

Mitigating The Harmful Effect of Slack: Does Locus of Commitment (Organizational Versus Colleague) Play a Role?

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Abstract

A high-level of budget proposal evaluation intensity effectively decreases slack but causes efficiency problems. A high-level budget proposal evaluation intensity may result in high monitoring costs. This research looks into the layers of the workplace to investigate the best level of budget proposal evaluation intensity to decrease slack, by paying attention to the principles of effectiveness and efficiency. A 2 x 2 between-subject field experiment was conducted on 112 Accounting and Management students using the dyads analysis level. The level of budget proposal evaluation intensity and Locus of Commitment (Organizational versus Colleague) (LCOC) were each manipulated into two groups. An interaction between budget proposal evaluation and Locus of Commitment (Organizational versus Colleague) (LCOC) to decrease budgetary slack was found. Surprisingly, we found that on low level budget proposal evaluation intensity, slack would be lower after being moderated by higher LCOC. LCOC may be used as an effective alternative strategy for informal control system and low-cost management tools. Individuals and companies are interrelated parts that cannot be examined from two different perspectives. Most research on budgetary slack considers commitments separately (i.e: organizational, individual, and colleague commitments) and has been focused on the effectiveness of mitigating budgetary slack. However, effectiveness is not always aligned with organizational efficiency goals. High evaluation effectiveness can lead to higher costs. This research study complements the literature by considering the effectiveness and efficiency of one test model, by simultaneously considering assessing commitments at various levels of the workplace.

Keywords: budgetary slack, evaluation intensity, layers of workplace theory, monitoring costs

1. INTRODUCTION

Slack is a dysfunctional behaviour because it can undermine a company's long-term performance (Baso et al. 2017; Libby & Lindsay, 2010) and does not reflect individuals' real performance (Hartmann & Maas, 2010). Hobson et al. (2011) explain that slack is an unethical action in companies when it is related to their suboptimal allocation of resources, where there is a misrepresentation of information within the company through the occurrence of slack. Thus, the existence of the budgetary slack behavior demands an appropriate controlling system, such as strategic planning participation (see De Baerdemaeker & Bruggeman, 2015) and measurement in budgeting (see Church et al., 2018). Several kinds of study point out that negotiation is a crucial part of the controlling system when we cannot abandon the negotiation process (Anthony & Govindarajan, 2007).

High level budget proposal evaluation intensity needs a considerable amount of money and resources. This aligns with the clarification of Fosu *et al.* (2017) that monitoring can be costly. Additionally, Towry (2003) and Anderson *et al.* (2009) confirm that information verification and opacity are a set of expensive processes. Hence, further investigation into the attempts to induce low budget proposal evaluation intensity should be conducted to mitigate slack more effectively by not abandoning efficiency. Therefore, based on layers of workplace theory, we considered that the Locus of Commitment (Organizational versus Colleague) (LCOC) might induce low evaluation intensity effectiveness to reduce slack. The Locus of Commitment (Organizational versus Colleague) is the condition of the tendency towards individual commitment when faced with the company's organization and colleagues in an organization. Taylor & Francis (2010) explain that individuals also vary in commitment to their colleagues within the organization, and the centre of these various and oft-conflicting layers of commitment is the ethical violation itself and the individual's personal reaction. Here, we cannot neglect some factors like behaviours, motivations, and commitments in workplaces, and thus such elements will be investigated further (De Baerdemaeker & Bruggeman, 2015).

Another stream of the literature explains that a formal controlling system should be in line with informal controlling systems because individual self-interest cannot be mitigated by formal control only (Chong & Ferdiansah, 2012). Abdel-Rahim & Stevens (2018) argue that an agent's gain from self-interested behaviour can never be eliminated. Some research suggests that formal and informal management controls can simultaneously be used to mitigate slack (see Chong & Ferdiansah, 2012; De Baerdemaeker & Bruggeman, 2015; Crunch *et al.*, 2018). In terms of informal control, Evans *et al.* (2001), Rankin *et al.* (2008), Douthit & Stevens (2015), Brink *et al.* (2018) have succeeded in arguing that social norms such as etiquette position, justice and honesty may support efforts to minimize slack.

