Gadjah Mada International Journal of Business
January 2004, Vol.6, No. 1, pp. 65 — 83

THE EFFECT OF POLITICAL POWER ON BUDGET MONITORING

A Study of Fertilizer Industry in Indonesia

*Akhmad Syakhroza**

This study examines the role of political power on the process of budget monitoring in the context of the fertilizer manufacturing industry in Indonesia. The objectives of this study are: (a) to investigate the relationship between budget monitoring and managerial roles, (b) to examine the two-way interaction effect between budgets monitoring and politics on managerial roles, and (3) to identify the effect of departmental power on the two-way interaction between budgets monitoring and politics affecting managerial roles. The sample for this study consists of four public sector fertilizer-manufacturing enterprises in Indonesia. This study uses a questionnaire survey supplemented by structured interviews. The questionnaire, adapted from previous studies, utilizes a seven-point Likert scale. Respondents to the questionnaire were middle managers. The results provide substantial evidence that interaction between budget monitoring and politics affect managerial roles; and that the departmental power plays a significant role on such interactions.

Keywords: budget; monitoring; organizational control; politics; rules

* I knowledge the comments of Assoc. Prof Joanna L. Ho and Asoc.Prof. Ida Robinson. I appreciate very much the helpful comments by the participants at Australian New Zealand Management Conference, Auckland, (2001), and the IIUM Asian Pacific Accounting Conference I, Malaysia (2001).

Introduction

Studies of budgeting are mostly rooted in one of the three analytical frameworks —economic, psychological, and social theory (Shield and Shield 1998). There are three major reasons why participants are eager to take part in the budget process. The reasons are information sharing, coordinating interdependencies, and motivation. However, eventhough prior researchers have used the social theory (e.g. Macintosh and Williams 1992; Williams et al. 1997) but they did not view politics as an important factor. Moreover, prior studies on budgeting also did not use politics as one important variable on the relationship between budget monitoring and managerial roles.

Some researchers have explained issues of politics on budgeting process. Pfeffer (1981) used politics as a contingency variable in his study involving state universities and found that political power is a significant variable in the budget allocation process. He maintains that the political activities in organizations are triggered by the uncertainty factor (see also Kreitner and Kinicki 1992; Lawrence and Lorsch 1967; Mintzberg 1973; and Thompson 1967). This argument is consistent with prior budgeting studies in which budgeting process was found to be responsive to environmental uncertainty and task uncertainty (e.g. Brownell and Dunk 1991; Brownell and Hirst 1986; Govindarajan 1986; Williams et al. 1995; Williams et al. 1997). Other studies, e.g. Fernandez et al. (1999) conclude that budget process is a ritual of control and legitimation without the substantive involvement of managers, which again would suggest that it is a political game from top management.

Empirical studies linking politics and the budget process especially in the budget control process are limited. Most studies focus on budget allocation mainly in the context of government agencies (Hackman 1985; Pfeffer and Moore 1980; Pfeffer and Salancik 1974; Wildavsky 1968, 1992). They found that there is a significant positive correlation between budget allocation and political power of the subunit managers. The study is justified on two grounds. *Firstly*, it extends the scope of the enquiry to profit oriented government owned enterprises. *Secondly*, to our knowledge, it is also the first study in this area in the context of a developing country.

Literature Review

Budget monitoring process is a key activity in the whole budgeting process that has been linked to managerial roles. The theory of managerial roles states that managers play the managerial roles in the performance of their day-to-day activities in order to achieve the organization's goals. The process of budget monitoring is an important activity in the implementation of managerial roles (Macintosh and Williams 1992). Prior studies have found a positive significant relationship between budgeting process and managerial roles (e.g. Macintosh and Williams 1992; and Williams et al. 1997). They indicated that participants who participate in the budgeting process would obtain much information from their superiors, subordinates, and others and they also would communicate their own information to other parties. Macintosh and Williams (1992) and Williams et al. (1997) also revealed that transfer of information during the budgeting process would enhance the quality of leader roles and decision roles. Hopwood (1976) pointed out that budget monitoring is a medium for facilitation of the flow of information both horizontally and vertically from superiors to subordinate and vice versa.

From the economic theory point of view, a subordinate knows more about his/her operational activity unit than his/her superior. The budgeting process is used by the superior to gain information from the subordinate (Baiman and Evans 1983; Kanodia 1993; Shield and Shield 1998). The mechanism of budgeting within an organization may minimize "information asymmetry" or reduce uncertainty about subordinate's task and task environment (Shield and Shield 1998). The psychology theory views that involvement of individuals, both superiors and subordinates in the budgeting process would have an implication on their value attainment, cognition, and motivation (Shield and Shield 1998; Locke and Scweiger 1976; Locke and Latham 1990). The value attainment is theorized to affect satisfaction and morale because the activities of budget allows a subordinate to experience self respect and feelings of equality arising from opportunity to express his/her values (Shield and Shield 1998). The mechanism of cognitive process may increase the subordinates' performance through improvement in the quality of budget targets as a result of sharing information between subordinates and superiors (Shield and Shield 1998). According to the theory of motivation, involving subordinates in the budgeting process may help to increase "the subordinate's trust, sense of control, and ego-involvement with organization, which then jointly cause less resistance to change and more acceptable of, and commitment to, the budget decisions, in turn causing improved performance" (Shield and Shield 1998: 59). Following the psychology theory, an important reason for superiors' and subordinate involvement in the budgeting process is to facilitate a better understanding about task and environmental uncertainty and to reduce information asymmetry.

