

## AN EMPIRICAL INVESTIGATION OF FACTORS CONTRIBUTING TO BUDGETARY SLACK

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### ABSTRACT

*Although research studies on budget slack have identified the technical existence of budget slack, they lack explanatory detail about the manner in which budget slack takes place within the particular organizational context. The focus of research reported in this paper is to identify and empirically investigate the sources that create budget slack. A questionnaire was developed and used to obtain departmental managers' perception on budget slack. A total of 307 questionnaires were sent to department managers in theory companies out of which 168 questionnaires were returned giving a response rate of 55 percent. The model was estimate using the ordinary least squares method. Two versions of the model were tested on in the linear form and the other using the nonlinear form. the rationale for using the quadratic form was that the theory indicated that the budget participation variable appears to have a nonlinear relationship with the dependent variable. The results of both versions of the regression model used in this paper indicates that modern corporations provide enough scope and opportunity for management to inject and maintain significant budget slack for their own advantage. The regression results specifically indicate that budget slack increase with budget participation, the degree of decentralization, and the linkage of budgets to company reward system.*

### INTRODUCTION

The factors that contribute to budget slack at the firm level have been the subject of considerable research interest in the past. Recently, Murray (1990); Kirby et. al. (1991); Leung and Dunk (1992); Kren (1993); and Dunk (1993) have revived research interest in this topic.

Discussion of budget slack appeared in the accounting literature following Barnard's (1938) introduction of the concept of organizational slack. Simon (1957) and March and Simon (1958) used the term "slack" to describe an organizational situation when payments made to employees exceed the amount necessary to retain them as willing contributors to the organization. The work on budget slack was extended by Cyert and March (1963); Williamson (1964); Leibenstein (1966); Schiff and Lewin (1968); Onsi (1975); and Neuman (1975), among others. These early works primarily investigated the extent and sources of budget slack.

Williamson (1964) found a high correlation between the existence of slack and efforts to reduce cost. Although Williamson's data supported the existence of slack, he did not specifically relate it to the annual budgeting process. Schiff and Lewin (1968) concluded that slack accounted for as much as 20-25 percent of a firm's budgeted operating expenses. Onsi's (1975) research indicated that 80 percent of the managers of large corporations bargained for slack in the budgeting process. Onsi also shoed that slack existed in both good and bad economic conditions. He found that managers were more included to protect themselves by increasing the amount of slack during adverse economic conditions. He confirmed the earlier finding by Cyert and March (1963) that managers were more inclined to protect themselves by building slack during good economic times and using slack during adverse economic conditions.

Leibenstein (1966) observed that many firms were unable to maximize profits or minimize costs because they experienced a significant difference between actual and minimum costs. Consequently, these firms were forced to settle for sub-optimal performance. Leibenstein, therefore, equated budget slack with inefficiency in resource utilization.

Although these studies identified the technical existence of budget slack, they lacked explanatory detail about the manner in which budget slack takes place within the particular organizational context. Furthermore, a shortcoming

of previous budget slack research is its inability to measure the amount of budget slack. The focus of this research is to identify and empirically investigate the perceived sources that lead to creation of budget slack.

### SOURCES OF BUDGET SLACK

Schiff and Lewin (1968) determined that budget slack is created as a result of management's conscious and intentional behavior through the budgetary process. The study identified five specific means of creating budget slack: underestimation of revenues; inclusion of discretionary increases in the number of staff personnel; establishment of sales budgets with limits on funds to be spent; and inclusion of special discretionary projects.

Budget slack can be influenced by economic conditions. Managers rationalize the creation of budget slack because of the perception that they will derive some organizational or personal benefit. At the organizational level, the benefit means the creation of a buffer that would assist the firm in adjusting to changing economic conditions without experiencing major re-deployment of resources (Williamson, 1964). Cyert and March (1963) found that organizational slack increased during prosperous economic times because individual and subgroup objectives created a demand for excess resources within the organization. The study illustrates this point by suggesting that during periods of business expansion, managers are offered excessive compensation, thereby building budget slack. During bad economic times the budget slack is absorbed. This discussion leads to the notion that good economic conditions will lead to the creation of budget slack.

