

The Situational and Control Determinants of Business Units' Slack: A Study of Indonesian Manufacturing Business Units

Fuad^{a*}, Yuserrie Zainuddin^b, Siti Nabiha Abdel Khalid^c and Raman Noordin^d

^aFaculty of Economics and Business, Diponegoro University, Indonesia

^bFaculty of Manufacturing Engineering and Technology, Universiti Malaysia Pahang, Malaysia

^cGraduate School of Business, Universiti Sains Malaysia

^dFaculty of Business, Economics and Accountancy, Universiti Malaysia Sabah, Malaysia

Abstract

This study considers test how the firms' competitive forces and budgetary control systems affect the multidimensional business units' slack (financial and budgetary slack). We tested the model in the higher and lower order forms of slack. In this case, the effects of competitive forces and budgetary control systems to slack are tested at the business units slack and its dimensions, financial and budgetary slack. Our results suggest that lower order model is slightly better than the higher order models. Of the two models, we found the identical findings, in which the presence of slack (either the composite form of slack or the financial and budgetary slack) is not influenced by the extent of competitive forces. However, our results indicate that the relationship hinted an indirect relationship between competitive forces and slack through firms budgetary control systems.

Keywords: *business units' slack, budgetary control systems, competitive forces*

1 Introduction

Slack that is defined as the above optimum level of resources to attain a particular level of output has become one of important research area in management and accounting. The underlying theoretical base regarding the importance of slack creation however, is different that may become the most important factor in explaining the inconclusive findings in the area. For example, from the organizational theory and management accounting point of view, slack may be used as a way to hedge against environmental uncertainty (Alessandri et al., 2014; Mousa & Chowdhury, 2014; Lin et al., 2008; George, 2008). Fadol et al., (2015), Herold et al., (2006) and Yang et al., (2009) also view the slack have the "buffering roles" that is useful to deal with the pressures during the risk taking or other innovative activities, and as a consequence, may well be needed during the implementation of strategies (George, 2005).

More specifically, Elmassri and Harris (2011) found that managers in an Egyptian petroleum company do not perceive slack as a negative behaviour during the budgeting process, but rather as a risk management activities. Interestingly, they found that budgetary slack is not the form of cheating the supervisors, which is perceived as unethical, and as a consequence slack is even encouraged in the budgeting process. Given the benefits of slack, Lawson (2001) and Martinez and Artz (2006) maintained that, for the sake of firms' sustainability, the presence of slack should never be reduced, not alone eliminated.

The economics and agency perspectives on another extreme maintained that slack does not provide economic benefits and tends to choke the firms' innovativeness and experimental ideas (Bourgeois 1981). Jensen and Meckling (1986) insisted that self-serving behaviour tends to increase as a result of many discretionary investment decisions in R&D activities. In summarizing the bad side of slack, Cheng and Kesner (1997) argued that the term of slack is literally negative, and thus need to be reduced. This study however, does not examine whether slack is good that needs to be accumulated, or bad that must be reduced, if not eliminated. Rather, this study tests the control systems and situational factors that may drive the firms' slack creation.

Indeed, earlier researches have provided ingenious, various methods of how slack can be controlled and the circumstances in which it arises. However, those factors were not well tested and prior researches have failed to provide conclusive findings (please compare the findings from Fisher et al., (2002), Baloc et al., (2014), Elmassri and Harris, 2011, Fadol et al., (2015), Stede, (2000, 2001) and Lau (1999), among others). Ditillo (2004) argued that the problem of results ambiguity and inconclusiveness is due to the issue of conceptualization in which the same variable is defined and inaccurately applied in a completely different context (Ditillo, 2004).

Slack has been defined and conceptualized in various ways and most of the researches have failed to capture the multidimensional nature of slack creation. Management accounting researches have dealt with slack creation activities in budgeting process, by underestimating real expected revenue performance and overestimating real expenses (hereafter, budgetary slack (Stede, 2000, 2001; Yuen, 2004 & Douglas & Wier, 2005). On the other hand, slack in the strategic management literature operationalized and linked the slack to the financial and operational activities of the firms (i.e. excess of past resources above the required minimum to run the organizations or financial slack; see e.g. Martinez and Artz (2006), and Herold et al., (2006), among others). We believe that slack should be identified in a multi-dimensional nature, and any failure attempt to recognize these multidimensional natures of slack may contribute to model misspecification and un-generalizability of the research findings.

We test the impact firms' environmental situational and control system to the business units' slack. More specifically, we elaborate the impact of firms' competitive forces and the use of budgetary information for performance evaluation that may contribute to the multi-dimensional measures of business units slack that consist of financial and budgetary slack.

This study contributes to the literature in some flourishing ways. First, although prior researchers have robustly found that slack is a product of environmental uncertainty (e.g. slack accumulation tends to increase as the environmental uncertainty is higher), no empirical evidence has linked the relationship with a multidimensional measure of slack (i.e. financial and budgetary slack). Second, we test a more specific form of environmental traits, based on Porter's (1980) firms' industry attractiveness, that based on our best literature review have not been empirically tested to budgetary control systems and business units' slack.

2 Literature Review and Hypotheses Development

Porter (1980) argued that firms' ability to earn above average profit is highly dependent upon the industry attractiveness based on five competitive forces, including: competitors' rivalry in a particular industry, suppliers and buyers' bargaining powers, the threats from product substitutes, and the extent of potential competitors. Firms may be able to generate above average profits if all of the forces are favourable and in contrary, will be likely to encounter profit decline if all of those factors are unfavourable.

