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The Tendency of Hotel Rooms Division Managers to Create Budgetary Slack

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ABSTRACT
This study explores how the budgeting system impacts rooms department managers' tendency to create budgetary slack. The results provide support for four hypotheses, specifically indicating that rooms department managers' tendency to create budgetary slack does change with the setting and the way the budgeting system is implemented. The major practical implication of this study is that allowing rooms department managers to participate actively in the budgeting process seems to reduce their tendencies to create budgetary slack.

Key words: Budgetary Slack, Budgeting Systems, Slack Detection, Budgetary Participation Hotel, Rooms Division

1.0 Introduction

According to Elias and Etim (2017), a budgeting system is of critical importance to the survival of any business from start-ups to well-established organizations. In other words, a budgeting system aids in planning, directing, and controlling the actions that management must undertake in order to satisfy their customers and succeed in the market (Braun & Tietz, 2018). Schmidgall (2016) stated that the design and implementation of a budgeting system may be authoritative (top-down approach) or participative (bottom-up approach). The participative budgeting process can have significant impact on the tendency to create budgetary slack or TCBS (Kahar, Rohman, & Chariri, 2016).

TCBS describes the practice of underestimating budgeted revenues, or overestimating budgeted costs, to make budgeted targets more easily achievable (Mowen, Hansen, & Heitger, 2018). TCBS often occurs when budget variances (the differences between actual results and budgeted amounts) are used to evaluate the impact of performance participation in strategic and tactical budgeting system (Azar, Rahmani, & Khadivar, 2016). Budgetary slack can be used by managers to safeguard against unexpected adverse circumstances and provide a safety margin to meet or exceed budgeted objectives (Kahar et al., 2016). Budgetary slack can also mislead top management regarding the true profit potential of the firm, which could lead to inefficient resource planning and allocation within the firm (Horngren, Datar, & Rajan, 2018). However, Azar, Rahmani, and Khadivar (2016) concluded that budgetary slack could have a negative, neutral, or positive impact on an organization's overall budgeting system.

The objective of this study is to investigate TCBS within the hotel industry specifically in the rooms division, by using modified survey instruments developed by Onsi's (1973) and Merchant's (1985) studies on TCBS. These two researchers were pioneers in the study of budgetary slack. While Onsi (1973) found that budgetary slack was created because of pressure and the use of budgeted profit attainment as basic criterion in evaluating manager's performance, the Merchant (1985) study indicated that the design and implementation of the budgeting system affects TCBS. Since the majority of multi-unit hotels use a bottom-up approach (participative approach) in their budgeting system (Schmidgall, 2016), this study will examine TCBS based on this type of budgeting system.

This study used the modified Onsi (1973) and Merchant (1985) survey instruments (see Table 1

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and Appendix 1) so that the instruments were adaptable to the hotel industry rooms division. Merchant's (1985) two measures of technology in manufacturing settings was replaced with Lee, Baker, and Kandampully's (2003) two levels of technology applied in hotels: (1) in-room service integration and (2) managerial and operational level integration.

There were two major criticisms of the Onsi (1973) and Merchant (1985) studies. First, these studies did not use random sampling. Second, these studies were done in the manufacturing sector. This study overcomes these two major deficiencies of the Onsi (1973) and Merchant (1985) studies by doing the following: First, a stratified random sampling was used because it provides the theoretical support for the research design needed to effectively test the appropriate hypotheses developed (Kerlinger, 1986; Munro, 2005; Gravetter, 2018). Second, the study was conducted in the service sector, specifically the hotel rooms division.

The remainder of the paper is organized as follows. Section 2 will explain the literature review associated with TCBS. Section 3 describes the research methodology that was used. Section 4 explains the results. Section 5 presents the discussion and conclusion of findings. Section 6 outlines the limitations and implications of the study.