From the social theory point of view, an organization has to face the uncertainties as a significant environment feature of its external. The units would show their differences in responding the environment uncertainty. Therefore, the units need a mechanism such as budget process in order to integrate and to coordinate the units' activities for achieving the organization's objectives (Lawrence and Lorsch 1976; Brownell 1982a). Some budgeting studies have modeled the sociology theory within the organization based on such variables: (1) organization context (e.g. environmental uncertainty) and (2) organization structure (e.g. decentralization, functional differentiation). The contingency theory of the organization has been applied as the theoretical underpinning of the prior social budgeting studies (Hopwood 1976, Otley and Wilkinson 1988; Fisher 1995; Macintosh and Williams 1992; Williams et al. 1997). However, only a limited number of studies of budget control have used political power as a variable.

From the politics point of view, the main reason why individuals participate and involve in the budgeting process is eagerness to maintain and defend their own interests on their budgets. Moreover, individuals would have a "legitimate basis" to use the budget resources (Hopwood 1976; Pfeffer 1986). Political influence on the budgeting process has been studied by several researchers (e.g Covalesky and Dirsmith 1986,1988; Hoque and Hopper 1994; Marginson 1999; and Fernandez et al. 1999).

Some studies indicate that there is a political influence on the budgeting process. For examples, Marginson (1999) pointed out that managers appeared to treat budget information as one part of information jigsaw. He said, "they did not view such information as a control tool either for controlling their own activities or a mechanism of control over others (1999:215)". Instead, they appeared to reflect their needs and purposes in light of fresh information. Managers acted based on the influence being exerted by social (politics) rather than administrative control (budget) for monitoring subordinates performance.

In a case study involving Delta as the subsidiary of a division of one of the major North American multinational car manufacturers which operates in southern Spain, Fernandez et al. (1999) also indicated that the role of budget is a ritual of control and legitimation without substantive involvement of middle managers. They also found that there is some politics involved in the process of budget negotiation in involving divisions. They said that "the budget process took on the character of a ceremonial *activity* as Delta's managers played out a process of negotiation with the financial managers of the European office in order to develop a budget that displayed a 'break-even' income even though the market for Delta's products remained highly problematic (1999: 401)."

Covaleski and Dirsmith (1986) conducted an extended research on budgeting process. They investigated the relationship between budgeting process and managerial roles by interviewing fifty nursing managers (hereafter, NMs) who are responsible for budget in six hospitals. They found that NMs have no political gain to rely on budget when they perform controlling activities because they have a lack of knowledge, skills, and information to analyze and interpret their units budget variance reports. In turn, they prefer to use reports based on their units operation because they have a strong of knowledge and skills to support their arguments in controlling their units activities. Thus, they have power by using those reports instead of the budget report.

Hypotheses Development

According to Macintosh and Williams (1992: 23), "the traditional perspective of management accounting systems depicts them as an important means by which managers carry out the traditional functions of management —planning, organizing, coordinating, and controlling by reference to corporate goals and strategies in order to fulfil organizational objectives. The annual operating budget is one important instance of such system." Mintzberg (1972) developed a theory of managerial roles, which this theory can be used to help managers conducting their management tasks in order to carry out the functions of management. Managerial roles consist of interpersonal roles —leader and liaison, informational roles— environment monitor and spokeperson, and decisional roles —resource allocator and negotiator. For example, a manager should strive to ensure that: (1) his/her unit produces goods or services efficiently, (2) his/her unit adapts to changes in the unit's environment, and (3) he/she makes decisions which are congruent with organizational goals.

A better way to employ the managerial roles is through participating and involving in the budgeting process (Macintosh and Williams 1992; Williams et al. 1997). In the process of budget control, managers would get more and better information, and can develop information from budget variance reports as a basis of controlling their activities. Managers would also use the achievement of budget targets as a main indicator for evaluating their subordinates performance and rewards. The relationship between budgeting process and managerial roles was examined by Macintosh and Williams (1992), Mintzberg (1972), Preston (1986), and Covaleski and Dirsmith (1986, 1988). The studies yielded conflicting results. Macintosh and Williams (1992, see also Williams et al. 1997) provide evidence that there is a strong correlation between budgeting process and managerial roles. However, Mintzberg (1972) failed to support such evidence because managers were found to be reluctant to use budget information; they were rather searching for more current information for decision-making. Managers tend to develop their own networks to collect, store, and disseminate important information that helps them perform their managerial roles. Moreover, Covaleski and Dirsmith (1986) found that no such correlation because, according to them, managers (nurse managers) could gain more by use of their superior technical knowledge rather than politicking with the budget.

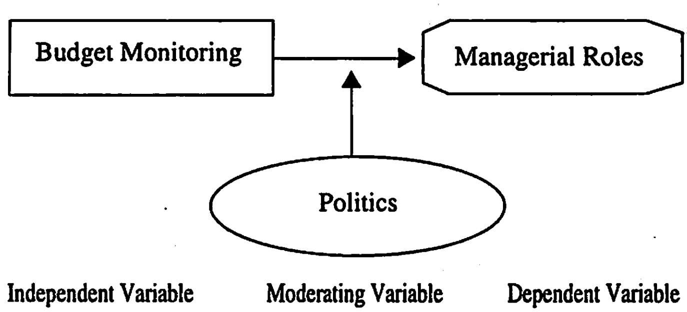
According to the politics theory, individuals within the organization do not have "uniform views" consistent with the overall organizational objectives. They do not act to implement and to attain the organizational interests or objectives but they tend to act based on their operational interests, to be taken for granted as shared and similarity evaluated (Dian-Marie and Morley 1991). The operational interests among units within the organization would vary and these variations in interests may be caused by individuals having differences about purposes, preferences, beliefs, and values (Hopwood 1976; Dian-Marie and Morley 1991; Pfeffer 1981; Marginson 1999) in achieving the organizational objectives. Regarding the relationship amongst individuals in the organization, Dian-Marie and Morley (1991) argued that "the political perspective emphasizes relationship of influence and the way in which these affect, and are affected by the outcomes of decision making process" (p. 61). Difference about purposes, preferences, and values would create conflict of interests and then open a mechanism of negotiation (Pfeffer 1981). The outcome of such negotiation is significantly influenced by power. In other words, when individual interacts with other individuals in decision-making process, they exercise their power to influence the decision making in order to achieve their own desired results.