Herath and Indrani (2007) maintained that the environmental attributes may contribute to the way firm design its management control systems (see also Anthony and Govindarajan (2003) and Porter (1980). Likewise, Haka and Krishnan (2005) maintained that firms in the face direct threat of environmental pressures performed better by loosening budgetary control systems. They argued that as the environmental turbulence is high, organizational learning is highly anticipated; and unfortunately, this cannot go in line with tight budgetary controls.

Earliest researches have also documented the similar findings. Govindarajan (1984), Merchant (1985) and Brownell (1985) found that firms with objective, accounting-based performance evaluation are poor indicators of real performance for the firms in the high environmental uncertainty. Using the similar argument, firms with low competitive forces are likely to be better at making predictions and forecasting; two important success factors for tight budgetary controls.

Prospect theory also leads to the expectation that firms with low competitive forces will be inclined to rely on budgets to evaluate the subordinates' performance.

The main belief of prospect theory implies that entity with a “gain-like domain” as in a low competitive forces environment tends to be a risk averse. In contrary, corporate with a “loss-like domain” as in a high competitive forces tend to be a risk taker (Kahneman & Tversky, 1979).

Chattopadyay et al. (2001) links the firms’ internally verses externally directed actions to the gain or loss like domains. They insisted that external oriented actions (for example, market niches creation or lobbying new public regulations) are likely to have more risk as the adaptation to environment is beyond the control of the firms, and thus difficult to implement. On the other hand, internally directed actions such as management control system design are likely to have lower risk as firms’ have full control of the actions and thus, firms are in the full to control to make significant amendments if necessary.

In line with prospect theory, it is reasonable to speculate that firms with a gain like situation, such as in the low competitive forces will engage in risk averse actions, such as internally directed actions. The easiest way for the corporate to do such internally-directed action is by placing the tight budgetary control system. Therefore, we expect that:

H₁: Business units with low competitive forces tend to have stricter budgetary controls.

As previously mentioned, slack is built resources to hedge against unforeseen internal or external contingencies in the future. Organizational theorists have long realized that firms with more slack are more likely to be able to cope for uncertainties (Onsi, 1973; Mousa & Chowdhury, 2014) due to policy changes or strategic manoeuvres as a response from external environment (Bourgeois, 1981). When firm is facing a high degree of competitive forces, firms are encouraged to use slack to deal with the predictability issues (Merchant 1985). Hansen et al. (2003) also mentioned that budget may be fully optimized when it is used during operation stability and firms tend to let the slack exist in the business units’ budget (Stede, 2001)

Prospect theory of Kahneman and Tversky (1979) also suggests the same proposition. As the competitive forces become higher and unfavourable, the firms are likely to respond with the risk-taking actions. As a consequence, the firms tend to accumulate more slack in their financial numbers and during the budgeting process. In contrary, when the competitive forces are low, firms do not have enough incentives to build slack. Therefore:

H₂: Competitive forces positively affect the business units slack.

From the business units point of view, higher reliance on budgetary control systems indicate more job stress and tension (Ross, 1995; Lau et al., 1995) because their performance is measured by how good the business units can achieve the budget target and thereby, perceived as loss. This unfavourable situation due to increased pressures to meet the budget target would lead the business units' managers to take riskier activities such as creating the idle resources in the firms' financial structure or during the budgeting process. Therefore, this study expects that:

H_3 : *tight budgetary controls increase the presence of slack in business units.*

3 Methods

The variables of the study were measured using questionnaire data. The unit of analysis is business units' managers who are subject to formal budgetary procedures. Since the questionnaires were previously developed in English, it is indispensable to translate it into Bahasa Indonesia and translated back into English. Deviations were identified and adjusted in order to put the misinterpretation of the original questionnaires to an end.

Table 1 Business unit characteristics and size

	Small	Medium	Large	Total	Cramers' V	P
Corporate Status					0.07	0.67
- Public Listed	8	27	39	74		
- Non-public Listed	9	24	28	61		
Business Units types:					0.16	0.15
- Local Based	10	23	42	75		
- Multi-national Company	7	28	25	60		
Product types:					0.13	0.26
- Consumer products	10	23	44	77		
- Industrial products	6	25	21	52		
- Both or others	1	3	2	6		
Autonomy						
- No / partial autonomy	9	18	39	66	0.20	0.05
- Full autonomy	8	33	28	69		

We selected the corporate's business units from the manufacturing industry that were published in the annual reports. The business units were then matched with the firms that were identified in Indonesian Manufacturing Industry Directory Firms to identify the firms' specific financial attributes. We however, only selected the business units from the corporate parents that have minimum two subsidiaries under their control. We also selected the business units that have the annual sales of more than Rp. 5 billion in order to ascertain the sampled firms have formalized budgetary procedure.

Variables Measurement

Competitive Forces (COMFOR)

Competitive forces construct is measured using 6 items (COMFOR1 – COMFOR6) Likert scale in reflecting firms' capability to earn above average profit compare to competitors due to several external forces, including the intensity and extent of competition, bargaining power of suppliers and buyers, product substitutes and the potentials for new firms to join in the industry (entry barriers) (Molina et al., 2004).

