

# The Effect of Budget Participation on Job Performance: An Integration of Motivation, Cognitive, and Contingency Theory

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## **Abstract**

This study presents a conceptual causal model of employee budgetary participation-job performance relations that modifies and extends the Murray (1990) model. A summary and critique of the Murray Model is offered. The proposed model integrates the motivation, cognitive, and contingency theories to explain the relation between budget participation and job performance. Sources are provided for the acceptable operationalization of the Variables.

## **Key words**

Budget Participation - Job Performance - Motivation Theory - Cognitive Theory - Contingency Theory.

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## Introduction

For over four decades managerial accounting researchers have investigated whether participation in the budgeting process increases job performance (Shields and Shields, 1998). Prior studies examining the budget participation-job performance relationships have concentrated on a single theory. Within the single theory, researches have examined the moderating or mediating effects of a single variable on the relationship between budget participation and performance. An exception to this paradigm is the conceptual model of budget participation-job performance relationships offered by Murray (1990).

The Murray (1990) model of budgetary participation-job performance relationships represents an important contribution to the research examining the links between budgetary participation and job performance. It emphasizes multivariate relationships with an introduction of both moderating and mediating variables on the relationships between budgetary participation and job performance.

The theoretical foundation of the model is built upon goal setting process and goal theory (Murray 1990, 118). Despite its considerable utility as a starting point, the Murray model has several limitations, which restricts its usefulness.

The purpose of this paper is to refine and extend the conceptual framework of Murray (1990) into a causal model of budgetary participation-job performance relationships. The

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proposed model reflects modification of Murray's work. In addition, acceptable measures for variables are offered which have not been dealt with in Murray (1990) study. The remainder of this paper is divided into the following sections. Section one presents a summary and critique of the Murray model. Section two presents the proposed model of budgetary participation-job performance relationships. Finally, section three presents summary and conclusions.

### **I. Summary and Critique of the Murray Model**

The Murray model (1990, 112) may be summarized as follows. Budget participation affects budget commitment,<sup>1</sup> causes higher levels of budgets to be set, and improves task relevant knowledge. Higher level of budgets leads to better budget commitment and higher motivation. Higher motivation leads to increased performance by the moderating effect of task relevant knowledge.

The Murray model also proposes that several moderating factors affect the links between budgetary participation and intervening variables.

There are several problems associated with the Murray model. The first involves possible problems with the construct validity of key components of the model. For example, the model is unclear

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1-Budget commitment and budget acceptance has been used in this paper interchangeably.

in defining "participation" and "task relevant knowledge". This creates uncertainty in the interpretation and operationalization of the model.

A second source of concern derives from the use of "goal theory" as the theoretical foundation to build a model which explains budgetary participation-job performance relationships.

Goal-theory was originally advanced by Locke (1968) to suggest that assigning a difficult but attainable goal (budget) is enough to motivate individuals to perform better on their jobs. According to goal-setting theory, participation in goal setting will be superior to assigned goals only to the degree that it leads to the setting of higher goals (Latham and Locke 1979). However, the findings of prior studies do not indicate that participation leads to setting of higher goals relative to assigned goals (Dossett et al. 1079; Tubbs 1986).

A third area of difficulty relates to the causal relationships among the variables in the model. The model suggests that participation leads to higher goals than those assigned by the superior. Tubbs (1986), in a meta-analysis of goal setting studies, found that assigned group had a higher goal level (mean = .857) relative to participative group (mean = .751). However, the difference between these two means was negligible, indicating that the levels of goals set in the assigned or participative group were similar.

The model further suggests that participation leads to higher

goal commitment than assigned goals. However, as Locke et al. (1986) note:

...it is apparent that motivation to reach goals can be achieved just as well through assigning goals through setting them participatively .... studies repeatedly show that if an employee is assigned a "reasonable" goal (one that is challenging, yet achievable) and is given support and sufficient resources to achieve it, he or she readily accepts it (emphasis added) (pp. 69-70).

Wagner and Gooding (1987), in a meta-analysis of participation studies, excluding percept-percept correlations- those based on data obtained from the same respondent using the same questionnaire at the same time-found that the mean correlation between participation and goal acceptance was a mere .09 ( $R^2=.008$ ).

Schweiger and Leana (1986), in the review of participation literature, also found no difference in goal acceptance between participative and assigned groups.