From the politics point of view, unit managers do not emphasize information from the budget variance reports as a device for controlling their activities (Covaleski and Dirsmith 1986; Marginson 1999; Fernandez, Perez and Robson 1999; and Berry et al. 1985). They do not stand to gain by resorting to politics in the process of monitoring their operational activities (Covaleski and Dirsmith 1986). Unit managers ignore budget information for a number of reasons. *First*, budget may contains general and insufficient information to control local activities (Covaleski and Dirsmith 1986; Marginson 1999). *Second*, budget information is narrowly focused and is financially oriented rather than operationally oriented. Unit managers need more information about operation to monitor their unit activities and unit performance (Kenis 1979; Kurunmaki 1999; Otley 1999; Vaivio 1999). *Third*, budget information is historical in nature and it is not flexible to absorb current information (Hoque 1995; Mintzberg 1972). Also managers do not attempt to obtain and disseminate information for making in depth analysis about budget variances because they have little knowledge and skills to understand and apply the concept of budget in practice (Kurunmaki 1999; Marginson 1999; Fernandez et al. 1999; and Covaleski and Dirsmith 1986). For the above mentioned reasons, unit managers tend to base their analysis more on their own technical reports of the practical operations. The unit manager is likely to be committed to operational reports because these reports contain features of attaining the unit targets. A unit would be evaluated based on the achievement of operational targets rather than budget targets. Covaleski and Dirsmith (1986) noted that unit managers show more power by using technical reports instead of the budget variance reports. They develop their own networks to collect, store, and disseminate important information that helps them perform their management roles in order to attain their local interests (Mintzberg 1972,1973). Each unit produces different reports that tend to be inconsistent with each other, and then create the possibility of conflict with the budget function as a tool of monitoring.

A unit manager still needs information from the budget variance reports to know about budget resources available for his/her unit in order to realize the unit's targets (Preston 1986). Most managers would use all resources on budget plan because the budget plan has been approved and it is legitimate. In contrast, when their budget allocation has not been enough to support achievement of operational targets, unit managers would propose a budget revision. In the budget revision meeting, each unit manager must struggle to protect his or her interests on budget targets. Bargaining power is a dominant factor in the achievement of 'desired' budget revision and renders the budget largely an outcome of the political process (Ibarra 1993; and Pfeffer 1981).

In the process of budget revision, unit managers do not view the organization with the same degree of knowledge, skill, and information (Kurunmaki 1999, Pfeffer 1981; and Covaleski and Dirsmith 1986). They do not exert effort to use, and disseminate budget information aiming at the budget control in coordinating their activities for attaining the organizational objectives as a whole. Instead, they are motivated by their narrow subunit interests through using the information from other reports like unit's activities reports (Preston 1986; Covaleski and Dirsmith 1986; Pfeffer 1981; Mintzberg 1972; Marginson 1999; Fernandez et al 1999; see also Pettigrew 1973; Wildavsky 1968; Kanter 1979; and Feldman and March 1981).

Figure 1. **Theoretical Framework of Study**



Based on the above discussion we conclude that managers, of necessity, have to resort to political means in the budget monitoring to maintain their own local interests. The theoretical framework of the study can be seen in Figure 1.

The following hypotheses are developed in relation to the public sector fertilizer manufacturing enterprises in Indonesia.

H_1: *There is a significant relationship between managerial roles and budget monitoring.*

H_2: *There is a significant two-way interaction effect between budget monitoring and politics on managerial roles.*

Further, a critical factor in creating power within an organization is the role of resource dependence. Every department requires a continuing availability of resources to maintain its activities. A department may enjoy extra political power when it has an ability to bring in critical resources which have influence on the operations of another department or when it is in a position to make decisions that would affect other departments (Brass and Burkhardt 1993; Ibarra 1993; and Pfeffer and Salancik 1978). In the case of fertilizer companies under study, it is suspected that the managers of operating and engineering departments will have more political power to allocate budget resources relative to other departments such as personnel, accounting or public affairs. Based on this argument, the following hypothesis is proposed:

H_3: *The two-way interaction effect between budget monitoring and politics on managerial roles will differ significantly based on departmental power.*

Research Method

Sample

Data for the study was collected by a survey questionnaire, which was sent to a sample of managers who had budget responsibilities. Four of the five large state owned enterprises of Indonesia engaged in the fertilizer industry are included in the study. This sample was chosen for several reasons. This sector has some of the largest companies in the country involving significant formal budgeting activities. Being a public sector industry budgeting is subject to significant political influence.

Data collection

As mentioned before, the sample consisted of four state owned fertilizer manufacturing enterprises in Indonesia. The questionnaire was distributed to 250 middle managers with budget responsibilities and political power of the sample companies. Respondents were chosen from a variety of functional areas including accounting, finance, marketing, operation, engineering, research and development, corporate secretary, and internal control as well.

The questionnaire was distributed through the company's mailing system. Accompanying each questionnaire was a cover letter explaining the research, an endorsement letter from top management encouraging participation in the study, and written instructions for completing the questionnaire. To minimize response bias, respondents were asked to complete the questionnaire independently and to return the questionnaire directly to the researchers in postage-paid return envelopes.

