A Study on Managers' Creation of Budgetary Slack in Emerging Economies: The Case of Vietnam

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ABSTRACT

Although the budgeting literature well documents managers' creation of budgetary slack in developed economies, lack of attention has been paid to this behaviour in emerging economies. It is doubtful that some unique characteristics, only existing in emerging economies, cause this behaviour to be different than the budgeting literature predicts. Since there is no study examining managers' creation of budgetary slack in emerging economies, such as Vietnam, to get insight into whether or not these characteristics cause the differences, the aim of this study is to replicate prior budgeting studies by using Vietnamese samples. Particularly, we investigated the impact of budgetary participation, budget emphasis, information asymmetry, and the interactions between these variables on managers' creation of budgetary slack. Data obtained from the questionnaire sent to 99 Vietnamese managers shows that the last two variables and the interaction between them induce managers' creation of budgetary slack. However, the results also indicate that the first variable and the interaction between this variable and the other two variables respectively have no impact on managers' creation of budgetary slack. These results provide some insight into the creation of budgetary slack of Vietnamese managers for future studies to extend the line of research.

1. Introduction

Budget is an accounting expression, which covers two main topics. First, a budget may refer to a set of numbers, which reflect expected income and expenses for a given period. These numbers can serve as a valuable tool that can be effectively used for organisational short-term planning and control. For instance, an operating budget is the estimation of revenue and expenses of a specified business unit during a year. Secondly, a budget also refers to the process of emerging and using budgets. This process consists of several activities, such as setting financial goals, forecasting resources needed to complete these goals, monitoring and controlling incomes and expenditures, and evaluating performances.

Budget plays a major role in an organisation. In general, a budget is used for many different purposes including operational planning, performance evaluation, communication of goals, and strategy formation (Hansen and Van der Stede 2004). Such uses of the budget have an impact on managers' behaviour. On the one hand, a budget can be used to encourage managers to perform, in turn leading to the improvement of overall organisational performance (see Ronen and Livingstone 1975). Alternatively, a budget can discourage managers if used inappropriately, and as such becomes detrimental to organisational performance (see Hansen and Van der Stede 2004).

The current study focuses on the adverse impact of budget use on managers' behaviour. More specifically, we focused on managers' creation of budgetary slack. This is defined as a manager's action when he or she tries to mislead his or her budget to use scarcer resources, or to have an easily attained budget (Merchant 1985a). Research on this behaviour is a topic of the management accounting field, and both scholars and practitioners in this area have intensively investigated this behaviour as the managers do not fully perform to their actual capacity (see Young, Shields, and Wolf 1988). As aforementioned, this may have a damaging impact on the effectiveness of organisational performance.

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According to the budgeting literature, there are three factors as well as the interaction between them, which may have impacted upon managers' creation of budgetary slack. First, management accounting scholars have suggested that managers are more likely to create budgetary slack when organisations allow participative budgeting (Lau and Eggleton 2003). Secondly, when superiors emphasise managers' budgets as a performance evaluation to provide incentives, the managers may submit budgets below their performance capacities in order to receive a proper performance evaluation (Dunk 1993). Thirdly, managers may create budgetary slack where there is a high information asymmetry between managers and their superiors (Baiman 1982).

Although previous studies have intensively examined the impact of these factors on managers' creation of budgetary slack, most empirical studies on this behavioural issue focus on developed economies (see Merchant 1985a, Lau and Eggleton 2003, Onsi 1973, Van der Stede 2000, Dunk 1995). There is a lack of empirical research on this managerial behaviour in emerging economies. It is argued that some unique characteristics in emerging economies alter the relationship between management accounting practices and local people's behaviour (see Graham et al. 2009). In the budgeting context, it is also possible that some unique characteristics alter the relationship between the three mentioned factors and managers' creation of budgetary slack. As such, the budgeting literature fails to predict the creation of budgetary slack of managers from emerging economies.

Thus, the aim of this study is to shed light on managerial behaviour, and managers' creation of budgetary slack in emerging economies such as Vietnam. Mainly, we investigated the impact of information asymmetry, budget emphasis, and budgetary participation on managers' creation of budgetary slack in emerging economies such as Vietnam. Although Vietnam has gained much attention from not only international investors but also international researchers due to a rapid economic growth, there is no existing study on its managerial behaviour. By focusing on Vietnam, we could extend the budgeting literature to emerging economies when comparing our results with those of previous studies. Such a comparison allows us to seek similarities, and highlight differences between developed and emerging economies. Thus, future studies can extend our results by examining possible factors that may differentiate the results in Vietnam to from the results of developed economies. In addition, our findings also provide some practical implications for people who typically deal with Vietnamese managers. For instance, these implications provide valuable and useful suggestions to limit Vietnamese managers' creation of budgetary slack, and in turn, leading to effective organisational performance. Overall, our study does not contribute only to the budgeting literature, but also provides practical implications.

The remainder of this paper is organised as follows: section 2 documents theoretical backgrounds and develops a set of research hypotheses; section 3 describes the data collection and the measures used in the study; results are presented in section 4; section 5 discusses the results and provides practical implications; and conclusions, limitations, and recommendations for future research are outlined in section 6.

