

# PARTICIPATIVE BUDGETING: THE EFFECTS OF BUDGET EMPHASIS, INFORMATION ASYMMETRY AND PROCEDURAL JUSTICE ON SLACK – ADDITIONAL EVIDENCE

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## ABSTRACT

This study re-examines the results presented in Lau and Eggleton (*Accounting and Business Research*, 2003, pp. 91-104) regarding the influence of information asymmetry and budget emphasis on the relationship between budgetary participation and budgetary slack based on a different sample. In addition, this study extends Lau and Eggleton's research model by incorporating procedural justice as an additional moderating variable. A survey research methodology was used to collect data. Participants consisted of 116 managers from Australian manufacturing firms listed in the *Who's Who in Business in Australia* database. The results indicate that subordinates' propensity to create budgetary slack is low when budgetary participation, information asymmetry and budget emphasis are all high. In addition, the results reveal that in high budget emphasis and high information asymmetry situations, subordinates' propensity to create budgetary slack is low when budgetary participation and procedural justice are high. This study contributes to the existing knowledge by generating both theoretical and practical implications to improve budgetary control systems within organizations.

**Keywords:** participative budgeting, information asymmetry, procedural justice, budgetary

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## **INTRODUCTION**

Lau and Eggleton (2003) (henceforth referred to as L&E) attempt to address the conflicting result of Dunk (1993). L&E predict that subordinates who find budgetary participation useful are not likely to risk losing their participation privileges by engaging in slack creation activities in which detection could potentially lead to the withdrawal of such privileges (Pope, 1984). L&E conjecture that preserving budgetary participation privileges takes precedence in the decision-making process of subordinates pertaining to the setting of their budgets. The principle of replication is often regarded by many academics as one of the most important criteria of genuine scientific knowledge (Rosenthal & Rosnow, 1984). Thus, the first aim of this study is to replicate the work of L&E. Despite the infrequent attempts to replicate in the organizational study setting, there are a few accounting studies that have conducted replications and extensions (e.g. Chenhall & Morris, 1986; Harrison, Chow, Wu & Harrell, 1999; Kachelmeier & Williamson, 2010). Indeed, the importance of replications has recently re-gained recognition in accounting literature. Dyckman and Zeff (2014, p. 695), for example, argue that "...replication studies [...] can contribute to our search for truth." They recommend that "...the accounting academy should actively seek and reward replication as an essential element in its aspiration to be a scientific community" (p. 707). Consequently, this study is motivated to re-examine if the results of L&E hold with a different set of observations.

In addition, this study seeks to extend on the budgetary slack literature by incorporating one additional variable: procedural justice. Procedural justice refers to the subordinate's perception of fairness on the processes employed by their superiors as a means of evaluating individual performance, communicating feedback and determining rewards (McFarlin & Sweeney, 1992). Prior studies have found that procedural justice can affect subordinates' attitudes, behaviours and performance (see Lau & Lim, 2002; Lau & Tan, 2005, 2006). Despite the recognition of procedural justice in the budgeting literature, it remains unclear how procedural justice moderates the joint effect of information asymmetry and budget emphasis on the relationship between budgetary participation and subordinates' propensity to create budgetary slack. Additionally, it is interesting to test whether L&E's results hold in the presence of high procedure justice. These gaps in the accounting literature provide the second motivation for this study.

Specifically, this study examines if subordinates who have the ability to create budgetary slack (i.e. high information asymmetry), the incentive (i.e. high budget emphasis), and are accorded with high participation privileges will have a lower propensity to create budgetary slack when procedural justice is high.

This study contributes to the existing knowledge on budgetary slack by generating both theoretical and practical implications to improve budgetary control systems within organizations. Furthermore, this study will reinforce the conclusions drawn by L&E, as well as extend our understanding of the influence of procedural justice on the joint effect of information asymmetry and budget emphasis on the relationship between budgetary participation and subordinates' propensity to create budgetary slack.

The remainder of this paper is divided into the following sections. The first section develops hypotheses. The second section provides an overview of the research design and the dependent and independent variables, and the third section presents the results. The final section discusses the conclusions derived from the study and limitations of the study.

## **HYPOTHESES DEVELOPMENT**

### **Relationship between Budgetary Participation and Propensity to Create Budgetary Slack**

Schiff and Lewin (1970) state that, in participative budgetary settings, subordinates will seek to exert influence on the performance criteria incorporated in their budgets in order to attain what they believe to be an achievable budget. The consequence, as such, is negotiated budgets comprising of differing amounts of slack. Subordinates believe that building slack into their budgets as a means of protecting their own personal interests is a rational economic behaviour and that they are justified in doing so (Lowe & Shaw, 1968). The participation of subordinates in the budget setting process allows principals the opportunity to gain access to local information (Magee, 1980; Baiman, 1982; Baiman & Evans, 1983). Consequently, subordinates are able to communicate some (or all) of their private information, allowing for the potential incorporation of this

information into the standards or budgets against which their performance is assessed (Baiman & Evans, 1983). On the contrary, subordinates may choose to withhold or misrepresent their private information, leading to the creation of slack in the budget (Christensen, 1982; Young, 1985). Ultimately, while the budgetary participation of subordinates can permit superiors the access of private information, the presence of information asymmetry may allow for the creation of slack in participative budgets.

Schiff and Lewin (1970) argue that, by definition, the very process of participation is likely to lead to slack creating activities. They infer that, since budgets are the primary performance assessment criterion utilised in organizations, the budget negotiation process merely acts as a medium for the manipulation of budgets through the introduction of slack. Similarly, Lukka (1988) claims that a high degree of participation privilege presents subordinates with the opportunity to slack creation. In contrast, Onsi (1973) finds that budgetary participation is negatively correlated with subordinate's need to create slack. Additionally, Cammann (1976) concludes that participation is a favourable process as it reduces a range of behaviours; one of those being slack creation. These views are supported by prospect theory, introduced by Kahneman and Tversky (1979), which suggests that subordinates who find budgetary participation useful and are rendered with high participation privileges are likely to be deterred from slack creation activities. Merchant (1985) also provides theoretical and empirical support for the expectation of low propensity to create budgetary slack in cases when budgetary participation is high. Collectively, the results from these prior studies demonstrate that the relationship between budgetary participation and budgetary slack is not straightforward and may be moderated by additional factors such as information asymmetry, budget emphasis and procedural justice. The following sections discuss these relationships.