The structure of the organization is another source of budget slack. Studies by Schiff and Lewin (1968, 1970) found that a firm's degree of decentralization is related to the existence of budget slack. The earlier study found that the type of control system is a significant factor in determining the extent of budget slack. Firms decentralize decision making in order to improve the decision making process, to enhance the evaluation of decisions, and to tighten control over costs. The main feature of a decentralized control system is the establishment of control centers at division and subdivision levels. In a decentralized environment, budgets are viewed as tools for delegating authority. Schiff and Lewin [1970] reported that in decentralized companies, managers' propensity to inject slack was influenced by their perception of top management's ability to control budget slack. Managers in decentralized environments tended to accumulate budget slack by such practices as underestimating gross revenues and including discretionary increases in expenditures. They noted this by pointing out that decentralized divisions are more remote from corporate headquarters and, therefore, top management is less aware of the extent of accumulated budget slack.

Hall (1972) concluded that distribution of resources within an organization, including budgetary items, was significantly affected by the system of delegating authority. In addition, Pfeffer and Salancik (1978) found that once an organizational unit obtained delegated power, it tried very hard to maintain that power since more powerful units often receive more resources. Therefore, the amount of budget slack is likely to be related to the degree of centralization in the organization.

There are wide differences among firms in the degree and form of management participation in the budgetary process. The expectation of being able to inject budgetary slack tends to increase if managers perceive that they can participate in the formulation of the budget. Caplan (1971) argued that participation of managers in the budgetary process plays a crucial role in the creation of budget slack. Studies by Ronen and Livingstone (1975); Kenis (1979); Merchant (1981); Antle and Eppen (1985); Brownell and McInnes (1986); and Murray (1990) supported the relationship between participation and budget slack. Onsi (1975) indicates that the greater the degree of participation of managers in the budgetary process the greater the opportunity for managers to influence resource allocation thereby creating budget slack. More recently, Kirby et. al. (1991); Leung and Dunk (1992); Dunk (1993); and Kren (1993) have also identified participation and control systems as factors contributing to budget slack.

Swieringa and Moncur (1972) suggested that companies vary in the degree and form of management participation allowed in the budgetary process. At high levels of participation, companies might employ such participatory methods as group decision making and the sharing of budget responsibility. Studies by Benke and O'Keefe [1980] and Swieringa and Moncur (1972) determined that highly participative budgetary systems provided opportunities for the injection of budget slack.

Caplan (1971) studied organizations which were at the low end of the participative budgeting scale. He commented that such organizations may simply be involved in pseudo participation by subordinates in the budgetary process. Managers were expected to support the budget proposed by top management. In such cases, subordinates

might feel that they had to build budget slack to protect themselves. Dunk (1993) argued that there is a relationship between budget participation and slack. This relationship, however, is contingent upon the levels of budget emphasis and information asymmetry. It thus appears that the existence of budget slack may be influenced by the relative extremity of the degree of budget participation. Therefore, the budget slack variable may be related to degree of participation in a U-shape form.

Researchers have identified budget pressure as another significant factor contributing to the development of budget slack (Schuler 1980; Irvin 1979; Swieringa 1975; French and Caplan 1972; and Erikson et. al. 1972). The budgetary process requires commitment on the part of the individuals involved. The prospect of not achieving budgetary goals could be a source of pressure on the individual. This pressure creates tension as the individual attempts to overcome the pressure through creation of budget slack (Caldwell and O'Reilly, 1982). Earlier, Kenis (1979) had shown that managers who were held responsible for attainable goals did not feel pressured and were not inclined to create budget slack. Thus, it seems likely that the tendency to create budget slack increases with budget pressure.