2. Literature Reviews and Hypothesis Developments

2.1. Managers' Creation of Budgetary slack

In the budgeting literature, managers' creation of budgetary slack occurs when managers intentionally overestimate their expense budgets or underestimate their revenue budgets to complete a budget task easily (Merchant 1985a). This behaviour is considered as dysfunctional and unethical, because managers then create a bias in organisational resource allocations to achieve budget targets without putting in too much effort (see Dunk and Perera 1997). Thus, this behaviour may lead to inefficiency in organisational resources consumed.

The agent-principal model is used to explain this managerial behaviour (see Baiman 1982, 1990). In this model, the principal (e.g. managers' superior) hires the agent (e.g. manager) to delegate responsibilities to the agent. The agent is allowed make decisions related to their responsible areas without asking the principal's permission. In this model, it is also assumed that the agents are solely motivated by self-interest. Problems appear when an agent's goals are not consistent with their principal's goals. For instance, the principal demands the agent to minimise expense budgets or maximise revenue budgets to improve organisational efficiency, while the agent only cares about their personal interest (e.g. rewards). Thus, this conflict in interests may cause the agent to create budgetary slack.

The budgeting literature suggests that three conditions and the interaction between these conditions induce managers' creation of budgetary slack (see Figure 1) (Dunk 1993). Firstly, managers are allowed to participate in budgeting processes. Secondly, superiors emphasise the importance of attaining a budget in performance evaluations. Thirdly, a high degree of information asymmetry exists between managers and their superiors.

Figure 1. Research Model

2.2. Budgetary participation

A budgeting process includes the involvement of different managerial levels. Top managers initiate the budget process and provide general guidelines to lower-level managers to develop their budgets. Lower-level managers are normally representatives from each unit (e.g. department managers). In the budgeting meeting, these units' budgets are discussed by the representatives and the top managements. The final units' budgets depend on who has the most influence in the budgeting meeting.

Budgetary participation is a process that managers involve in a budgeting process, and has an influence on the determination of their budgets (Shields and Shields 1998). A high degree of budgetary participation allows managers to actively provide input on their budgets, and as such, they negotiate their budgets with their superiors. In contrast, a low degree of budgetary participation forbids managers to provide their input on their budgets, and thus the final budget is completely influenced by their superiors.

2.3. Budget emphasis

Budget emphasis refers to a degree to which superiors heavily rely on or emphasise pre-defined and pre-specified budget targets as performance criteria to evaluate managers' performance (Hopwood 1972). A high budget emphasis occurs when a superior strongly emphasises on budget targets when evaluating managers' performances. Conversely, a low budget emphasis indicates the situation in which a superior examines other criteria such as non-accounting information, and does not emphasise on budget targets in evaluating managers' performances.

2.4. Information asymmetry

Information asymmetry is the situation in which managers have more or better information than their superior about managers' working environments (Young 1985). Asymmetric information is contrastive to perfect information, which allows both managers and managers' superior to access to the same information equally. Asymmetric information permits managers to cover their performance capacity privately. Consequently, the superiors cannot exactly know managers' real performance capacity, which leads to the disadvantages of budget negotiations.

2.5. The link between budgetary participation and managers' creation of budgetary slack

The budgeting literature suggests that managers are more likely to create budgetary slack when they are allowed to participate in budgeting processes. For instance, Young (1985) doubted that budgetary participation provides an opportunity for managers to insert slack into the budgets. Consistently, Lukka (1988) argued that a high degree of managers participating in budgeting processes leads to a high degree of budgetary slack creation. Thus, in line with previous suggestions, we anticipated the same results. This leads to the first hypothesis.

H1: A high degree of budgetary participation is positively associated with a high degree of managers' creation of budgetary slack.

2.6. The link between budget emphasis and managers' creation of budgetary slack

The budgeting literature explains two reasons that drive managers to create budgetary slack. First, a strong emphasis on meeting budget targets causes managers to have a high degree of job-related tension (Hopwood 1972). This tension causes managers to defensively create budgetary slack to protect themselves from the risk of receiving a bad evaluation (see Lukka 1988). Secondly, Lowe and Shaw (1968) also suggested that managers create budgetary slack because they want to protect their interests. These interests may be promised promotions or rewards if the managers achieve their budget targets.

Previous studies indicate a positive association between budget emphasis and managers' creation of budgetary slack. Onsi (1973) reported that a high degree of budgetary slack is due to a high emphasis on budget. Similarly, Merchant (1985a) showed that budgetary slack is positively related to budget emphasis. Thus, in the same vein, we expected a positive relationship between budget emphasis and budgetary slack. The second hypothesis is as follows.

H2: A high degree of budget emphasis is positively associated with a high degree of managers' creation of budgetary slack.

2.7. The link between information asymmetry and managers' creation of budgetary slack

Asymmetric information has an impact on managers' creation of budgetary slack. When managers have more private information, managers' creation of budgetary slack is difficult to be detected (Merchant 1985a). As a result, managers may easily misinterpret their performance capacity, in turn leading to a high degree of slack creation. This argument drives us to put forward the third hypothesis.

H3: A high degree of information asymmetry is positively associated with a high degree of managers' creation of budgetary slack.

