

# THE EFFECT OF ORGANIZATIONAL ETHICAL CLIMATE AND PEER MONITORING CONTROL SYSTEMS ON BUDGETARY SLACK: AN EXPERIMENTAL STUDY

Vincent K Chong

Danny Sudarso

Business School,

University of Western Australia, Australia

## ABSTRACT

This study aims to address the following research questions: (1) Does a peer monitoring control system provide an ideal opportunity for managers to build slack into their budgets in team-based settings? (2) Does the organizational ethical climate influence managers' propensity to create budgetary slack? (3) What is the effect of peer monitoring control systems and the organizational ethical climate on managers' budgetary slack creation? A laboratory experiment was conducted. The results indicate that a peer monitoring control system provides an ideal opportunity for managers to build slack into their budgets. The results of this study suggest that the organizational ethical climate can influence subordinates' ethical behaviors. It was found that under a weak organizational ethical climate, subordinates were more likely to engage in opportunistic behavior. Finally, the results demonstrated that budgetary slack creation was lowest in the absence of a peer monitoring control system and where there was a strong organizational ethical climate.

**Keywords:** ethical climate, peer monitoring control systems, budgetary slack.

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## **INTRODUCTION**

One issue that is arguably the most problematic in the budgeting process is the creation of budgetary slack. From an organizational perspective, the adverse implication of budgetary slack is that slack budgets do not represent managers' best estimates of expected results, and they hinder the planning and control, resource allocation, and coordination of business unit activities (Baiman, 1982; Choudhury, 1985; Covaleski, Evans, Luft & Shields, 2003). A number of prior studies have addressed this issue, specifically by focusing on the determinants of budget slack (Onsi, 1973; Young, 1985; Waller, 1988; Chow, Cooper & Waller, 1988, 1991; Cyert & March, 1992; Fisher, Frederickson & Pfeffer, 2000, 2002a; Fisher, Maines, Pfeffer & Sprinkle, 2002b; Kren & Maiga, 2007). Prior agency theory based studies have identified the determinants of subordinates' propensity to create budgetary slack, including information asymmetry (e.g., Young 1985; Fisher, Frederickson & Pfeffer, 2002a; Fisher, Maines, Pfeffer & Sprinkle 2002b; Kren & Maiga, 2007), risk aversion (e.g., Onsi, 1973; Cyert & March, 1992), and incentive-based pay schemes (e.g., Chow, Cooper & Waller, 1988, 1991; Waller, 1988; Fisher, Frederickson & Pfeffer, 2000). Agency theory assumes that individuals are economically rational and motivated solely by opportunistic self-interest. As a result, when circumstances are conducive to the creation of slack (e.g., the existence of information asymmetry and slack-inducing schemes), a risk-averse agent will wish to maximize his/her slack creation.

Other studies have identified the means by which budgetary slack may be controlled as including subordinates' reputation and ethical concerns (e.g., Stevens, 2002), variance investigation policy (e.g., Webb, 2002), subordinates' honesty and superiors' authority (e.g., Rankin, Schwartz & Young, 2008), trust in superiors, truthfulness in revealing private information (e.g., Chong & Ferdiansah, 2011), and accountability pressures (e.g., Chong, Leong & Woodliff, 2011). Collectively, these studies have focused primarily on individual-based decision-making settings. A frequent criticism of individual-based decision-making settings is that such findings may not be applicable in today's business environment because decision-making processes such as budget-setting occur increasingly in a team-based setting (Cohen & Bailey, 1997; Wellins, Byham & Dixon, 1994). This paper aims to examine budgetary slack creation by subordinates in a team-based setting.