Budgetary Controls (BCS)

Budgetary controls in this study is conceptualized as “the extent to which superiors rely on, and emphasize performance criteria which are quantified in accounting and terms, and which are pre-specified as budget targets (Harrison, 1993, p. 319). More specifically, this variable is measured by the extent to which a corporate parent uses the business units' performance of attaining the budget target as a main performance evaluation. The construct consist of seven items adapted from Stede (2000, 2001) on six items (BCS1 – BCS6) Likert's scale (range from 1 (definitely false) to 6 (definitely true)).

Table 2 Descriptive statistics and correlations among observed variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1) FORCE1	1																				
2) FORCE2	.45	1																			
3) FORCE3	.46	.67	1																		
4) FORCE4	.42	.41	.45	1																	
5) FORCE5	.42	.52	.46	.54	1																
6) FORCE6	.38	.40	.44	.48	.51	1															
7) BCS1	-.20	-.10	-.09	-.08	-.11	.10	1														
8) BCS2	-.16	-.23	-.16	-.09	-.10	-.06	.46	1													
9) BCS3	-.10	-.06	-.10	-.14	-.12	-.05	.45	.52	1												
10) BCS4	-.18	-.17	-.16	-.26	-.23	-.12	.49	.48	.55	1											
11) BCS5	-.17	-.19	-.20	-.16	-.13	-.05	.48	.49	.47	.48	1										
12) BCS6	-.09	-.14	-.04	-.04	-.01	.03	.54	.50	.46	.35	.48	1									
13) BCS7	-.10	-.13	-.15	-.04	-.08	.05	.45	.43	.39	.42	.48	.50	1								
14) BSLK1	.03	-.04	.01	.05	.01	.02	.23	.13	-.04	.06	.12	.26	.11	1							
15) BSLK2	-.08	-.04	-.04	-.02	-.09	-.07	.14	.24	.11	.15	.22	.21	.19	.51	1						
16) BSLK3	-.03	-.001	.07	.11	.04	-.00	.12	.12	.00	.09	.14	.21	.18	.49	.51	1					
17) BSLK4	.06	-.001	.000	.12	.06	.16	.14	.02	-.05	-.06	.11	.16	.12	.47	.48	.53	1				
18) BSLK5	-.05	-.07	-.01	.057	-.02	-.07	.21	.19	.09	.09	.09	.16	.10	.47	.45	.46	.41	1			
19) CRT	-.10	-.05	.05	-.01	.05	.08	.22	.22	.16	.16	.25	.20	.19	.07	.14	.06	.10	.10	1		
20) DER	.04	.02	.11	.19*	.10	.05	.19	.17	.13	.14	.21	.18	.14	.07	.02	.058	.09	.18	.26	1	
21) SGE	-.09	-.09	.040	v.08	.031	.02	.29	.22	.20	.24	.20	.16	.02	.10	.04	.063	-.07	.09	.25	.19	1
Mean	3.58	3.73	3.75	3.80	3.76	3.72	3.55	3.40	3.54	3.61	3.53	3.74	3.72	3.69	3.43	3.41	3.64	3.61	5.54	.83	.23
S.D.	1.23	1.27	1.35	1.18	1.36	1.25	1.41	1.30	1.37	1.32	1.33	1.28	1.17	1.26	1.33	1.28	1.30	1.29	2.66	.48	.11

Business Units' Slack (BCS)

Business units' slack is defined as the excess of current and potential resources in the firms' financial structure (i.e. financial slack (FINSLK)) and budgeting process (budgetary slack (BGTSLK)) that that could assist the organization to deal with uncertainties due to internal and external pressures. Financial slack is firms' access to utilize the resources that either have been accumulated in firms' financial structure or not yet absorbed by the organization in as a response of unexpected crises or immediate response due to new, arising opportunities (Martinez & Artz, 2006). Financial slack consists of three indicators, namely available, recoverable and potential slack. Available slack (CRT) is measured using firms' current ratio (i.e. current assets/current liabilities) as an indication of liquid funds that can be immediately used during unfavorable conditions (Herold et al. 2006 and Daniel et al. 2004). Recoverable slack (SLEXT) on the other hand is cost that have been expensed but can be reduced in the future through efficiency during financial difficulty (Singh, 1986). We measure it as selling, general and administrative expenses divided by sales (Geiger and Makri, 2006). Following Martinez and Artz (2006), Potential slack (DERT) shows the firm's ability to generate new resources through issuing new debt funding that is simply measured as debt-equity ratio.

Another dimension of business units slack is budgetary slack. This slack is defined as the managerial intention to set the budget target lower than his/her real performance so that the budget becomes easier to attain (Stede 2000). We measure the budgetary slack using Dunk (1993) and Stede's (2000; 2001) measurement on a 5 point Likert Scale from strongly disagree to strongly agree (BSLK1 – BSLK5).

4 Results

In order to test the hypotheses we use Structural Equation Modelling (SEM) for several reasons. First, SEM can run multiple relationships simultaneously, and thus the model efficiency can be maintained. Secondly, SEM may also adjust the bias due to variances of measurement and structural errors. Thirdly, SEM also provides the goodness of fit indicators that are useful when the main purpose of the study is to test the congruence between the model (e.g. theory) and the data.

We firstly analyzed the measurement models to specify the models. The successful measurement models may prevent us to re-specify the structural models. It is also worth noting that no items were deleted. However, this study allows for the correlated errors to increase the model fit particularly due to the isomorphism nature of the measurements.