The linkage of rewards to budgetary performance is also possible source of budgetary slack. Several studies have documented that anticipated rewards help motivate performance by the employee. The ability of a monetary reward system to motivate employees depends on whether the employee regards the system as having valence and whether they believe that higher performance leads to attainment of rewards (Vroom, 1964). Thus, the major determinate of how compensation influences motivation to perform depends upon the perceived relationship of performance and pay (Lawler, 1971). Generally, the stronger the linkage between reward and performance, the higher the motivation (Heneman et al., 1980). Lawler (1971) suggested that a necessary condition for pay to motivate performance was the belief on the part of the employee that good performance would lead to higher pay.

Reinforcement theory extends the explanation of performance behavior as being conditioned by rewards. Studies by Skinner (1969); Miller (1975); and Tarpy (1974) concluded that the use of stimuli (financial rewards) motivates the employee to perform the desired behavior. Similarly, Locke's (1968) theory of motivation underscores the importance of rewards as a major factor in the level of performance that workers aspire and achieve. The role of reward structure as a reinforcer in the relationship between budgetary participation and performance was also studied by Cherington and Cherington (1973). They reasoned that a reward structure which was based on budget achievement would represent appropriate reinforcement for the participants in the budgetary process. Based on the foregoing analysis, the argument can be made that when budget performance is lined to a company's reward system, managers are motivated to inject budget slack.

## METHODOLOGY

The analytical model used in this study was based on the variable specification developed in the previous section. The theoretical model proposed to explain the sources of budget slack can be written as:

$$BS = f(BPAR, CEN, BP, BLRS, EC)$$

where

BS	= indicator of budget slack;
BPAR	= degree of budgetary participation;
CEN	= degree of centralization;
BP	= degree of budget press;
BLRS	= linkage of the reward system to budgets, and
EC	= state of economic conditions.

## RESEARCH HYPOTHESES

- H<sub>1a</sub>: There is a positive and nonlinear relationship between budgetary slack and the degree of budgetary participation.
- H<sub>2a</sub>: There is an inverse relationship between budgetary slack and the degree of centralization.
- H<sub>3a</sub>: There is a positive relationship between budgetary slack and the degree of budget pressure.
- H<sub>4a</sub>: There is a positive relationship between budgetary slack and the linkage of the reward system to budgets.

H5<sub>1a</sub>: There is a positive relationship between budgetary slack and the state of economic condition.

### DATA COLLECTION

In order to sample a representative variety of organizational environments, field research methodology was used. As Ferriera and Merchant (1992) pointed out, the term field research has varying usage in the accounting literature. Burgstahler and Sundem (1989) and Kim (1988) define fields studies to include all research that utilizes investigator involvement with subjects and observation of real work tasks. Innes and Mitchell (1990) indicate that field studies are helpful in developing a framework for the analysis of how numerous factors combine and interact to provide a *real world setting*. Kaplan (1986) suggests that field studies are practical means to ascertain how management accounting changes. Similarly, Cooper (1983) argues that the field study approach provides a better understanding of the nature of current accounting than other research approaches. Another advantage of using field study methodology is that it is easily adaptable to exploratory studies where research seeks to determine whether a number of variables in a social structure are related ) Kerlinger, 1973).

Hopwood (1983) recommends studying management accounting at a micro level within the context in which it takes place. The use of field studies can improve the awareness of the forces that impact upon the accounting process and changes. Furthermore, the field study approach has been advocated as a first step in investigating new problems and research areas in management accounting and control (Roberts & Scapens 1985; Tomkins & Groves, 1983).

A questionnaire was used to obtain departmental managers' perception in thirty companies in a major metropolitan area (see Appendix A for a summary of the companies selected for this study). A total of 307 questionnaires were sent to department managers in these companies out of which 168 questionnaires were returned giving a response rate of 55 percent.

The questionnaires contained questions on the managers' perception of the following five factors:

1. Participation in the budget process.
2. The extent to which the company was decentralized.
3. The degree of perceived budget pressure on the department manager.
4. The degree to which the managers believe the budget is linked to the company reward system.
5. The manager's perception of the magnitude of slack which exists in the company's budget.

The research instrument used is shown in Appendix B and details of data construction are discussed in Appendix C. The variable constructs and measuring scales were developed from previous studies as presented in Table 1. The department managers were asked to respond to these questions on a seven-point scoring scale with 1 representing "strongly disagree" and 7 representing "strongly agree".