### **Relationship between Budgetary Participation, Information Asymmetry and Propensity to Create Budgetary Slack**

Agency theory postulates that the presence of information asymmetry may have an impact on the extent to which budgetary participation causes subordinates to create budgetary slack. Prior literature (Baiman & Evans, 1983; Penno, 1984; Coughlan & Schimdt, 1985) dictates that information asymmetry occurs when subordinates (agents) maintain possession of

information that affects the decision making process between them and their superiors (principals). Information asymmetry exists only when the private information held by subordinates exceeds that of their superiors. It is generally accepted in the prior literature (Baiman, 1982; Blanchard & Chow, 1983) that subordinates in organizations have information maintaining greater accuracy than that of their superiors in regards to factors influencing performance. Magee (1980) proposes that the expected payoff to superiors could be improved with access to local information held by subordinates prior to the budget setting process. However, subordinates may be inclined to withhold or falsify their private information in order to build slack into their budget, making it easier for them to meet budgeted objectives and, as such, improving the likelihood of due compensation for doing so. Thus, information asymmetry is important in the context of budgetary slack in the sense that it allows subordinates the condition to create slack in their budget.

Waller (1988) warns that subordinates possess an incentive to bias their negotiation to secure the setting of easily achievable standards if they believe that their communicated private information is to be employed when setting the standards regarding performance evaluation. Additionally, it is likely that any private information supplied by subordinates will be used in the decision making process (Christensen, 1982; Baiman & Evans, 1983; Tehranian & Waegelein, 1985). Young (1985) concludes that the presence of information asymmetry combined with budgetary participation will result in either the intentional inclusion of excess requirements into budgets or the conscious understatement of production capabilities, or both. The general consensus deriving from these prior studies is that the presence of information asymmetry maintains a moderating effect on the relationship between budgetary participation and propensity to create budgetary slack as it is the *condition* essential for subordinates who wish to create budgetary slack.

### **Relationship between Budget Emphasis and Propensity to Create Budgetary Slack**

The predominant argument for subordinates' willingness to create slack in their budgets is to enhance their compensation prospects. Since a high budget emphasis evaluative style links the compensation of subordinates to the achievement of their budget targets, the level at which their budget

target is set is likely to be of great importance. Therefore, if subordinates perceive their rewards as dependent on the attainment of their budget targets, they may attempt to create budgetary slack through the participation process (Lowe & Shaw, 1968; Schiff & Lewin, 1970; Waller, 1988). Baiman and Evans (1983) argue that when budget constrained systems are relied on for performance evaluation, subordinates may choose to withhold some of their private information in the participative budget setting process.

However, such a general conclusion should not be drawn as budget emphasis per se may or may not be responsible for inducing budgetary slack creation. Prior incentive literature (e.g. Christensen, 1982; Chow, 1983a, b; Chow, Cooper & Waller, 1988) has illustrated that budget-based compensation schemes can motivate subordinates to act in a more functional manner by inducing them to accurately report their private information and achieve their budget targets. These studies cast doubt on the tendency of high budget emphasis to generally give rise to budgetary slack creation whenever budgets are set in a participative manner. Taken together, it can be argued that high information asymmetry, while it is a necessary condition for budgetary slack to arise from budgetary participation, is not a sufficient condition for such an event to occur. Likewise, budget emphasis alone is not a sufficient condition to induce budgetary slack creation. It is contended that information asymmetry and budget emphasis together constitute the necessary and sufficient conditions for budgetary slack to occur when budgets are set in a participative environment (Dunk, 1993; L&E 2003). The next section discusses the interaction of budget participation, information asymmetry and budget emphasis on propensity to create budgetary slack.

### **Three-way Interaction between Budgetary Participation, Information Asymmetry and Budget Emphasis**

Dunk (1993) integrates the above three independent variables into a single model in an attempt to expose their explanatory power in explaining subordinate's propensity to create budgetary slack. Dunk hypothesizes that a combination of high (low) budgetary participation, high (low) information asymmetry and high (low) budget emphasis is associated with high (low) slack creation activities. His results dictated that the relation between budgetary participation and budgetary slack is contingent upon information asymmetry and budget emphasis, but in a direction contrary to his expectation.

L & E provide a number of reasons in an attempt to explain the nature of Dunk's results. They suggest that the failure of Dunk (1993) to support his hypothesis may be due to Dunk overlooking some important considerations in regards to the interaction of the aforementioned three independent variables. L&E argue that slack creation activities, by nature, offer only short-term benefits. For subordinates to continually benefit from slack creation, the act will need to be repeated every budgeting period. As such, the likelihood of slack detection by superiors will increase (Pope, 1984; Merchant, 1985). The detection of budgetary slack created by subordinates is likely to result in the loss of trust of their superiors. In turn, this is expected to lead to the withdrawal of budgetary participation privileges from these subordinates. At the very least, budgetary slack detection will result in future budget targets submitted by subordinates being viewed with suspicion and an increased level of scrutiny. Although budgetary slack may be seen as useful in some instances, it is generally recognised as dysfunctional.<sup>1</sup> Pope (1984) suggests that superiors always have the option of removing participative privileges in regards to budget setting, thus disallowing subordinates from acquiring the alleged benefits associated with a participative style of budget setting. Consequently, the reaction from superior management in regards to detectable slack creation activities is likely to yield unfavourable consequences for managers.

Prospect theory (Kahneman & Tversky, 1979) suggests that decisions are generally made based on whether the individual is better or worse off than the status quo. Subordinates accorded with budgetary participation privileges are likely to be in favourable positions compared to the status quo. Consequently, they are not likely to make decisions that will jeopardise their participation privileges.

Merchant (1985) provides both theoretical and empirical support that propensity to create budgetary slack may not always be high when budgetary participation is high. Dunk (1993) suggests that slack creation activities are likely to occur when the budgetary participation is high as the opportunity for subordinates to engage in such activities exists. In contrast, Merchant notes that managers may have a general propensity to create budgetary slack, but the manner in which the budgeting system is designed and implemented within a business can compromise this propensity. He hypothesises and

<sup>1</sup> Young (1985) suggests that risk-averse individuals regard slack creation as beneficial because budgetary slack acts as a buffer in times of uncertainty.

finds that subordinates' propensity to create budgetary slack is negatively associated with the superiors' abilities to detect slack. Therefore, when the risks and consequences associated with slack creation in the form of slack detection outweigh the potential benefits derived from partaking in slack creating activities, it is likely that subordinates will be deterred from creating slack in their budgets even when they are accorded with high budgetary participation privileges.

This argument is consistent with prospect theory which suggests that people attach more importance to losses than to gains. For example, subordinates who have high participation privileges are likely to be deterred from slack creating activities because the possibility of losing these privileges is likely to matter more to them than the possible gains associated with meeting easy budget targets resulting from slack creation. L&E comment that this does not mean slack creation may not be prevalent, but rather suggest that whether subordinates choose to create slack or not depends on the importance the subordinate attaches to the participation privileges that may be withdrawn if the superior detects slack creation activities. The first hypothesis aims to test and replicate L&E three-way interaction prediction. Stated formally, the following hypothesis is tested:

**H<sub>1</sub>:** The relationship between budgetary participation and subordinates' propensity to create budgetary slack is moderated by information asymmetry and budget emphasis (L&E, p.96)

### **Expediency of Budgetary Participation when Information Asymmetry is Low**

In addition, L&E identify and test two scenarios in which subordinates are likely to find budgetary participation useful: (1) when information asymmetry is low, and (2) when budget emphasis is high. A discussion of each scenario is provided below.