The causal link between participation and goal commitment is justified by Murray (1990, 109) based on the recent findings of studies by Erez and her colleagues (e. g., Earley and Kanfe 1985; Erez et al. 1985; Erez and Arad 1986) who consistently found a

positive association between participation and goal commitment relative to the findings of studies by Latham and his colleagues (e.g., Latham and Marshall 1982; Latham and Steele 1983). As Locke, et al. (1988) note, "A key reason for the latter finding is that Erez's procedures, as a package, produced a much wider range of goal commitment among various experimental groups than did Latham, et al.'s (p. 31)." In order to resolve this contradiction, Latham, Erez, and Locke (1988) jointly designed and conducted four experiments. They found that the "Tell and Sell" style (cf. Maier 1958; Tannenbaum and Schmidt 1958) of assigning goals used by Latham and his colleagues was as effective on the commitment of subjects as setting goals participatively, whereas the "Tell" style of assigning goals used by Erez and her colleagues resulted in less commitment than setting goals participatively. Locke, in concluding remarks of the study by Latham et al. (1988), notes that telling style, as used by Erez and her colleagues, is

the most clearly artificial manipulation, in that this is something a manager would never say to an employee. As a way of trying to induce a greater range of goal commitment, there is nothing wrong with it. But such an instruction cannot be said to have much external validity ... (p. 770).

Locke et al. (1988), while note that participation in goal setting

has negligible effect on commitment relative to assigning goals, contend that

Further research on the effects of participation on commitment may be of limited usefulness at this time since the reasons for the differences between Latham et al.'s and Erez et al.'s results now seem clear (p. 34).

Therefore, the positive link between participation and goal commitment as suggested in Murray model is not supported in the literature.

The Murray model also suggests that higher goal level (goal difficulty) is associated with increased goal commitment, effort level, and performance. Latham et al. (1988) show that while higher goal level has some effect on goal commitment, it does not have any impacts on job performance.

The fourth area of concern relates to the omission of direct link between budgetary participation and job performance in the model. Murray (1990) seems to have eliminated the direct link between budgetary participation and job performance because of the inconsistent findings of prior studies. Greenberg et al. (1990), in a meta-analysis of budgetary participation-job performance relationships, found that the inconsistent results of prior studies were due to the contextual and methodological variables. They found a "true-correlation" of .21 for survey research studies, of .45

for laboratory studies conducted by Erez and her colleagues, and of .15 for other laboratory experiments examining the links between budgetary participation and job performance. These findings provide support for the notion that there could be a direct association between budgetary participation and job performance, although it may not be substantial (i. e., only about 45% of the variation in job performance may be explained by budgetary participation).

Several possibilities could be argued regarding this low correlation. First, prior studies have demonstrated that the low correlation between budgetary participation and job performance can be due to the moderating effect of personality and situational contingency factors on the link between budgetary participation and job performance (e. g., Brownell 1981, 1982b ; Merchant 1981 , 1984).

Second, Greenberg et al. (1994) in a meta-analytic examination of the relation between budget participation and job performance found that methodological moderators, except for manipulation effect , has not contributed to the inconsistencies in the budget participation-job performance literature. They concluded that "researchers should proceed to analyze theoretical moderators identified in the literature for sources contributing to the inconsistencies (p. 136)."

Finally, Brownell and McInnes (1986) in explaining the insignificant effect of budget participation on job performance in



their study contend that it could be due to the fact that managers who perform better may be allowed a higher participation in the budgeting process. This implies that there could be a reverse causality from job performance to budget participation. Nouri and Parker (1998, 478) also note this possibility and further note a potential reciprocal relation between the two variables. Nouri, Kvi, and Dunk (in press) used attribution theory to show that job performance may lead to budget participation. The results of their experiment support the hypothesis that individuals who perform better perceive a higher participation in the budgeting process than individuals who perform poorly. Therefore, the direct effect of budget participation on job performance may be more complex than proposed in prior studies.

A final source of concerns involves the misspecification of the model as a whole. While Murray intends to present a model that describes budgetary participation-job performance links, the presented model, in part is applicable to the relationship between assigned budgets and job performance. That is, assigning difficult but attainable budgets to individuals leads to higher goal level and increased budget commitment and hence improves performance.

Therefore, the model is applicable to both participative and assigned goal setting and does not distinguish between them.

## II. Proposed Model

The proposed model is presented in Figure 1. It incorporates motivational, cognitive, and contingency theories to explain the budgetary participation-job performance links. While it was intended to develop a comprehensive model, consideration was also given to make the model parsimonious.