Construct		Measuring Scale	
(1)	Budget participation	(1)	Budget participation questionnaire developed by Swieringa and Moncur [1972].
(2)	Decentralization of the organization	(2)	Organizational structure questionnaire based on Inkson et. al. [1970].
(3)	Budget link to reward system	(3)	Scale adapted from Hackman and Porter [1968].
(4)	Budget slack	(4)	Questionnaire adapted from Onsi [1975].
(5)	Budget Pressure	(5)	Questionnaire adapted from Irvine [1979].

Prior to finalizing the questionnaire, a pilot study was conducted to validate the research instrument. A panel of managers who had previous budgeting experience tested the questionnaire to determine if all questions were easily understood and if the wording and the format could be improved. These procedures yielded only minor modifications.

The economic climate was measured by the average percentage change in the firm's average gross sales revenues over a five-year time period. If the average percentage change in sales was increasing, it was presumed that the economic climate was favorable. If average percentage change was declining, the economic climate of the firm was assumed to be unfavorable.

### EMPIRICAL RESULTS

The model was estimated using the ordinary least squares method. Two versions of the model were tested, one in the linear form and the other using the nonlinear form. The rationale for using the quadratic form was based on the conclusions drawn from prior literature which indicated that the BPAR variable might have a positive and nonlinear relationship with the dependent variable. Before estimating the equations, tests were performed to determine if there was any relationship among the independent variables. No serious problems [multicollinearity and heteroskedasticity] were found.

BS	Constant	BPAR	CEN	BP	BLRS	EC
	9.26c	0.14	-0.40c	0.21	0.21b	-0.10b
t-value	(1.41)	(1.14)	(-1.66)	(1.01)	(1.83)	(-2.01)
R <sup>2</sup> =0.37; Adjusted R <sup>2</sup> =0.24; Standard Error of Estimate=2.53; F-Value = 2.79b						
"a" indicates significance at 1%, "b" indicates significance at 5%, and "c" indicates significance at 10%; one tailed tests						

The results of the regression models are shown in Table 2. The linear version of the ordinary least square regression shows a R<sup>2</sup> of 0.37 and an adjusted R<sup>2</sup> of 0.24. It needs to be pointed out that R<sup>2</sup> values of this magnitude are quite common in regression of cross-sectional data. The overall significance of the regression can be judged by the F-value which is significant at the 0.05 level.

The signs of standardized coefficient estimates of the first four variables (BPAR, CEN, BP, BLRS) were consistent with the research hypotheses. EC, however, appeared with an unexpected negative sign. The related t-statistics indicate that BLRS and EC are significant at the .05 level; CEN is significant at the .10 level; and BPAR and BP are not significant. The results relating to the budget participation variable are consistent with the finding by Dunk (1993).

The nonlinear version performed better than the linear version. The R<sup>2</sup> was 0.44 and adjusted R<sup>2</sup> was 0.29 both of which were higher than the corresponding values for the linear model. Similarly, the F-value of 2.98 for the nonlinear model exceeded the F-value of the linear model. In the nonlinear version the BPAR variable and its squared term are significant at the 0.05 level. Furthermore, the squared term appears with a negative sign which indicates that the budget slack (BS) variable is related to the budget participation up to a certain level and then declines. The threshold level is calculated at BPAR measuring 49.24. The BPAR variable has a mean value of 48.00 with a maximum value of 56.30, a minimum value of 37.50 and a standard deviation of 4.31. Since the threshold value is close to the mean value, it can be inferred that the level of budget slack is smaller both below and above the mean level of the management participation in the budget process.

The degree of centralization variable (CEN) has a significant negative effect on budget slack. The partial regression coefficient is negative and significant at the .01 level. Thus, it can be concluded that decentralization

increases budget slack. The budget pressure variable (BP) appears in both equations with the expected positive sign but is not significant in either equation.

