

The Mediating Effect of Accountability, Job-Relevant Information and Organizational Commitment on the Relationship between Budgetary Participation and Managerial Performance

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Abstract: The objective of this paper is to report the findings of a study that examines how budgetary participation affect managerial performance. In this study we proposed that the effect of budgetary participation on managerial performance is indirect through the mediating variables of accountability, job relevant-information and organizational commitment. A model was developed and tested using a sample of 66 managers from one group of companies (7 companies) in Dumai, Indonesia. The results revealed the existence of a significant and positive association between budgetary participation on managerial performance through accountability and also a significant and positive association between budget participation and managerial performance through organizational commitment. However, contrary to hypothesis proposed the role of job-relevant information as a mediating variable can not be supported. Implication of the findings and suggestions for future research are discussed.

Keywords: *Budgetary Participation, Accountability, Job-Relevant Information, Organizational Commitment, Managerial Performance*

1. Introduction

Budgetary participation is defined as a process in which a manager is involved with, and has influence on, the determination of his or her budget (Shield and Sheild, 1998). Participation in budgeting is a general approach that can affect managerial performance (Siegel & Marconi, 1989). With the participation of subordinates in the budgeting process, the subordinate should feel involved and responsible for the implementation of the budget, so that subordinates can execute predefined budget better and will ultimately affect their performance. The role of budgetary participation as a variable that is directly effect managerial performance has been proved by prior researchers such as Brownell and McInnes (1989). However some other researchers did not find evidence to support the effect of budgetary participation on managerial performance (see Kenis,1979) while others found a negative relationship between budgetary participation and performance (Brownell, 1981;Mia, 1998). Inconsistent finding of budgetary participation – managerial performance relationship led researchers to discover and study potential moderating and mediating or intervening variables that may better explain the relationship between budget participation and performance (Brownell, 1981; Govindarajan, 1986;Shields & Shield, 1998). Several mediating variables have been studied to explain the relationship between budgetary participation and performance. Among these variables are motivation (Brownell & McInnes, 1989), organizational commitment (Minai & Mun, 2013;Nauri & Parker, 1998; Yahya, Ahmad & Fatima, 2008), job-relevant information (Kren, 1992; Lau & Tan, 2003), budget adequacy (Nauri & Parker, 1998) and psychological capital (Venkatesh & Blascovich, 2012)

This study will investigate the mediating effect of accountability, job-relevant information andorganizational commitment on the relationship between budgetary participation and managerial performance. It is crucial to understand the mediating effects of accountability on the relationship between budgetary participation and managerial performance since accountability is important to organizational variables such as performance (Yarnold, Mueser &Lyons, 1988) and motivation (Enzele & Anderson, 1993).To date, only a few studies examined accountability in relation to managerial performance (Hall, 2005). Beside, empirical evidence on job-relevant information and organizational commitment in budgetary participation-managerial performance relationship is still limited. The purpose of this study is to explore the relationship betweenbudgetary participation and managerial performance in one group of manufacturing companies in Indonesia. Furthermore, this study also aimsto examine the mediating effects of accountability, job-relevant information and organizational commitment on the budgetary participation-managerial performance relationship. The remainder of this paper is structured as follows. The next section review the literature of the variables being studied, followed by a discussion on hypothesis development. The third section explains

the research methods used in this study. The fourth section report and discuss the results of the study and the last section provide a conclusion, implication, limitation and suggestion for future study.