Purnama & Kusumawardhani (2019) examined the effect of clawback and moral imagination as a control to mitigate budgetary slack. Islami & Nahartyo (2019) examined the impact of organizational commitment and style on budgetary slack. Chong & Ferdiansah (2012) investigated feedback diversion and the need for performance achievement on budgetary slack creation. This research emphasizes formal collaboration more. However, these studies have not considered that formal control and supervision are expensive (Wolk *et al.*, 2013). Thus, further efforts are needed for control that is still efficient at a low cost. Individuals with high LCOC have a higher tendency to commit to the organization, which has not been discussed much as one of the management efforts to deal with slack.

McPhill & Walters (2009) argue that when individuals join an organization, their values combine with the organizational values they enter. As such, the interaction between individual and organizational values is essential and interrelated (Prompreing & Hu, 2021). Furthermore, most research on budgets considers the organizational, individual, and colleague commitments separately: first, from the point of view of organizational commitment (see Nouri & Parker, 1996; Maiga & Jacobs, 2007; Qi, 2010; Ogiedu & Odi, 2013; Otolor & Oti, 2017) and second, from the angle of colleague commitment (see Chong & Sudarso, 2017). Nevertheless, observing commitment separately has some limitations. Otolor & Oti (2017) demonstrate that it is still unclear whether a worker who is highly-committed to an organization will create slack while pressed to achieve a specific budget target.

Taylor & Curtis (2010) state that when individuals are placed in several workplace layers, such a situation will impact their behaviours and their tendencies to commit. They also assert that layers of the workplace may impact their behaviours and decisions, as individuals also vary in commitment to their colleagues within the organization. Most research on budgeting analyzes organizations and colleagues separately. Aranya & Ferris (1984) suggest that individuals may be committed to any of these various layers, with the pattern of commitment varying individually. Individuals and organizations are interrelated parts and cannot be observed from two different points of view. By employing layers of influence, individuals in workplaces face various layers of the workplace, i.e., self-interest, ethical violation, colleagues, the organization, the profession, and regulations. Layers of the workplace cause a

dilemma for them, creating differences, and differences in individual commitment (see Aranya & Ferris, 1984). Several studies on budgets have examined formal control mechanisms by paying attention to the interaction effect between personal and organizational values. Hence, a further investigation needs to be conducted to examine the effectiveness of low budget proposal evaluation intensity induced by LCOC to effectively and efficiently minimize slack. Thus, this study further elaborates the internship efforts to evaluate budget proposals, evaluation intensity, and the LCOC as a combination of formal and informal controls systems in mitigating budgetary slack.

This study involved a field experiment using the dyads level of analysis, with a factorial design 2 x 2 between subjects. The budget proposal evaluation intensity variable is manipulated into two levels (i.e: high and low). LCOC is categorized into high and low. The result of this study shows that high evaluation intensity is more effective in reducing budgetary slack than high evaluation intensity. The findings show that low evaluation intensity effectively lowered slack after inducing LCOC