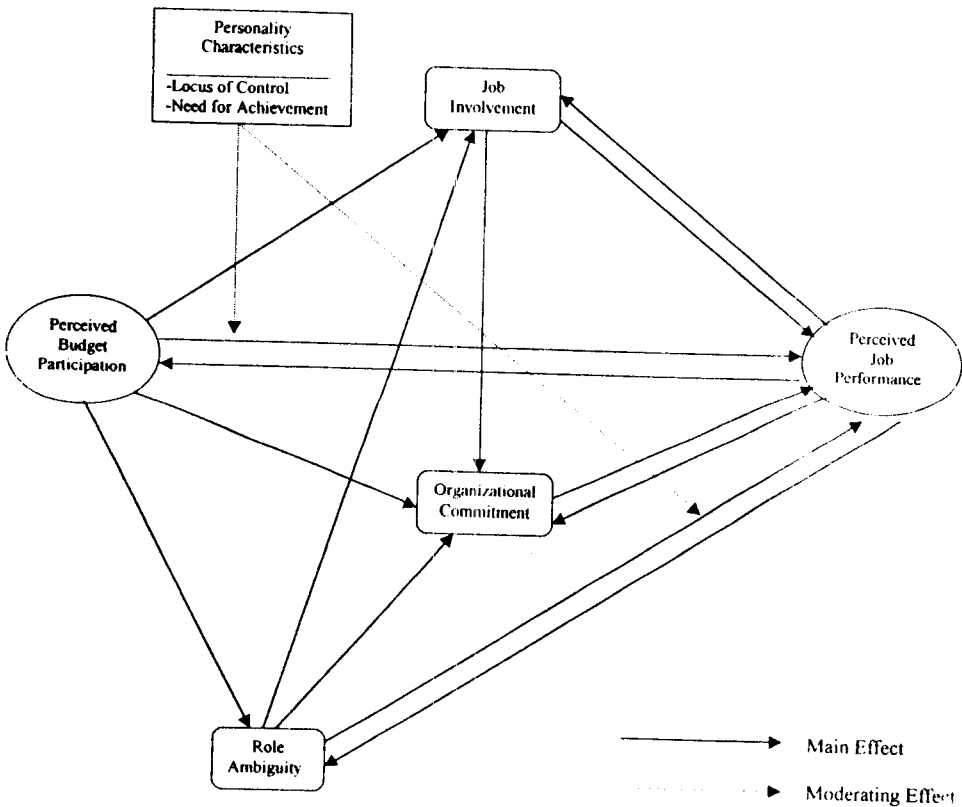


Figure 1: A Conceptual Model of the Relationship Between Budgetary Participation and Job Performance

The model suggests that budgetary participation may have a reciprocal relation with job performance. The model indicates that the two contingency factors of locus of control and need for achievement moderate this relation. It further suggests that the motivational factors of job involvement and organizational commitment, and the cognitive factor of role ambiguity not only mediate the relationship between budgetary participation and job performance but also may have a reciprocal relation with job performance.

All variables in the conceptual model are operationalized in survey form, with multiple item indicators of each construct. The discussion of variables and the rationale for their inclusion in the model will proceed from exogenous (budgetary participation) to endogenous (job performance) variables.

### **Budgetary participation**

Similar to Brownell (1982c, 124), perceived budgetary participation<sup>1</sup> can be defined as a process in which individuals, whose performance will be evaluated, and possibly rewarded, on the basis of their achievement of budget targets, perceive that are involved in, and have influence on, the setting of these targets. As it was discussed earlier in the critique of the Murray model, there

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1-In this study, budget participation and perceived budgetary participation as well as job performance and perceived job performance are used interchangeably.

could be a direct and reciprocal relation between budget participation and job performance.

As Brownell (1982b) notes, several scales have been addressed in the literature regarding budgetary participation. Examples include those of Vroom (1960), Likert (1961), Hofstede (1967), Heller (1971), Vroom and Yetton (1973), and Milani (1975). Of these, the Hofstede and Milani measures have been used widely in accounting studies of budgetary participation (e. g., Brownell 1982a, 1982b; Chenhall 1986; Mia 1988; Nouri and Parker 1998).

The Hofstede measure is an eight-point, single-choice scale, descriptively anchored at each point in the scale. The Milani measure is a six-item, 7-point likert-type scale. The Milani scale assesses the amount of influence and involvement an individual employee perceives to have on a jointly set budget (Brownell 1981).

As Chenhall and Brownell (1988) point out, the Milani scale has been found to have acceptable reliability and validity. For example, in studies by Brownell and McInnes (1986), Chenhall and Brownell (1988), Mia (1988), and Nouri and Parker (1988), the internal reliability of the Milani's scale found to be 76, 79, 71, 89 and 84 percent, respectively.

### **Mediating and Moderating Factors**

Table 1 presents a summary of definition of mediating and moderating variables.

Table 1 - Variables' definition as used in the study

Variable	Definition
Perceived Budgetary Participation	"A process in which individuals, whose performance will be evaluated, and possibly rewarded, on the basis of their achievement of budget targets, are involved in, and have influence on, the setting of these targets (p.124) (Brownell 1982c)."
Job involvement	The degree of importance of one's job to one's self-image (e.g., Lawler & Hall 1970).
Organizational commitment	The extent to which the individual identifies with organizational goals, is willing to exert effort on behalf of the organization, and intends to remain a member of the organization (Mowday et al. 1979).
Role ambiguity	The lack of clarity regarding an employee's task-related responsibilities.
Locus of control	Locus of control refers to the personality characteristics of individuals when they attribute the causes of events as being a consequence of one's own actions and thereby under personal control (internals); or as being unrelated to one's own behaviors and therefore beyond personal control (externals).
Need for achievement	"Need for achievement (n Ach) represents an experienced need to accomplish something important or to compete with a standard of excellence (McClelland et al. 1953) (p.473)."