The variable representing budget link to the company reward system (BLRS) appears with the expected positive sign and is significant at the 0.05 level in both versions. Therefore, budget slack tends to increase if budget performance is tied to the management rewards. The variable representing economic conditions (EC) is significant at the 0.05 level and appears with an unexpected negative in this version as well. These unexpected results may be due to the fact that data on this variable was gathered from a source different from other variables.

The negative sign of the economic condition variable is counter-intuitive. A possible explanation may be that the observations were made at a time when the local economy was in a recession. Managers in many firms were perhaps expecting future budget cuts. This could have affected responses regarding budget slack. Since perceptions are primarily focused on the current time period, the objective economic data from prior periods could show results that are quite different from those obtained from a questionnaire.

## CONCLUSION

The results of the regression model indicate that corporations provide enough scope and opportunity for management to inject and maintain significant budget slack for their own advantage. The regression results also indicate that budget slack increases with budget participation, the degree of decentralization, and the linkage of budgets to company reward system.

This model has important implications for controlling budget slack in the organization. Upon determination of a particular factor that relates to budget slack, management can improve efficiency in the budgeting process by focusing on that particular factor and initiating procedures which would control slack in the area. Furthermore, several areas for future research can be suggested as a follow-up of this study.

First of all, further replications of this research will be needed to confirm the findings reported in the study. There is a need for identifying and incorporating additional explanatory variables [such as company size] in the model thereby increasing the  $R^2$  values of the model. A longitudinal study of selected firms to monitor the creation of budget slack over a complete economic cycle might be helpful in observing and understanding the effects of economic conditions on budgetary behavior.

Of the thirty firms included in the sample, twelve firms were involved in the extractive industries which may have introduced some industry effect. Future research is needed to explore alternative ways of measuring budget slack through objective means such as financial statement data. Another area of future research is to compare and identify the difference between the factors contributing to budgetary slack in (i) high-slack and low-slack companies, (ii) domestically-owned and foreign-owned companies, and not-for-profit enterprises and business enterprises. This line of research can also be extended to studying the creation of budgetary slack in industries classified by type of industry, products sold, markets served etc. In light of the ongoing changes in the world economy, it may also be useful to examine budget behavior across cultural lines. Future research could expand the distribution of firms in the sample to allow inter-industry comparisons.

## REFERENCES

- Antle, R., and G. Eppen (1985). Capital rationing and organizational slack in capital budgeting. *Management Science*, February, 163-174.
- Benke, R., and W. O'Keefe (1980). Organizational behavior and operating budgets. *Cost and Management*, July-August, 21-27.
- Barnard, C. (1938). *Functions of the Executive*, Harvard University Press.
- Brownell, P., and M. McInnes (1986). Budgetary participation, motivation, and managerial performance. *The Accounting Review*, October, 587-600.
- Burgstahler, W., and G. Sundem (1989). The evolution of behavioral accounting research in the United States, 1968-1987. *Behavioral Research in Accounting*, 1, 75-108.
- Caldwell, D., and C. O'Reilly (1982). Responses to failure: The effects of choice and responsibility on impression management. *Academy of Management Journal*, March, 121-136.