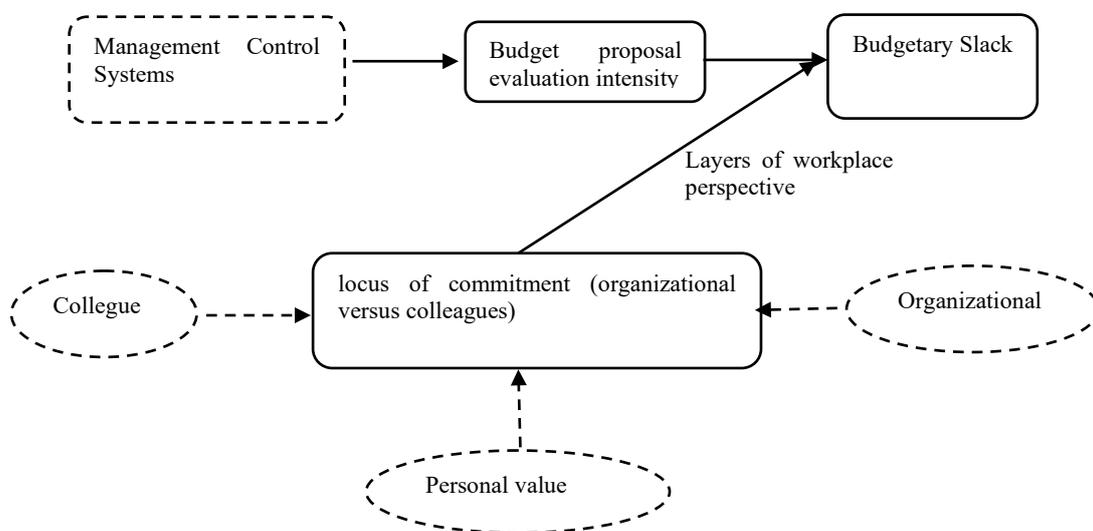
The paper proceeds as follows. In section 2, we present the literature review and hypothesis development. In Section 3, we discuss the research methods, while in Section 4 we present the data analysis, the results, and discussion. The final section is about the conclusion and limitations.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Changing individual attitudes and behaviours to align with the organization is not easy (Chan et al., 2021). Aranya & Ferris (1984) believe that individuals will possibly have commitments to various workplace layers. Hewstone et al. (2002) argue that individuals also vary in commitment to their colleagues within the organization; in-group bias suggests that individuals cooperate with their group members more than with non-group members. LCOC is the tendency of individual commitment when faced with the company's organization and colleagues in an organization. A violation relates to the individual himself, namely the individual's moral intensity when faced with a situation that deviates from the values that should be applied.

Moral violation and individual commitment to the workplace is different in each layer (Taylor & Curtis, 2010). Taylor & Curtis (2010) argue that the individual considers the influence of his workplace's various layers in the decision-making process. Taylor & Curtis (2010) point out that there are layers of workplace impacting the decision-making process of a whistleblower. Individuals are exposed to various layers of work that have an impact on their decision-making process. Layers of the workplace are divided into 4, namely moral violation, colleagues, organization and profession (Taylor & Curtis (2010). The outermost layer encountered is the professional environment, including an individual commitment to the professional code of ethics, which has to be used as a reference in every professional activity that will be carried out. The organizational layer is the organizational environment where individuals work. Colleagues are conditions faced by individuals when faced with colleagues with diverse professional backgrounds and behaviour in one work environment. This research model is presented in Figure 1.

Figure 1: Research Model



Gago-Rodriguez & Naranjo-Gil (2016) argue that formal controlling used to decrease slack, such as economic reward and monitoring. Heide *et al.* (2007) points out that monitoring is one of the controlling mechanisms to minimize opportunistic behaviours. During budget proposals, monitoring may be conducted in budget proposal evaluation during budget negotiation processes. Anthony & Govindarajan (2007) state that during negotiation, budget validity assessment is done, and the leader will attempt to minimize slack. As far as the pre-contractual aspect is concerned, some studies found that evaluation succeeds in reducing slack during budget proposals (Anthony & Govindarajan, 2007). In terms of the post-contractual issue, Chong & Ferdiansah (2012) suggest that monitoring forms of feedback control may decrease slack. Otolor & Oti (2017) also argue that monitoring may have an impact on budget or performance slack. Hence, monitoring during the budget proposal process or negotiation is expected to decrease budget slack. Therefore, the hypothesis proposed in this research is:

H1: Slack tends to be lower after budget proposal evaluation is performed than before evaluation.

Chow *et al.* (1988), Waller (1988), Evans *et al.* (2001), Hannan *et al.* (2006a) and Rankin *et al.* (2008) believe that subordinates tend to engage in non-opportunistic behaviours, although having opportunities to show such behaviour when subordinates assume that avoiding their opportunistic behaviour can give more advantages. Agency theory (Jensen and McKling, 1976) emphasizes the point that monitoring may be used to minimize an agent's opportunistic behaviour. Several studies on budgeting have successfully shown that control may be used to mitigate slack (Chong & Ferdiansah, 2012; Otolor & Oti, 2017). Hannan *et al.* (2010b) claim that subordinates will tend to decrease slack when their superiors' time spent monitoring increases (increased superiors' span control). Rohma & Nahartyo (2018), based on myopic loss aversion theory, conclude that high budget proposal evaluation intensity during the negotiation process effectively lowers budget slack and supports private communication. Hence, high evaluation intensity during budgeting may encourage superiors to have more comprehensive knowledge about their subordinates' actual performance as evaluation material to minimize slack in any budget proposal. Therefore, the hypothesis proposed in this research is:

H2: Slack will tend to be lower during high budget proposal evaluation intensity than when it is low.