Dunk (1993) suggests that information asymmetry is only active when the subordinate has more private information than the superior. However, in reality, it is possible for the superior to have greater information than the subordinate. Pope (1984) indicates this can occur when the superior has access to sophisticated information systems allowing them to account for

external environmental changes. Additionally, Kren (1992) specifies that this situation could also occur if the superior has extensive company-specific experience. Consequently, information asymmetry may not be one-sided as both parties could have private information. In fact, Dunk (1993) provides empirical evidence of instances in which the superiors possessed more private information than their subordinates.

Budgetary participation, in this sense, involves a two-way exchange of information between the superior and the subordinate. High budgetary participation, therefore, allows both the subordinate and superior to learn each other's private information (Brownell & Hirst, 1986; Mia, 1989). Consequently, there may be situations where superiors possess private information which subordinates wish to access, and view budgetary participation as a means of doing so. When information asymmetry is low, subordinates lack private information in comparison to their superiors and, as such, may find budgetary participation useful. Hence, subordinates in such situations may refrain from slack creation activities because they find their participation privileges useful, and therefore, unwilling to jeopardise these privileges through slack creation. This conjecture is supported by L&E who found significant results illustrating budgetary participation to be negatively associated with subordinate's propensity to create budgetary slack in low information asymmetry conditions. They concluded that *high* budgetary participation is associated with a *low* subordinates' propensity to create budgetary slack when information asymmetry is *low*. This study seeks to test and replicate the results of L&E's prediction concerning the relationship between budgetary participation and subordinates' propensity to create budgetary slack in low information asymmetry conditions. Hence, the following hypothesis is tested:

- H<sub>2a</sub>:** In low information asymmetry situations, high budgetary participation is associated with a low subordinates' propensity to create budgetary slack, regardless of the level of budget emphasis (L&E, p. 96).

## Expediency of Budgetary Participation When Budget Emphasis is High

Hopwood (1972) identifies high budget emphasis as referring to the condition whereby the performance evaluations of subordinates are dependent on the subordinate's ability to meet their budgeted targets. Because performance evaluation is usually linked to compensation schemes, subordinates tend regard the level of their budgeted targets with great importance. Budgetary participation is, therefore, regarded with similar importance as it allows subordinates to partake in the setting of their budgeted targets, thus ensuring these targets are attainable and realistic (Lau, Low & Eggleton, 1995). Consequently, subordinates in high budget emphasis situations are likely to find budgetary participation useful.

In high information asymmetry situations, subordinates don't desire to exchange or gain information from their superiors. Thus, high budgetary participation may lead to high subordinates' propensity to create budgetary slack. This is particularly relevant in low budget emphasis situations. In this case, budgetary participation may be insignificant to subordinates due to the absence of rewards linked to the attainment of budgeted targets. Subordinates who regard their participation privileges as useless are expected to have a higher tendency to engage in dysfunctional behaviour such as budgetary slack creation because they feel as though they have little to lose if their behaviour was to be detected.

Subordinates in high- budget emphasis situations, who find budgetary participation useful, are less likely (as opposed to their counterparts in low bud get emphasis situations) to risk losing their participation privileges by engaging in budgetary slack creation. This conjecture is supported by L&E who found the two-way interaction term between budgetary participation and budget emphasis to be significant and negatively related to the subordinates' propensity to create budgetary slack in high information asymmetry conditions. They concluded that *high* budgetary participation is associated with a *low* subordinates' propensity to create budgetary slack when budget emphasis is also *high*, in *high* information asymmetry conditions. This study seeks to test and replicate this interaction result. Hence, the following hypothesis is tested:

**H<sub>2b</sub>**: In high information asymmetry situations, high budgetary participation is associated with a low subordinates' propensity to create budgetary slack when budget emphasis is high (L&E, p. 96).

## **Procedural Justice**

The replication of L&E also provides a foundation for an investigation of the potential influence of procedural justice on the relationship between budgetary participation and subordinates' propensity to create budgetary slack in the presence of information asymmetry and budget emphasis situations. Procedural justice is defined as the subordinates' perception of fairness concerning the processes employed by their superiors as a means to evaluate individual performance, communicating feedback and determining rewards (McFarlin & Sweeney, 1992). The theory behind procedural justice suggests that employees are concerned with both the manner in which decisions are made and the outcome of these decisions. If these manners and the processes employed by the organization are perceived to be fair then employees are said to be satisfied (Lissak, 1983; Alexander & Ruderman, 1987). As such, high procedural justice exists when employees perceive the processes and procedures utilised by their organization as fair (Lau & Lim, 2002). It is important to note that procedural justice measures are dependent upon whether subordinates believe that these processes and procedures are fair, as opposed to actual fairness in some objective sense being attached (Lind, Huo & Tyler, 1994).

## **Relationship between Budgetary Participation and Procedural Justice**

Lindquist (1995) recognises the desire to maintain justice in incentive-based compensation control systems as an antecedent to participative budgeting. The association between procedural justice and participation, however, was established as early as the pivotal work of Thibaut, Friedland and Walker (1974). Thibaut, Friedland and Walker (1974) argue that for conflict of interest disputes, procedures that allowed the affected parties to partake in the process would be perceived with a greater level of fairness as opposed to those that did not. The theory behind this argument contends that the level of private information disclosure is increased parallel to

participation privileges; allowing for the achievement of the most equitable outcome.

Subsequent studies investigating this association have determined that the perception of procedural justice is enhanced through participation, independent of whether the final outcome is equitable or not (Lind, Huo & Tyler, 1994; Tyler, Rasinski & Spodick, 1985). Lind, Huo and Tyler (1994) suggest that participation alone satisfies one's desire to be heard and have their views considered, regardless if their expression has any bearing over the decision making process. They conclude that procedures that give employees extensive freedom when communicating their views are considered as higher in procedural justice. Additionally, Lau and Tan (2006) indicate that a significant positive relationship between budgetary participation and procedural justice exists.

### **Relationship between Budgetary Participation, Procedural Justice and Job Satisfaction**

Lindquist (1995) maintains that a precursor to participative budgeting is a desire to uphold justice in incentive-based compensation control systems. The theoretical understanding of this contention pertains to the knowledge that employers favour employee participation in the development of incentive-based control systems as a means of introducing fairness into the budgetary process. Therefore, the indirect effect of procedural justice through participation is perhaps the most supported view when examining procedural justice as a variable in the budget setting environment. This contention is supported by Lau and Lim (2002). They conclude that whilst procedural justice is found to be significantly associated with managerial performance, the effect of this association is indirect through participation.