According to James and Brett (1984):

With respect of moderation, a variable  $z$  is a moderator if the relationship between two (or more) other variables, say  $x$  and  $y$ , is a function of the level of  $z$ .

This definition indicates a  $x$  by  $z$  interaction, or a nonadditive relation, where  $y$  is regarded as a probabilistic function of  $x$  and  $z$ . Specifically, the probabilistic function is  $y=f(x,z)$ , the

function of being  $y = bx + bz = bxz + e$  for deviation scores and a model linear in the parameters (p.310).

$m$  is a mediator of the probabilistic relation  $y = f(x)$  if  $m$  is a probabilistic function of  $x$  (i.e.,  $m = f[x]$ ), and  $y$  is a probabilistic function of  $m$  (i.e.,  $y = f[m]$ ), where  $x$ ,  $m$ , and  $y$  have different ontological content (i.e., represent different hypothetical constructs or latent variables) (p. 310).

Both motivational and cognitive models present several factors which may mediate the budgetary participation-job performance relationships. According to the motivational theories, participation in budgeting affects such factors as job satisfaction, job involvement and organizational commitment. An increase in these motivational factors, in turn, leads to high job performance (Miller and Monge 1986).

Participation in budget setting while increases job satisfaction (Greenberg et al. 1990), the link between job satisfaction and job performance is not supported in the literature. According to Locke et al. (1986), "there is simply no direct connection between job satisfaction and subsequent productivity (p.71)." Therefore, job satisfaction cannot be a mediating factor on the link between budgetary participation and job performance." Locke et al. (1986)

note that the other two motivational factors-i.e., "more ego-involvement in the job" and "increased identification with the organization" - can be affected by budgetary participation and may enhance job performance. Role ambiguity, as a cognitive mediator, may also mediate the budgetary participation-job performance relationships.

Several moderating variables (contingency factors) are considered in the model. These include role ambiguity, locus of control and need for achievement. While only first-order interaction are discussed below and are considered in this paper, higher-order interactions are possible among both moderating and mediating variables. For example, a three-way interaction among budgetary participation, need for achievement and role ambiguity could affect job performance. It would be expected that those individuals who are high in need for achievement, who participate in the budget setting, and face a low role ambiguity which increases their felt responsibility, would be among the outstanding performers. On the other hand, individuals who are low in need for achievement, who perceive budget is assigned to them, and who face a high role ambiguity, would be expected to have a low job performance.

### **Job involvement**

According to Blau (1985), there have been three major approaches to conceptualizing and measuring job involvement.

These approaches are: "(1) the degree of importance of one's job to one's self-image (e.g., Lawler & Hall 1970); (2) the extent of which an individual is actively participating in his/her job (e.g., Alport 1943); and (3) the degree to which an individual's self-image is affected by his/her perceived performance level (e.g., Gurin, Veroff, & Feld 1960) (p. 242). " Blau (1985) however, found that only the first definitions was empirically independent.

Therefore, for the purposes of this study, job involvement is defined as the importance of the job for one's total self-image.

March and Simon (1958) contend that "the greater the individual's participation in job assignment, the less the conflict between the job and the individual's self-image [emphasis in original] (p.96)." Therefore, this study posits that budgetary participation is an antecedent of job involvement. The findings of prior studies indicate an average positive correlation of .50 between participation in decision making and job involvement.

Moreover, it is posited that job involvement is antecedent to organizational commitment and job performance. Therefore, it is theorized that job involvement mediates the relationship between budgetary participation and organizational commitment as well as between budgetary participation and job performance.

According to Stevens et al. (1978), individuals very involved in their job will also have substantial side-bet investments in employing organizations. This, in turn, decreases the individual's mobility that consequently leads to increased organizational



commitment. Thus, a positive link between job involvement and organizational commitment can be expected. Results of past research support the positive association between job involvement and organizational commitment (Herbiniak 1974; Mottaz 1988; Stevens et al. 1978; Zahra 1984; and others).

According to Rabinowitz and Hall (1911), the relationship between job involvement and job performance "has proven to be complex, confusing one (p. 280)." They pointed out, however, that "involvement increases as a result of satisfying job experiences, and in turn, the more involved a person is, the more effort he or she will exert on the job (p.285),"which consequently could result to better job performance. Vroom (1962) also contends that on the average individuals who are ego-involved in their jobs perform more effectively on the job than persons who are not ego-involved because the self-image of ego-involve individuals is directly related to their evaluation of their level of performance.

Despite the above theoretical arguments regarding the link between job involvement and job performance, the studies which have examined the relationship between these two variables have produced conflicting and ambiguous results (Rabinowitz and Hall 1977). While Peltz and Andrews (1966) and Vroom (1962) found positive association between job involvement and job performance, Goodman, Rose, and Furcon (1970) and Siegel and Ruh (1973) reported no relationship between job involvement and objective measures of performance. The disappointing

findings of prior studies investigating the relationship between job involvement and job performance, however, can be attributed to the followings:

1- An attitudinal variable such as job involvement is more likely to be related to the quality of job performance than to the quantity of job performance (Lawler 1970).