2. Literature Review and Hypotheses

The Role of Accountability in the Budgetary Participation and Managerial Performance Relationship: Accountability is an important principle of organization. Accountability is needed for the organization in order to function effectively (Lerner & Tetlock, 1999). Lack of accountability is believed will lead to illegal behaviour (Mitchell, Hopper, Daniels, George-Falvy, & Ferris, 1998). Actually, accountability can be seen from two different points of view, organizational and individual accountability (Hall, 2005). Organizational accountability focus on the efforts of stakeholders to monitor and/or control the behaviors of CEOs, top management teams, and/or boards of directors in order to ensure the achievement of organizational goal, especially financial goal (Hall, 2005). In the other hand, individual accountability is related to an individual state of mind which is influenced by individual's endogenous and exogenous conditions (Hall, 2005). Endogenous conditions derived from the individual's own values, ethic and professionalism, while the exogenous condition is related to policies, procedures and incentives system within the organization (Siddiquee, 2005). Individual level of accountability is a construct that is necessary for the effective operation of any organized body (Schlenker, Britt, Pennington, Murphy & Doherty, 1994) and will be expected to enhance managerial performance (Hall, 2005). Therefore, this current study view accountability from individual points of view.

Hall (2005) identified 4 antecedents to accountability: environmental factors, organizational factors, job factors and formal accountability system. Decentralization is one of organizational factors. Decentralization placed decision making in the hands of employees at lower levels (Cascio, 1995). Decentralization might have important implications for accountability. Budgetary participation which is implementation of decentralization provides an opportunity for managers to contribute in the budgetary process by setting budgetary goals and also take part in decision making. Based on goal-setting theory (Locke, 1968), employees will strive harder when they participate in making decisions and setting goals (Tubbs, 1986). Under these circumstances, it would appear that budgetary participation might increase managers' felt accountability. Yarnold et al. (1988) suggest that accountability can have positive effects on performance. Felt accountability is considered to significantly affect an individual's feelings, thoughts and actions (Weigold & Schlenker, 1991). With higher accountability feeling, managers will exert considerable effort to achieve targeted budget and it will improve their performance. The following hypothesis is thus proposed:

H1: The relationship between budgetary participation and managerial performance is mediated by accountability

The Role of Job-Relevant Information in the Budgetary Participation and Managerial Performance Relationship: Budgetary participation is an essentially form of managers' involvement in the preparation of the budget. Participation in the budgetary process provides the opportunity for individuals who are engaged in budgetary process to collect and provide important information related to their job or task. Information that facilitates decision-making related to the tasks is called job-relevant information (Kren, 1992). Managers who involved in the preparation of the budget will be trying to gather accurate information so that the budget becomes more relevant and attainable (Kren, 1992). Kren (1992), Magner, Welker and Campbell (1996), Lau and Tan (2003) and Nengsy, Sari and Agusti (2013) have found that budgetary participation was associated with greater job-relevant information. The higher the manager's involvement in the preparation of the budget, the higher the using of job relevant information.

According to Kren (1992) budget participation has a positive relationship with job-relevant information. Job-relevant information enable to more accurate predictions of environmental and allows more effective selection of appropriate courses of action which in turn improve managerial performance (Kren, 1992). Participation in budgetary process provides an opportunity for subordinates to gather, exchange, and disseminate job-relevant information to facilitate their decision-making process, so that their job performance will be improved (Chong & Chong, 2002). Furthermore, the availability of job-relevant information enables subordinates to develop an effective strategy or plan, so that it will bring their effort and attention to attain their goals (Chong & Jhonson, 2007). The availability of job-relevant information also

improves a subordinate's quality of decisions as a result of sharing information with the superiors (Sheilds & Sheilds, 1998) and then it will lead to increase job or managerial performance. Based on the above discussion, it conclude that the effect of budgetary participation on managerial performance is indirect but through job-relevant information. The role of job-relevant information as a mediating variable in the relationship between budgetary participation and managerial performance has been proved by Kren (1992), Leach-Lopez, Stammerjohan and McNair (2007) and Leach-Lopez Stammerjohan and Lee (2009). These finding leads to the following hypothesis:

H2: The relationship between budgetary participation and managerial performance is mediated by job-relevant information