By allowing subordinates to participate in the budget setting process (i.e. high budgetary participation), it is likely their perceptions of the organization will be influenced. If they view the processes and procedures of the organization as just, then it is likely they will perceive the organization as serving their best interests. This may reduce their suspicions that superiors are biased and acting in their own best interest, and consequently, increase their job satisfaction (see Alexander & Ruderman, 1987; McFarlin & Sweeney, 1992). Tang and Sarfield-Baldwin (1996, p. 30) argue that "if

managers can apply rules fairly and consistently to all employees and reward them based on performance and merit without personal bias, then employees will have a positive perception of procedural justice, which may lead to higher satisfaction, commitment and involvement.”

The fairness of procedures within the organization affecting subordinates' work-related attitudes (i.e. job satisfaction) is based on the simple premise that people prefer fair procedures as opposed to unfair procedures. According to the self-interest theory (Thibaut & Walker, 1975) people are motivated by the opportunity to maximise their short- or long-term outcomes. Fair procedures are said to better enable them to achieve these personal outcomes, and therefore, are preferred over unfair procedures which limit these potential achievements.

In terms of empirical evidence, earlier studies regarding procedural fairness spanned largely around the work of Thibaut and Walker (1975), who conclude that perceptions of fairness regarding procedures in legal settings are associated with increased satisfaction. The shift of procedural justice literature to the organizational setting is largely accredited to Leventhal (1980) who argues that perceived fairness in almost any allocated decision is determined by procedural justice. Subsequently, procedural justice is found to significantly affect job satisfaction (Lissak, 1983; Alexander & Ruderman, 1987). McFarlin and Sweeney (1992) comment that superiors can positively affect subordinate's job satisfaction by developing and employing procedures that are deemed fair by the subordinate. Similarly, Lau and Lim (2002) infer that procedural justice is likely to be associated with job satisfaction as it may subsidise any discontent felt among members of the organization. The 'fair process' effect, introduced by Folger (1977), also coincides with this view as it suggests that fair procedures lead to more equitable outcome which in turn, leads to greater job satisfaction. Additionally, Lindquist (1995) find that the interaction between process control and the fairness of the budget affected both task and budget satisfaction.

## **Relationship between Procedural Justice and Propensity to Create Budgetary Slack in the Presence of Budgetary Participation, Information Asymmetry and Budget Emphasis**

Earlier research regarding the effects of procedural justice (see Greenberg, 1987) provides convincing evidence that judgement regarding fairness and justice within an organization significantly influences organizational behaviours, attitudes and performance. These influences are substantial and occur across a wide variety of contexts. Lind and Tyler (1988) highlight the difficulty involved in determining the direct relationship between employee performance and attitudinal variables, stating that performance is determined by multiple factors and that it is unreasonable to expect that any single variable, including judgement of procedural justice, to have simple effects on performance. Likewise, given the attitudinal similarities between subordinate performance and their propensity to create budgetary slack, it is unreasonable to expect one attitudinal variable to have simple effects on the propensity to create budgetary slack. This is evident in the work of L&E which demonstrates that the relationship between budgetary participation and propensity to create budgetary slack is moderated by information asymmetry and budget emphasis.

Despite the recognition of procedural justice in the participative budgeting literature, no studies have attempted to investigate its potential moderating influence on the joint effect of information asymmetry and budget emphasis on the relationship between budgetary participation and subordinates' propensity to create budgetary slack. L&E demonstrate that under low information asymmetry conditions, high budgetary participation is associated with a low propensity to create budgetary slack because subordinates find budgetary participation useful and do not wish to jeopardise their participation privileges. Procedural justice, therefore, should not impact subordinates' propensity to create budgetary slack as prospect theory holds under low information asymmetry situations. It is expected that under such situations, both the superior and his/her subordinate possess similar information. Moral hazard problems are likely to be low because subordinates do not possess private information which can be used to engage in opportunistic behaviour (e.g. to pursue in private goals, cheat by intentionally creating budgetary slack, and shirking).

However, in high information asymmetry situations, L&E, relying on prospect theory, demonstrated that high budgetary participation and high budget emphasis are associated with a low subordinates' propensity to create budgetary slack. This study argues that L&E prediction will hold in the presence of high rather than low procedural justice situations. Combining organizational justice theory and prospect theory, this study predicts that subordinates are unlikely to risk losing their participation privileges by building slack in their budgets. The justifications are as follows: when the subordinates are given the opportunity (i.e. high budgetary participation) to ensure that the procedures for the budget targets set for them are fair (i.e. high procedural justice), realistic and attainable, they will more likely value their participation privileges especially when their performance evaluations are based on budget target attainments (i.e. high budget emphasis). Thus, it is predicted that under high information asymmetry situations, budget emphasis and procedural justice will moderate the relationship between budgetary participation and propensity to create budgetary slack. Stated formally, the following hypothesis is tested:

**H<sub>3</sub>:** In high information asymmetry situations, the relationship between budgetary participation and the subordinates' propensity to create budgetary slack is moderated by budget emphasis and procedural justice.

Thus far, it seems that budgetary participation is a *necessary* condition for procedural justice to occur. However, it should not be assumed that budgetary participation is a *sufficient* condition for procedural justice to occur. Situations exist where budgetary participation may not necessarily lead to a greater acceptance of organizational procedures. For example, budgetary participation may lead to subordinates learning that the processes employed by their superiors and/or the organizations as a whole are unfair (see Renn, 1998). Consequently, subordinates may react in a negative or dysfunctional manner to decisions resulting from procedures they perceive as unfair. Therefore, fair procedures need to be implemented within the organization to ensure subordinates accorded with participation privileges do not engage in dysfunctional behaviour.

High procedural justice can have certain effects on the subordinates' attitudes, behaviours and performance (see e.g. Lau & Tan, 2006). When

procedural justice is high, employees perceive their organization as ‘doing the right thing’. Lau and Sholihin (2005) find procedures that are high in fairness to be positively associated with job satisfaction. High job satisfaction is associated with increased commitment to the organization and increased organizational interest. Increased organizational commitment is likely to result in employees not ‘retaliating’ against the organization or engaging in dysfunctional behaviour (i.e. budgetary slack creation). Nouri and Parker (1996) demonstrate that high organizational commitment coupled with high budgetary participation results in low propensity to create budgetary slack. Likewise, this study suggests that high procedural justice coupled with high budgetary participation will result in low propensity to create budgetary slack.

L&E establish that in high information asymmetry situations, budgetary participation is negatively associated with subordinates’ propensity to create budgetary slack when budget emphasis is high. This study suggests that when employees are evaluated with a strict regard to their ability to achieve budgeted targets (i.e. high budget emphasis), possess private information (i.e. high information asymmetry) and when the opportunity for them to participate in setting their budget is high (i.e. high budgetary participation), the end result should be a low propensity to create budgetary slack, when procedural justice within the organization is high. Hence, the following hypothesis is tested:

**H<sub>4</sub> :** In high information asymmetry and high budget emphasis situations, there is a negative association between budgetary participation and the subordinates’ propensity to create budgetary slack when procedural justice is high.