2.8. The impact of the interaction between budgetary participation and information asymmetry on managers' creation of budgetary slack

The interaction between budgetary participation and budget emphasis has an impact on managers' creation of budgetary slack. Specifically, when managers have private information, a high degree of budgetary participation allows managers to misinterpret or withhold their private information to insert slack into the budgets (Merchant 1985b, Christensen 1982, Pope 1984). In this situation, their superiors are less likely to detect slack in the budgets, because they cannot access managers' private information (see Young 1985). Thus, managers easily implement budgetary slack when they have more private information and are allowed to participate in budgeting processes. This argument drives us to contend the fourth hypothesis.

H4: A high degree of the interaction between budgetary participation and information asymmetry is positively associated with a high degree of managers' creation of budgetary slack.

2.9. The impact of the interaction between budgetary participation and budget emphasis on managers' creation of budgetary slack

A high degree of budget emphasis causes managers' job-related tensions (see Hopwood 1972). Managers are more likely to create slack to avoid this tension (Yuen 2004). Moreover, budgetary participation provides an opportunity for managers to create slack (Young 1985). As a result, managers may insert slack into their budgets during their participation in budgeting process if their superiors heavily emphasise on budgeting targets. The fifth hypothesis is as follows.

H5: A high degree of the interaction between budgetary participation and budget emphasis is positively associated with a high degree of managers' creation of budgetary slack.

2.10. The impact of the interaction between budget emphasis and information asymmetry on managers' creation of budgetary slack

A high emphasis on budgeting targets is an incentive for managers to create slack because they become pressurised to meet budgeting targets (Lau and Eggleton 2003). Furthermore, a high degree of

information asymmetry places managers in an easy position to create budgetary slack (Merchant 1985a). As a result, we expected that where there is a strong emphasis on budgeting targets and asymmetric information, managers are more likely to create budgetary slack. This expectation leads to the sixth hypothesis.

H6: A high degree of the interaction between budget emphasis and information asymmetry is positively associated with a high degree of budgetary slack.

3. Research Method

3.1. Data Collection

We collected the data by using a survey sent to 99 managers working at organisations in the Mekong Delta of Vietnam. These managers are responsible for departments of accounting and finance, general management, HR, sales and marketing, supply chain, and IT. They were selected because these types of managers are believed to have budget responsibilities, a key condition for examining the creation of budgetary slack (Merchant 1985a, Onsi 1973).

To ensure high-quality data, clarity, and the avoidance of misunderstanding the translated survey questions, we conducted interviews with two managers familiar with budget processes to identify possible problems with wording and question ordering when the questionnaire was translated. During these interviews, unclear terms and ambiguous word choices were identified. Modifications were made to enhance the construct validity, and an adapted pen-and-ink version of the questionnaire was tested by two other managers. After this, revisions were made, and the questionnaire was sent to target respondents.

3.2. Measures

3.2.1. Budgetary participation (PARTICIPATION)

We adapted this instrument from the Milani's study (1975) to measure the degree to which managers participate in budgeting processes. This instrument measures budgetary participation by examining 6 aspects associated with budgeting processes: (1) the importance of managers' involvement in budget settings; (2) the reasons provided to managers when the budget is revised; (3) the frequency of the budget discussion initiated by managers; (4) the managers' influence on the final budget; (5) the importance of managers' contribution to the budget; and (6) the frequency of the budget discussion initiated by superiors.

3.2.2. Budget emphasis (EMPHASIS)

According Hopwood (1972), there are at least two styles that superiors use to evaluate managers' performance. First, in a budget-constrained style, superiors use budgetary information to rigidly evaluate managers' performances. A failure to meet budget targets is considered as being unacceptable. Second, in a budget-profit style, performance evaluations are more flexible in comparison to the first style, because superiors focus on both criteria such as budgets and profits. Thus, if profits is a criteria for evaluations, concern with costs is important for managers because costs over-run hamper profits. Brownell (1982) suggested that budget emphasis is high when managers perceive the importance of two criteria such as meeting the budgets and concern with costs. Following this suggestion, we measured budget emphasis by adapting the budget emphasis instrument from the study of Lau and Tan (1998). The respondents were asked to rate the importance of these two criteria: (1) meeting the budgets; (2) concern with costs.

3.2.3. Information asymmetry (IA)

The information asymmetry instrument was adapted from the Dunk's study (1993). Information asymmetry arises when managers have more private information than their superiors. We asked the respondents to indicate whether or not their superiors are in possession of information relating to 6 aspects: (1) the respondents' areas of responsibility; (2) the input-output relationships inherent in the internal operations of the respondents' area of responsibility; (3) the performance potential of the respondents' area of responsibility; (4) the technical work of the respondents' area of responsibility; (5) assessing the potential impact of external factors on the activities of the respondents' area of responsibility; (6) understanding what can be achieved in the respondents' area of responsibility. All the above questions are reversed score.

3.2.4. Managers creation of budgetary slack (SLACK)

To measure the degree of managers' creation of budgetary slack, we relied on the instrument of Dunk (1993). The definition of budgetary slack used in this study focuses on the ease with which budgetary targets can be achieved (De Baerdemaeker and Bruggeman 2015). In particular, this instrument measures 6 aspects relating to the ease of budget attained: (1) successfully submitting budgets that are easily attainable; (2) budget targets inducing a high departmental productivity; (3) budget targets requiring costs to be managed carefully in the department; (4) effort to attain budget targets; (5) budget targets not requiring managers to be particularly concerned with improving efficiency in the department, (6) the specifications of budget targets. This instrument is valid and reliable because it was used in previous studies examining budgetary slack (De Baerdemaeker and Bruggeman 2015, Van der Stede 2000, Dunk 1993).

