistent with the study by Nouri and Parker (1996) in Yuwono (1999) and consistent with Yuwono (1999). This finding confirmed the statement that the variable of organizational commitment did not influence an individual to create budgetary slack. Therefore, this research could not successfully accept the second hypothesis which stated that the high organizational commitment could lower the budgetary slack.

Next, this research also found that the interaction between organizational commitment with the participation had a negative influence to budgetary slack. This finding was consistent with previous study by Darlis (2001).

The environmental uncertainty felt by manager did not have a significant influence to budgetary slack. This finding confirmed the study by Yuwono (1999). This research also found that budgetary participation had positive influence to budgetary slack in a high environmental uncertainty, and had a negative influence in a low environmental uncertainty. A subordinate who has a high participation and experiences low environmental uncertainty will create slack in budget, because he reports a bias and incomplete information to the superior, so the creation of the budget can be speculative. This finding was not consistent with previous study by Govindarajan (1996), Yuwono (1999), and Darlis (2001).

This study has several limitations. One of the limitations was that it did not conduct an interview due to time limitation of the banks. Respondents requested the questionnaire to be left in their place so there was not any control of the given responses. Therefore, the given responses filled by the respondents could not describe the actual fact. The small number of population gave an impact to the realibility of the study. Besides, object of the study was distributed only at the banking sector in Pekanbaru, so it affected the capability of the study to be generalized to a wider scope.

Although the study was conducted in a small scale of bankings in Pekanbaru, yet the research findings could give an equal contribution to the more comprehensive understanding on impacts of organizational commitment and the environmental uncertainty in relations with budgetary participation and budgetary slack. This research findings has successfully found a strong empirical prove that organizational commitment and environmental uncertainty could not be ignored in the design of participative budget.

The sucess of some hypothesis could become an input for the company's management to evaluate the existing budgeting system in order to improve the effectiveness of company's budgeting. By putting the variable of organizational commitment as one of moderating variable, could be a consideration factorl for management to really focus on the condition of manager's loyalty in some of company's activities which related to budgeting. The moderating variable of environmental uncertainty could be a consideration factor for management, consultant, practicioner, and academician, so that the problem of environmental uncertainty could be solved well and it would not create a symmetry information that could create budgetary slack.

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