A number of studies have examined reliance on peer monitoring (e.g., Towry, 2003; Loughry & Tosi, 2008; Zhang, 2008) as an effective management control. Towry (2003) defined peer monitoring as a system whereby the ability of team members to observe each other's actions is exploited by the principal to extract private information. Zhang (2008) suggested that collusive behavior may exist under a peer monitoring control system. The degree of collusive climate created by factors such as increased inter-agent communication and agents' perception of an unfair principal is expected to intensify the effect of a peer monitoring control system in the creation of budgetary slack when there are vertical private information conditions. In addition, it is anticipated that agents are also expected to collude in the creation of budgetary slack as a result of incentives packages in the form of slack-inducing schemes.<sup>1</sup> This study aims to investigate whether the presence of a peer monitoring control system generates an opportunity for subordinates to create budgetary slack.

Experimental studies of budgetary slack creation have found that certain subjects violate standard agency theory predictions. For example, numerous studies found that factors such as social influence pressures (Young, 1985) and ethical concerns (Stevens, 2002) reduced budgetary slack. Indeed, the accounting literature on project escalation decisions suggests that factors such as ethical reasoning (Rutledge & Karim, 1999) and the ethical environment (Booth & Schulz, 2004) can mitigate self-interested behaviour. For example, Booth and Schulz (2004) note that "...a strong ethical environment may lead to a general tendency for managers to act in the interests of their organizations and, more specifically, a reduced tendency for managers to act opportunistically under agency problem conditions." This paper aims to test whether the presence of a strong organizational ethical climate can be used as a management control to mitigate budgetary slack creation; and also the joint effect of a peer monitoring control system and a strong organizational ethical climate on budgetary slack creation.

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1 A slack-inducing scheme basically rewards agents with a fixed salary if the actual amount equals or is below the budget target. However, if the budget target is exceeded ("excess unit"), agents are rewarded with a fixed salary plus a piece-rate component, which is calculated as the excess unit multiplied by an agreed rate.

Based on the above, we pose the following research questions:

1. Does a peer monitoring control system provide an ideal opportunity for managers to build slack into their budgets in a team-based setting?
2. Does organizational ethical climate influence managers' propensity to create budgetary slack?
3. What are the effects of peer monitoring control systems and organizational ethical climate on managers' budgetary slack creation?

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.

## **THEORETICAL DEVELOPMENT AND HYPOTHESES**

### **The Relationship between Information Availability and Budgetary Slack**

Based on agency theory, if the agent has private information which the principal cannot gain access to without cost, then the agent may be work-averse and risk-averse (Baiman, 1990). As a result, subordinates are likely to engage in adverse selection (misrepresentation of skills and abilities) and moral hazards (shirking behavior) when exposed to situations of conflict of interest with their superiors who are not able to observe the level of effort exerted by their subordinates (Loughry & Tosi, 2008). This is possible due to the presence of information asymmetry (private information) between agents and their superiors. According to Fisher, Frederickson & Pfeffer, (2002a), when there is information asymmetry, superiors are not aware of the subordinates' performance capabilities, and hence there is a greater likelihood that subordinates' initial budget proposals will at least partially influence their superiors. They also added that subordinates made significantly lower budget proposals under conditions of information asymmetry than under conditions of information symmetry. In contrast,

when the agents' performance capabilities are only available to themselves (i.e., information asymmetry), agents are likely to engage in behavior that allows them to maximize their own interests and disregard the interests of the firm, as the principal does not have sufficient information to detect any dysfunctional behaviour. Therefore, it is expected that budgetary slack will be higher when information is kept private than when information is publicly available.