3.3. Control variable

In our data, 61.02% of respondents work in banking industries (Panel 2 of Table 1). As a result, we included a control variable (INDUSTRY) in our model. To do that, we created a dummy variable consisting of two types of respondents (e.g. respondents working in banking industries and respondents working in other industries). The purpose of this is to ensure that there is no difference in slack creation between respondents working in banking industries and other industries.

3.4. Assessment of Common Method Bias

The measures used in this study were gathered from the same survey, which may create an issue of common method bias. Therefore, we executed Harman's single-factor test (Podsakoff and Organ 1986). This test assumes that if a substantial amount of a common method variance is present, a factor analysis of all the data will result in a single factor accounting for the majority (the threshold of 50%) of the covariance in the independent and dependent variables. Specifically, we performed a Principal Axis Factoring analysis on the items measuring our five main variables (PARTICIPATION, EMPHASIS, IA, SLACK, INDUSTRY). The results of the test reveal that no single factor accounts for the majority of the variance in the instruments¹, showing that this type of bias was not a concern in this study.

4. Results

4.1. Descriptive statistics

Table 1 presents the respondents' characteristics as well as the companies' backgrounds. 52.53% of our respondents were male. 56.57% labelled themselves as lower managers and 32.32% as middle-level managers. 44.44% of them worked in sales and marketing departments. The companies in which they work at operate in a wide range of different sectors as showed in Panel B. More than half of the companies employ more than 1,000 people. About one-third of the companies are stated-owned.

Table 1. Descriptive statistic

Panel A: Respondent's characteristic		
Gender		
	Male	52.53%
	Female	47.47%
	Not specified	
Education		
	Professional diploma or less	2.02%
	Associate degree	4.04%
	Bachelor	77.78%
	Master	16.16%
Professional level		
	Lower-management level	56.57%
	Middle management level	32.32%
	Top management level	9.09%
	Not specified	2.02%

¹ The total variance explained by one single factor is 28.07%.

Table 1. Descriptive statistic (*Continued*)

Panel A: Respondent's characteristic (<i>Continued</i>)		
Function		
	General management	24.24%
	Accounting and Finance	20.20%
	HR	4.04%
	Sales and Marketing	44.44%
	Supply chain	3.03%
	Information technology	2.02%
	Not specified	2.02%
Panel B: Company's background		
Industry		
	Processing industry (textiles, food, beverages).	10.10%
	Wholesale and retail trade.	8.08%
	Hotel, restaurant, tourism, consultancy and other service industries.	16.16%
	Energy and water.	3.03%
	Banking and insurance.	61.62%
	IT	1.01%
Size (employees)		
	<=50	3.03%
	101 to 250	18.18%
	251 to 500	9.09%
	501 to 1.000	10.10%
	1.001 to 2.000	27.27%
	2001 to 5.000	23.23%
	5.001 to 10.000	9.09%
Year since the foundation		
	<= 5	3.03%
	6-10	59.60%
	11-15	14.14%
	16-20	2.02%
	>=21	21.21%
Percentage owned by the government		
	0%	12.12%
	<=25%	10.10%
	more than 25% - less than 50%	45.45%
	more than 50% - less than 100%	30.30%
	100%	2.02%

4.2. Hypotheses testing

Our hypotheses were tested using SmartPLS, a structural equation modelling tool that allows us to firstly assess the psychometric properties of the measurement model, and then to estimate the parameters of the structural model. We chose partial least squares (PLS) because this method makes minimal data assumptions and requires relatively small sample sizes (Hair, Ringle, and Sarstedt 2011).

4.2.1. Measurement model

We accessed the measurement model in two steps. In the first step, we ran an exploratory factor analysis to examine the unidimensionality of all constructs. The second step consists of assessing the two elements of factorial validity, convergent validity and discriminant validity.

First, we conducted a principal axis factoring with Oblimin rotation to analyse the dimensionality of all constructs (Fabrigar et al. 1999). Four components were extracted, corresponding to the number of intended constructs. Next, we analysed the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. The KMO measure (0.760) was above the suggested rule-of-thumb threshold of 0.6, which indicates an adequate sample size. The Chi-square value for Bartlett's test was large (1,166.76) and significant ($p < 0.001$), implying that the correlation matrix is not an identity matrix. Taken together, these two tests indicate that it is safe to proceed with and interpret the results (Cascardi et al. 1999). Next, poorly performing items (i.e. loadings below the 0.50 threshold) (Hair et al. 2010). After the removal of an item, a new principle axis factoring with Direct Oblimin rotation was conducted, and the aforementioned steps were repeated. This process allowed us to rigorously assess construct dimensionality (Rook and Fisher 1995). In total, two items were deleted: SLACK_1, SLACK_3.

Secondly, a confirmatory factor analysis (CFA) was conducted to examine the factor loadings of the measurement items on their respective latent constructs as well as their cross-loadings. The results, presented in Table 2, show that each item's loading on its respective construct is highly significant ($p < 0.001$).