Based on the previous argument, high budget proposal evaluation intensity may encourage private communication that makes superiors aware of their subordinates' capacity, minimizing slack. High budget proposal evaluation intensity is one of the forms of control effectively decreasing slack (Rohma, 2018). Nevertheless, Liessem *et al.* (2015) confirm that several aspects cause individuals not to create slack, i.e., social norms. Shafer *et al.* (2001) argue that personal values can have an impact on ethical decision making in business and organizational environments. McPhil & Walters (2009) also point out that individual ethics may change, depending on the sub-group position and level in an organization. Taylor & Curtis (2010) explain that workplace layers will have an impact on individual decisions and behaviour in an organization. Thus, the layers of the workplace can influence the relationship between budget proposal evaluation intensity and budgetary slack. Therefore, the hypothesis proposed in this research is:

H3: The Locus of Commitment (Organizational versus Colleagues) moderates the influences of budget proposal evaluation intensity on slack.

Hewstone *et al.* (2002) argue that there are different types of individual commitment to the company. Based on layers of workplace theory, a high locus of commitment (organizational versus colleague) will make individuals act according to their organization's importance (Taylor & Curtis, 2010). Hence, even if the budget proposal evaluation intensity is low, a highly induced locus of commitment (organizational versus colleague) will encourage individuals to act for the sake of their organization's importance by minimizing slack. Thus, the hypothesis proposed in this research is:

H4: Slack will tend to be lower in low budget proposal evaluation intensity when the locus of organizational commitment versus colleagues is higher).

3. METHODOLOGY

3.1. Experimental Design

An experimental field study was conducted using the dyads analysis level, with a 2x2 factorial design between-subjects with 112 participants or 56 dyads. Field experiments are used because this is the best experimental design in presenting causality relationships between variables (Shadish *et al.*, 2002). Factorial designs are chosen to minimize the demand effect, which is recommended to reduce

internal validity (Robinson *et al.*, 2012). The independent variable, budget proposals evaluation intensity, was manipulated to high and low. In contrast, the moderating variable, LCOC variables, was measured and divided using median splits to high and low LCOC.

3.2. Experimental Participants

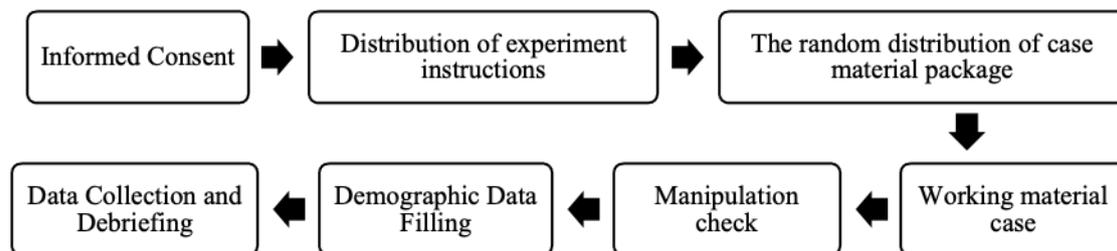
The participants were undergraduate students majoring in accounting from a large public university in Indonesia. There are two reasons for using students as participants, as noted by Trapp & Trapp (2018). First, students are evaluated in the learning process, which also involves subjective evaluation. Therefore, students can understand the situation given in this experiment. Second, students are less likely to have ideas about the design of the performance measurement systems that are generally used in the world of work to provide results that are free from social desirability bias. Khera & Benson (1970) suggest that, in general, students will be able to behave like business people when they can internalize experimental tasks that are performed well.