### **The Relationship between Peer Monitoring Control Systems and Budgetary Slack**

The first hypothesis focuses on reliance on peer monitoring control systems to address vertical agency problems (i.e., the presence of vertical information asymmetry) in a team-based setting. Peer monitoring refers to a control system where team members have the ability to observe each other's actions (Towry, 2003). Due to similarities in work conditions, it is expected that agents can often acquire information about other agents that is not directly available to the principal (Fama & Jensen, 1983). As a result, agents are also more likely than the principal is to be aware of co-workers' opportunistic behavior. We reply on the issues relating to individual and collective-based decision-making processes to develop our arguments for H1. It is suggested that collective decision-makers created more budgetary slack than individuals under slack-inducing contracts (Hunton & Kohlmeyer, 2004). This finding is based on two key factors; namely, collective units' competitiveness and accountability pressures. First, prior research has suggested that collective units are more competitive than individuals, even in the absence of collective extrinsic rewards (Dardis et al., 1990; Drigotas, Graetz, Insko, Schopler & Smith, 1991; Insko & Schopler, 1992; Dahl, Drigotas, Graetz, Insko, Schopler & Smith, 1993). Intra-group social processes, particularly collective discussions, which foster an atmosphere of defeating the perceived competition generate these competitive feelings (Morgan & Tindale, 2002).

Consequently, collective discussion of budgetary incentive contracts would stimulate the collectively-oriented competitive spirit, thereby resulting in collective units attempting to "game" the budgetary process more aggressively than individuals do in an effort to win. Second, accountability theory suggests that individuals, as compared to collective units, may be

more reluctant to succumb to extreme positions or make risky decisions because individuals inherently feel more accountable for their decisions, even in the absence of external accountability mechanisms (Tetlock, 1985; Fandt & Ferris, 1990; Kroon, Rabbie & Van Kreveld, 1992; Frink & Klimonski, 1998). Individual decision-makers' heightened feelings of accountability arise, in part, because there is no collective unit within which the individual can hide or shirk their responsibility (Liden, Wayne, Judge, Sparrowe, Kraimer & Franz, 1999). Consequently, the extent of slack that individuals build into their budgets should be less extreme than in collective units due to heightened feelings of personal accountability. Taken together, the literature outlined above suggests that in the presence of a peer monitoring control system, subordinates are more likely to have opportunities to engage in dysfunctional behavior (i.e., to build slack into their budget). Thus, the following hypothesis, in its alternative form, is tested:

*H1*: Budgetary slack will be higher in the presence, rather than absence, of a peer monitoring control situation.

## **The Relationship between Organizational Ethical Climate and Budgetary Slack**

Organizational ethical climate refers to "...a type of organizational work climate, which is best understood as a group of prescriptive climates reflecting organizational procedures, policies, and practices with moral consequences (Cullen, Parboteeah & Victor, 2003, Martin & Cullent, 2006). Prior studies (Appelbaum, Deguire & Lay, 2005; Peterson, 2002; Wimbush & Shepard, 1994) suggest that the ethical climate of an organization can be used to predict not only counterproductive behaviors, but unethical behavior such as budgetary slack creation (Douglas & Wier, 2000). This study focuses on budgetary slack as an unethical behavior.

We propose that agents' perceptions of factors within an organization's climate will influence their control consciousness. These organizational climate factors include the principal's integrity and fairness, ethical standards and values, and philosophy and style. It follows that agents' behaviors can be influenced and motivated by the senior management (the principal) of their organizations, as they set the tone for the internal

workplace climate of the organization. Indeed, prior studies (e.g., Francis, Huang & Zang 2008; Roger & Stocken, 2005; Cianci & Kaplan, 2010; Chong & Ferdiansah, 2011; Chong & Loy, 2015) have suggested that a leader's reputation can influence the behavioral intentions of subordinates. Similarly, earlier studies (Arnold, Lampe & Sutton, 1999, 2000; Booth & Schulz, 2004) have argued that organizations can foster a workplace climate where weak or strong ethical decision-making can occur.