- Caplan, E. (1971). *Management Accounting and Behavioral Science*, Addison-Wesley Publishing Company.
- Cherington, D., and O. Cherington (1973). Appropriate reinforcement contingencies in the budgeting process. *Journal of Accounting Research*, Supplement, 225-253.
- Cooper, D., (1983). Tidiness, muddle, and things: commonalities and divergencies in two approaches to management accounting research. *Accounting, Organizations, and Society*, 8, 269-86.
- Cyert, R., and J. March (1963). *A Behavioral Theory of the Firm*, Prentice-Hall.
- Dunk, A., (1993). The Effect of budget emphasis and information asymmetry on the relation between budgetary participation and slack. *The Accounting Review*, April, 400-407.
- Erikson, J., W. Pugh, and E. Gunderson (1972). Status incongruity as a predictor of job satisfaction and life stress. *Journal of Applied Psychology*, 56, 523-525.
- Ferreira, L. and K. Merchant (1992). Field research in management accounting. *Accounting, Auditing, and Accountability Journal*, 5, 3-34.
- French, J. Jr., and R. Caplan (1972). Organizational stress and individual strain. *The Failure of Success*, edited by A. Morrow, AMACOM.
- Hackman, J., and L. Porter (1968). Expectancy theory predictions of work effectiveness. *Organizational Behavior and Human Performance*, November, 417-426.
- Hall, R., (1972). *Organizations: Structure and Process*, Prentice-Hall.
- Heneman, H., D. Schwab, J. Fossum, and L. Dryer (1980). *Personnel-Human Resource Management*, Richard D. Irwin.
- Hopwood, A., (1983). On trying to study accounting in the context in which it operates. *Accounting, Organizations, and Society*, 8, 287-308.
- Inkson, J., D. Pugh, and Hickson (1970). Organization context and structure: An abbreviated replication. *Administrative Science Quarterly*, September, 318-322.
- Innes, J., and F. Mitchell (1990). The process of change in management accounting: Some field study evidence. *Management Accounting Research*, 1, 3-19.
- Irvine, B., (1979). The components of budget pressure. *Cost and Management*, July-August, 16-22.
- Kaplan, R., (1986). The role of empirical research in management accounting. *Accounting, Organizations, and Society*, 11, 429-452.
- Kenis, I., (1979). Effects of budgetary goal characteristics on managerial attitudes and performance. *The Accounting Review*, October, 707-721.
- Kerlinger, F., (1973). *Foundations of Behavioral Research*, Holt, Rinehart and Winston.
- Kim, K., (1988). Organizational coordination and performance in hospital accounting information systems: An empirical investigation. *The Accounting Review*, July, 472-489.
- Kirby, A., S. Reichelstein, P. Sen, and T. Paik (1991). Participation, slack, and budget-based performance evaluation. *Journal of Accounting Research*, Spring, 109-128.
- Kren, L., (forthcoming). Control system effects on budget slack. *Advances in Management Accounting*.
- Lawler, E., (1971). *Pay and Organizational Effectiveness: A Psychological View*, McGraw-Hill.
- Leibenstein, H., (1966). Allocative efficiency vs. 'X efficiency'. *American Economic Review*, June, 392-415.
- Leung, M., and A. Dunk (1992). The effects of managerial roles on the relationship between budgetary participation and job satisfaction. *Accounting and Finance*, May, 1-14.
- Locke, E., (1968). Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance*, 3, 157-189.
- March, J., and H. Simon (1958). *Organizations*, John Wiley and Sons.
- Merchant, K., (1981). The design of the corporate budget system: Influences on managerial behavior and performance. *The Accounting Review*, October, 813-828.
- Miller, L., (1975). *Principles of Everyday Behavior Analysis*, Brooks-Cole Publishing.
- Murray, D., (1990). The performance effects of participative budgeting: An integration of intervening and moderating variables. *Behavioral Research in Accounting*, 2, 104-123.
- Neuman, J., (1975). Make overhead cuts that last. *Harvard Business Review*, May-June, 116-126.
- Onsi, M., (1975). Simulation of the economic factors affecting organizational slack: A factorial design. *Decision Science*, 6, 78-91.