Table 2. Cross-loadings and VIFs

	EMPHASIS	IA	INDUSTRY	PARTICI -PATION	SLACK	ExPART	IAxE	IAx PART	VIF
EMPHASIS_1	0.913	0.295	0.206	0.115	0.429	0.086	0.176	0.031	1.598
EMPHASIS_2	0.881	0.316	0.114	0.166	0.370	0.065	0.137	0.053	1.598
IA_1	0.269	0.718	0.096	0.145	0.421	0.120	-0.013	-0.072	1.878
IA_2	0.326	0.815	-0.103	0.288	0.403	0.011	0.042	-0.100	2.420
IA_3	0.269	0.797	-0.066	0.117	0.384	-0.006	0.018	-0.058	2.027
IA_4	0.313	0.698	-0.053	0.113	0.369	-0.058	0.069	0.027	1.533
IA_5	0.253	0.761	0.087	-0.047	0.397	0.132	0.078	0.061	1.798
IA_6	0.080	0.706	0.074	0.118	0.350	0.133	-0.070	0.092	1.725
INDUSTRY	0.182	0.008	1.000	-0.117	0.155	0.072	-0.122	0.181	1.000
PART_1	0.111	0.041	-0.153	0.856	0.132	-0.109	0.067	-0.365	3.002
PART_2	0.146	0.259	-0.075	0.927	0.235	-0.054	-0.029	-0.307	4.208
PART_3	0.168	0.093	-0.128	0.738	0.055	-0.080	0.117	-0.363	2.204
PART_4	0.085	0.102	-0.043	0.879	0.193	0.010	0.207	-0.334	2.835
PART_5	0.182	0.130	-0.162	0.912	0.171	-0.102	0.056	-0.466	4.559
PART_6	0.150	0.147	-0.097	0.761	0.058	-0.037	-0.050	-0.463	2.522
SLACK_2	0.401	0.402	0.239	0.137	0.880	0.115	0.177	0.009	2.804
SLACK_4	0.494	0.509	0.202	0.131	0.898	0.122	0.291	0.039	2.717
SLACK_5	0.268	0.256	-0.037	0.160	0.737	-0.068	0.186	-0.096	1.745
SLACK_6	0.272	0.492	0.033	0.242	0.796	0.099	0.182	0.082	1.720
ExPART	0.085	0.075	0.072	-0.066	0.100	1.000	0.057	0.445	1.000
IAxE	0.176	0.029	-0.122	0.074	0.257	0.057	1.000	0.053	1.000
IAxPART	0.046	-0.015	0.181	-0.420	0.024	0.445	0.053	1.000	1.000

In the second step, we evaluated the measurement model by investigating convergent validity, discriminant validity, internal consistency, and multicollinearity among variables. To assess convergent validity, we examined the average variance extracted (AVE). An AVE value of 0.50 and higher indicates a sufficient degree of convergent validity. It means that the latent variable explains more than half of its indicators' variances (Fornell and Larcker 1981). Table 3 shows that the AVE of all constructs is higher than the 0.50 thresholds. Moreover, Table 2 shows that all items load highest on their respective construct with a lower bound of 0.698. These loadings confirm the convergent validity of our constructs, because according to Fornell & Larcker's (1981) suggestion, these items also load higher on their respective construct than on any other construct.

Table 3. AVE, $\sqrt{\text{AVE}}$, Cronbach's Alpha and Composite Reliability

	AVE	$\sqrt{\text{AVE}}$	Cronbach's Alpha	Composite Reliability
EMPHASIS	0.81	0.90	0.76	0.89
IA	0.56	0.75	0.84	0.89
INDUSTRY	1.00	1.00	1.00	1.00
PARTICIPATION	0.72	0.85	0.92	0.94
SLACK	0.69	0.83	0.85	0.90
ExPART	1.00	1.00	1.00	1.00
IAxE	1.00	1.00	1.00	1.00
IAxPART	1.00	1.00	1.00	1.00

After establishing convergent validity, we assessed discriminant validity to ensure that all construct measures are empirically unique and represent phenomena of interest that other measures in the structural equation model do not capture (Hair et al. 2010). To determine discriminant validity, we first used the AVE values from Table 3 and, in line with Fornell & Larcker (1981), we found that the square root of the AVE for each latent variable is larger than any correlation among any pair of latent variables (see Table 4). Therefore, we conclude that discriminant validity is established (Chin 1998a).

Table 4. Discriminant validity (inter-correlations) of constructs

		EMPHASIS	IA	INDUSTRY	PARTICI -PATION	SLACK	Ex PART	IAxE	IAx PART
EMPHASIS	Correlation								
	<i>p</i> -value								
IA	Correlation	0.339**							
	<i>p</i> -value	0.001							
INDUSTRY	Correlation	0.182	0.008						
	<i>p</i> -value	0.071	0.934						
PARTICI -PATION	Correlation	0.155	0.164	-0.117					
	<i>p</i> -value	0.126	0.104	0.25					
SLACK	Correlation	0.447**	0.518**	0.155	0.196				
	<i>p</i> -value	0.000	0.000	0.125	0.051				
ExPART	Correlation	0.085	0.075	0.072	-0.066	0.1			
	<i>p</i> -value	0.405	0.461	0.476	0.515	0.326			
IAxE	Correlation	0.176	0.029	-0.122	0.074	0.257**	0.057		
	<i>p</i> -value	0.082	0.777	0.228	0.465	0.01	0.576		
IAxPART	Correlation	0.046	-0.015	0.181	-0.420**	0.024	0.445**	0.053	
	<i>p</i> -value	0.649	0.883	0.072	0.000	0.812	0	0.603	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

In the next step, we assessed the internal consistency reliability of the measurement model by calculating the composite reliability (CR) and Cronbach's Alpha. Table 3 demonstrates that all composite reliability scores and Cronbach's Alpha are above the threshold value of 0.70 (Hair, Ringle, and Sarstedt 2011).