The students who acted as research participants had passed management accounting and management control system courses, in order to minimize experience bias due to students' use as extension managers. Students who had passed the course had to understand budgeting and management control systems during budgeting. Thus, the students used in this research had met the requirements to be extension managers acting as subordinates during budget proposals and superiors as budget evaluators with a simple task design. The study adopted Chow's experimental task (1983), which was also used by Fisher *et al.* (2000a, 2002b) and Chong & Loy (2015) to translate letters of the alphabet into numbers by doing random word modification. This was also used by Rohma (2018).

3.3. Experimental Procedure and Manipulation Check

This study's experiments were carried out through five stages: pilot test, final experiments, manipulation check, demographic data filling, and debriefing. This research is paper-based, and participation is voluntary. It requires approval from the subjects, who had to give informed consent with a signature. Participants were randomly given an instrument and were asked to work on the assignments according to the manipulation and answer manipulation check and demographic information filling, followed by debriefing. The implementation of the experiment in more detail is presented in the following figure 2:

Figure 2. Experimental Procedure



Participants were randomly placed as subordinates and superiors, obliging them to be involved in several interactions. Experimental sessions lasted approximately 45 minutes. Participants were given one package of a research instrument according to their positions. They were required to act as subordinates and superiors in the production division. The division was asked to make critical comments on individual accounting books. Subordinates completing the assignment correctly would be given performance points. The points were used to set production targets that would be offered to subordinates as a budget proposal. Superiors then completed two training sessions, three minutes each, to study and get to know their capabilities. The compensation scheme of subordinates was based on slack-inducing pay with a fixed amount of compensation. An additional bonus would be added when the production exceeded the determined final budget proposal. The compensation formula used to trigger conflict of interest between superior and subordinate was adapted from Fisher *et al.* (2000a)¹ as follows

¹Participants were informed that this compensation scheme was not used as the basis for actual payments. Participants were informed that compensation schemes are used to rank the highest points. 1 of the best participants with the highest points, being able to answer 2 questions at the end of the session correctly and providing complete demographic information would receive an additional bonus of IDR 150,000, in addition to

$$\begin{aligned}
 P_{\text{subordinates}}^2 &= F && \text{if } B \geq X \\
 &= F + A(X - B) && \text{if } B < X \\
 \\
 P_{\text{superiors}} &= R(DX - F) && \text{if } B \geq X \\
 &= R\{DX - [F + A(X - B)]\} && \text{if } B < X
 \end{aligned}$$

The payment scheme and conversion values were only for research purposes. The payment was translated into coupons for one participant with the terms that he/she has the highest performance point during experimental tasks and successfully answered the manipulation check question correctly. The manipulation test was done by asking about two types of problem. After finishing reading the case scenario, participants were asked to answer questions about the role of each participant in the company and the amount of intensity of evaluation received during the proposed budget evaluation. Participants were asked to answer two main questions, "Who determines the final budget proposals?" and "How many evaluations were carried out during the budget proposal?". Also, there is one question to ensure the level of internalization of participants on manipulation given as follows "According to your perception, what is the intensity of the company's evaluation during the budget proposal process?" Participants who provide inconsistent data between the manipulation checks and the one additional question were not used in hypothesis testing because they were considered unable to internalize the manipulation properly.

3.4. Measurement of the Variables

Participants were randomly divided into subordinates and superiors. Subordinates received answer keys to know the number of items successfully answered. Superiors also finished two training sessions, three minutes each, to customize participants for performing the tasks. However, superiors would not get an answer key and did not receive critical answers about the number of items successfully answered. The difference in treatment given to superiors and subordinates was intended to minimize bias arising from prior knowledge on the budget determination in the next stage.