- Pfeffer, J., and P. Slancik (1978). *The External Control of Organizations*, Harper and Row.
- Roberts, J., and R. Scapens (1985). Accounting systems and systems of accountability. *Accounting, Organizations, and Society*, 10, 443-456.
- Ronen, J., and J. Livingstone (1975). An expectancy theory approach to the motivational impact of budgets. *The Accounting Review*, October, 671-685.
- Schiff, M., and A. Lewin (1968). Where traditional budgeting fails. *Financial Executive*, May, 51-62.
- \_\_\_\_\_. (1970). The impact of people on budgets. *The Accounting Review*, April, 259-268.
- Schuler, R., (1980). Definition and conceptualization of stress in organizations. *Organizational Behavior and Human Performance*, 25, 184-215.
- Simon, H., (1975). *Administrative Behavior*, The Macmillan Company.
- Skinner, b., (1969). *Contingencies of Reinforcement*, Appleton-Century-Croft.
- Swieringa, R., (1975). A behavioral approach to participative budgeting. *Management Accounting*, February, 35-39.
- \_\_\_\_\_. and R. Moncur (1972). The relationship between manager's budget-oriented behavior and selected attitude, position, size, and performance measures. *Journal of Accounting Research*, Supplement, 194-209.
- Tarpy, R., (1974). *Basic Principles of Learning*, Scott, Foresman and Company.
- Tomkins, C., and R. Groves (1983). The everyday accounting and researching his reality. *Accounting, Organizations, and Society*, 8, 1983, 361-374.
- Vroom, V., (1964). *Work and Motivation*, John Wiley and Sons.
- Williamson, O., (1964). *The Economics of Discretionary Behavior: Managerial Objectives in a Theory of Firm*, Prentice-Hall.



## Appendix A

Summary of Types of Companies  
Selected for the Study

Company	Type of Company
1	Petroleum Producer
2	Natural Gas Supplier
3	Oil and Gas Producer
4	Oil Field Products and Services
5	Insurance and Financial Services
6	Financial Services
7	Construction
8	Oil Producer
9	Financial Services
10	Geological Services
11	Equipment Manufacturer
12	Wholesale of Paper Products
13	Oil and Gas Exploration
14	Food Supplier
15	Chemical Production
16	Energy Producer
17	Real Estate and Financial Services
18	Offshore Oil Related Services
19	Transportation
20	Oil and Gas Producer
21	Transportation
22	Communications
23	Oil Producer
24	Insurance
25	Computer and Office Equipment
26	Advertising
27	Financial Services
28	Oil Exploration
29	Energy Services
30	Pharmaceutical Products

## Appendix B

Research Instrument	
Questionnaire for Employees with Budget Responsibilities	
1.	How long have you worked in the budget preparation process? _____ Years _____ Months
2.	Sex: Female _____ Male _____
3.	Education: High School graduate _____ Undergraduate degree _____ Some graduate work _____ Master's level degree or above _____
4.	Age: _____ Years

Group A

How much do you agree with each of the following statements? Use the following scale to mark your answers.

	Strongly agree	7
	Moderately agree	6
	Slightly agree	5
	Neither agree nor disagree	4
	Slightly disagree	3
	Moderately disagree	2
	Strongly disagree	1
___	1.	I work with my superior in preparing the budget for my unit.
___	2.	I work with my subordinates in preparing the budget for my unit.
___	3.	I work with other unit heads in preparing the budget for my unit.
___	4.	I work with financial staff in preparing the budget for my unit.
___	5.	I am consulted about special factors I would like to have include in the budget beginning prepared.
___	6.	New budgets include changes I have suggested
___	7.	The budget is not finalized until I am satisfied with it.
___	8.	I ask assistance from staff departments concerned with budgeting.
___	9.	Preparing the budget for my unit requires my attention to a great number of details.
___	10.	My immediate superior has talked to me about budget variances in the department.
___	11.	When my department has not been performing as budgeted, my superior has visited my department.
___	12.	Direct action to correct budget variances in my department has been taken by people other than me or my superior.
___	13.	Managers at levels above my position have acted on budgets matters in my department.
___	14.	Subordinates in my department have complained to me about unreasonable or unattainable production schedules (based on budget requirements).
___	15.	My superior has been upset about budget variances in my departments.

How much do you agree with each of the following statements?

- 16. My superior has been dissatisfied with my explanation of budget variances.
- 17. Budget matter have been mentioned in informal conversations with fellow supervisors.
- 18. Budget matter have been mentioned in informal conversations with superior.
- 19. My superior has mentioned budgets while talking to me about my efficiency as a manager.
- 20. Budget matters have been mentioned in informal conversations with advisory people not concerned with budgeting.
- 21. Management people other than accounting and budgeting personnel have visited my department to investigate budget variances.
- 22. Instructions and/or methods of correcting budget variances have been contained in budget reports.
- 23. Budget people have visited my department to investigate budget variances.
- 24. Personnel from budget office have attempted to direct activities in my department.
- 25. I have gotten extremely upset about budget variances in my department.