One hundred and ninety one responses were received, a response rate of 76.40 percent. A total of 14 responses were excluded from the study for reasons of incompleteness and/or lack of experience of the respondents in budget setting. Consequently 177 responses (70.80%) formed the basis for analysis.

Measures

The variables measured in the questionnaire include budget control, managerial roles, and politics.

Budget Monitoring. The instrument of this study was adopted from Macintosh and Williams (1992) and Williams et al. (1997). It is aimed to assess the respondent's budget variance analysis and personal attention to budget variances. This is done with the help of a seven point Likert-type scale ranging from one (strongly disagree) to seven (strongly agree). The use of this scale can be defended in terms of reliability and validity (see Brownell 1982; Mia 1988). According to Hair et al. (1998) and Sekaran (2000) a Cronbach Alpha score exceeding .60 indicates acceptable level of reliability. The Cronbach Alpha coefficient of the instrument used is 0.69, which indicates an acceptable degree of reliability. The factor comprises five items with factor loadings ranging from 0.85 to 0.32 and with an eigenvalue greater than one, which explains 66 percent of the total variance. The results of the study show a factor loading greater than 0.30, which indicates the presence of sufficient degree of internal validity for the instrument (Hair et al. 1998; and Coakes and Steed 1999).

Managerial roles. Managerial roles is defined as sets of managers' behaviors attributable to their jobs to perform the management functions —planning, organizing, leading, and controlling in order to achieve organization goals (McKenna 1999; Vecchio et al. 1997; Robbins 1993; Williams and Macintosh 1992; and Mintzberg 1973). Seven managerial roles were utilized following McCall and Segrist (1978), Tsui (1984), and Macintosh and William (1992). Initially McCall and Segrist (1978) designed a 46-item questionnaire to measure Mintzberg's ten role categories. They found only six roles and concluded that these were generalizable across management levels, functional specializations, and public and private sectors. Further Tsui (1984) used 40 of 46 items (dropping the six lowest-loading items), and a factor analysis confirmed *a priori* factor structure of the six managerial roles. Later Macintosh and William (1992) used 20 of Tsui's highest- loading items to construct their six role variables. In this study, we used 14 of the 46-items to construct the six role variables. The instrument attempted to assess managerial roles of respondents as leader, liaison, disseminator, spokesperson, environment monitor, and negotiator.

To measure managerial roles, the study used a seven point Likert-type scale ranging from one (strongly disagree) to seven (strongly agree). Previous studies (e.g. William et al 1990; Macintosh and William 1992) in this area have found the scale appropriate. For testing the reliability of the instrument, the Cronbach Alpha coefficient was 0.72, which indicates a high level of internal consistency. The results from the factor analysis of fourteen items revealed that four factors were extracted with an eigenvalue greater than one that explains 86 percent of the total variance. Since all of these factor loadings are, greater than 0.30 results are considered satisfactory in respect of internal validity.

Politics. Lasswell (1936) defined politics as "who get what, when, and how". Other scholars view politics as a power in action. Political activities focus around the acquisition and use of power. Power, in turn, is defined as any force that results in behavior, which would not have occurred if the force had not been present (Mechanic 1962). Power has also been defined as the ability of one actor to overcome resistance in achieving a desired result (Brass and Burkhardt 1993; House 1988; Pfeffer 1981). Others define power as the ability to affect outcomes or to get things done (Mintzberg 1983; Pfeffer 1981). Power is manifested through behavioral action (Brass and Burkhardt 1993). Blair (1988) measured politics based on Pfeffer's (1981) political characteristics using a 6-item questionnaire. In the study, the six items in the instrument relate to the measurement of the politics. They are aimed at assessing political behavior of respondents including heterogeneous goals and preferences, push and pull of different interests, conflict of interest, budget performance indicator, bargaining process, and struggle effort.

The variable politics is measured using a seven point Likert-type scale ranging from one (strongly disagree) to seven (strongly agree). The Cronbach Alpha coefficient was 0.71 indicating that the measure is reliable. Testing validity of the seven items, factor loading revealed two factors with eigenvalues greater than one that explains 61 percent of the total variance. Again, these numbers lend support that the instrument is internally consistent.

Moderated Regression Analysis

A moderated regression analysis was used to determine the interaction effects (Cohen and Cohen 1983; Arnold 1982;1984; Champoux and Peters 1987; Hartmann and Moers 1999) between budget control and politics on managerial roles. Two-way interactive models were applied to examine the main effect and interaction effects for the independent variables. To investigate effect of department power on such relationship, researcher conducts "split-file", department operations were coded 1 and otherwise 0. The relationship between the variables as shown in the following models:

For hypothesis 1 and 2

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1X_2 + \varepsilon \qquad (1)$$

For hypothesis 3

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1X_2 + \varepsilon \qquad (1a)$$

$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1X_2 + \varepsilon \qquad (1b)$$

where,
Y = managerial roles,
X_1 = budget monitoring,
X_2 = politics, and
Y_1 = operation departments,
Y_2 = non-operation departments, and
ε = the error terms.

Equation 1 is used to analyze the main effect, and two-way interaction effects whereas equation 1a and 1b are used to analyze the comparison two-way interaction effects on managerial roles between operation departments and otherwise.

Results

Descriptive statistics for the variables examined in this study appear on Table 1. Table 2 presents the correlation matrix for the variables. Table 3 shows the *R* square change and Tables 4, demonstrates the coefficient of variables based on departmental power, and Figure 3 show a picture of comparison between operation departments and non-operation departments.

Descriptive Statistics

On the seven point Likert scale responses ranged between 2 (disagree) to 7 (strongly agree). Responses indicate that most respondents tended to "agree" on the items of budget monitoring, managerial roles, and politics. The mean values of all the items are above the median of scale 3.5. The variances for budget monitoring, managerial roles and politics are high, showing a considerable measure of dispersion around the mean.