Finally, we assessed multicollinearity among measurement items and latent variables by examining the VIF scores. Tables 2 and 5 indicate that all VIFs are less than the threshold value of 5, which suggests the absence of multicollinearity among measurement items and latent variables (Hair et al., 2011).

Table 5. VIFs between latent variables

	SLACK
EMPHASIS	1.249
IA	1.156
INDUSTRY	1.108
PARTICIPATION	1.314
SLACK	-
ExPART	1.282
IAxE	1.072
IAxPART	1.586

4.2.2. Structural model

The purpose of this phase is to estimate the specified structural equations. The path coefficients indicate the strength and direction of the relationships among the latent variables. We assessed the statistical significance of parameter estimates using a bootstrap procedure with 5,000 replacements, as suggested by Hair et al. (2011). Also, in line with prior research (see Hartmann and Slapničar 2009), we also examined the predictive validity of the parameter estimates. Tenenhaus, Vinzi, Chatelin, and Lauro (2005) and Vandenberg (1996) argued that to provide sufficient evidence of model fit, it is necessary to examine the Stone-Geisser Q²-test, because PLS models lack an index providing the goodness of fit statistics seen in covariance-based structural equation models. Q² values larger than zero for a certain endogenous latent variable indicate the path model's predictive relevance for this particular construct (Chin 1998b, Hair, Ringle, and Sarstedt 2011). The Q² values (Q² = 0.236) of the endogenous variable are greater than zero, suggesting sufficient evidence of model fit.

Next, we examined the magnitude and strength of the paths, where each of our hypotheses, as well as the impact of our control variable, correspond to a specific structural model path (see Figure 2). The results suggest that three hypothesised paths are significant. More specifically, the path between EMPHASIS and SLACK is significant ($t = 2.738$, $p < 0.01$), which supports Hypothesis 2. The path between IA and SLACK is not significant ($t = 4.865$, $p < 0.01$), such that Hypothesis 3 is supported by the data. In line with Hypothesis 6, the path between IAxE and SLACK is significant ($t = 2.641$, $p < 0.01$).

However, the last three hypotheses are not supported by the data. Particularly, the path between PARTICIPATION and SLACK is also not significant ($t = 0.940$, $p = 0.347$), such that Hypothesis 1 is not confirmed by the data. The next two paths are also not significant, such as the path between IAxPART and SLACK ($t = 0.115$, $p = 0.908$), and the path between ExPART and SLACK ($t = 0.283$, $p = 0.777$). The controlled path, which describes the relationship between INDUSTRY and SLACK, is not significant ($t = 1.714$, $p = 0.087$).

These results suggest that Vietnamese managers create slack when their budget is emphasised, or where there is a high degree of information asymmetry. The results also demonstrate that this creation of budgetary slack is higher when their budgets are used to evaluate their performance, and there is high asymmetric information. However, our data does not support our prediction that a high degree of budgetary participation is positively associated with a high degree of managers' creation of budgetary slack. Moreover, when managers participate in budgeting processes, and there is a high degree of asymmetric information or a high degree of budget emphasis, these managers create budgetary slack.

Figure 2. Results of The Structural Model

* indicates significance at the 0.01 level

5. Discussion and Practical Implications

5.1. Discussion

Regarding the insignificant paths, our findings are similar to a previous study on budgetary slack in developed economies in several ways. Firstly, Dunk (1993) found that budgetary participation, the interaction between budgetary participation and information asymmetry, and the interaction between budgetary participation and budget emphasis, have no impact on budgetary slack. Secondly, Linn et al. (2001) showed that budgetary participation is insignificantly associated with budgetary slack. Thirdly, Young's study (1985) failed to indicate that when there is a participative budgeting, managers, who have more private information, will build more slacks into their budgets than the ones who have less private information. Our results suggest that when managers participate in budgeting processes with or without having more private information or being emphasised on budgets, they are less likely to create budgetary slack.

Apart from relating to the significant paths, our findings are also consistent with previous studies in developed economies. Firstly, Linn et al. (2001) also indicated that a high emphasis on budget targets induces budgetary slack. Secondly, Fisher, Frederickson, and Pfeffer (2002) showed that budgets contain more slacks when a budgeting negotiation is under asymmetric information than when the negotiation is under symmetric information. Third, Dunk (1993) revealed that when asymmetric information coexists with budget emphasis, managers are more likely to create budgetary slack. Thirdly, Lau and Eggleton (2003) found that information asymmetry, budget emphasis, and the interaction between these two variables respectively have an impact on budgetary slack.

5.2. Practical Implications

Managers create slack to consume more resources than their actual needs to complete their work. These excessive resources may deliver unproductive performances, and consequently may be a detriment to organisational performance. With respect to practical aspects, our findings provide several implications to reduce budgetary slack for an organisation operating in Vietnam.