2- A direct association between job involvement and job performance may exist only for jobs requiring valued and possessed abilities (Vroom 1962).

The use of an instrument which measures quality of job performance (see job performance section for the instrument) will satisfy the first condition. In addition, subjects in a survey research of budgetary participation are usually managers and / or supervisors and hence the second condition also would be satisfied. Therefore, it would be expected that a positive relationship should exist in the model between job involvement and perceived job performance. In addition, perceptions of individuals regarding their job performance may affect their attitude toward other job-related factors (Staw, 1975). That is, it is plausible that individuals who may perceive that they perform better become more involved in their job than individuals who perceive they perform poorly. This suggests a reciprocal relation between job involvement and perceived job performance.

Kanungo's (1982) 10-item instrument can be used to measure job involvement. Blau (1985) has found that the definition of job

involvement, as used in this paper, can be best operationalized using Kanungo's measure. This scale has been shown to have acceptable levels of reliability and validity (Kanungo 1982; Blau 1985). For example, the internal consistency estimates of the scale were reported to be .87 by Kanungo (1982) and .83 to .87 by Blau (1985).

### **Organizational Commitment**

Two different approaches have been taken in defining organizational commitment (Steers and Porter 1983). In the first approach, organizational commitment is referred to as a "behavior" or "exchange" approach, while in the second approach, organizational commitment is referred to as an "attitude" or "psychological" approach.

The exchange approach is a consideration of organizational commitment in terms of exchange or reward-cost notions (Barnard 1938; Homans 1958; Gouldner 1960). Here, the emphasis is on the bargaining or exchange relationships between the individual and the organization: the greater the favorability of the exchange from the member's perspective, the greater his/her commitment to the organization. In similar terms, the more abundant the perceived rewards in relation to costs, the greater the organizational commitment. As Stevens et al. (1978) have pointed out, this conceptualization is consistent with Becker's (1960) argument that attachment to the organization is influenced

strongly by "side bets," accrued extrinsic benefits that would be lost if membership was terminated. Under this concept, commitment is primarily a structural phenomenon that occurs as a result of individual organizational transactions and alterations in side bets or investments over time.

In contrast, in the psychological approach, organizational commitment is viewed as a more positive individual orientation toward the organization. Incorporated into this approach are the works of Etzioni (1961), Kanter (1968), and especially Porter and his colleagues (Dubin, Champoux, & Porter 1975; Mowday, Porter, & Dubin 1974; Mowday, Steers, & Porter 1979; Mowday and McDade 1979; Porter et al. 1974, 1976; Steers 1977 and Van Maanen 1975). These researches define commitment as employee's identification with and involvement in a particular organization. Such commitment is characterized by three factors : (1) a strong belief in and acceptance of the organization's goals and values , (2) a willingness to exert considerable effort on behalf of the organization, and (3) a strong desire to maintain membership in the organization (Porter et al. 1974). These beliefs and desires are developed in a process that involves "evaluating the investments and costs" of remaining with a specific organization (Stevens et al. 1978). Consistent with most of the empirical studies on organizational commitment, the attitudinal definition of organizational commitment will be used in this study.

DeCotiis and Summers (1987), drawing on the work of

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Salancik (1977), argue that participation in decision making "may affect felt responsibility and role involvement and, therefore , commitment (p. 452)." March and Simon (1958) point out that participation in decision making facilitates the satisfaction of personal goals by individual members of the organization and hence results in identification with the organization. Results of empirical works by DeCotiis and Summers (1987), Welsch and LaVan (1981), and Zahra (1984), among others , support the hypothesis that participation in decision making is positively related to organizational commitment.

In addition, Pierce and Dunham (1987) tracked the development of organizational commitment of new employees from pre-employment through the first year. They found that participation in decision making contribute to an employee's "propensity" to become committed organizationally. Based on these results, it is theorized that budgetary participation is positively related to organizational commitment.

According to Steers (1977), organizational commitment is "related to performance under the assumption that committed employees would expend greater effort on the job (p.48)." However, Mowday et al. (1979) contend that " this relationship should not be overly strong in view of the many factors that have been found to influence performance (e. g., role clarity , reward system, etc.) (p. 240). "Some researchers (Lee 1971; Mowday et al. 1979; Zahra 1984) reported that highly committed individuals

are more productive while other researchers (Steers 1977; Wiener and Vardi 1980) didnot find a systematic relationship between organizational commitment and job involvement. Lock et al. (1986) point out that organizational commitment is a motivational factor that could result in higher performance.

Nouri and Parker (1998) examined the mediating effect of organizational commitment on the relation between budget participation and job performance. They found that budget participation positively affected organizational commitment. They also reported that orgainzational commitment has a significant positive effect on job performance.