## **METHOD**

### **Sample Selection**

This study employed a survey approach to collect data. Participants consisted of managers from Australian manufacturing firms listed in the *Who’s Who in Business in Australia* database. Firms were selected from only the manufacturing sector to provide some degree of control for industry.

Additionally, the use of budgets is common amongst manufacturing firms. The criteria for inclusion in the sample are as follows. First, each manager must hold a senior executive position in a manufacturing firm and have budget-setting responsibility. Second, the firms must have an annual sales turnover in excess of Australian \$200 million to provide a control for firm size. Smaller organizations are likely to rely on informal methods rather than formal methods when it comes to budgetary control systems. Therefore, the benchmark of Australian \$200 million is deemed appropriate. A total of 100 firms met these criteria. Only a maximum of three managers were selected from each firm to ensure that respondents are independent.

A total of 260 participants who were the departmental heads or supervisors of the accounting, production, marketing and sales functions were selected. The administration of the survey was based on the recommendation by Dillman (2007) which involved the following procedures: (1) telephone calls to check the availability of the potential participants; (2) a questionnaire package composed of a cover letter, questionnaire and reply-paid envelope; (3) a reminder postcard to be sent two weeks after the questionnaire package; and (4) a follow-up phone call to be made two weeks after the reminder postcard. Of the 260 survey questionnaires sent, a total of 134 responses were returned, yielding a response rate of 51.54%. Of the 134 responses, a total of 18 questionnaires were excluded due to incomplete and/or inappropriate responses. Ultimately, 116 responses were used in the final statistical data analyses.

The mean age of the respondents was 43.7 years. The average length of experience of respondents in their area of responsibility was 12.0 years. They had spent an average of 10.3 years in their current organization and they had held their current positions for an average of 5.2 years. The mean number of employees in their areas of responsibility was 49. The demographic data denotes that respondents are generally experienced managers in positions of high responsibility.

## **Measurement of Variables**

Existing measurement scales were used in this study as a means of enhancing the validity and reliability of the data collected as well as any results inferred from the data. The survey questionnaire used in this study is shown in Appendix A.

## **Budgetary Participation**

Budgetary participation was measured by a six-item, seven-point Likert-type scale developed by Milani (1975). This study attests the reliability of the measure by obtaining a Cronbach alpha of 0.90. The results of a factor analysis indicate that all six items in the measure loaded on a single factor, with an Eigenvalue of 4.055 and 67.59% of the variation in the underlying variable explained.

## **Information Asymmetry**

Information asymmetry was measured by a six-item, seven-point Likert-type scale originally developed by Dunk (1993). This scale has been used in prior studies (e.g. Chong & Eggleton, 2007). The Cronbach alpha for the present study is 0.81. The results of a factor analysis reveal that all six items loaded on a single factor, obtaining an Eigenvalue of 3.123 and explaining 52.05% of the variation in the underlying variable.

## **Budget Emphasis**

This study used an item, "Meeting the budget", from Hopwood's (1972) instrument to assess budget emphasis. This approach is consistent with prior management accounting studies (see Dunk 1993; L&E). L&E, for example, emphasise the fact that Hopwood (1972) had intended this item to represent situations when a cost centre head's performance was evaluated based on the ability to continually meet the budget on a short-term basis. The argument posits that budgetary slack creation is an important issue only when there is a short-term emphasis on meeting targets in the budget. Thus the item, 'Meeting the budget', provides the appropriate score for the measure of budget emphasis in relation to budgetary slack creation.

## **Procedural Justice**

Procedural justice was measured by a four-item, seven-point Likert-type scale developed by McFarlin and Sweeney (1992). This scale has been used in prior justice studies in accounting (e.g. Lau & Moser, 2008). The scale obtains a Cronbach alpha of 0.96. A factor analysis provided results that indicate that all four items loaded on a single factor with an Eigenvalue of 3.539 and 88.48% of the variation in the underlying variable being explained.

## Propensity to Create Budgetary Slack

Subordinates' propensity to create budgetary slack was measured by using Onsi's (1973) four-item instrument. This instrument is an established scale that has been used extensively in prior studies. The Cronbach alpha attained in this study is 0.94. The results of a factor analysis reveal that all four items loaded on a single factor with an Eigenvalue of 3.418, explaining 85.46% of the variation in the underlying variable.

## RESULTS

Table 1 presents the descriptive statistics for the independent and dependent variables and Table 2 depicts the zero-order (Pearson) correlation coefficients and levels of significance among the independent and dependent variables.

**Table 1: Descriptive Statistics of Independent and Dependent Variables**

Variable	Mean	Std. Dev.	Theoretical Range		Actual Range	
			Min	Max	Min	Max
Budgetary Participation	29.98	7.72	6	42	12	42
Information Asymmetry	31.15	5.97	6	42	14	42
Budget Emphasis	3.52	1.63	1	7	1	7
Procedural Justice	13.95	5.50	4	28	4	28
Propensity to Create Budgetary Slack	13.06	5.89	4	28	4	28

**Table 2: Correlation Matrix among Independent and Dependent Variables**

	Budgetary Participation	Information Asymmetry	Budget Emphasis	Procedural Justice
Information Asymmetry	0.206*			
Budget Emphasis	-0.038	-0.033		
Procedural Justice	-0.159	0.005	0.379**	
Propensity to Create Budgetary Slack	-0.219*	0.049	-0.175	-0.071

\*\* p < 0.01 (two-tailed)

\* p < 0.05 (two-tailed)

## Hypotheses Testings

To test Hypothesis H1 which states that the relationship between budgetary participation and subordinates’ propensity to create budgetary slack is moderated by information asymmetry and budget emphasis, a model of a linear regression with moderating effect was computed using the SPSS and PROCESS statistical tool developed by Hayes (2013).<sup>2</sup> The findings that correspond to this model were generated by PROCESS and are presented in Table 3.

**Table 3: Regression of Propensity to Create Budgetary Slack on Budgetary Participation, Information Asymmetry and Budget Emphasis**

Variable	Coeff.	SE	t-value	p
Constant	3.234	0.137	23.565	0.001
Budget Emphasis (BE)	-0.092	0.081	-1.134	0.259
Budgetary Participation (BP)	-0.216	0.120	-1.803	0.074
Information Asymmetry (IA)	0.208	0.151	1.378	0.171
BE x BP	-0.016	0.066	-0.237	0.813
BE x IA	0.136	0.083	1.640	0.104
BP x IA	0.022	0.107	0.211	0.833
BE x BP x IA (H1)	-0.197	0.057	-3.438	0.001

R<sup>2</sup> = 0.213; F-value = 5.407; p<0.001

The results presented in Table 3 indicate that the relationship between budgetary participation and subordinates’ propensity to create budgetary slack is negative and statistically significant (t = -0.197, p < 0.001) moderated by information asymmetry and budget emphasis. The model as a whole explains 21.3% of the variation in propensity to create budgetary slack. Hypothesis H1 is, therefore, supported. This result is consistent with that of Dunk (1993) and L&E.