The Role of Organizational Commitment in the Budget Participation and Managerial Performance Relationship: Organizational commitment is defined as the extent to which employees' feelings and beliefs to the organization where they work for (George & Jones, 1999). According to Meyer, Allen and Gellatly (1990) organizational commitment can be conceptualized in two ways; affective and continuance commitment. Based on Porter et al. (1974) and Angel & Perry (1981), Nouri and Parker (1998) identify that affective commitment has two importance characteristics: a strong belief in and acceptance of the organization's goals and values, and a willingness to exert considerable effort on behalf of the organization. On the other side, continuance commitment is associated with the perception of the cost that would be incurred when leaving the organization. Past studies on the relationship among budget participation, organizational commitment and performance has focused on affective commitment (eg. Nouri and Parker, 1998; Chong, Eggleton, & Leong, 2006; Yahya et al., 2008; Minai and Mun, 2013). The argument behind the using of affective rather than continuance commitment is affective commitment has a stronger relationship to performance than does continuance commitment (Randall, 1990). Thus, following the past studies, this present study also investigate affective commitment to reveal its role in budget participation and managerial performance relationship.

Prior studies conclude that budget participation is positively related to organizational commitment (Nouri and Parker, 1998; Chong et al., 2006; Yahya et al., 2008; Minai and Mun, 2013). The process of budgetary participation allows the subordinates to better understand the budget goals (Nouri and Parker, 1998), increase subordinate trust, sense of control and ego-involvement, and then this condition cause subordinate to be more acceptance of and committed to the budget process (Shield and Shield, 1998). Subordinates who have higher organizational commitment will exert considerable effort to achieve targeted budget and it will improved their job performance. Previous studies by Nouri and Parker (1998), Chong et al. (2006), Yahya et al. (2008) and Minai and Mun (2013) have proven that budget participation has a positive relationship to organizational commitment and then organizational commitment has a positive relationship with managerial performance. Increased budget participation leads to increased organizational commitment and that increased organizational commitment leads to increased performance. Those studies gave support to conclude that organizational commitment play as a mediating variable in the relationship between budget participation and managerial performance. The arguments above leads to following hypothesis:

H3: The relationship between budgetary participation and managerial performance is mediated by organizational commitment.

3. Methodology

Sample and Data Collection Procedure: The data for this study were collected from managers employed in one group of companies (seven companies) in Dumai, Indonesia. 115 questionnaires were send directly and a total of 66 questionnaires (57% respond rate) and then used in final analysis.

Measurement: The major measures for the study were accountability, job-relevant information, organizational commitment, budgetary participation and managerial performance. Respondents also completed the questionnaire by giving some information on background or personal characteristics of respondents.

Accountability: Following Taylor, Hamid, and Sanusi (2008) and Sari, Anugerah, Sanusi and Hamid (2010), the accountability variable is measured by using a six item instrument. Two questions related to exogeneous

accountability were adapted from Cavaluzzo and Ittner's (2004) and four questions that related to endogenous accountability were adopted from Budding's (2004). Reliability and validity data for this measure are shown in Taylor et al (2008) and Sari et al (2010). A sample item for exogeneous accountability include "Managers at my level face policies and procedures aimed at making them accountable for the results of their activities " and sample item for endogenous accountability include "I see the maximum available budget as an important constraint. I will strive to keep within this budget and not to ask for an increment". Respondents indicated their answers on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly agree) for each item of accountability. Higher scores indicate greater levels of accountability.

Job-Relevant Information: Job-relevant information was measured by a three item, seven point Likert scale developed by Kren (1992). Respondents indicated their answer ranging from 1 (strongly disagree) to 7 (strongly agree) for each item of job-relevant information. A sample item include "I have adequate information to make optimal decisions to accomplish my performance objectives". Higher scores indicate greater levels of job relevant information.

Organizational Commitment: Organizational commitment was measured by nine item scale developed by Mowday et al. (1979). This instrument was used to evaluate the extent of a manager's commitment toward his or her own organization. Respondents were rate their reponses on a seven point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher score indicate greater level organizational commitment. A Sample item include " My superior has a ligical reason when there is a revision to the budget that has been prepared".