In the low budget proposal evaluation intensity treatment, participants were given the information that "the company requires superiors to evaluate the budget proposal twice on the provided form". In the high budget proposal evaluation intensity treatment, participants were given the information that "the company requires superiors to evaluate the budget proposal four times on the provided form". LCOC was measured by using instruments adapted from Taylor & Curtis (2010), which consist of three statements, with a 5-point Likert scale ranging from 1 "strongly agree" to 5 "strongly disagree." The LCOC measured in this research was LCOC from the perspective of superiors. LCOC measurement was only conducted from such a perspective. This research placed participants as evaluators and final budget determinants which would expose participants to a loyalty dilemma, between the organization or colleague (subordinates) to share the profits from the slack. The measurement from the perspective of superiors was also based on the explanation of Zang *et al.* (2008) and Brink *et al.* (2018) that for examining the budgeting process the researcher needs to pay attention at a superior perspective. The budgeting process from a supervisor's perspective is likely to have an impact on economic predictions (Zang *et al.* 2008; Brink *et al.*, 2018). Hence, the LCOC assessment from the perspective of superiors played an important role. In this research, superiors would directly interact with their subordinates (dyad) to minimize possible bias during the budget proposal if the experiment was not conducted without interactions between superiors and subordinates. The research findings of Zhang (2008) also suggested that when principals were absent, agent communication might lower reporting honesty. Budget slack was measured from the difference between the final budget (the budget determined by superiors as the current budget) and subordinates' best estimation.

3.5. Data analysis and hypothesis testing

Before the hypothesis testing, the data were analyzed to determine the alignment of the data's distribution with the criteria for using an ANOVA analysis. The normality data analysis was performed

fixed compensation. This is done to provide incentives for the participants to be encouraged and serious in doing the experimental task.

² Where: (P: Compensation, F: Fixed compensation of subordinates, A: Subordinates compensation per unit of production over budget, X: Actual Production, B: Final budget proposal, D: Profit per unit produced (exclusive of subordinates compensation, R: Superiors' percentage of firm profit)

using a One-Sample Kolmogorov-Smirnov test and a homogeneity test for variance was performed using Levene's test. A two-way ANOVA data analysis technique and independent-sample t-test were used to test the hypotheses.

4. RESULTS

4.1. Validity and Reliability

The questionnaire that was used to gain information on the level of LCOC from the superiors' perspective is presented in Table 1. LCOC was taken when the final stage of the experiment was formed. This was done to obtain information about the LCOC level of the participants after being given manipulation of the budget proposal evaluation intensity.

Table 1. Validity and Reliability

Item	Cronbach's alpha	Cronbach's alpha (Correlated item-Total Correlated)
Locus of Commitment (Organizational versus Colleagues)	0.701	
1. I am more committed to my firm than to the individuals with whom I work	x	Pearson Correlation .864** Sig (2-tailed) .000
2. I am more responsible for the success of my firm than the personal success of my colleagues	x	Pearson Correlation .770** Sig (2-tailed) .000
3. I identify more with my firm than with my co-workers.	x	Pearson Correlation .737** Sig (2-tailed) .000

Table 1 shows that the Cronbach's Alpha score of LCOC 0.701 indicated that the LCOC variable was reliable. Hair *et al.* (2014) stated that the limit for Cronbach's Alpha was 0.6. The bivariate correlation analysis in Table 1 also suggests that the correlation between each LCOC indicator and the total LCOC scores had a significant effect. Hence, each LCOC question indicator was valid.

4.2. Hypothesis testing

ANOVA testing required two main assumptions. First, the statistical analysis results by Kolmogorov-Smirnov indicated $p > 0.716$, clarifying that the residue was normally distributed. Second, the result of Levene's test meant the p score > 0.105 , indicating that the groups had the same variance. The result of thorough testing revealed neither a residual normality problem nor a homogeneity problem, so the hypothesis testing could be conducted. The hypothesis results testing is presented in Table 2.