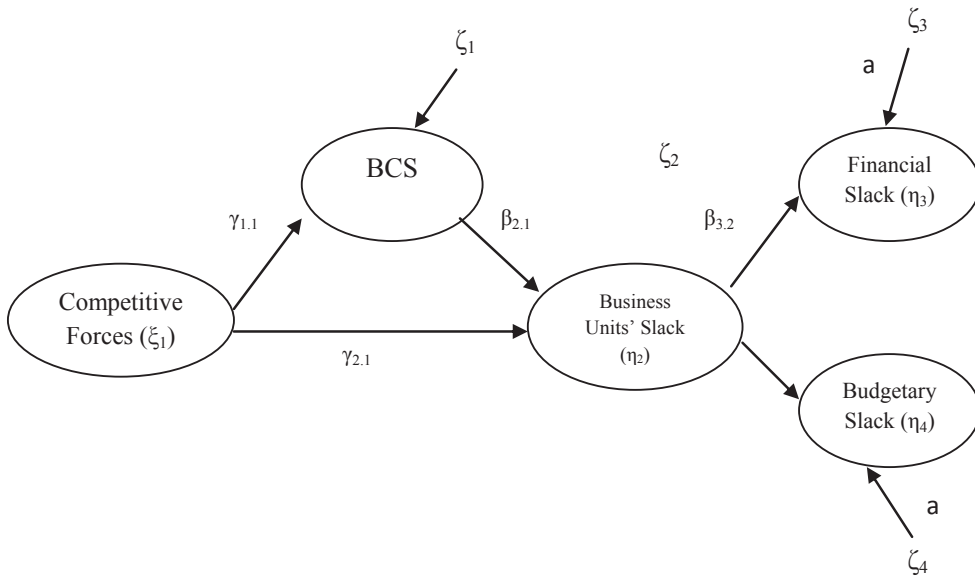


Figure 1 Framework for second order SEM

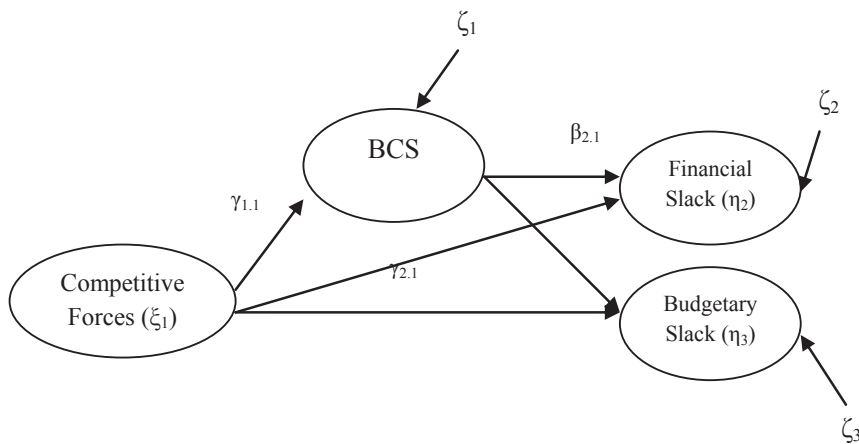


Figure 2 Modified framework of second order SEM

Since this study analyzes the impact of competitive forces on business units' slack directly and indirectly through budgetary control systems, the model is analyzed using the second order structural equations modelling. In order to reduce the complexity of the model, this model assumes that the financial and budgetary slack shares the same structural errors, or in other words, the error variances of financial and budgetary slack constructs are constrained to be identical ($\zeta_3 = \zeta_4$).

The results (refer to Table 3) indicate that the models are deemed to be well-fitted ($df = 185$, $\chi^2 = 194.33$ ($p = 0.3$), $RMSEA = 0.019$, $CFI = 0.99$, $GFI = 0.88$). The results also reveal that there is no direct relationships between competitive forces and business units' slack ($\gamma_{2,1} = -0.37$, $t = -1.33$). However, it is also evident that competitive forces has the negative impact to BCS ($\gamma_{1,1} = -33$, $t = -2.34$ while BCS negatively affects the business units' slack ($\beta_{2,1} = -0.81$, $t = -1.86$) at the moderate level ($p < 0.1$).

Table 3 structural equation modeling results: second-order and first-order models