Firstly, because a high degree of information asymmetry increases managers' creation of budgetary slack, arguably organisations should invest in organisational information systems. Such systems allow organisations to reduce managers' private information. As a consequence, managers will propose an honest budget, reflecting their actual performance capacity, and they are less likely to create budgetary slack (see Hannan, Rankin, and Towry 2006).

Secondly, our findings indicate that a high emphasis on budgets leads to a high managers' creation of budgetary slack. This indicates that organisations should not evaluate managers' performances by emphasising on the completion of budget targets, a characteristic of budget-based compensation schemes, as managers would respond by creating budgetary slack (Cammann 1976). Instead of using these schemes, organisations should use other schemes, for example, truth-inducing compensation schemes. These schemes are designed to motivate managers to reveal truthfully private information about their expected performance, and motivate them to maximise performance without emphasising on budget targets (Dunk and Nouri 1998). Thus, using these schemes may lead to a low creation of budgetary slack.

6. Conclusion, Limitation, and Future Research

Although there is an intensive examination of managerial behaviour, and managers' creation of budgetary slack in developed economies, it is noted that in emerging economies there are some unique characteristics, unknown to the management accounting literature examined mostly in developed economies. These characteristics may cause managers in emerging economies behave differently than ones in developed economies (Graham et al. 2009). Consequently, the budgeting literature fails to predict the behaviours of the creation of budgetary slack of managers from emerging economies. The purpose of this study is to shed light on managerial behaviour, particularly managers' creation of budgetary slack in the Vietnamese context. We hypothesised that budgetary participation, budget emphasis, information asymmetry, and the interactions between these variables are positively associated with managers' creation of budgetary slack. The results of our data show that budget emphasis, information asymmetry, and the interaction between these two variables are significantly related to managers' creation of budgetary slack. However, budgetary participation, the interaction between this variable and two variables, such as budget emphasis and information asymmetry, are insignificantly related to managers' creation of budgetary slack. Thus, Vietnamese managers create budgetary slack when there is high asymmetric information between them and their superiors. When their superiors emphasise on their budgets, these managers also create more budgetary slack. Additionally, these managers create more budgetary slack when two conditions exist.

As with any study, the results of ours are subject to some caveats. Firstly, cross-sectional studies, such as our study, can establish associations, but not causality. Secondly, our sample size is rather small. Thirdly, the data of this study was gathered in the Mekong Delta of Vietnam. Thus, the generalisability of our results to other areas of Vietnam may be problematic.

Despite these potential limitations, this study presents an extension of our knowledge on budgetary slack in emerging economies. Future studies can extend our study by using motivational theory to explain the link between budgetary participation and budgetary slack (see Dunk and Nouri 1998). Such studies can explain the insignificant path between budgetary participation and budgetary slack. Another beneficial avenue is to compare the degree of budgetary slack creation between managers living in developed and emerging economies. The living conditions in emerging economies usually differ from the conditions in developed economies. Therefore, these may lead to the differences in degree of budgetary slack creation between emerging and developed economies. For instance, future study can examine managers' salary as a factor causing these differences. Finally, culture may play a role in managers' honesty (see Payan, Reardon, and McCorkle 2010). It is expected that they reveal their private information because of a particular culture, which in turn reduces the degree of budgetary slack. The future studies can investigate the impact of culture on managers' creation of budgetary slack.

References

- Baiman, S. 1982. "Agency research in managerial accounting: A survey." *Journal of Accounting Literature* 1: 154-213.
- _____. 1990. "Agency research in managerial accounting: A second look." *Accounting, Organizations and Society* 15 (4):341-371.
- Brownell, P. 1982. "A field study examination of budgetary participation and locus of control." *Accounting Review* 57 (4):766-777.
- Cammann, C. 1976. "Effects of the use of control systems." *Accounting, Organizations and Society* 1 (4):301-313.
- Cascardi, M., Avery-Leaf, S., O'Leary, K. D., and Slep, A. M. S. 1999. "Factor structure and convergent validity of the Conflict Tactics Scale in high school students." *Psychological Assessment* 11 (4):546-555.
- Chin, W. W. 1998a. "The partial least squares approach to structural equation modeling." *Modern methods for business research* 295 (2):295-336.
- Chin, W. W. 1998b. "The partial least squares approach to structural equation modeling." In *Modern Methods for Business Research*, 295-336. Mahwah, NJ: Lawrence Erlbaum Associates.
- Christensen, J. 1982. "The determination of performance standards and participation." *Journal of Accounting Research* 20 (2):589-603.