Pearson Correlation

The Pearson correlation matrix obtained for the three variables is shown on Table 2. The Pearson correlation coeffi-

Table 1. **Descriptive Statistics**

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Budgetary Monitoring	177	4.88	2.00	6.88	4.4216	.8153	.665
Managerial Roles	177	5.00	2.00	7.00	4.4123	.8764	.768
Politics	177	5.00	2.00	7.00	4.4189	.8492	.721
Valid N (listwise)	177						

Table 2. **Correlations**

		Managerial Roles	Budgetary Monitoring	Politics
Managerial Roles	Pearson Correlation	1.000	.868 **	.667 **
	Sig. (2-tailed)	-	.000	.000
	N	177	177	177
Budgetary Monitoring	Pearson Correlation	.868 **	1.000	.700 **
	Sig. (2-tailed)	.00	-	.00
	N	177	177	177
Politics	Pearson Correlation	.667 **	.700 **	1.000
	Sig. (2-tailed)	.00	.00	
	N	177	177	177

**= Correlation is significant at the 0.01 level (2-tailed)

Table 3. **R-Square Change**

Model	R	R-Square	Adjusted R-Square	Std. Erroe of the Estimate	R-Square Change	F-Change	df1	df2	Sig. F-Change
1	.868[a]	.753	.762	.4368	.753	533.638	1	175	.000
2	.872[b]	.760	.757	.4317	.007	5.100	1	174	.025

a= Predictors (Constant), Budgetary Monitoring
b= Predictors (Constant), Budgetary Monitoring Politics

cient was appropriate since the study used ratio-scaled variables (Husey and Husey 1997; Cooper and Emory 1995; and Sekaran 2000). The correlations between variables have been significant. The results reveal a high positive correlation between managerial roles and budget monitoring at the 10 per cent level with $r = 0.868$ and positive correlation between managerial roles and politics at the 10 per cent level with $r = 0.667$ while the coefficient of correlation between budget monitoring and politics as independent variables is medium with $r = 0.70$ at the 10 per cent level.

Analysis of Hypothesis One

Hypothesis 1 stated that:

H_1: *There is a significant relationship between budget monitoring and managerial roles.*

Table 3 presents the results of the standardized moderating regression model used to generate the coefficients of the *Equation 1*. The results in Table 3 indicate that the correlation between budgetary monitoring and managerial roles is r=0.86. The direct effect is significant and provides support for H_1. That is, budget monitoring has a significant positive direct effect on managerial roles. The results of the study as shown in table is consistent with prior studies by Macintosh and Williams (1992) and Williams et al. (1997).

Analysis of Hypothesis Two

Hypothesis 2 stated that:

H_2: *There is a significant two-way interaction effect between budget monitoring and politics on managerial roles.*

This hypothesis was tested using the *Equation 1*. Table 3 provides the results of

Figure 2. **Role of Politics on the Relationship between Budgetary Monitoring and Managerial Roles**

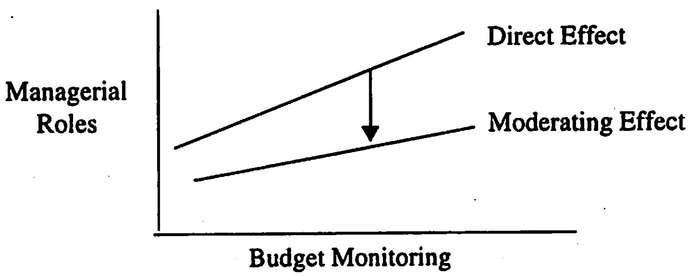


Table 4. **Table Coefficients**[a]

Model		Unstadardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.288	.182		1.586	.115
	Budgetary Monitoring	.933	.040	.868	23.101	.000
2	(Constant)	.143	.191		.751	.454
	Budgetary Monitoring	.844	.056	.786	15.109	.000
	Politics	.121	.054	.117	2.258	.025

a= Dependent Variable: Managerial Roles

moderating regression model used to generate the *R* square change from main effect to interaction effect of the equation model. The results indicate that the interaction term was significant and provided support for H_2. The effect of interaction is indicated by R^2 change from direct effect to moderating effect (Cohen and Cohen 1975; Arnold 1982, 1984; Stone and Hollenbeck 1984; Champoux and Peters 1987; and Hartman and Moers 1999). The incremental of R^2 is 0.007 and significant. Our findings are consistent with prior studies by Wildavsky (1968, 1992), Mintzberg (1972), Hopwood (1976), Pfeffer and Salancik (1974), Hackman (1985), and Hoque and Hopper (1994).

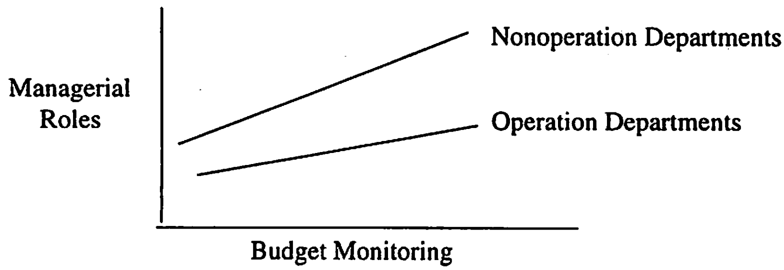
Figure 2 and Table 4, indicates that there is a "negative" effect of politics on the relationship between budget monitoring and managerial roles. In other words, politics weaken such relationship. It means that managers within organization act to meet specific goals for their individual units, and then they spend much time and effort on the attainment of specific goals rather than being concerned with how to achieve the overall organizational objectives. As a result, managers tend to be reluctant to use budget information and develop networking to seek other information from various resources either from their own individual unit reports or from informal information.