Path	Second Order Model			First Order Model		
	Estimated parameters	t-values	R ²	Estimated parameters	t-values	R ²
CRT	1		.27	1		.29
DERT	.17	3.23	.23	.16	3.10	.23
SLEXT	.035	3.14	.20	.034	3.03	.21
BSLK1	1		.50	1		.49
BSLK2	1.07	7.16	.51	1.08	7.04	.51
BSLK3	1.06	7.33	.54	1.07	7.21	.54
BSLK4	1.00	6.90	.47	1.01	6.78	.47
BSLK5	.93	6.52	.41	.93	6.40	.41
BCS1	1		.50	1		.50
BCS2	.93	7.48	.50	.91	7.50	.49
BCS3	.94	7.24	.47	.94	7.36	.47
BCS4	.90	7.17	.46	.95	7.50	.51
BCS5	.95	7.52	.51	.93	7.50	.49
BCS6	.88	7.28	.48	.93	7.60	.53
BCS7	.74	6.75	.41	.74	6.83	.40
COMFOR1	1		.37	1		.37
COMFOR2	1.27	6.62	.56	1.11	5.85	.43
COMFOR3	1.36	6.67	.58	1.20	5.90	.44
COMFOR4	1.04	6.08	.44	1.12	6.20	.50
COMFOR5	1.29	6.41	.51	1.37	6.44	.57
COMFOR6	1.04	5.80	.39	1.09	5.87	.43
Structural Relationships:						
BUSLK→FINSLK	-1.09	-1.78	.62	-	-	-
BUSLK→BGTSLK	-.30	-1.78	.11	-	-	-
COMFOR→BCS	-.33	-2.34	.060	-.31	-2.23	.055
BCS→BUSLK	-.81	-1.86		-	-	-
COMFOR→BUSLK	-.37	-1.33	.63	-	-	-
BCS→BGTSLK	-	-	-	.26	2.71	
COMFOR→BGTSLK	-	-	-	.11	.89	.082
COMFOR→FINSLK	-	-	-	.43	1.64	
BCS→FINSLK	-	-	-	.87	3.61	.35
Fit Indexes:						
χ^2 , df, p	194.33, 185, 0.30			167.19, 182, 0.78		
RMSEA	0.019			0.00		
GFI	0.88			0.90		
CFI	0.99			1.00		

Although the results seem to be promising, there are several major issues need to be addressed. First and foremost, it is likely that there is iteration problem in the model that is indicated by the “non-positive definite matrix in the covariance matrix

of measurement errors of exogenous latent variables (Θ_{δ}). Usually, this is caused by either linear dependency because of the highly correlated measurements or the presence of multivariate dependency. Correlation analysis however, does not indicate any multicollinearity issues. Secondly, the assumption of identical structural errors of lower order constructs of financial and budgetary slack ($\zeta_3 = \zeta_4 = a$, as displayed in Figure 1) is arbitrary constrained, and as a consequence it may impair the other estimated parameters. We speculate that constraining the parameter estimates creates the issue of multivariate dependencies particularly on the estimated parameters of budgetary and financial slack constructs.

This iteration problem needs to be resolved; otherwise it may result in bias in the parameter estimates, standard errors and fit indices. One way to solve this issue is by assuming that the financial and budgetary slacks are two independent endogenous variables (see Figure 2). Further analysis also revealed that the correlation between these two constructs is quite low and not significant. Schumaker and Lomax (2006) did not suggest the use of second-order confirmatory factor analysis (or second-order structural equations modeling) where its lower order factors and their manifest variables do not highly correlated. As a consequence, the modified model was constructed in which this study tests the antecedents of lower order factors (budgetary and financial slack) as the endogenous variables. As such, rather than testing the impacts of diversification and competitive forces and budgetary control systems on business units' slack that comprised of two dimensions (financial and budgetary slack), this study tests the determinants of its lower order factors, financial and budgetary slack.

The results are depicted in Table 4. It is obvious from the findings that the data fit well with the model indicated by the χ^2 value of 167.19 and its non-significant probability of 0.78. Comparative Fit Index also indicates that the model was fit (CFI = 0.98), while Root Mean Square Error Approximation also reveals the reasonably well-fitting model (RMSEA = 0.0069).

Our results found that the higher competitive forces decrease the budget-based performance evaluation ($\gamma_{1,1} = -0.31$, $t = -2.23$). However, our study found that competitive forces do not significantly affect ($\gamma_{2,1} = 0.43$, $t = 1.64$) and budgetary slack ($\gamma_{3,1} = 0.11$, $t = 0.89$). Although, this study found significant relationship between budgetary control systems and both financial and budgetary slack, the directions were not as expected. Rather than finding the expected negative significant relationships between BCS and financial and budgetary slack, this study reveals the positive effects from budgetary controls to financial and budgetary slack ($\beta_{2,1} = 0.87$, $t = 3.61$ and $\beta_{3,1} = .26$, $t = 2.71$, respectively)

5 Discussion

This study hypothesized the positive effects of competitive forces on business units' slack because the increasing external pressures of competitive forces may lead the business units to have the idle capacity to absorb the environment turmoil and uncertainty. Nevertheless, it is found that the pressures due to competitive forces do not yield higher extent of financial and budgetary slack in the business units.

This finding implicitly challenges several previous arguments maintaining that there should be a positive effect of competitive forces on business units' slack. For instance, several earliest slack pioneers (e.g. Onsi (1973), Cyert & March (1963) and Bourgeois (1981), among others) and recent publications (Huang and Chen, 2009, Yang et al., 2009, Lin et al., 2008) insisted that the presence of slack should be able to act as a buffer from environmental pressures and the positive relation between environmental uncertainty and/or pressures and slack creation. Recently, Cheng and Kesner (1997) and Herold et al. (2006) also concurred with the proposition of slack-led uncertainty.

The acceptance of null hypothesis regarding competitive forces and slack implies therefore, that business units' decision to engage on slack creation is not directly affected by the existence of industry competitiveness. Several arguments are offered to explain the insignificant effects of competitive forces on business units slack generally and financial and budgetary slack particularly.