As it was discussed earlier, perceptions of individuals regarding their performance may affect their attitude toward other job-related factors (Staw, 1975). Therefore, it is plausible that individuals who may perceive that they perform better become more committed to the organization than individuals who perceive they perform poorly. This suggests a reciprocal relation between organizational commitment and perceived job performance.

Two instruments are available to measure organizational commitment as defined in this paper. The first is the organizational commitment questionnaire (OCQ) developed by Porter et al. (1974). Porter's 15-item scale has been regarded as one of the most commonly used and well-validated organizational commitment measures (Morris and Sherman, 1981). As Reichers

(1986) notes:

The OCQ possesses good psychometric properties, including high internal consistency reliability, adequate test-retest reliability and some evidence for convergent, discriminant and predictive validity (Mowday, Steers, & Porter, 1979) (p. 511).

The 9-item short-form version of the OCQ can be used to help reduce the length of the research questionnaire. Acceptable levels of reliability and validity of the 9-item version of OCQ have been reported (Angle and Perry 1981; Blau 1987; Price and Muller 1981, 1986; Sorensen 1985; Wakefield 1982). For example, Blau (1987) reported internal consistency coefficient of .87 for this scale.

The second instrument is the Meyer and Allen (1984) 8-item scale. This instrument has been found to have acceptable psychometric properties (Meyer and Allen 1984; McGee and Ford 1987).

### **Role ambiguity**

Role ambiguity refers to the lack of clarity regarding an employee's task-related responsibilities (Zahra 1984).

This study posits that role ambiguity mediates the relationship between budgetary participation and job involvement, intervenes

the link between budgetary participation and organizational commitment and both mediate and moderate the relationships between budgetary participation and organizational commitment and both mediate and moderate the relationships between budgetary participation and job performance.

Researchers have hypothesized that high level of participation in decision making leads to lowered role ambiguity. As Jackson and Schuler (1985) note, this could be due to the information dissemination that accompanies participation in decision making.

In a meta-analytic analysis of 18 studies investigating this relationship, Jackson and Schuler (1985) found a "true correlation" of  $-.55$  between budgetary participation and role ambiguity. Based on these findings it is theorized that budgetary participation is inversely related to role ambiguity.

Although Jackson and Schuler (1985) found a "true correlation" of  $-.44$  between role ambiguity and job involvement and of  $-.41$  between role ambiguity and organizational commitment, they contend that there is no explanation in the literature why role ambiguity should be related to these variables. The exception is Beehr et al. (1976) who argue that role ambiguity decreases motivation to perform (e. g., involvement of commitment) because it decreases the employee's expectation that effort leads to performance and performance leads to outcomes. The expectancy theory, according to Jackson and Schuler (1985), has received modest empirical support regarding



the effects of role ambiguity on job involvement and organizational commitment.

The relationship between role ambiguity and performance is predicted by both cognitive and motivational explanations of performance (Jackson and Schuler 1985). From a cognitive perspective, role ambiguity should decrease job performance because with role ambiguity "the individual faces either a lack of knowledge about the most effective behaviors to engage in or an almost impossible situation for doing everything expected. Therefore, regardless of the amount of effort expended, behaviors are most likely to be inefficient, misdirected, or insufficient (p. 43)." From a motivational perspective, job performance is inversely related to role ambiguity because it is negatively associated with effort-to-performance and performance-to-reward expectancies. The findings of prior studies, in general, indicate a negative relationship between role ambiguity and job performance (Jackson and Schuler 1985). This study adapts the cognitive approach and argues that budgetary participation leads to lower role ambiguity due to the information dissemination that accompanies budgetary participation. Lower role ambiguity, in turn, enhances job performance because the individual employs the most effective behavior in doing everything expected. Chenhall and Brownell (1988) tested the hypothesis that budget participation reduces role ambiguity that in turn increases subordinates' job performance. Their results support the

hypothesis.

Furthermore, individuals who do not perform well on their jobs may attribute their poor performance to higher role ambiguity. Individuals who perform well on the job, on the other hand, may attribute it to low role ambiguity. This suggests that a reciprocal relation may exist between role ambiguity and job performance.

Role ambiguity can be measured using a six-item instrument developed by Rizzo et al. (1970). As Chenhall and Brownell (1988) note:

While this measure has not been without its critics (Tracy and Johnson 1981) a Psychometric evaluation of the instrument by Schuler et al. (1977) concluded that its continued use appeared warranted. This instrument has been tested widely in prior research and found to have high levels of validity and reliability (p. 228).

### **Locus of control**

The locus of control construct comes from attribution theorists (Heider 1958; Kelley and Michela 1980) and seems to be a reasonably stable personality dimensions across situations (Luthans et al. 1987). Locus of control refers to the personality characteristics of individuals when they attribute the causes of events as being a consequence of one's own actions and thereby

under personal control (internals) or as being unrelated to one's own behaviors and therefore beyond personal control (externals).