Table 1. Variables and Instruments Used for Measuring Them

Variables	Measurements	Items	Likert type scale
Dependent variable	Onsi (1973)	4	Five point
Tendency to create slack			
Independent variables			
Importance of meeting budgets			
Required exploration of variance	Merchant (1985)	4	Five point
Reaction to budget overruns	Merchant (1985)	3	Five point
Linked with intrinsic reward	Merchant (1985)	5	Five point
Participation			
Influence on budget plan	Merchant (1985)	2	Five point
Involvement in budgeting	Merchant (1985)	3	Five point
Technology			
In-room service integration	Merchant (1985) Lee et al. (2003)	2	Five point
Managerial and operational level	Merchant (1985) Lee et al. (2003)	1	Five point
Slack defection	Onsi (1973)	3	Five point

2.0 Literature review and development of hypotheses

2.1 Budgeting and agency theory

The goal of a budgeting system is to achieve organizational objectives (Horngren et al., 2018). Since agents do not always give their best efforts in achieving organizational objectives (Merchant, 1981), budgeting systems need to parallel the goals of agents with those of principals. Management accounting researchers use the term "agents" to mean subordinates, employees, or lower level managers, while "principals" are generally referred to as superiors, top management, or owner-manager. The usage of these terms depends on the information asymmetry in the budgeting process. This research will use the term "subordinate" for agent and "superior" for principal.

Agency theory and its diffusion (principal agent model) provide insights to the budgeting system (Ekanayake, 2004; Kahar et al., 2016). It is one of the most influential theories that underlies the majority of corporate governance and management control research (Covaleski, Evans, & Luft, 2003). Underlying agency theory is the assumption that agents are opportunistic and will always engage in self-serving behavior when opportunities arise (Ekanayake, 2004). As a result, the role of the budgeting system (procedures, information, monitoring, performance evaluation, rewards, and penalties) is to help the principals in controlling the opportunistic behavior of the agents by minimizing opportunities and incentives for this kind of behavior (Demski & Feltham, 1978).

Agency theory researchers (Demski & Feltham, 1978; Baiman, 1982; Covaleski et al., 2003) refer to budgetary slack as "improved employees welfare relative to budgeting practice," "dysfunctional behavior," "excess consumption of perquisites," and "tendency to shirk." Organizational behavior researchers (Schein, 1979) and management accounting researchers (Cammann, 1976; Ekanayake, 2004; Mowen et al., 2018), on the other hand,

refer to budgetary slack as "loose budget standards," "a lack of goal congruence," "managerial biasing," "defensive tactical responses," "deceptive behaviors," and "padding the budget."

Regardless of the description, TCBS is a managerial trait. It is a major component of the utility function that a manager will try to maximize (Cyert & March, 1963). TCBS is guided by a manager's own self-interest (Baiman, 1982).

2.2 Tendency to create budgetary slack and meeting budgeting targets

Empirical studies by Miller (1975); Heneman, Schwab, Fossum, and Dryer (1980); and Yuliansyah, Inapty, Dahlan, and Agtia (2018) inferred that the use of financial rewards motivates employees to act in their own self-interest. Cherington and Cherington (1973) examined the characteristics of a reward structure as reinforcement in the relationship between budgetary participation and performance. They discovered that a reward structure based on budget achievement represents an appropriate reinforcement for the participants in the budgetary process. Therefore, when budget performance is associated with a company's reward system, employees are motivated to introduce budgetary slack into their operating budget (Kren, 1992; Dunk, 1993; Yuen, 2004; Yuliansyah et al., 2018).

Prior researchers (Kenis, 1979; Dunk, 1993; Kahar et al., 2016) have identified the pressure of not meeting budgetary goals as another significant factor contributing to the development of budgetary slack. The budgeting process puts pressure on individuals to meet their budgetary commitment, which in turn leads to the creation of budgetary slack (Kenis, 1979; Kahar et al., 2016). Therefore, it is likely that TCBS will increase the pressure on individuals to meet budgetary requirements.

According to Merchant (1985), managers may have the TCBS; however, the TCBS can be augmented or diminished by the way in which the budgeting system is designed and implemented. The following researchers also provide additional checks and balances used to reduce TCBS. Brownell (1982) stated that budgetary participation enables supervisors to devise an effective remuneration scheme with a unified goal that encourages subordinates to achieve budgetary objectives and reduce TCBS. Merchant and Manzoni (1989) research showed that superiors used budget monitoring to exercise control, implement decisions, and facilitate continuous improvement with their subordinates in order to check and reduce TCBS. According to Van der Stede (2003), budgetary communication can enhance the overall efficiency of organizational operations and provide additional checks and balances used to reduce TCBS. Finally, Otley (1978) found that a strong budget emphasis by superiors on the budget leads to higher budget accuracy and reduces dysfunctional behavior (TCBS) by subordinates.