Hypothesis 2a states that in low information asymmetry situations, high budgetary participation is associated with a low subordinates’ propensity to create budgetary slack, regardless of the level of budget emphasis. Hypothesis 2b states that in high information asymmetry situations, high budgetary participation is associated with a low subordinates’ propensity to create

<sup>2</sup> The advantages of using PROCESS tool over the normal regression tool because it will “centre predictors” and “compute the interaction automatically” (Field, 2013, p. 401)

budgetary slack when budget emphasis is high. In order to test for hypotheses H2a and H2b, the total sample was dichotomised (at the mean value = 31.15) into two subsamples based on information asymmetry: low information asymmetry and high information asymmetry conditions. Consequently, 53 responses were recorded for the low information asymmetry subsample and 63 for the high information asymmetry subsample.

It is expected that the coefficient of budgetary participation should be negative and statistically significant. The results from Table 4 indicate that budgetary participation (-0.323) is significant ( $p < 0.027$ ) and negatively related to propensity to create budgetary slack. The model as a whole explains 30.9% of the variation in propensity to create budgetary slack. These results provide support for hypothesis H2a, and are consistent with those of L&E.

**Table 4: Regression of Propensity to Create Budgetary Slack on Budgetary Participation and Budget Emphasis for the Low Information Asymmetry Condition**

Variable	Coeff.	SE	t-value	p
Constant	3.020	0.170	17.727	0.001
Budget Emphasis (BE)	-0.311	0.099	-3.130	0.003
Budgetary Participation (BP) (H2a)	-0.323	0.142	-2.282	0.027
BE x BP	0.146	0.093	1.564	0.124

$R^2 = 0.309$ ;  $F\text{-value} = 4.466$ ;  $p < 0.008$

The results for the high information asymmetry subsample are presented in Table 5. As expected, the coefficient of the two-way interaction between budget emphasis and budgetary participation is negative and statistically significant (-0.223,  $p < 0.033$ ) related to propensity to create budgetary slack. The model as a whole explains 12.9% of the variation in propensity to create budgetary slack. These results provide support for hypothesis H2b, and are consistent with those of L&E.

**Table 5: Regression of Propensity to Create Budgetary Slack on Budgetary Participation and Budget Emphasis for the High Information Asymmetry Condition**

Variable	Coeff.	SE	t-value	p
Constant	3.486	0.191	18.277	0.001
Budget Emphasis (BE)	0.068	0.127	0.535	0.595
Budgetary Participation (BP)	-0.207	0.162	-1.281	0.205
BE x BP (H2b)	-0.223	0.102	-2.182	0.033

R<sup>2</sup> = 0.129; F-value = 2.245; p<0.092

Hypothesis H3 states that in high information asymmetry situations, the relationship between budgetary participation and subordinates' propensity to create budgetary slack is moderated by budget emphasis and procedural justice. To test for hypothesis H3, the total sample was dichotomised (at the mean value = 31.15) into two subsamples based on information asymmetry: low information asymmetry and high information asymmetry conditions. Table 6 below presents the results of the three-way interaction between budget emphasis, budgetary participation and procedural justice affecting the propensity to create budgetary slack under the high information asymmetry condition.

**Table 6: Regression of Propensity to Create Budgetary Slack on Budgetary Participation, Budget Emphasis and Procedural Justice for the High Information Asymmetry Condition**

Variable	Coeff.	SE	t-value	p
Constant	3.433	0.211	16.275	0.001
Budget Emphasis (BE)	0.010	0.146	0.070	0.944
Budgetary Participation (BP)	-0.097	0.186	-0.522	0.604
Procedural Justice (PJ)	-0.123	0.147	-0.835	0.408
BE x BP	-0.017	0.134	0.128	0.899
BE x PJ	0.027	0.071	0.377	0.708
BP x PJ	-0.005	0.158	-0.029	0.977
BE x BP x PJ (H3)	-0.122	0.069	-1.763	0.083

R<sup>2</sup> = 0.210; F-value = 3.772; p<0.002

The results presented in Table 6 indicate that the interaction term is marginally significant ( $-0.122$ ,  $p < 0.083$ ) and negatively related to propensity to create budgetary slack. The model as a whole explains 21.0% of the variation in propensity to create budgetary slack. Hypothesis H3 is, therefore, partially supported.

Hypothesis H4 states that in high information asymmetry and high budget emphasis situations, there is a negative association between budgetary participation and the subordinates' propensity to create slack when procedural justice is high. To test for hypothesis H4, the high information asymmetry subsample was further dichotomised (at the mean value = 3.32) based on budget emphasis: low budget emphasis and high budget emphasis conditions. Table 7 below presents the results of the two-way interaction between budgetary participation and procedural justice affecting the propensity to create budgetary slack under the high budget emphasis, high information asymmetry condition.

**Table 7: Regression of Propensity to Create Budgetary Slack on Budgetary Participation and Procedural Justice for the High Budget Emphasis, High Information Asymmetry Condition**

Variable	Coeff.	SE	t-value	p
Constant	3.486	0.191	18.277	0.001
Procedural Justice (PJ)	-0.166	0.173	-0.959	0.349
Budgetary Participation (BP)	-0.172	0.314	-0.548	0.590
BE x BP (H4)	-0.441	0.159	-2.781	0.012

$R^2 = 0.403$ ;  $F\text{-value} = 5.435$ ;  $p < 0.007$

As expected, the coefficient of the two-way interaction term is statistically significant and negative. The results presented in Table 7 indicate that the two-way interaction term ( $-0.441$ ) is statistically significant ( $p < 0.012$ ) and negatively related to propensity to create budgetary slack. The

model as a whole explains 40.3% of the variation in propensity to create budgetary slack. Hypothesis H4 is, therefore, supported.<sup>3</sup>

## DISCUSSIONS AND CONCLUSION

This study examines if the results presented in L&E regarding the moderating influence of information asymmetry and budget emphasis on the relationship between budgetary participation and propensity to create budgetary slack hold in a different sample. Additionally, this study examines procedural justice as an additional moderating variable on the relationship between budgetary participation and propensity to create budgetary slack under high budget emphasis and high information asymmetry situation.