- De Baerdemaeker, J., and Bruggeman, W. 2015. "The impact of participation in strategic planning on managers' creation of budgetary slack: The mediating role of autonomous motivation and affective organisational commitment." *Management Accounting Research* 29:1-12.
- Dunk, A. S. 1993. "The Effect of Budget Emphasis and Information Asymmetry on the Relation between Budgetary Participation and Slack." *The Accounting Review* 68 (2):400-410.
- _____. 1995. "The joint effects of budgetary slack and task uncertainty on subunit performance." *Accounting & Finance* 35 (2):61-75.
- Dunk, A. S., and Nouri, H. 1998. "Antecedents of budgetary slack: A literature review and synthesis." *Journal of Accounting Literature* 17:72-96.
- Dunk, A. S., and Perera, H. 1997. "The incidence of budgetary slack: a field study exploration." *Accounting, Auditing & Accountability Journal* 10 (5):649-664.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., and Strahan, E. J. 1999. "Evaluating the use of exploratory factor analysis in psychological research." *Psychological methods* 4 (3):272-299.
- Fisher, J., Frederickson, J. R., and Pfeffer, S. A. 2002. "The effect of information asymmetry on negotiated budgets: An empirical investigation." *Accounting, Organizations and Society* 27 (1):27-43.
- Fornell, C., and Larcker, D. F. 1981. "Structural equation models with unobservable variables and measurement error: Algebra and statistics." *Journal of marketing research*:382-388.
- Graham, C., Hopper, T., Tsamenyi, M., Uddin, S., and Wickramasinghe, D. 2009. "Management accounting in less developed countries: what is known and needs knowing." *Accounting, Auditing & Accountability Journal* 22 (3):469-514.
- Hair, J. F., Anderson, R. E., Babin, B. J., and Black, W. C. 2010. *Multivariate data analysis: A global perspective*. Vol. 7: Pearson Upper Saddle River, NJ.
- Hair, J. F., Ringle, C. M., and Sarstedt, M. 2011. "PLS-SEM: Indeed a silver bullet." *Journal of Marketing theory and Practice* 19 (2):139-152.
- Hannan, R. L., Rankin, F. W., and Towry, K. L. 2006. "The effect of information systems on honesty in managerial reporting: A behavioral perspective." *Contemporary Accounting Research* 23 (4):885-918.
- Hansen, S. C., and Van der Stede, W. A. 2004. "Multiple facets of budgeting: an exploratory analysis." *Management accounting research* 15 (4):415-439.
- Hartmann, F., and Slapničar, S. 2009. "How formal performance evaluation affects trust between superior and subordinate managers." *Accounting, Organizations and Society* 34 (6):722-737.
- Hopwood, A. G. 1972. "An empirical study of the role of accounting data in performance evaluation." *Journal of accounting research* 10:156-182.
- Lau, C. M., and Eggleton, I. R. 2003. "The influence of information asymmetry and budget emphasis on the relationship between participation and slack." *Accounting and Business Research* 33 (2):91-104.
- Lau, C. M., and Tan, J. J. 1998. "The impact of budget emphasis, participation and task difficulty on managerial performance: a cross-cultural study of the financial services sector." *Management Accounting Research* 9 (2):163-183.
- Linn, G., Casey, K. M., Johnson, G. H., and Ellis, T. S. 2001. "Do broad scope managerial accounting systems moderate the effects of budget emphasis, budget participation and perceived environmental uncertainty on the propensity to create budgetary slack?" *Journal of Computer Information Systems* 42 (1):90-96.
- Lowe, E., and Shaw, R. W. 1968. "An analysis of managerial biasing: evidence from a company's budgeting process." *Journal of Management Studies* 5 (3):304-315.
- Lukka, K. 1988. "Budgetary biasing in organizations: theoretical framework and empirical evidence." *Accounting, Organizations and Society* 13 (3):281-301.
- Merchant, K. A. 1985a. "Budgeting and the propensity to create budgetary slack." *Accounting, Organizations and Society* 10 (2):201-210.
- _____. 1985b. "Control in business organisations." Pitman, Boston, MA.
- Milani, K. 1975. "The relationship of participation in budget setting to industrial supervisor performance and attitudes: A field study." *The Accounting Review* 50 (2):274-284.
- Onsi, M. 1973. "Factor analysis of behavioral variables affecting budgetary slack." *The Accounting Review* 48 (3):535-548.
- Payan, J., Reardon, J., and McCorkle, D. E. 2010. "The effect of culture on the academic honesty of marketing and business students." *Journal of Marketing Education* 32 (3):275-291.
- Podsakoff, P. M., and Organ, D. W. 1986. "Self-reports in organizational research: Problems and prospects." *Journal of management* 12 (4):531-544.
- Pope, P. F. 1984. "Information asymmetries in participative budgeting: A bargaining approach." *Journal of Business Finance & Accounting* 11 (1):41-59.
- Ronen, J., and Livingstone, J. 1975. "An expectancy theory approach to the motivational impacts of budgets." *The Accounting Review* 50 (4):671-685.
- Rook, D. W., and Fisher, R. J. 1995. "Normative influences on impulsive buying behavior." *Journal of consumer research* 22 (3):305-313.

- Shields, J. F., and Shields, M. D. 1998. "Antecedents of participative budgeting." *Accounting, Organizations and Society* 23 (1):49-76.
- Van der Stede, W. A. 2000. "The relationship between two consequences of budgetary controls: budgetary slack creation and managerial short-term orientation." *Accounting, Organizations and Society* 25 (6):609-622.
- Young, S. M. 1985. "Participative budgeting: The effects of risk aversion and asymmetric information on budgetary slack." *Journal of accounting research* 23 (2):829-842.
- Young, S. M., Shields, M. D., and Wolf, G. 1988. "Manufacturing controls and performance: an experiment." *Accounting, Organizations and Society* 13 (6):607-618.
- Yuen, D. 2004. "Goal characteristics, communication and reward systems, and managerial propensity to create budgetary slack." *Managerial Auditing Journal* 19 (4):517-532.