First, the inherent limitations in the conventional budget under high environment uncertainty and forces may be the reason for such insignificant result. In particular, the data of this study showed that the sampled business units operate under quite high competitive forces (i.e. mean for all the competitive forces items are above its median values with quite high standard deviation). It has been accepted that the conventional budget in the high environment turbulent and pressure may not be able to provide a clear and accurate story concerning the future (Haka & Krishnan, 2005; Hansen et al., 2003). As a consequence, the business units may feel lack of importance and benefits to create slack in their budgets as the business units managers may perceive that slack creation under high environmental uncertainty is futile since there is even lack of (if not possible) capability to guesstimate the "tolerable" slack. Playing with such budgeted numbers may inevitably put the business units in an unfavourable situation, as the corporate may not endure certain amount of slack in the budget.

Second, the sampled business units of this study are divided into the mature (n = 81) and young business units (n = 51). We speculate that immature business units were just engaged in a particular industry, and may not clearly aware the pressures of

external forces to the business units' ability to earn above average profits. This business units tenure may one of the possible explanations for the non-significant relationships between competitive forces and budgetary slack.

Interestingly, it is also apparent from the results that although there is no direct effect of competitive forces to budgetary slack, an indirect effect of competitive forces on budgetary slack through budgetary controls plays some salient roles. In other words, business units that have to deal with fierce competitive forces may have loose controls in their budgetary systems. Haka and Krishnan (2005) and Merchant (1980) also found that firms with high competitive forces will be performed better by relaxing the action controls such as use of accounting numbers as performance evaluation mainly as a result of performance indicators' lack of accuracy. This lenient control system may also invoke less budgetary slack in the business units. Stevens (2000) and Davis et al. (2006) found that slack creation increase in-line with the increase in the pressures by the corporate parents. Besides, the business units' managers may regard slack creation during the budgeting process as unjust, unfair and reflect dishonest behaviour. Merchant and Manzoni (1989) further argued that business units managers, under tight control systems, may act in ways to protect their "job security" by creating slack in their budget.

Furthermore, this study cannot find any significant effect of competitive forces on financial slack. This study contradicts with the widely-held view theory of slack (e.g., Bourgeois (1981), Cyert and March (1963) and George (2005), among others) insisting that slack is built as a cushion that act as a buffer to suppress the shock and unforeseen contingencies in the future.

Perhaps, one main possible conjecture regarding the insignificant effect of competitive forces to financial slack is the diversity of sub-industries in the sampled business units. Different industry may lead to different needs of financial slack. Unfortunately, this diversity may impair the true relationship between competitive forces and financial slack. Furthermore, it is also clearly evident that the business units of foods and beverages industry are dominant in the overall observations (comprise of 37.8% of the total sample) while business units of chemical products are the minority in the observations (comprise of 17% of the total sample). This may lead to the expectation that, due to the nature of the core products offered and environment state, the business units may require diverse needs of slack.

For instance, it is apparent from the data that business units of lumber and wood industry deal with relatively more force from the government policy rather than other industry. As a consequence, these business units tend to build more financial slack compared to other business units (see appendix) in order to adjust for any changes in the government policy that have the direct effect to their industry.

Another possible explanation for the insignificant finding regarding the effect of competitive forces and financial slack is due to the autonomy of authority given by the corporate parent to the business units' level. Although the business unit samples in this study are the subsidiaries of highly diversified corporate parent, this does not necessarily mean that the business units are presented with the full autonomy pertaining to the business units decision makings. Particularly, this study revealed that only 50.7% of the total samples are in the full autonomy state, while the remaining 49.3% are in the partial or in fact no-autonomy at all. It means that the extent of slack, in particular for the non- or partial autonomy state, is actually given, or dictated by the corporate parent. It is likely that the available, recoverable and potential slack for the non- or partial autonomy business units have to "meet" the corporate tolerable cut-off and thus may not be affected by the competitive forces.

These can be proven by the fact that, for example, the diverse extent of recoverable slack existed in the autonomous and non-autonomous business units. Specifically, it is found that business units with full autonomy have more potential slack that has not been absorbed compared to non-autonomous business units. It means therefore, autonomous business units have more freedom to build slack resources as there is no immediate control from corporate parent; and vice versa, autonomous business units seem to be dictated by the corporate parents on terms of the allowable potential slack (or in this case, the extent of debt from external parties)

This study found the expected negative significant effect of competitive forces on budgetary control. This finding is in-line with the proposition suggested by Hirst (1983), Govindarajan (1984) and Hartmann (2000) among others. They typically argued that the corporate information gathering capability is limited in the face of high uncertainty and thus, actions-like control such as placing tight budgetary controls may not be appropriate for the business units in the face of high competitive forces.

As previously mentioned, many authors have argued that the uncertainty attached in the high competitive forces may encourage the firms to relax their budgetary control systems. Haka and Krishnan (2005) and Fisher (2002) for example maintained that budgetary controls cannot be used as an indicator of whether the accounting performance is achieved during high environmental turbulence. As a consequence, budgetary controls are less frequently used for business units facing high competitive forces.

Although this study found significant effect of BCS to business units' slack, the sign is not as expected. Rather than finding the negative effect of BCS to business units' slack, this study uncovered the positive impact of BCS to business units'

slack. This finding contradicts with Stede (2000, 2001, 2003), Lau and Eggleton (2002) and Dunk (1993), that found that tight budgetary controls encourage the subordinates to achieve the budget targets by any means, including slack creation. This finding while contradicts with the economics point of view but concurred with the organizational behaviourists.