Budgetary Participation: Budget participation was measured by using six items from Milanni's (1975). This instrument evaluate managers' participation and involvement in budgeting activities. Respondents were rate their reponses on a seven point Likert scale ranging from strongly disagree (1) to strongly agree (7). Higher score indicate greater level of participation. A Sample item include " My superior has a logical reason when there is a revision to the budget that has been prepared".

Managerial Performance: Managerial performance is a self- reported measurement which is measure manager's performance with nine items. Eight items of performance measure were taken from Mahoney, Jerdee and Carrol. (1965) which is a measurement of eight performance dimensions and one item measured overall performance of manager. A seven-point Likert Scale was used to measure the performance of managers on planning, investigating, coordinating, evaluating, supervising, staffing, negotiating, representing and overall performance.

4. Results and Discussion

Demographic of Respondents: The following table (Table 1) presents the demographics details of respondents. In general, respondents of this study had a good education backgroud since 68.18% of them

Table 1: Demographics Details of Respondents

Demographic Variable	Classification	Frequency	%
Gender	Male	54	81.82
	Female	12	18.18
Age	20-30 year	10	15.15
	31-40 year	40	60.61
	41-50	16	24.24
Work Experience	< 5	15	22.73
	5-10	41	62.12
	>10	10	15.15
Current Position	Middle management	33	50
	Lower management	33	50
Education	Diploma	14	21.21
	Undergraduate	45	68.18

Master 7 10.61

holding undergraduate degree. This table also indicate that 77.27% of the respondents had at least 5 years' work experience. The personal information of the respondents in this study indicate that they have sufficient knowledge and experience to answer the questionnaire.

Descriptive Statistics of Variables: Table 2 shows the descriptive statistics for the variables used in this study.

Table 2: Descriptive Statistics of Variables

	Theoretical Range	Actual Range	Mean	Standard Deviation
Accountability	1-7	4.50-7.00	5.80	.76
Job-Relevant Information	1-7	4.67-7.00	6.29	.68
Organizational Commitment	1-7	3.00-7.00	5.78	.80
Budget Participation	1-7	2.17-7.00	5.26	1.25
Managerial Performance	1-7	1.89-7.00	5.58	1.19

Hypotheses Testing: Data in this study was analysed by using Structural Equation Modelling (SEM) with Partial Least Square (PLS). PLS is able to identify the relationship between construct in the model, has a measurement model that specifies the relationship between manifested items and the constructs that they represent and has an ability to assess the validity of the constructs within the total model (Hulland, 1999). The application of PLS requires two steps of analysis. The first step is to assess the reliability and validity of the measurement model and the second step is to assess the structural model in order to examine the path coefficient (Hulland, 1999).

The Measurement Model: The measurement model is done in order to examine convergent and discriminant validity. Individual item reliability was assessed by looking at the factor loading of all items to their respective constructs. Standardized loadings for measurement model is 0.70 (Chin, 1998). Based on statistics from the PLS model, loading factors for all items of the model are greater than 0.7 and are significant at $p < 0.05$ (two tail; $t > 1.96$). The result demonstrates that the measures share more variance with their respective constructs than with error variance. The reliability of each variable is assessed by looking at the value of composite reliability (Fornell & Larcker, 1981). The composite reliability of the measurement model for each variable is above 0.70 (see column 3 Table 3) so that the model is considered meet the criteria of internal consistency (Nunnally, 1978) or in other words all constructs are reliable to be investigated further. Convergent validity is assessed using the average variance extracted (AVE). AVE measures of 0.5 or more are considered to demonstrate adequate convergent validity (Chin, 1998). As shown in Table 3, the AVEs of all the constructs are more than 0.5, providing evidence of adequate convergent validity. Discriminant validity of the constructs is tested by comparing the square root of the AVE for a particular construct to its correlations with the other constructs. This provide a test the extent to which a construct share more variance with its measure than its share with other construct (Chin, 1998). Table 3 shows that the square roots of the AVEs (diagonal) are all greater than the construct. Overall, the result from PLS measurement indicate that convergent validity and discriminant validity of the construct appear to be satisfactory.