Results of this study are consistent with that of Dunk (1993) and L&E. Specifically, subordinates' propensity to create budgetary slack is *low* when budgetary participation, information asymmetry and budget emphasis are all *high*. Unlike Dunk (1993) who argued that the subordinates' self-interest is best served by budgetary slack creation, this study maintains the same premise as that proposed by L&E in that the subordinates' self-interest is best served by preserving their participation privileges. This assumption is consistent with suggestions of earlier studies (Pope, 1984) regarding the lessened prioritisation of concealing or misrepresenting private information when it comes to the self-interest of individuals. The notion that the preservation of participation privileges takes precedence over budgetary slack creation is founded on the long run versus short run considerations of subordinates. In reality, employment relationships typically span across multiple periods (Chow, Cooper & Haddad, 1991). Thus, subordinates are more likely to be concerned with long-term benefits as opposed to short-term benefits. Slack creation may be beneficial to subordinates in the short

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3 A robustness test was conducted for hypothesis H4. Procedural justice was dichotomised into two subsamples within the high information asymmetry condition (i.e. low procedural justice and high procedural justice conditions). The robustness test for hypothesis H4 is concerned only with the high procedural justice condition within the high information asymmetry subsample (number of observations = 29). The results for the two-way interaction between budget emphasis and budgetary participation affecting the propensity to create budgetary slack under the high procedural justice, high information asymmetry condition, along with the plot for the interaction model, is presented in Appendix C. The results indicate that the coefficient for the interaction term (-0.313) is statistically significant ( $p < 0.013$ ) and negatively related to propensity to create budgetary slack, providing additional support for hypothesis H4.

term; however, the preservation of participation privileges is likely to be more beneficial to them in the long term.

Results of this study find that when information asymmetry is *high*, subordinates' propensity to create budgetary slack is *low* when budgetary participation, budget emphasis and procedural justice are all *high*. When subordinates are given the opportunity (i.e. high budgetary participation) to ensure that the procedures for the budget targets set for them are fair (i.e. high procedural justice), realistic and attainable, they will more likely value their participation privileges especially when their performance evaluations are based on budget target attainments (i.e. high budget emphasis). Thus, subordinates are unlikely to risk losing these privileges by engaging in budgetary slack creation.

Results of this study support the prediction that in high information asymmetry and high budget emphasis situations, there is a negative association between budgetary participation and the subordinates' propensity to create slack when procedural justice is high. This result suggests that when employees are evaluated with a strict regard to their ability to achieve budgeted targets (i.e. high budget emphasis), possess private information (i.e. high information asymmetry) and when the opportunity for them to participate in setting their budget is high (i.e. high budgetary participation), high procedural justice is sufficient in ensuring a low propensity to create budgetary slack.

The results of this study have numerous theoretical and practical implications. From a theoretical perspective, the results of this study reinforce the theoretical implications ensuing from L&E, as well as creating a comprehensive theoretical framework in which to view the moderating effect of procedural justice on the relationship between budgetary participation and propensity to create budgetary slack. Firstly, the results of this study reinforce the significance of considering the interactive effects of budgetary participation, information asymmetry and budget emphasis on subordinates' propensity to create budgetary slack as opposed to only their isolated effects. For example, Onsi (1973) and Merchant (1985) found budgetary participation to be negatively associated with budgetary slack while Young (1985) reported a negative association. The differing conditions of information asymmetry regarding the usefulness of budgetary

participation in light of the long-term versus short-term considerations of subordinates outlined in L&E and reinforced by this study explain these conflicting results. Young (1985) conducted a single-period experimental study while data from Onsi (1973) and Merchant (1985) consisted of observations from real world managers. In real working environments, subordinates are concerned with the loss of their participation privileges, while in a single-period experimental setting, these concerns are unlikely to exist. Engaging in dysfunctional behaviour (i.e. budgetary slack creation) may jeopardise these participation privileges, thus explaining the low propensities to create slack amongst the observations of Onsi (1973) and Merchant (1985) whereas Young's (1985) experimental subjects created budgetary slack when accorded with high budgetary participation privileges.

In regards to information asymmetry, Jaworski and Young (1992) found information asymmetry to be negatively associated with dysfunctional behaviour (i.e. creating budgetary slack) while Chow, Cooper and Waller (1988) found this association to be positive. The interactive effect of information asymmetry with budgetary participation and budget emphasis helps to explain these conflicting results. The results of this study, as well as that of L&E, indicate that the main effect of information asymmetry on subordinates' propensity to create budgetary slack is insignificant. However, this effect is conditional upon both the levels of budgetary participation and budget emphasis. Thus, the integration of budgetary participation, information asymmetry and budget emphasis into a single model facilitates a more coherent framework by which to explain the occurrence of budgetary slack.

Secondly, the results support the hypotheses and the expectation of this study that procedural justice plays an important role in influencing subordinates' propensity to create budgetary slack in participative budgeting. The results provide the empirical support for management accounting researchers to place greater emphasis on organizational justice theory when attempting to explain and resolve management accounting issues. Given the extensive amount of management accounting procedures within an organization, continuous opportunities exist for management accounting researchers to play an important role not only in further developing procedural justice theories but also in providing new insights into procedural justice issues. It is hoped that this study contributes to the existing literature

by not only presenting a comprehensive framework in which to examine the effect of procedural justice on propensity to create budgetary slack in a participative budgeting setting, but by also inspiring further research into the procedural justice theory.

From a practical perspective, the results obtained in this study may have important inferences for the design and implementation of control systems within organizations. There is a fine balance between healthy budgetary slack created as a buffer for uncertainty and dysfunctional budgetary slack creation. Excessive budgetary slack creation results in subordinates obtaining additional resources that are otherwise not required. Not only does this have detrimental effects on the resource allocation process, but these additional resources may also be diverted to non-productive purposes.

Procedures are an ever-present feature of any organization. Lau and Lim (2002) note that more people encounter formal decision-making procedures in the course of their work than in any other area of their lives. Lind and Tyler (1988) suggest that “Organizational designers look to procedural justice research for effective means to enhance and maintain the quality of work life and internal cohesiveness of organizations”. Furthermore, they stated that when procedures are considered fair, the organizations can expect to see greater employee satisfaction, less conflict and more obedience to procedures and decisions. With respect to budgeting, it appears as though budgetary participation is necessary but not a sufficient condition required for procedural justice to occur. The results of this study dictate that subordinates’ propensity to create budgetary slack is decreased when the procedures and processes implemented by the organization in participative budgeting setting are perceived by the subordinate as fair.

Hence, the model developed and tested in this study may assist superiors to understand the manner in which budgetary participation, information asymmetry, budget emphasis and procedural justice affect their subordinates’ propensity to create budgetary slack. This understanding can help superiors in the management of budgetary slack through the manner in which their control systems are designed and implemented. By identifying the different conditions under which the propensity to create budgetary slack is low or high, superiors are able to effectively and efficiently select the appropriate combinations to manage the creation of budgetary slack

within their organization. Furthermore, the results of this study may provide a guide for superiors to manage budgetary slack in regards to developing non-financial targets for their subordinates.