More particularly, organizational theorist insisted that budgetary controls systems may increase the probability that slack gets detected and thus, reduced (Merchant, 1985, Stede, 2000). However, Drury (1985) argued that tight budgetary controls would lead to substantial bias in the budgeting process and result in slack. Similarly, Merchant and Stede (2007) indicated that when corporate parents placed a high emphasis on accounting information for performance evaluation, the business units responded by creating slack in their budget. Dunk (1993) also insisted that when budget and accounting numbers are used as the basis of performance evaluation by the corporate parent (superior), and the bonus and incentives are tied upon these measures, the business units (subordinate) may respond by engaging in slack creation.

Furthermore, another possible explanation for the positive effects of tight budgetary controls and budgetary slack is due to the high participation of business units during the budgeting process. All the sampled business units revealed that they involve in setting up the budget and thus may provide the opportunity for business units' managers to intentionally underestimate the targeted revenues and overestimate the targeted costs in order to make them easily achievable.

Although this study predicted the negative significant effect of BCS to financial slack, the data reveal the contrary result. The possible explanation for such a surprising finding is probably because the business units managers aimed to provide the idle capacity to adjust for the pressures on attaining certain accounting numbers through negotiating the allowable idle capacity. Particularly, the business units may put more resources that can be easily absorbed and utilized when the corporate pressures on attaining the target is high. These resources include the current assets relative to current liabilities, selling and general expenditures as well as the potential to create further slack such as external funding. As a consequence, when the pressures to achieve the budget target are high, the business unit managers may be provoked to "legitimize" the existence of slack in their business units. As a consequence, this slack can be used to engage in "playing with numbers", particularly when the environment is not supportive.

6 Conclusions

This study provides a more comprehensive understanding of business unit's slack and its determinants at the situational and control levels. We have shown that business units' slack is a multi-dimensional construct that has the historical nature (financial slack) to be further utilized and future characteristic (budgetary slack). Our result indicates that the competitive forces do not significantly affect financial and budgetary slack dimensions although it hints their presence of indirect effect. In this vein, low competitive forces at the business units lead the corporate parents to predominantly use accounting numbers as their business unit performance measurement tools. While the heavy reliance on budgetary control systems is likely to increase the business units intention to create the extra buffer, financially and during the budgeting process in order to make their future efforts easily attainable.

This study contributes to the accounting literature in several ways. First, slack has been conceptualized into unidimensional construct (i.e. financial or budgetary slack, per se) while this study offers broader view of slack. Based on our literature review, lack of research comprehensively combined the multi-dimensional slack into this way. Second, this study investigated the unexplored impacts of situational (competitive forces) and control (corporate budgetary control systems) factors on business units' slack.

References

- Alessandri, T., Cerrato, D., & Depperu, D. (2014). Organizational slack, experience, and acquisition behavior across varying economic environments. *Management Decision*, 52 (5), 967 – 982.
- Anthony, R. N., & Govindarajan, V. (1998). *Management control systems* (9th Ed.). Boston: McGraw Hill.
- Baloc, R. A., Sha, N., & Panhwar, K .N. (2014). The relationship of slack resources with subjective well being at work: Empirical study of sugar mills from Pakistan. *International Strategic Management Review*, 2, 89 – 97.
- Bourgeois, L. J. (1981). On the measurement of organizational slack. *Academy of Management Review*, 6, 29 – 39.
- Brownell, P. (1985). Budgetary systems and the control of functionally differentiated organizational activities. *Journal of Accounting Research*, Autumn, 502 – 512.
- Chattopadhyay, P., Glick, W. H., & Huber, G.P. (2001). Organizational actions in response to threats and opportunities. *Academy of Management Journal*, 44 (5), 937 – 955.
- Cheng, J. L., & Kessner, I. (1997). Organizational slack and response to environmental shifts: The impact of resource allocation pattern. *Journal of Management*, 23 (1), 1 – 18.
- Cyert, R.M., & March, J.G. (1963). *A behavioral theory of the firm*. New Jersey: Prentice Hall.