Table 5. **Coefficients**[a]

			Unstadardized Coefficients		Standardized Coefficients		
Operational Department	Model		B	Std. Error	Beta	t	Sig
00	1	(Constant)	.295	.253		1.162	.248
		Budgetary Monitoring	.933	.058	.866	16.212	.000
	2	(Constant)	.242	.263		.921	.360
		Budgetary Monitoring	.879	.095	.813	9.213	.000
		Politics	6.761E-02	.090	.67	.755	.452
1.00	1	(Constant)	.249	.267		.932	.354
		Budgetary Monitoring	.937	.058	.868	16.142	.000
	2.	(Constant)	5.716E-03	.282		.020	.984
		Budgetary Monitoring	.837	.072	.776	11.707	.000
		Politics	.157	.069	.151	2.275	.025

a= Dependent Variable: Managerial Roles

Figure 3. **Role of Department Power**



Analysis of Hypothesis Three

Hypothesis three concerning department's power stated that:

H_3: The two-way interaction effect between budget monitoring and politics on managerial roles will differ significantly based on departmental power.

This hypothesis was tested using the equation model (1a and 1b) by conducting a split-file based on sources of power. Table 4 provides the results of moderating regression model used to generate the coefficient of the equation. The strength of the interaction effects is shown by the rate of changing in slope of the regression line (Arnold 1982,1984; Champoux and Peters 1987; and Hartmann and Moers 1999). The results indicate that the interaction term was significant and provided support for H_3.

Figure 3, clearly indicated that operation departments have more political power than non-operation departments in influencing the budget decisions. This is consistent with prior studies (e.g Wildavsky 1968 1892; Pfeffer and Salancik 1974; Hackman 1985; see also Covalesky and Dirsmith 1986,1988; Hoque and Hopper 1994; Marginson 1999; and Fernandez et al 1999).

Conclusion

This research study has investigated the two-way interaction effects between budget monitoring, politics on managerial roles, and also has examined effect of department's power on the two-way interaction effect. A conceptual framework developed from accounting, organizational behavior and management literature decomposed the three variables into components and generated three hypotheses about the relationship among variables. Operationalization of the conceptual variables occurred in a survey questionnaire whose item design addressed their various aspects. One hundreds and seventy seven middle managers from four of the five large public companies in the fertilizer industry responded to the questionnaire.

The findings of the study confirmed all hypotheses for which this study obtained evidence, demonstrating that the role of politics on the budgetary monitoring is significant. It is clear that one of the functions of the budget that of coordinating functional activities has not had the desired effect of reducing information asymmetry. Harmonization of task interdependency between subunits or units for achieving organizational objectives is not seen as a reason for individuals to be involved in the process of budget monitoring. All individuals do not have the same perception about the budget's functions, especially with regard to performing their managerial roles to contribute to the achievement of organizational objectives. In the process of budget monitoring, all individuals tend to respond to changes in the environment by focusing on individual interests rather than the interest of the organization as a whole.

The role of politics on the budgetary monitoring differs across the sources of power. The study indicates that operational units are in a better position for bargaining in the budgetary monitoring than other the units. The results of the study contain basic validation for viewing the budgeting process from a management accounting perspective, which may include consideration of political influence. This conceptual framework contrasts with one which views the budgeting process as purely technically or economically determined.

The study also contributes to the management accounting literature. The results support the perspective that a consideration of the social contingency variable of politics is essential in dealing with the process of budgetary monitoring. A broader viewpoint, which allows for the interaction of operating context and behavior, is a more appropriate and comprehensive way of considering the budgeting process configuration. From a management accounting viewpoint, the results point to a clear conclusion: the role of political behavior in the process of budgeting. The moderating effect of politics in the relationship between the budgetary monitoring and managerial roles differs appreciably depending on the sources of power.

Limitations

There are some limitations from this study. *First* there is the possibility that dependent and independent variables are contaminated by uncontrolled extraneous environmental variables. As a result, the measures of the independent variables may not be sufficiently sensitive to capture all the effects on the dependent variables. Measurement of the dependent variables also may fail to capture all the variance caused by the independent variables.

Second, inferences of causality have been suggested in the theory and were used as the basis for development of this study; however, it is plausible for the causal linkage to be in the reverse direction. Specifically, it is possible that units with high political power choose to be extensively involved in the process of budgetary monitoring in order to maintain their own interests.

Third, the data used in this study was elicited by a questionnaire survey. The Likert-type scales used to measure budgetary monitoring, managerial roles, and politics assume that identical scores across respondents are indications of identical characteristic values. It seems unlikely that this is absolutely true, even though the examination of correlations of item scores found no evidence to the contrary.

Fourth, respondent selection within the companies sampled for this study was not random, because it was conducted through the internal mailing system of the company, which may have biased the sample. Bias may have resulted from the fact that companies selected the respondents for the questionnaire survey. *Fifth*, another possible source of bias is in the fact that the researcher found it was not possible to control the size of units involved in the study, resulting in a greater variation in unit size than was initially desired.

Finally, organizations in different industries may have different effect of politics on the budgetary monitoring than those indicated here. However, to determine this, the use of organizations across industries would be necessary; the present study was completed within a single industry. Therefore, any generalization about the role of politics on the budgetary monitoring may be statistically and logically unjustifiable.

Scope for Future Research

Future research should be directed toward improving the conceptual framework of this study. An understanding of the moderating effect of politics on the relationship between managerial roles and budgetary monitoring is in the embryonic stage of development. The conceptual process has been defined, yet there is little empirical evidence that directly supports its premises.