The methodology used in this study is subject to a number of limitations. Firstly, the statistical techniques used in this study do not infer causation. These techniques only confirm association and not cause. The support for causation in this study is derived from the theoretical argument and previous findings. Secondly, as is the case with most studies of this nature, caution should be exercised in regards to the generalization of the results found in this study to other dependant variables, functional areas and sectors. This study is based on manufacturing firms with an annual sales turnover in excess of Australian \$200 million. Therefore, the results derived from this study are not necessarily reflective of firms of any sector and size but rather restricted to similar levels of management and types of organization. Similarly, as indicated by a number of other studies (Mia & Chenhall, 1994; McInnes & Ramakrishnan, 1991), important differences may exist in regards to management control systems across different functional areas. Consequently, caution is needed if the results of this study are to be generalised to other functional areas.

The usual limitations associated with the questionnaire survey research approach are prevalent in this study. This method of data collection warrants for both increased leniency error and decreased variability (Prien & Liske, 1962; Thornton, 1968). Leniency error regards the potential tendency of subordinates to display a bias when assessing their own performance, often ranking themselves higher than what is realistically reflective. Decreased variability refers to the natural occurrence of subordinates rating all similar questions in a questionnaire with very low variability as they fail to see any major difference in meaning. Both of these phenomena have the possibility of being present in the data collected for this study. Procedural justice, as a construct, may be viewed in both a clinical and an emotive light. This study is concerned only with clinical measures of procedural justice. However, the possibility exists that the questionnaire responses of managers may be founded on an emotive platform, thus prejudicing the results obtained in this study.

This study implies numerous possible avenues for future research. These are: (1) using different research methods to further investigate the theoretical causal relationships tested in this study, (2) replicating this study in a different industry (e.g. service) as a means of enabling the results to be generalised into other contexts, and (3) using different measuring instruments for the variables examined in this study in order to improve the robustness of the results. Additionally, it is hoped that this study inspires an increased amount of replication-based studies, especially within the organizational study setting, so as to cement the accounting academy as a genuine scientific community.

Notwithstanding the aforementioned limitations, this study has demonstrated both the importance of replication in research, and the moderating influence of procedural justice on the joint effect of information asymmetry and budget emphasis on the relationship between budgetary participation and propensity to create budgetary slack. This study has developed a comprehensive theoretical framework in which to examine the effectiveness of procedural justice as moderating variable between budgetary participation and propensity to create budgetary slack. The findings not only reinforce the applicability of the implications derived from the results of L&E, but also support the significance of implementing fair procedures and processes within an organization. Thus, it is hoped that the findings of this study will inspire future research involving both budget behaviour and the importance of perceptions of justice in the design and implementation of management accounting control systems.

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## APPENDIX A: QUESTIONNAIRE

### Budgetary Participation

The following questions describe the role in which you play in the development of the budget for your department or business unit. Please answer the following six questions by **circling** a number from 1 to 7.

1. Which category below best describes your activity when the budget is being set? I am involved in setting

1	2	3	4	5	6	7
None of the budget						All of the budget

2. Which category below best describes the reasoning provided by your superior when budget revisions are made? The reasoning is

1	2	3	4	5	6	7
Very arbitrary and/or illogical						Very sound and/or logical

3. How often do you state your requests, opinions and/or suggestions about the budget to your superior without being asked?

1	2	3	4	5	6	7
Never						Very frequently

4. How much influence do you feel you have on the final budget?

1	2	3	4	5	6	7
None						Very high amount

5. How do you view your contribution to the budget? My contribution is

1	2	3	4	5	6	7
Very Unimportant						Very important

6. How often does your superior seek your requests, opinions and/or suggestions when the budget is set?

1	2	3	4	5	6	7
Never						Very frequently

**Information Asymmetry**

Please answer the following six questions by **circling** a number from 1 to 7.

1. In comparison with your superior, who is in possession of better information regarding the activities undertaken in your area of responsibility?

1	2	3	4	5	6	7
My superior has much better information			We have about the same quality of information			I have much better information

2. In comparison with your superior, who is more familiar with the input-output relationships inherent in the internal operations of your area of responsibility?

1	2	3	4	5	6	7
My superior is much more familiar			We are about equally familiar			I am much more familiar

3. In comparison with your superior, who is more certain of the performance potential of your area of responsibility?

1	2	3	4	5	6	7
My superior is much more certain			We are about equally certain			I am much more certain

4. In comparison with your superior, who is more familiar technically with the work of your area of responsibility?

1	2	3	4	5	6	7
My superior is much more familiar			We are about equally familiar			I am much more familiar

5. In comparison with your superior, who is better able to assess the potential impact of your activities of factors external to your area of responsibility?

1	2	3	4	5	6	7
My superior is much better able			We are about equally able	I am much better able		

6. In comparison with your superior, who has a better understanding of what can be achieved your area of responsibility?

1	2	3	4	5	6	7
My superior has a much better understanding			We are about the same understanding	I have a much better understanding		

### Budget Emphasis

When your superior is evaluating your performance, how much importance do you think he or she attaches to the following items? Please indicate the extent of your agreement to the following questions by **circling** a number from 1 to 7, based on the following scale:

- |                                  |                             |
|----------------------------------|-----------------------------|
| <b>1. Never important</b>        | <b>5. Often important</b>   |
| <b>2. Seldom important</b>       | <b>6. Usually important</b> |
| <b>3. Occasionally important</b> | <b>7. Always important</b>  |
| <b>4. Sometimes important</b>    |                             |

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| 1. How well I cooperate with colleagues.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. My concern with costs.                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. How well I get along with him or her.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. How much effort I put into the job.     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. My concern with quality.                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Meeting the budget.                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. My attitude toward my work and company. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. My ability to handle my work force.     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

### Procedural Justice

Please respond to each of the following questions by circling a number from 1 to 7.

	Very Unfair						Very Fair
How fair are the procedures used to evaluate employee performance?	1	2	3	4	5	6	7
How fair are the procedures used to determine promotions?	1	2	3	4	5	6	7
How fair are the procedures used to communicate performance feedback?	1	2	3	4	5	6	7
How fair are the procedures used to determine pay increases?	1	2	3	4	5	6	7

### Propensity to Create Budgetary Slack

Please respond by circling a number from 1 to 7 for each of the following statements.

	Strongly Disagree						Strongly Agree
1. To protect myself, I submit a budget that can safely be attained.	1	2	3	4	5	6	7
2. I set two levels of standards to be safe: one between myself and my immediate superior, and another between myself and top management.	1	2	3	4	5	6	7
3. In good business times, my superior is willing to accept a reasonable level of slack in the budget.	1	2	3	4	5	6	7
4. Slack in the budget is good to do things that cannot be officially approved.	1	2	3	4	5	6	7