- Daniel, F., Lohrke, F. T., Fornaciari, C. J., & Turner, A. T. (2004). Slack resources and firm performance: a meta-analysis. *Journal of Business Research*, 57, 565 – 574.
- Davis, S., DeZoort, F. T., & Kopp, L. S. (2006). The effect of obedience pressure and perceived responsibility on management accountant's creation of budgetary slack. *Behavioral Research in Accounting*, 18, 18.
- Ditillo, A. (2004). Dealing with uncertainty in knowledge-intensive firms: the role of management control systems as knowledge integration managements, *Accounting Review*, 29, 401 – 421.
- Douglas, P. C., & Wier, B. (2005). Cultural and ethical effects in budgeting systems: A comparison of U.S. and Chinese managers. *Journal of Business Ethics*, 60 (2), 159 – 174.
- Elmassri, M., & Harris, E. (2011). Rethinking budgetary slack as budget risk management. *Journal of Applied Accounting Research*, 12 (3), 278 – 293.
- Fadol, Y., Barhem, B., & Elbanna, S. (2015). The mediating role of the extensiveness of strategic planning on the relationship between slack resources and organizational performance. *Management Decision*, 53 (5), 1023 – 1044.
- Fisher, J., Maines, L. A., Peffer, S. A., & Sprinkle, G. B. (2002). Using budgets for performance evaluation: effects of resource allocation and horizontal information asymmetry on budget proposals, budget slack and performance. *The Accounting Review*, 77 (4), 847 – 865.
- Geiger, S. W., & Makri, M. (2006). Exploration and exploitation innovation processes: the role of organizational slack in R&D intensive firms. *The Journal of High Technology Management Research*, 17 (1), 97 – 108.
- George, G. (2005). Slack Resources and the Performance of Privately Held Firms. *Academy of Management Journal*, 48 (4), 17.
- Govindarajan, V. (1984). Appropriateness of accounting data for in performance evaluation: an empirical investigation of environmental uncertainty as an intervening variable. *Accounting, Organizations and Society*, 9, 125 – 135.
- Haka, S., & Krishnan, R. (2005). Budget type and performance-The moderating effect of uncertainty. *Australian Accounting Review*, 15 (1), 3 – 13.
- Hansen, S. C., Otley, D.T., & Stede, W. A. V. (2003). Practice developments in budgeting: an overview and research perspective. *Journal of Management Accounting Research*, 15, 95 – 116.
- Harrison, G. L. (1993). Reliance on accounting performance measures in superior evaluative style, the influence of national culture and personality. *Accounting, Organizations, and Society*, 18, 319 – 339.
- Hartmann, F. G. H. (2000). The Appropriateness of RAPM: toward the further development of theory. *Accounting, Organizations and Society*, 25, 451 – 482.
- Herath, S. K., & Indrani, M. W. (2007). Budgeting as a competitive advantage: evidence from Sri Lanka. *Journal of American Academy of Business*, 11 (1), 79 – 91.
- Herold, D. M., Jayaraman, N., & Narayanaswamy, C. R. (2006). What is the relationship between organizational slack and innovation? *Journal of Managerial Issues*, 18 (3), 22.
- Hirst, M. K. (1983). The controllability of financial outcomes. *Abacus*, 19, 29 – 38.
- Huang, C. L., & Chen, M. L. (2009). Relationships among budgetary leadership behavior, managerial budgeting games and budgetary attitudes: Evidence from Taiwanese Corporations. *Journal of International Accounting, Auditing and Taxation*, 18, 73 – 84.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency cost and ownership structure. *Journal of Financial Economics*, 3, 305 – 360.

- Kahneman, D., & Tversky, A. (1979). Prospect theory: an analysis of decision under risk. *Econometrica*, 47, 263 – 292.
- Lau, C. M. (1999). The effect of emphasis on tight budget targets and cost control on production and marketing managers' propensity to create slack. *British Accounting Review*, 31, 415 – 437.
- Lau, C. M., Low, L.C., & Eggleton, I. (1995). The impact of reliance on accounting performance measures on job-related tension and managerial performance: additional evidence. *Accounting, Organizations, and Society*, 20 (5), 159 – 381.
- Lau, C. M., & Eggleton, I. R. C. (2003). The influence of information asymmetry and budget emphasis on the relationship between participation and slack. *Accounting and Business Research*, 33 (2), 91 – 104.
- Lawson, M. B. (2001). In praise of slack: time is of the essence. *Academy of Management Executive*, 15 (3), 125 – 135.
- Lin, W.T., Cheng, K.Y., & Liu, Y. (2008). Organizational slack and firm's internationalization: a longitudinal study of high technology firms. *Journal of World Business*, 44, 397 – 406.
- Martinez, R. J., & Artz, K. (2006). An examination of firm slack and risk taking in regulated and deregulated Airlines. *Journal of Managerial Issues*, 18 (1), 23.
- Merchant, K. A. (1985). Budgeting and the propensity to create budgetary slack. *Accounting, organizations and society*, 10 (2), 201 – 210.
- Merchant, K. A., & Manzoni, J. F. (1989). The achievability of budget targets in profit centers: a field study. *The Accounting Review*, LXIV (3), 529 – 558.
- Molina, M. A., del Pino, I. B., & Rodriguez, A. C. (2004). Industry, management capabilities and firm's competitiveness: an empirical contribution. *Managerial and Decision Economics* 25, 265 – 281.
- Mousa, F. T., & Chowdhury, J. (2014). The relationship between organizational slack and innovation: revisited. *American Journal of Business*, 29 (1), 26 – 42.
- Porter, M. E. (1980). *Competitive strategy: techniques for analyzing industries and competitors*. New York: Free Press.
- Ross, A. (1995). Job related tension, budget emphasis and uncertainty: a research note. *Accounting, organizations and society*, 19, 629 – 635.
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Singh, J. V. (1986). Performance, slack, and risk taking in organizational decision making. *Academy of Management Journal*, 29 (3), 562 – 585.
- Stede, W. A. V. (2000). The relationships between two consequences of budgetary controls: budgetary slack creation and managerial short term orientation. *Accounting, Organizations and Society*, 25 (6), 609 – 622.
- Stede, W. A. V. (2001). The effect of Corporate diversification and business unit strategy on the Presence of slack in business units budget. *Accounting, auditing and accountability Journal*, 14 (1), 30 – 52.
- Stevens, D. E. (2002). The effects of reputation and ethics on budgetary slack. *Journal of Management Accounting Research*, 14, 153 – 169.
- Yang, M. L., Wang, A. M. L., & Cheng, K. C. (2009). The impact of quality of IS information and budget slack on innovation performance. *Technovation*, 29 (8), 527 – 536.
- Yuen, D. (2004). Goal characteristics, communication and reward systems, and managerial propensity to create budgetary slack. *Managerial Auditing Journal*, 19 (4), 517 – 532.