Table 3: Composite Reliability, Average Variance Extracted (AVE) Statistics and Correlation from PLS

	Composite Reliability	AVE	Acct	JRI	OC	BP	MP
Acct	0.932	0.664	0.815				
JRI	0.861	0.675	0.277	0.822			
OC	0.879	0.559	0.747	0.117	0.748		
BP	0.909	0.627	0.705	0.330	0.591	0.792	
MP	0.955	0.702	0.752	0.073	0.739	0.661	0.838

Note: Diagonal elements are square root of AVE statistics. Off diagonal elements are the correlations between latent variable calculated by PLS model. Acct= Accountability; JRI- Job-relevant Information; OC= Organizational commitment; BP= Budget Participation, MP= Managerial Performance

The Structural Model: The results for the PLS analysis of the structural model are presented in Table 4. R-square for accountability is 0.497, job relevant information is 0.109, organizational commitment is 0.349. These findings demonstrate the variation in budgetary participation contribute to the variation inaccountability, job-relevant information and organizational commitment.The model explained 67.9% of the variance in managerial performance, providing a good explanatory power. Table 4 shows that there are significant direct relationship between budget participation and accountability ($\beta = 0.075$, $t = 13.565$, $p < 0.01$), budget participation and job-relevant information ($\beta = 0.330$, $t = 1.930$, $p < 0.05$) and budget participation and organizational commitment ($\beta = 0.330$, $t = 1.930$, $p < 0.05$) in the predicted direction. Table 4 also shows that there are significant direct relationship between accountability ($\beta = 0.362$, $t = 1.1853$, $p < 0.05$) and organizational commitment ($\beta = 0.334$, $t = 2.642$, $p < 0.05$) to managerial performance. Contrary to the expectation, the data failed to show the relationship between job-relevant information and managerial performance.

As expected, Table 4 shows the result of no significant direct relationship between budget participation and managerial performance. The result confirm that budget participation is not directly enhance managerial performance. With the existence of a significant positive relationship between budget participation and accountability and between accountability and managerial performance, this revealed the role of accountability as a mediating variable that mediate the relationship between budget participation and managerial performance. Therefore H1 which stated that the relationship between budgetary participation and managerial performance is mediated by accountability is supported. The results also revealed the role of organizational commitment as a mediating variable for the relationship between budget participation and managerial performance. The data able to prove a positive significant relationship between budget participation and organizational commitment and organizational commitment to managerial performance. This finding support the third hypothesis (H3) that proposed the mediating role of organizational commitment in the relationship between budget participation and managerial performance.