This study was an attempt to bring together theoretical underpinnings and empirical data. The progression of the model was an explanatory process that built the concept of moderating effect of politics in the relationship between managerial roles and budgetary monitoring. Consideration of moderating variables as a driving force in the relationship between managerial roles and the budgetary monitoring is well established in the literature. Hopefully, this study will advance the thinking of scholars in this direction and create interest in replicating this method of analysis and validating the findings.

The conceptual model should also be applied to the role of politics on the budgetary monitoring in other industries. This would provide the information needed to assess the external validity of the model. The data for this study was collected from public enterprises, future investigation should be extended to private enterprise and not-for-profit organizations to provide bases for comparison. Such comparisons would question the origins of the contingency theory as grounded in the works of Thompson (1967), which suggests that whether or not a profit motive is pursued is not of concern to contingency theory.

The effect of politics in the budgetary monitoring may display different patterns across cultural norms such as organization type and size. This study's evaluations were based on a questionnaire survey of middle managers. A more diverse range of responses might be forthcoming in a study using mangers in a wider cross-section of hierarchical positions as respondents. It is to be hoped that other scholars will take up the baton and pursue these avenues in future research.

Reference

Arnold J. Hugh. 1982. Moderator variables: A clarification of conceptual, analytic, and psychometric issues. *Organizational Behavior and Human Performance* 29: 143-174.

Arnold J. Hugh. 1984. Testing moderator variable hypotheses: A reply to Stone and Hollenbeck. *Organizational Behavior and Human Performance* 34: 214-224.

Baiman S., and Evans H. (1983). Pre-decision information and participative management control systems. *Journal of Accounting Research* 21: 371-395.

Berry, A. J., T. Capps, D. Cooper, P. Ferguson, T. Hopper, and E. A. Lowe. 1985. Management control in an area of the NCB: Rationales of accounting practices in a public enterprise. *Accounting, Organizations and Society* 10 (1): 3-28.

Brownell P., and A. Dunk. 1991. Task uncertainty and its interaction with budgetary participation and budget emphasis: some methodoligical issues and empirical investigation. *Accounting, Organisations and Society* 16: 693-703.

Brownell P. and M. Hirst. 1986. Reliance on accounting information, budgetary participation, and task uncertainty: Tests of a tree-way interaction. *Journal of Accounting Research* 24: 241-249.

Blair, T. J. 1988. The relationship of organizational strategy, decisions unit structure, and political power activity to strategic problem formulation. *PhD dissertation*. University of Texas at Austin, Texas at Austin.

Brass, D., and M. E. Burkhardt. 1993. Potential power and power use: An investigation of structure and behaviour. *Academy of Management Journal 36*: 441-470.

Champoux. E. J., and P. S. William. 1987. Form, effect size and power in moderated regression analysis. *Journal of Occupational psychology* 60, p.243-255.

Coakes, J. S., and S. G. Lyndall. 1999. *SPSS: Analysis without anguish*. Singapore: John Wiley & Sons.

Cohen J., and C. Cohen. 1975. *Applied Multiple Regression/Correlation Analysis for the Behavioural Sciences*. Hillsdale, NJ: Lawrence Erlbraum Associates, Inc.

Cooper, R. D., and E. C. William. 1995. *Business Research Method*. Fifth edition. USA: Richard D. Irwin.

Covaleski, M. A., and M. W. Dirsmith. 1986. The budgetary process of power and politics. *Accounting, Organizations, and Society* 11: 193-214.

Covaleski, M. A., and M. W. Dirsmith. 1988. The use of budgetary symbols in the political arena: an historically informed field study. *Accounting, Organizations, and Society 13* (1) 1-24.

Dian-Marie H., and I. E. Morley. 1991. *A Social Psychology of Organizing: People, Processes and Contexts*. New York: Harvester Wheatsheaf.

Feldman, M., and J. G. March. 1981. Information in organizations as signal and symbol. *Administrative Science Quarterly* 26: 171-186.

Fernandez, L., R. Perez, and K. Robson. 1999. Ritual legitimation, de-coupling and the budgetary process: managing organizational hypocrisis for multinational company. *Management Accounting Research* 10: 383-407.

Fisher, J. G. 1995. Contingency-based research on management control systems: Categorisation by level of complexity. *Journal of accounting literature* 14: 24-53.

Govindarajan, V. 1986. Impact of participation in the budgetary process on managerial attitudes and performance: Universalistic and contingency perspectives. *Decision Sciences* 17: 496-516.

Hackman, J. D. 1985. Power and centrality in the allocation of resources in colleges and universities. *Administrative Science Quarterly* 30: 61-77.

Hair F. J., E. R. Anderson, L. R. Tatham, and C. W. Black. (1998). *Multivariate Data Analysis* (5th ed.). New Jersey: Prentice.

Hartman. G. H. F., and F. Moers. 1999. Mini review: Testing contingency hypotheses in budgetary research: an evaluation of the use of moderated regression analysis. *Accounting, Organizations and Society*. 24: 291-315.

Hoque, Z. 1995. Budgetary control systems in public sector enterprises in a developing country: Some evidence from Bangladesh. *The International Journal of Accounting* 30: 344-355.

Hoque, Z., and T. Hopper. 1994. Rationality, accounting and politics: A case study of management control in a Bangladeshi jute mill. *Management Accounting Research* 5: 5-30.

Hopwood, A. 1976. *Accounting and Human Behaviour.* Englewood Cliffs, NJ: Prentice Hall.

House, R. J. 1988. Power and personality in complex organizations. In I. B. W. S., and L. L. C. (Eds). *Research In Orgnaizational Behaviour* 10: 305-357. Greenwich,CT: JAI Press.