Onsi (1973) found a positive relationship between managers' needs to create budgetary slack and an authoritarian, top-management budgetary control system. Onsi (1973) said that this type of system places heavy stress on achieving budget targets. Cammann (1976) studied the effects of different styles and uses of control systems that were categorized as "defensive subordinate responses," and obtained results consistent with Onsi (1973). Murray (1990) and Davis, DeZoort, and Kopp (2006) found that when organizations set budget targets on which managerial compensation was based, the organization faced more serious dysfunctional consequences from managerial manipulation. Based on these prior findings, the following hypothesis is presented.

> Hypothesis 1: There is a positive relationship between managers' tendency to create budgetary slack and the importance placed on meeting budget targets.

2.3 Budgetary participation

Organizations vary in the degree and form of management participation in their budgeting processes. Agency theorists suggest that the demand for participative budgeting arises because various parties (agents and principals, and central and local management) engaged in the budgeting process have differential information about uncertainty (Baiman, 1982; Baiman & Evans, 1983). The agency theory assumes that there is a significant reason for participative budgeting based on the transfer of information from a subordinate to a superior and that there are potential gains for both parties (Young, 1985; Yuliansyah et al., 2018; Kahar et al., 2016).

The likelihood of injecting budgetary slack tends to increase if managers perceive that they can participate in the formulation of the budget (Mowen et al., 2018). Mowen et al. (2018) explained that the participation of managers in the budgetary process plays a vital role in the development of budgetary slack. Onsi (1973) and Merchant (1985) found a negative correlation between the participation of managers in the budgeting process and the opportunities to create budgetary slack. Likewise, Cammann (1976) found that allowing subordinates to participate in the budgetary process reduced a range of behaviors including defensiveness and budgetary slack creation. Therefore, the following hypothesis was developed.

Hypothesis 2: There is a negative relationship between the managers' tendency to create budgetary slack and the extent of participation allowed in the budgeting process.

2.4 Technology application and predictability

Prior research on the benefits of technology in service organizations suggests that technology enhances service quality: Reid and Sandler (1992), Bitner, Brown, and Meuter (2000), Bilgihan, Okumus, Nusair, and Kwun (2011), and Zhu and Morosan (2014); improves efficiency, effectiveness, productivity, and convenience: Nykiel (2001), and Beldona and Cobanoglu (2007); strengthens the customer-firm relationship: Reichheld (1996); elevates the quality-value-loyalty chain and creates a competitive advantage: Porter (2001) and Bilgihan et al. (2011); assists customers and improves the skills of the employees within the service organization: Blumberg (1994), Siguaw and Enz (1999), and Bilgihan et al. (2011).

The hotel industry has been transformed from a traditional hands-on approach, and low-tech industry into a high-touch and high-tech industry, effectively utilizing technology for the benefit of customers, employees, and hotels (Lee et al., 2003; Zhu & Morosan, 2014). Technology plays an important role in customer-oriented hotels through communication, recognition, and evaluation of customers (Bilgihan et al., 2011). According to Lee et al. (2003) technologies are applied at two principal levels in hotels: (1) for in-room (guest room) services integration and (2) at the managerial and operational level integration. These two levels of technologies were included the survey instrument (see Table 1 and Appendix 1).

Guest-room service technologies include, but are not limited to, multiple telephone lines, electronic meal ordering, self-checkout and self-wakeup systems, in-room business services, electronic and video entertainment services (Bilgihan, Smith, Ricci, & Bujisic, 2016). These technologies have improved in-room services, widened choices in entertainment, and increased the hotels profitability (Jung, Kim, & Farrish, 2014). Localities and the type of customers determine the degree to which hotels make these services available to their guests (Jung et al., 2014). Hotels whose customers consists of business travelers are more likely to equip their rooms with advanced in-room technologies as opposed to hotels in more remote or in resort locations (Lee et al., 2003).