In a weak organizational ethical climate, there is a lack of social ties between the subordinates and the principal, which will result in the subordinates feeling that their work is not appreciated. This will subsequently generate a series of dysfunctional behaviors to suppress their negative feelings, and through inter-agent communication, collusive behavior is expected to increase as other team members begin to either consciously or unconsciously justify the dysfunctional behavior as the result of their perception of their principal's lack of fairness. In this regard, if agents are allowed to behave in a manner that is driven by the extent of their perceptions of, and reactions to, the organizational climate, they are expected to decrease their reporting honesty. When there is an increase in inter-agent communication, this is expected to have a spreading effect such that other team members will rationalize the dysfunctional behavior and become followers instead of whistle-blowers (Zhang, 2008). As a result, we posit that budgetary slack creation is likely to be high, especially under private information conditions. On the other hand, it is suggested "...an organization with a strong ethical climate will create a general tendency for managers to more strongly align their behavior with the norms of the organization, resulting in greater levels of ethical decision-making by managers within the organization" (Booth & Schulz, 2004). Thus, under a strong organizational ethical climate, the propensity to create budgetary slack is likely to be low in a low information asymmetry situation. Taken together, the second hypothesis, in its alternative form, is tested:

**H2:** Budgetary slack will be lower in a strong, rather than a weak, organizational ethical climate.

## The Effect of Peer Monitoring and Organizational Ethical Climate on Budgetary Slack

As noted earlier, the presence of a peer monitoring system provides the opportunity for the subordinates to build slack into their budgets in a high information asymmetry situation. On the other hand, the absence of peer monitoring system does not provide the opportunity for budgetary slack to be created (i.e., H1). With regard to organizational ethical climate, in a weak ethical climate, it is expected that the employees' propensity to create slack is high, while in a strong ethical climate, the subordinates' propensity to create budgetary slack is likely to be low (i.e., H2). Thus, it is concluded that peer monitoring and organizational ethical climate work independently to affect subordinates' budgetary slack creation, but it is not known precisely when these two variables combine to jointly affect slack creation by subordinates in the budget-setting process.

The literature suggests that the effect of a peer monitoring control system may result in increased inter-agent communication, agent's perceptions of an unfair principal (Zhang, 2008), and the extent the organization's ethical climate can be used to predict unethical behavior such as subordinates' propensity to create slack (Appelbaum, Deguire & Lay, 2005; Peterson, 2002; Wimbush & Shepard, 1994). We predict that the combination of the absence of a peer monitoring control system and a weak organizational ethical climate is expected to provide conditions conducive to the creation of slack. However, the combination of the presence of a peer monitoring control system and a weak organizational ethical climate is expected to intensify subordinates' propensity to create budgetary slack significantly. Conversely, we predict that a strong organizational ethical climate is expected to provide conditions that decrease or mitigate the incentive to create budgetary slack in the absence of a peer monitoring control system. Therefore, the third hypothesis, in its alternative form, is tested:

- H3:** Budgetary slack will be lower in a strong, rather than a weak, organizational ethical climate in the absence of a peer monitoring control system.



## **METHOD**

### **Subjects**

The subjects for this experiment were 74 undergraduate commerce students who were enrolled in the Bachelor of Commerce program of a large Australian university. These students had taken at least two management accounting courses, where they studied budget preparation and various issues related to the budget-setting process. It was necessary for the subjects to have basic budget-related knowledge for the purpose of this experiment to improve its quality and success rate. Of the 74 subjects, eight failed the manipulation check and thus were excluded from the data analysis. Ashton and Krames (1980) argued that it is justifiable to utilize undergraduate students as a proxy for managers, particularly for tasks involving decision-making and information processing. Furthermore, Hunton (2001) stated that students and business professionals are comparatively similar in the ways that they acquire and interpret socially acquired cognitions, such as procedural knowledge. Therefore, the use of students in this study was deemed to be appropriate. Subjects were compensated with AUS\$15.00 for their participation in the experiment.

### **Experimental Procedures**

#### **Stage One: Training and Trial Sessions**

The objective of this stage was to familiarize the subjects with the tasks and establish their performance capabilities. The subjects were given the first set of booklets, which contained the task overview, a decoding key, a training session worksheet with examples, and a trial session worksheet. They were asked to assume the role of a production manager at a fictitious company, the Beta Company, and told that one of their major responsibilities was to prepare the budget. They were then instructed to perform a five-minute decoding task in each session.