Table 2a. Hypothesis Test 1

Group	Mean slack	Mean difference	Sig. (2-tailed)
Slack before evaluation	4.21		
Slack after evaluation	1.84	2.375	0.000***

*** sig.at 1%

Table 2b. Hypothesis Test 2-3a

	F-Statistic	p-value
Effect of budget proposal evaluation intensity	7.589	0.001***
Effect of budget proposal evaluation intensity*locus of commitment organization versus colleagues	6.824	0.002***
Effect of a low budget proposal evaluation intensity*locus of commitment organization versus colleagues	11.744	0.001***

*** sig. at 1%

Table 2a shows differences between the budget proposal (budget before an evaluation) and the final budget (budget after evaluation). Before the evaluation, the mean of slack was higher than that after evaluation, with 4.21 becoming 1.84. $p < 0.000$ statistically indicated that H1 is supported. Testing on the estimated marginal means showed that budget slack was higher during low budget proposal evaluation intensity (2.128) than during high budget proposal evaluation intensity (0.164). Such a difference was statistically significant ($p > 0.0001$, $F = 7.589$), indicating that H2 was supported. The result also indicated an interaction effect between budget proposal evaluation intensity and LCOC ($p < 0.0002$, $F = 6.824$), so H3 was supported. Interestingly, the result of the analysis indicated that during low budget proposal evaluation intensity, budget slack would be lower with a high rather than a low locus of organizational commitment versus colleagues. The difference was statistically significant ($p < 0.001$, $F = 11.744$) so H3a is supported. This is consistent with Taylor & Curtis (2010), who argued that the existence of a high LOCC can be used to trigger the alignment of individual commitments to the organization, to optimize the role of low evaluation intensity in minimizing budgetary slack.

5. DISCUSSION

5.1. Discussion of test results

The result of the analysis indicated that the slack after the evaluation was lower than that before the evaluation. This is in line with Chong & Ferdiansah's (2012) research finding and agency theory (Jensen & McKling, 1976), arguing that superiors' evaluation might reduce subordinates' opportunistic behaviours to create budgetary slack. The results also show that budgetary slack tends to be lower under high evaluation intensity conditions than low evaluation intensities. During the budget proposal, evaluation might be performed through the budget negotiation process to observe budget validity. The analysis results also showed that high budget proposal evaluation intensity more effectively decreases slack than low intensity. This aligns with Hannan *et al.* (2010b), who believe that subordinates tend to reduce slack when increasing superiors' span control. In addition to that, Rohma (2018) also argued that high budget proposal evaluation intensity during the negotiation process more effectively decreases high budget slack than low and undetermined intensity. This finding was in line with Arnold & Gillenkirch (2015), based on bargaining theory. High budget proposal evaluation intensity enabled more private information exchanges, hence making superiors' predictions on subordinates' performance more accurate.

Taylor & Curtis (2010) formulated layers of workplace concepts that can impact individual decision-making processes. Layers of the workplace during budgeting may differ from what has been defined by Taylor & Curtis (2010), who indicate that there is a relationship between individual fundamental aspects and their organization or colleagues. Hence, the tendency between organizational and colleague commitment should be considered simultaneously and not be observed separately during budgeting. Real phenomena suggest that layers of the workplace during budgeting are generally divided into internal company layers, such as conflict of interest of self, peers, colleagues, top management, and an external dimension, such as the profession, regulations, and others. During budgeting, pressure within the organization is stronger than pressure from professional associations. Internal organizations provide stronger pressure during budgeting because the budget is one of the internal control mechanisms whose accountability is only at the internal level of the organization (Anthony & Govindarajan, 2007). Thus, in more detail the dilemmas of the workplace layers examined in this study are viewed from the organization internal perspective, namely at the organizational and colleague levels.

During the budgeting process, individuals will be faced with quite complex conditions. Individuals are exposed to behavioural and cognitive differences with coworkers and organizations, as well as complex internal control mechanisms. Langevin & Mendoza (2013) explain that a company's management control system may cause slack, as heavy burdens may encourage individuals to perform violations. However, Greenwood & Buren III (2010) explain that belief is the fundamental aspect of a relationship with an organization. Individuals will dare to take more risks when they believe their organization leader (Mayer *et al.*, 1995). This indicates that individual fundamental aspects and their organization and colleagues' commitment should be considered simultaneously and not be observed separately.

This analysis also concluded that LCOC moderation affected the relationship between budget proposal evaluation intensity and budget slack. The existence of LCOC can be elaborated to optimize the impact of the low level budget proposals evaluation intensity in reducing budgetary slack. Individuals who have higher organizational than colleague commitment will encourage the goal congruence and minimize slack. This result was also in line with Chong & Ferdiansah (2012),

conveying that a formal management control system would be in line with informal management control to decrease slack. LCOC would be one of the informal control systems used to induce formal control of budget proposal evaluation intensity to reduce budget slack.