Hussey. J., and R. Hussey. 1997. *Business Research: A Practical Guide for Undergraduate and Postgraduate Students.* London: Macmillan Press.

Ibarra, H. 1993. Network centrality, power, and innovation involvement: Determinants of technical and administrative roles. *Academy of Management Journal* 36 (3): 471-504.

Kanodia. C. 1993. Participative budgets as coordination and motivation devices. *Journal of accounting research* 31: 172-189.

Kanter, R. M. 1979. Power failure in management circuits. *Harvard Business Review* 57 (4): 65-75.

Kenis, I. 1979. Effects of budgetary goal characteristics on managerial attitudes and performance. *The Accounting Review* 54: 707-721.

Kreitner, R., and A. Kinicki. 1992. *Organizational behavior.* (2 ed.). Homewood, IL: Irwin Co.

Lasswell, D. H. 1936. Politics: who gets what, when, how. In J. Pfeffer (Ed.), *Power in Organizations.* New York: McGraw Hill.

Lawrence, P., and J. Lorsch. 1967. *Organization and Environment*: Homewood, II: Irwin.

Locke E.A., and G. Latham. 1990. *A Theory of Goal Setting and Task Performance.* Englewood Cliffs, NJ: Prentice hall.

Locke E.A., and D. Schweiger. 1979. Participation in decision-making: One more look. *Research in Organisational Behavior* 1. Greewich, CT: JAI press.

Macintosh, N. B., and J. J. Williams. 1992. Managerial roles and budgeting behaviour. *Behavioral Research in Accounting* 4: 23-48.

Marginson, D. E. W. 1999. Beyond the budgetary control system: Towards a two-tiered process of management control. *Management Accounting Research* 10: 203-230.

McCall, M. W. Jr., and S.A. Segrist. 1980. In pursuit of the manager's job: Building on Mintzberg. *Technical Report* 14. Centre for creative leadership (Greensboro, NC).

McKenna, R. 1999. *New Management*. Australia: Irwin-McGraw-Hill

Mechanic, D. 1962. Sources of power of lower participants in complex organizations. *Administrative Science Quarterly* 7: 349-364.

Mia, L. 1988. Managerial attitude, motivation and effectiveness of budget participation. *Accounting, Organisations and Society* 13: 465-476.

Mintzberg, H. 1972. The myth of MIS. *California Management Review* (Fall): 929-997.

Mintzberg, H. 1973. *The Nature of Managerial Work*. New York: Harper and Row.

Mintzberg, H. 1983. *Power in and Around Organizations*. Englewood Cliffs, NJ: Prentice Hall.

Otley, D. T. 1999. Performance management: A framework for management control systems research. *Management Accounting Research* 10: 363-382.

Otley, D.T., and C. Wilkinson. 1988. Organisational behavior: Strategy, structure, environment, and technology. In K., Ferris, (ed). *Behavioural Accounting Research: A Critical Analysis*: 147-170. Columbus, Ohio: Century VII publishing company.

Pettigrew, A. M. 1972. Information control as a power resource. *Sociology* (May): 187-204.

Pfeffer, J. 1981. *Power in Organizations*. Marshfield, MA: Pitman Publishing Company.

Pfeffer, J., and W. L. Moore. 1980. Power in university budgeting: A replication and extention. *Administrative Science Quarterly* 25: 637-653.

Pfeffer, J., and G. R. Salancik. 1974. Organizational decision making as a political process: The case of a university budget. *Administrative Science Quarterly 19* 135-151.

Preston, A. 1986. Interaction and arrangement in the process of informing. *Accounting, Organizations, and Society 11*(6), 521-540.

Robbins, S. P. 1993. *Organizational Behaviour*. (6th Ed.). Englewood Cliffs, NJ: Prentice Hall.

Sekaran. U. 2000. *Research Methods for Business: A Skill-Building Approach* (3rd Ed.). New York: John Wiley& Sons.

Shield. J. F., and M. D. Shield. 1998. Antecedents of participative budgeting. *Accounting, Organisations and Society* 23 (1): 49-76.

Stone F. E., and R. J. Hollenbeck. 1984. Some issues associated with the use of moderated regression. *Organizational Behavior and Human Performance* 34: 195-213.

Thompson, J. D. 1967. *Organizations in Action*. New York: McGraw Hill.

Tsui, A. S. 1984. A role set analysis of managerial reputation. *Organisational Behavior and Human Performance* 34 (1): 194-209.

Vaivio, J. 1999. Exploring a "non-financial" management accounting change. *Management Accounting Research* 10: 409-437.

Vecchio, R. P., G. Hearn, and G. Southey. 1997. *Organizational Behaviour* (2nd Ed.). NSW, Australia: Harcourt Brace.

Wildavsky, A. 1968. Budgeting as a political process, In *the International Encyclopedia of the Social Science* 2: 192-199. New York: Crowell, Collier and Macmillan.

Wildavsky, A. 1992. *The New Politics of Budgetary Process* (2nd Ed.). New York: Harper Collins Publishers.

Williams, J. J., Hua, and M. Liu. 1995. Budget participation and satisfaction: The influence of managerial interactions and task uncertainty. *Accounting and Business Review* 2(1): 85-110.

Williams, J. J., M. H. Lee, L. H. Chung, and S. L. Chan. 1997. The moderating effects of task uncertainty on the relationship between managerial roles and budget-related behaviour. *Accounting and Business Review* 4 (2): 339-364.

Williams, J. J., N. B. Macintosh, and J. C. Moore. 1990. Budget related behaviour in public sector organizations: some empirical evidence. *Accounting, Organizations, and Society* 15: 221-246.