The decoding task involved a simple exercise adapted from Chow (1983). The task requires the subjects to decode a series of letters and transform the letters into the corresponding numbers based on a decoding key. The subjects were then required to “solve” the codes by adding up the numbers generated during the exercise without using a calculator, within five

minutes. Each subject was provided with a packet of codes that contained a mixture of two types of codes, where the subject could choose any code they preferred to solve in random order. The type “A” code contained a set of four letters that correspond to a two-digit number. This type of code is solved by adding up the four two-digit numbers. The type “Z” code is more complex as it involves a set of five letters that correspond to a four-digit number. This type of code is also solved by adding up the five four-digit numbers. For each correctly solved code, subjects would receive reward points. The reward points were used as the basis for the subjects to set their budget targets. Subjects who solved the type “Z” code received 50 reward points whereas those who solve the type “A” code received 25 reward points. At the end of the five-minute training and trial sessions, the subjects were asked to add up the total reward points they managed to obtain. Finally, the subjects were asked to indicate their best estimate of the number of reward points they expected to achieve if they were to repeat the same tasks with the same time constraint during the work session (i.e., in Stage Two).

**Stage Two: Employee’s Pay Scheme, Treatment Conditions and Work Session**

Subjects were randomly assigned to form a two-person team and were randomly allocated to one of the four treatment conditions: (1) a weak organizational ethical climate and no peer monitoring control system, (2) a weak organizational ethical climate and a peer monitoring control system, (3) a strong organizational ethical climate and no peer monitoring control system and (4) a strong organizational ethical climate and a peer monitoring control system. They were then provided with the second set of booklets, which contained the employee’s pay scheme, case study, manipulation check questionnaires, post-experimental questionnaires, a decoding key and work session worksheet.

The employee’s pay scheme is as follows:

$$\begin{aligned} P &= F && \text{if } A \leq B \\ &= F + X(A - B) && \text{if } A > B \end{aligned}$$

where:

- P = Total compensation (Total pay);
- F = Fixed compensation (Base pay) – Set at \$5;
- X = Subordinate compensation per actual reward point over budget (Piece rate) – Set at \$2;
- A = Actual reward point;
- B = Budget reward point;

The employee's pay scheme is a slack-inducing scheme, as utilized in prior studies (e.g., Fisher, Frederickson & Peffer, 2000, 2002b; Stevens, 2002). The compensation scheme includes a fixed salary component (F) and a piece rate (bonus) component (X) for actual reward points (A) achieved in excess of the budget reward points (B). This slack-inducing scheme encourages employees to maximize their pay (for this study, the reward points earned). To maximize their pay, employees must perform above the budgeted target, which means that the employees will attempt to set a budget target that is lower in order to achieve their goal by building slack into the budget.<sup>2</sup>

First, the subjects were asked to examine the employee pay scheme and read the case study. Second, they were asked to complete the manipulation check questionnaires to test their understanding of the experiment. Third, they were instructed to state their individual budget target; in other words, the number of reward points that they had budgeted to achieve based on the conditions that applied to them. Fourth, those that were in the groups where peer monitoring was present were instructed to share their performance capabilities and individual budget targets with their team members. This activity was omitted for those that were in the groups where peer monitoring did not occur. Fifth, they were asked to state their group budget target (i.e., the consensus budget target). Finally, they were instructed to perform a five-minute decoding task in the work session. The primary objective of the work session was to establish the subjects' actual performance. At the end of the session, they were asked to complete the post-experimental questionnaire and supply their demographic information. This study focuses on the presence of vertical information asymmetry (i.e., between agents and the principal). To elicit the presence of vertical private information,

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<sup>2</sup> Similar to Chow (1983), the compensation scheme is "make-believe" in that no actual payment was involved. However, the subjects were told that their aim was to maximize their compensation and each subject was rewarded with AUD\$15 for participating in the experiment.