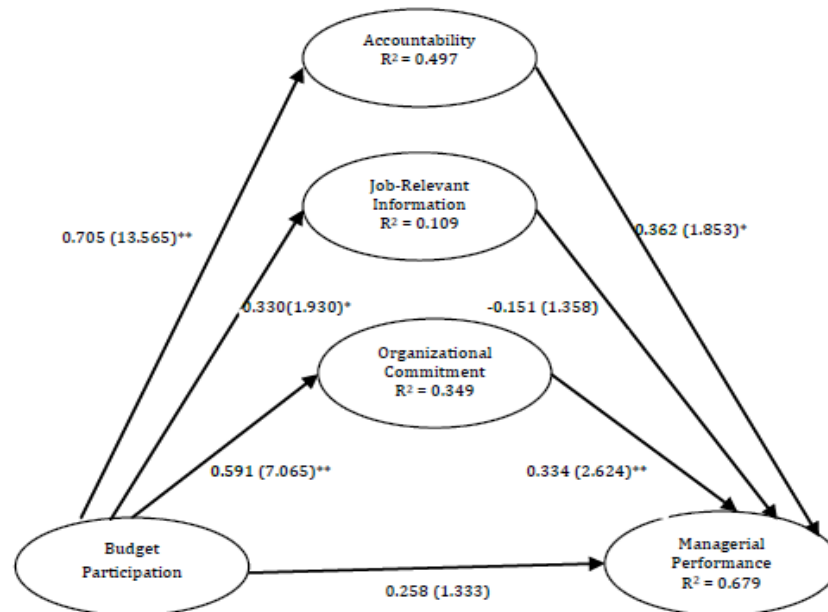
Contrary to the hypothesis proposes, the data of this study failed to give support to H2 that stated the mediating role of job-relevant information. Even though budget participation has a significant positive relationship with job-relevant information, but no significant relationship between job-relevant information and managerial performance concluded that high job-relevant information is not related to increase managerial performance. This finding is consistent with Nengsy, Sari and Agusti (2013) which is also unable to prove the mediating role of job-relevant information in budgetary participation-managerial relationship. Within this sample data, even though giving opportunity to managers to participate in budgeting process has a positive influence on job-relevant information but it does not associated with managerial performance. One explanation that can be given for this situation is that there is a possibility that the information provided by manager is not actually used in the decision-making or can be caused due to lack of relevance of information to the task is being handled.

Table 4: Path Coefficient, t Statistic and R²

	Expected Sign	Path Coefficient	R ²
BP → Acct	+	0.705 (13.565)	
BP → JRI	+	0.330 (1.930)	
BP → OC	+	0.591 (7.065)	
Acct → MP	+	0.362 (1.853)	
JRI → MP	+	-0.151 (1.358)	
BP → MP	+	0.258 (1.333)	
OC → MP	+	0.334 (2.624)	
BP → MP	Not sig	0.258 (1.333)	
Acct			0.497
JRI			0.109
OC			0.349
MP			0.679

Figure 1 shows how accountability, job-relevant information and organizational mediate the relationship between budgetary participation and managerial performance.

Figure 1:



Note: ** $p < 0.01$ (one tailed test)

* $p < 0.05$ (one tailed test)

5. Conclusion, Implication and Recommendations for Future Research

The objective of this study is to provide some empirical evidences of a study that examines how budget participation affect managerial performance. In this study it was proposed that the effect of budget participation on managerial performance is indirect through the mediating variables of accountability, job relevant-information and organizational commitment. This study focused on manufacturing managers' from one group of companies in Indonesia. This study found that budgetary participation has no direct relationship with managerial performance. This finding suggests that participation during budgetary process did not automatically cause the increasing level of managerial performance. The results of this study indicate that budget participation will effect managerial performance only when budget participation caused the accountability and organizational commitment of managers to increase. With increasing accountability and organizational commitment of managers, then the managerial performance will be increased. However the role of job-relevant information as a mediating variable can't be supported. The results of this study have important implications for management. Applying budgetary participation in the budgetary process not only enhance managerial performance but more importantly increase managers' accountability and commitment to organization. Managers with high organizational commitment and high accountability are asset for the organization. In the hands of high committed accountable managers, the development of organization can be achieved. The results of this study should be interpreted with caution. First, the present study was conducted in one group of manufacturing company, in Indonesia. Thus the generalization of this results to other companies is limited. Second, the use of self-report questionnaire may introduce bias, especially in measuring managerial performance. Third, this present study only examine three mediating variable. Past research found other potential variable to mediate the relationship between budgetary participation and managerial performance. Therefore, including other variables such as psychological capital (Venkatesh & Blascovich, 2012) and perception of innovation (Yahya et al., 2008) can enhance our understanding of budgetary participation- managerial performance relationship.

Acknowledgment The authors wish to acknowledge the assistance of Dewita Mayan Risa in data collection

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