It is theorized that locus of control moderates manager's reactions to budgetary participation. That is, it is theorized that the links between budgetary participation and job involvement, organizational commitment, and job performance would be weaker for externals relative to internals. Moreover, it is theorized that the link between role ambiguity and negative job performance would be weaker for internals compared to externals.

The moderating impact of locus of control on the relationship between role ambiguity and job performance is justified on the basis that internals seems to be more able to manipulate the work environment to obtain necessary instrumental information for job performance than externals (Abdel-Halim 1980). Watson and Bauml (1967) also hypothesized that locus of control may help to explain differences in individual job performance in stressful situations.

Houston (1972) examined Watson and Bauml (1967) hypothesis in a laboratory experiment and found that internals performed at a higher level than externals in an incongruent, stressful situation. Anderson's (1977) research findings also showed that "externals perceive higher stress than internals in a particular situation and ... respond with much more defensiveness and much less task-oriented coping behavior than internals (p.

450)." On the other hand, Szilagyi et al. (1976) failed to obtain moderating effect of locus of control on the link between role ambiguity and job performance. Based on the above arguments and findings, this study also posits that locus of control moderates the link between role ambiguity and job performance.

The main evidence regarding the moderating effect of locus of control on the relationship between budgetary participation and job involvement , organizational commitment , and job performance comes from the study by Cornwell et al. (1961). As Brownell (1981) notes, Cornwell et al. (1961) demonstrated that:

... individuals with a belief in "personal" control (internals) preferred, and performed better, under conditions of self-control in a reaction-time test, while individuals with a belief in "other" control (externals) preferred, and performed better, under experimenter-controlled conditions (p. 846).

The findings by Corwell et al. (1961) seem to be theoretically sound because, for examlpe, if budget is assigned to internals, there will be incongruence between what internals prefer to do and what they actually do. Therefore, their job involvement, organizational commitment and job performance should decline under the budget assignment. On the other hand, externals who would like to attribute the causes of events to

environment and other persons action should prefer and perform better under the budget assignment and hence job involvement, organizational commitment and job performance should improve when they do not participate in budget setting. Brownell (1981) tested the moderating effect of locus of control on the link between budgetary participation and job performance and found support for it. Based on these findings, therefore, it is posited that internals under the budgetary participation condition and externals under the assigned budget (low budgetary participation) condition should be highly involved in their jobs, should be highly committed to the organization, and should perform better.

Locus of control can be measured using Levenson's (1973) eight-item chance scale. This scale is found to be more factorially stable and to possess a higher internal consistency than the Rotter's (1966) Internal-External scale (Blau 1984). The chance scale's response format is a likert-type scale ranging from strongly disagree to strongly agree.

### **Need for achievement**

According to Steers and Spencer (1977), "Need for achievement (n Ach) represents and experienced need to accomplish something important or to compete with a standard of excellence (McClelland et al. 1953) (p. 473)." Steers and Spencer (1977) further note that high need for achievement subjects look for challenging jobs, seek out personal responsibility for problem

solution, and prefer situations where they receive clear feedback on job performance (Atkinson 1985). On the other hand, low need for achievement subjects prefer situations where others shared responsibility and where risk level is minimal. It is, therefore, theorized in this study that need for achievement will moderate the link between role ambiguity and job performance as well as the link between budgetary participation and job involvement, organizational commitment and job performance.

The moderating impact of need for achievement on the link between role ambiguity and job performance is based on the proposition that individuals who are high in need for achievement are under Murray's (1938) definition, desirous of assuming personal responsibility for the attainment of assigned job. Therefore, it could be argued that such persons would perform better relative to low need for achievers when they are facing high role ambiguity. To date, no known research seems to have examined the moderating effect of need for achievement on the link between role ambiguity and job performance.

Need for achievement is theorized to interact with budgetary participation to affect job involvement. This interaction can be presented in a 2 x 2 matrix as follows:

## Budgetary Participation

Need for achievement	High	Moderate job involvement	High job Involvement
	Low	Low job involvement	Moderate job Involvement

Steers (1976) tested the moderating effect of need for achievement on the link between participation in goal setting and job involvement and did not find support for it.

the moderating impact of need for achievement on the relationship between budgetary participation and organizational commitment can be theoretically justified on the ground that if budget is assigned to an individual who is low in need for achievement, s/he will experience a high degree of personal responsibility which is in contrast to a low risk level the individual is seeking out. Therefore, it is more likely that under this condition the mobility increases which consequently will result in lower organizational commitment. To date, no known research has addressed the moderating effect of need for achievement on the link between budgetary participation and organizational commitment.

It is also theorized in this study that need for achievement will moderate the link between budgetary participation and organizational commitment.