the subjects were told that their performance capabilities were kept private and were unlikely to be discovered by their superior

To represent a strong organizational ethical climate, the relevant subjects read the following case study: The Beta Company has a decentralized organizational structure. Senior management continues to delegate complete autonomy to subordinate managers for decisions. They believe that decentralizing decision-making has the benefit of leading to faster decision-making, increasing motivation among sub-unit managers, promoting organizational learning, and encouraging managers' focus on strategic planning for their sub-unit. The Beta Company operates in an organization where high ethical standards are valued and appreciated. Employees of the Beta Company are currently working in an environment where trustworthiness, justice, fairness, respect, and honesty are of paramount importance. Furthermore, it is noted that communication and cooperation among team members is excellent. The Beta Company does not tolerate employees who engage in dysfunctional behaviors, and in the past the company has taken disciplinary action against employees who have violated the company's code of conduct or engaged in dysfunctional behavior. The disciplinary actions taken against such employees include removing their entitlement for an annual salary increment and/or bonus, prohibiting their participation in the budget-setting process, reducing their prospects for promotion or career advancement, and the possibility of terminating their employment contract.

To represent a weak organizational ethical climate, the relevant subjects read the following case study: The Beta Company has a decentralized organizational structure. Senior management continues to delegate complete autonomy to subordinate managers for decisions. They believe that decentralizing decision-making has the benefit of leading to faster decision-making, increasing motivation among sub-unit managers, promoting organizational learning, and encouraging managers' focus on strategic planning for their sub-unit. Despite the above benefits, the employees of Beta Company are currently working in an environment where trustworthiness, justice, fairness, respect, and honesty are low. In addition, it is noted that communication and cooperation among team members is also very poor. A frustrated employee complained that:

*...Beta Company is operating in an environment where high ethical standards are not valued and appreciated. Employees of this organization tell senior management what they want to hear rather than the truth!*

Another ex-Beta Company employee commented:

*...In my view, Beta Company's senior management is unfair. When it comes to promotion decisions, established policies and rules are irrelevant! ... In addition, employees can get away with engaging in dysfunctional activities without any forms of punishment.*

A highly dissatisfied employee who had resigned and left the company claimed:

*...I can't remember any disciplinary actions that have been taken against employees who have violated the company's Code of Conduct or engaged in dysfunctional behaviors. These employees just received a verbal warning instead.*

## **Manipulation Check Questionnaire**

A manipulation check questionnaire was included to assess to the subjects' perceptions of the treatment conditions that applied to them. The subjects were asked to confirm their understanding of the circumstances that they had been placed under (low or high organizational ethical climate).

## **RESULTS**

H1 predicts that budgetary slack will be higher in the presence of a peer monitoring control system, rather than when such a system is absent. As illustrated in Table 1, Panel A, the main effect of a peer monitoring control system was statistically significant (F-value = 22.274,  $p < 0.001$ ), which provides initial support for H1. Further analysis, as shown in Table 1, Panel B, demonstrated that the mean budgetary slack created in the presence of a peer monitoring control system (227.188) was higher than that created when a peer monitoring control system was absent (18.824). An independent

t-test was performed to assess whether the difference between these two means was statistically significant. The result indicates that this difference is significant ( $t\text{-value} = -4.263, p < 0.001$ ). This provides additional support for H1.