Interestingly, the result of the analysis indicated that slack would tend to be lower during low budget proposal evaluation intensity when LCOC was higher. This is confirmation that an individual's organizational commitment is greater than his commitment to colleagues and this can encourage individuals to act in accordance with company goals. The result of the analysis also indicated that low budget proposal evaluation intensity effectively decreases slack when induced by a high locus of commitment (organizational versus colleagues). In terms of the amount of monitoring cost, low budget proposal evaluation demanded lower monitoring costs than high intensity. Hence, high LCOC might encourage the low-level budget proposals evaluation intensity to reduce slack. Low level budget proposal evaluation intensity would effectively and efficiently reduce slack by inducing high LCOC. The company might stimulate monitoring cost efficiency when budget proposal evaluation intensity was low. High intensity would not require the amount of cost needed by low evaluation intensity.

5.2. Theoretical and practical implications

This research contributes to the literature and practice in four ways. First, we provide a new lens of studies that examine the design of formal and informal controlling systems simultaneously to optimize practical controlling system efforts by not abandoning efficiency. This study fits into a new stream of research that analyzes the control system in a context both of economic and psychological investigation of accounting issues (Evans *et al.*, 2001; Fisher *et al.*, 2002b; Towry, 2003; Hannan *et al.*, 2006a; Zhang, 2008). Second, individuals and companies are interrelated parts that cannot be examined from two different perspectives. However, most research on budgets has considered organizational, individual, and colleague commitments separately. This research employed the Layers of Workplace Influence theory and found individual commitments to various workplace layers simultaneously. Third, the study contributes to the literature about attempts to mitigate slack effectively, without abandoning monitoring cost efficiency. Fourth, for the company, informal LCOC controlling is one of the alternative low-cost management tools that should not be left out and needs the attention of managers to manage and develop employee commitment to the company.

6. CONCLUSIONS

We found that budget slack would tend to be lower after evaluation. This finding suggested that budget proposal evaluation intensity was one of the effective formal control mechanisms to reduce agents' opportunistic behaviours in line with the agency theory and previous research (see Fisher *et al.*, 2000a, Rankin, *et al.*, 2008, Chong & Ferdiansah, 2012, De Baerdemaeker & Bruggeman, 2015). However, the effectiveness of high budget proposal evaluation intensity might be faced with efficiency problems due to the significant monitoring cost emerging because of high evaluation intensity. We found that budget proposal evaluation intensity played a considerable role in mitigating budgetary slack affected by another factor, LCOC. Surprisingly, we found that low budget proposal evaluation intensity induced by a locus of commitment (organizational versus colleagues) might encourage lower slack. The formal management control system of low budget proposal evaluation intensity effectively decreased slack without abandoning monitoring cost efficiency. Therefore, the combination of the formal management control system of low budget proposal evaluation intensity and the informal management control system of high-level LCOC would effectively and efficiently decrease slack. This study fits into the recent stream of research that analyzes the control system in context; both economics and psychology investigate accounting issues and design formal and informal controlling systems simultaneously to optimize practical controlling system efforts by not abandoning efficiency to mitigate budgetary slack. Informal LCOC control is one of the alternative low-cost management tools that should not be left aside and needs to be attended to to manage and develop employee commitment.

6.1. Limitations and Suggestions

These findings can be generalized only as far as the design captured essential aspects of the setting to be understood. First, the research found that high budget proposal evaluation intensity effectively decreases slack. Thus, readers should be careful to interpret the high budget proposal evaluation intensity used in this research. Second, manipulation in this research placed superiors as the final stakeholder with full authorization because we intended to act following the experimental design applied.

Consequently, the high or low level of LCOC was observed from the perspective of superiors only, since the final decision-maker for the current budget was them. Future researchers should consider the locus from the perspective of subordinates. It is also essential to consider other possible

individual factors as a filter to mitigate slack, such as internal or external locus of commitment, self-certification, moral reasoning, and others.

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