#### Group B

How much do you agree with each of the following statements?

If a person diligently attempts to attain his/her budget:

- 1. He/she is more likely to fee a sense of completion and accomplishment.
- 2. He/she is more likely to receive thanks and gratitude from his/her superiors.
- 3. He/she is more likely to gain admiration and respect from fellow workers.
- 4. His/her superior will expect it from him/her all the time.
- 5. His/her budget performance will be an important factor in advancing his/her career.
- 6. His/her supervisor is likely to scrutinize his spending less frequently.
- 7. He/she is likely to receive a promotion more quickly.
- 8. He/she is will simply receive a tighter budget in the future.
- 9. He/she is likely to get a raise more quickly.
- 10. He/she will set too high a standard for other department managers.

#### Group C

How much do you agree with each of the following statements?

- 1. Managers in most companies tend to submit budget which can be safely attained
- 2. Slack in the budget is good so that things can be done that cannot be officially approved.
- 3. When economic times are good, managers tend to submit budgets which increase the number of unnecessary items.
- 4. Department managers tend to influence their evaluations by adjusting amounts submitted in the budget.
- 5. When budget conditions are tight, managers generally still attempt to attain unnecessary amounts in their budgets.

Group D

Indicate whether the following decisions are made by your department or at a higher level in the organization. You may use the abbreviation MD for "my department" and HL for "higher level".

- \_\_\_ 1. Appointments and dismissals in my department.
- \_\_\_ 2. Promotion of supervisory staff in my department.
- \_\_\_ 3. Salaries of supervisory staff in my department.
- \_\_\_ 4. Decisions to spend unbudgeted or unallocated money on operating expense items.
- \_\_\_ 5. Decisions to spend unbudgeted or unallocated money on capital items.
- \_\_\_ 6. Decisions regarding travel and entertainment expenditures.
- \_\_\_ 7. Decisions regarding the type and brand of equipment to purchase.
- \_\_\_ 8. Establishment of buying procedures.
- \_\_\_ 9. Decisions regarding legal and professional fees.
- \_\_\_ 10. Decisions regarding advertising expenses.

Group E

In your opinion during times of economic adversity, which of the following types of expenses are lotted to be cut first? (CBI one)

- a) Legal and professional fees
- b) Salaries
- c) Travel and entertainment expense
- d) Advertising expense
- e) Other (please specify) \_\_\_\_\_

What type of expenditures do you feel are most easily reduced in the budget process?

\_\_\_\_\_

What percentage of unnecessary amounts budgeted do you feel could be eliminated from the average budget?

\_\_\_\_\_%

## Appendix C

### Data Construction

The study uses firm-specific micro data for thirty major corporations in a large metropolitan area. The companies were chosen from a wide variety of industries. The data were collected through an extensive questionnaire survey. In the survey, participants were instructed not to sign the questionnaire and were assured that their identities shall remain undisclosed.

Ten questionnaires were mailed to each of the thirty selected companies with the objective of obtaining more than one departmental manager's perception on the relevant issues. The minimum number of responses from a company was two and the maximum number was 14. Two companies returned more than ten questionnaires (13 by one company and 14 by another). These companies apparently reproduced and distributed questionnaires in addition to the ten which were mailed to them.

An indicator of budget slack was obtained from the responses on ten questions relating to budget slack. In a seven point scale for each question, a higher score indicated a greater degree of budget slack. For each of the thirty companies, the scaled responses to the ten questions in the questionnaire on budget slack were summed over all responses obtained from the company to obtain a company specific total score. Next the company specific total was divided by the number of questionnaires returned by that company. Thus each company had an average score of the variable BS.

Similar company specific scoring methods were used to construct the variables BPAR, CEN, BP, and BLRS. The sources from which questions pertaining to each variable were adopted have already been identified in Table 1. More information on the details of data, construction of variables, reliability tests for the data and other methodological issues can be obtained from the authors.

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