**Table 1: Two-way ANOVA and the Mean Scores for Budgetary Slack Across Organizational Ethical Climate and Peer Monitoring Control Systems Conditions, and Multiple Comparisons of Mean Scores**

**Panel A: Analysis of Variance (ANOVA) Results**

Source	df	Mean Square	F-value	p-value
Organizational Ethical Climate (EOC)	1	225250.248	10.224	0.003
Peer Monitoring Control Systems (PMCS)	1	490705.248	22.274	0.001
EOC x PMCS	1	4709.534	0.214	0.647
Error	29	22030.687		

**Panel B: Mean and Standard Deviation for Budgetary Slack Creation**

Peer Monitoring Control Systems	Organizational Ethical Climate		Total
	Weak	Strong	
Absent	Cell 1 Mean 93.750 S.D. (103.294) n = 8	Cell 2 Mean -47.778 S.D. (235.944) n = 9	Mean 18.824 S.D. (194.435) n = 17
Present	Cell 3 Mean 361.875 S.D. (107.003) n = 8	Cell 4 Mean 172.500 S.D. (74.354) n = 8	Mean 267.188 S.D. (132.237) n = 16
Total	Mean 227.813 S.D. (186.570) n = 16	Mean 55.882 S.D. (207.600) n = 17	Mean 139.242 S.D. (207.335) n = 33

**Panel C: Planned Contrast**

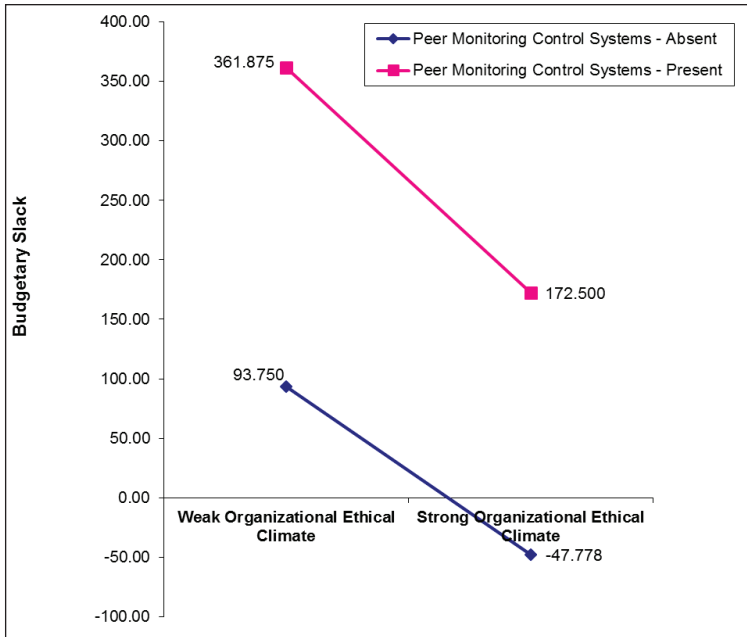
	Value of contrast	t-statistics	p-Value
H3: Cell 2 < Cells 1, 3 and 4	-771.458	-4.432	0.001

H2 predicts that budgetary slack will be lower in a strong, rather than a weak, organizational ethical climate. As illustrated in Table 1, Panel A, the main effect of organizational ethical climate was statistically significant ( $F\text{-value} = 10.224, p < 0.003$ ), which provides initial support for H2. Further analysis, as shown in Table 1, Panel B, demonstrated that the mean of budgetary slack created under a strong organizational ethical climate (55.882) was lower than that under a weak organizational ethical climate (227.813). An independent t-test was performed to assess whether the difference in the two means was statistically different. The result indicated that this difference is statistically different ( $t\text{-value} = 2.583, p < 0.015$ ). This provides additional support for H2.

H3 predicts that budgetary slack will be lower in a strong, rather than a weak, organizational ethical climate in the absence of a peer monitoring control system. To test H3, a planned contrast was constructed to compare the mean of Cell 2 and the other cells (i.e., Cell 1, Cell 3 and Cell 4) as shown in Table 1, Panel B. As shown in Table 1, Panel C, the result suggested that the planned contrast was statistically significant ( $t = -4.432, p < 0.001$ ).<sup>3</sup> Thus, H3 is supported.