It is also theorized in this study that need for achievement will moderate the link between budgetary participation and job performance. As Steers (1975) pointed out, individuals who are high in need for achievement are more willing to assume personal responsibility for the attainment of assigned budgets. Thus, it can be argued that such persons would perform better when allowed a great extent of independence on their tasks. On the other hand, it would be expected that increased participation in budget setting might serve as a catalyst to the low need achiever by providing group support and a feeling of ego-involvement in budget outcomes (Vroom 1960). Steers (1973,1975) tested this hypothesis and found that participation in goal setting was significantly related to job performance for low need achievers and virtually unrelated for high need achievers.

A five-item scale from the Manifest Needs Questionnaire (MNQ) developed by Steers and Braunstein (1976) can be used to measure need for achievement. According to Steers (1977):

Validation and reliability studies on the MNQ (Steers and Braunstein, 1976) indicate acceptable test-retest reliabilities (ranging from .72 to .86) and internal consistencies (.56 to .83). Moreover, cross-validated evidence of convergent, discriminant, and predictive validity was found on the MNQ when compared with



various independently measured criteria  
(p.49).

### **Job Performance**

Three measures of job performance have been addressed in the literature: objective, self-rating, and superior-rating. The accounting measure of job performance is one type of objective measure that can be used to measure managerial performance. However, as Hopwood (1973) pointed out, there are several problems associated with this measure. First, many crucial behaviors are completely ignored in accounting measures of job performance. Second, the complex pattern of interrelated activities in organizations is not usually reflected in accounting measures of job performance. Third, the environmental constraints are not accounted for in the accounting measures of job performance. Finally, accounting measures of job performance reports only short-term results.

There have been debates among researchers regarding the use of superior-rating versus self-rating measures of job performance. As Brownell and McInnes (1986) note, some researchers contend that self-rating of job performance tend to exhibit a leniency bias compared with superior rating (Parker et al. 1959; Prien and Liske 1962). Others, however, disagree with this argument (Nealey and Owen 1970). Both self-rating and superior-rating measures of job performance that can be used by researchers to

test the model are discussed below.

Researchers can employ two self-rating performance measures. The first measure is the instrument developed by Mahoney, Jerdee, and Carroll (1963, 1965). This nine-dimensional measure has been widely used in managerial accounting studies (e.g., Brownell and Hirst 1986; Brownell and McInnes 1986; among others). This instrument calls for a single rating of overall performance, plus rating on the eight dimensions of planning, investigation, coordination, evaluating, supervising, staffing, negotiating, and representing. Mahoney et al. (1963) suggest that the eight dimensions should be independent and should explain at least 55% of the variance in overall rating. The use of this instrument enables the findings of the empirical study to be compared with those of other budgetary participation studies.

The second self-rating measure of job performance, which is more objective, is the approach used by Gupta and Govindarajan (1984). This instrument is more appropriate when subjects from different functional areas or organizations are surveyed. Gupta and Govindarajan (1984) measured job performance, Using a 5-point Likert-type scale, along 12 performance dimensions: Sales growth rate, market share, operating profits, profits to sales ratio, cash flow operations, return on investment, new product development, market development, R&D activities, cost reduction programs, personnel development, and political/public affairs. In order to arrive at a measure of overall performance,

Gupta and Govindarajan (1984) used the relative importance of each dimension on each individual's performance as weights. Moreover, performance is measured by comparing actual performance and a priori superior's expectations rather than measuring it on an absolute scale. This procedure is expected to control indirectly for the effects of strategic choice and industry/departmental factors on performance (Gupta and Govindarajan 1984). That is, because corporate performance standards for subunits are likely to take into account the impact of a chosen strategy and industry of department related factors, assessing individual's performance relative to superior's expectation or corporate standards should indirectly control for the impacts of these factors on job performance. Nouri and Parker (1988) employed a modified version of this measure of job performance to investigate the relation between budget participation and job performance.

The superior rating measure of job performance can be obtained by requesting the superior of managers and/or supervisors to evaluate as accurately as possible the overall performance of the participating managers / supervisors. The superiors can also be asked to evaluate their subordinate's performance using both Mahoney et al. (1963, 1965) and Gupta and Govindarajan (1984) instruments. The wording of these instruments should be modified to allow an evaluation of the subordinate by the superior.

### III- Summary and Conclusions

This paper has pointed out problems associated with the Murray model of budgetary participation-job performance relationships. Although they have been raised as areas of concern which other researchers may wish to consider, these criticisms do not diminish the extremely important contributions which Murray (1990) has made by introduction of both mediating and moderating factors in a causal model to this area of inquiry.

A modified model of budgetary participation-job performance relationships was presented in this paper. The presented model incorporated motivational, cognitive, and contingency theories to explain the budgetary participation-job performance links. While any model can be criticized for not including more variables, it was attempted to present a comprehensive but at the same time a parsimonious model of the links between budgetary participation and job performance. For example, Nouri and Parker (1998) show that budget adequacy is an important mediating factor in the relation between budget participation and job performance. However, this factor or other related factors were not incorporated into the model to make the model manageable. The empirical test of the model by managerial accounting researchers will demonstrate its strength and deficiencies that could lead to modification of the model for the future research.

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