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<sup>3</sup> The planned contrast weights were assigned based on a method suggested by Buckless and Ravenscroft (1990). The contrast weights were coded as follows: Cell 1 = -1, Cell 2 = 3, Cell 3 = -1 and Cell 4 = -1



**Figure 1: The Interaction Effect between Organizational Ethical Climate and Peer Monitoring Control Systems on Mean Budgetary Slack**

Figure 1 presents the nature of the two-way interaction between organizational ethical climate and peer monitoring control systems. It can be observed from the diagram that the budgetary slack created in the presence of a peer monitoring control system is higher than that in the absence of this system, notwithstanding the degree of organizational ethical climate. Budgetary slack is observed to have the lowest mean value (Cell 2 = -47.778, see Table 1, Panel B) in the absence of a peer monitoring control system under a strong organizational ethical climate.

## DISCUSSION AND CONCLUSION

This study aims to address the following the following research questions: (1) Does a peer monitoring control system provide an ideal opportunity for managers to build slack into their budgets in team-based settings? (2) Does the organizational ethical climate influence managers’ propensity to create budgetary slack? (3) What is the joint effect of a peer monitoring control



system and the organizational ethical climate on managers' budgetary slack creation?

The findings of this study carry a number of theoretical implications; first, our results indicate that a peer monitoring control system provides an ideal opportunity for managers to build slack into their budgets. This result is consistent with our theoretical expectations. We propose two reasons for why peer monitoring control systems provide an ideal opportunity for managers to create budgetary slack. First, we argue that collective units are more competitive than individuals. We propose that collective discussion of budgetary incentive contracts would stimulate the collectively-oriented competitive spirit, thereby resulting in collective units attempting to "game" the budgetary process more aggressively than individuals might in an effort to win. Second, relying on accountability theory, we suggest that individuals may be more tempted to succumb to extreme positions or make risky decisions because they inherently feel more accountable for their decisions. Individuals' heightened feelings of accountability arise, in part, because there is no collective unit within which they can hide or shirk their responsibility (Liden, Wayne, Judge, Sparrowe, Kraimer & Franz, 1999).

Consequently, the extent of slack that individuals build into their budgets should be less extreme than that found in collective units due to their heightened feeling of personal accountability. Second, the findings of this study suggest that the organizational ethical climate can influence subordinates' ethical behaviors. It was found that in a weak organizational ethical climate, subordinates were more likely to engage in opportunistic behavior. The rationale for this behavior is that subordinate perceived that there was a lack of social ties with their principal, which may create the perception that their work is not appreciated. Such perceptions will subsequently generate a series of dysfunctional behaviors to suppress their negative feelings, as well as inter-agent communication and collusive behavior. As a result, these individuals are expected to reduce their reporting honesty. Thus, budgetary slack creation is likely to be high. Third, our findings demonstrate that the mean value of budgetary slack creation is the lowest in the absence of a peer monitoring control system and in a strong organizational ethical climate when compared to the other cases (see Table 1, Panel B). This result suggests that the ethical climate of an organization can be used as an informal control to mitigate subordinates' propensity

to create budgetary slack. From a practical perspective, this study has generated findings that alert leaders of organizations to exercise caution before implementing a peer monitoring control system, particularly in the context of budget setting.

This paper is subject to several caveats. First, although the use of this experimental design to study the effects of a peer monitoring control system and organizational ethical climate in the creation of budgetary slack offers the likelihood of high internal validity as it enables decision-making behavior to be studied in a controlled climate, the case materials employed to reflect a simplified budget-setting participation situation may not capture all the variables in a real business setting. As a result, care should be taken when generalizing the findings of this study. Second, only a relatively small number of subjects were sourced for the experiment. This represents a reactive arrangement factor which may threaten the external validity of the findings. An increase in the number of subjects will provide a better representation of the population, which is desirable to enhance generalizability. Third, maturation factors, such as if subjects were tired or bored, may affect the consistency and internal validity. Finally, a testing factor might represent a threat to internal validity if the training and trial session had an influence on the work session.

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