According to Espino-Rodrıguez and Gil-Padilla (2015), at the managerial and operational level, technology impacts several functional areas such as marketing (using the internet), accounting (cash receipts and disbursements), and rooms operation (customer service and response time). Technology can increase efficiencies in service delivery that benefit the customers (Blumberg, 1994). Property management systems (PMS) are commonly used in front office, room service, and accounting to assist with interconnectivity and decision-making (Pucciani & Murphy, 2011). Also, the global distribution system (GDS), central reservation system (CRS), and the internet provide customers with more efficient reservation procedures. These systems improve interaction between intermediaries and the hotels to obtain important information regarding their customers (Lee et al., 2003).

The two major levels of technologies impacting the hotel rooms divisions are as follows: (1) for in-room services integration and (2) at the managerial and operational level integration. Therefore, these two levels of technologies were used in this study to evaluate the relationship between technologies prediction and TCBS.

Research on organizational behavior characterizes and measures technology in a single dimension known as "task predictability" (Fry, 1982). Merchant (1985) suggested that it seems logical that

technological predictability could be systematically related to the TCBS. Based on prior research (Cyert & March, 1963) suggesting that budgetary slack can be used to absorb uncertainty, Merchant (1985) proposed that slack could provide freedom from short-term commitment that could be used effectively to deal with a lack of predictability. Therefore, Merchant (1985) suggested that there could be a negative relation between technological predictability and the TCBS. Therefore, the following hypothesis is presented.

Hypothesis 3: There is a negative relation between the degree of predictability of technology and the tendency of managers to create budgetary slack.

2.5 The ability to detect budgetary slack

The extent to which an organization is decentralized is a possible source that could affect superiors' ability to detect budgetary slack incorporated into the budget by subordinates (Schiff & Lewin, 1970). Schiff and Lewin (1970) reported that in decentralized companies, managers' TCBS was influenced by their perception of top management's ability to detect budgetary slack. Managers in decentralized environments tended to create budgetary slack through practices such as underestimating gross revenues and including discretionary increases in expenditures (Horngren et al., 2018). The amount of budgetary slack created by decentralized managers is likely to be related to the level of decentralization in the organization relative to the superiors' ability to detect budgetary slack (Horngren et al., 2018).

Merchant (1985) stated that the ability (or lack thereof) of superiors to detect slack may also influence their subordinates' tendencies to create budgetary slack. After reviewing cognitive dissonance theory (Brehm & Cohen, 1962), balance theory (Heider, 1958), and congruity theory (Osgood & Tannenbaum, 1955), Merchant (1985) suggested that there is a negative relation between a superior's ability to detect budgetary slack and a subordinate's tendency to create it. From the above information presented, the following hypothesis is stated.

Hypothesis 4: There is a negative relationship between superiors' ability to detect budgetary slack and the tendency of managers to create budgetary slack.

To test these hypotheses, an appropriate survey instrument was developed. The survey instrument was a modified version of Onsi (1973) and Merchant's (1985) survey instrument. The next section presents the methodology used to obtain the relevant data for analysis.

3.0 Methodology

3.1 Pretest

To ensure that the questionnaire was appropriate, a pretest using faculty and hotel managers was conducted. This was done to minimize potential problems that could affect the respondents' understanding of the questions presented. Based on the pretest, a number of items were reworded to improve clarification and consistency in the mailed questionnaire.

3.2 Sampling

A stratified random sample of 600 hotels was selected from the American Hotel and Lodging Association (AHLA) listing of 1,800 largest hotels. After consultation with two accounting and one finance professor with expert knowledge on survey research, a population of 1,800 of the largest hotels were selected. According to Bullock and Bakay (1980), large hotels would have more organized "state of the art" budgeting systems. Therefore, selecting a population of 1,800 of the largest hotels to take a stratified random sample of 600 hotels would provide greater assurance that the hotels selected do have a formal budgeting system.

A stratified random sample of 600 participants is consistent with Ozer and Yilmaz (2011) research. A stratified random sampling is superior to a simple random sampling because the process of stratifying reduces sample errors and ensures a greater level of representation (Gravetter, 2018). This allowed each of the listed hotels an equal chance of being selected to ensure as far as possible that the sample was representative of the population of hotel organizations (Kerlinger, 1986). This sampling design gives theoretical support to adequately test the hypotheses.

For each hotel selected, a questionnaire with a cover letter and prepaid self-addressed envelope was mailed to the Rooms Department Manager. A total of 600 questionnaires were mailed. Two follow-up letters were mailed to improve the response rate (Dillman, 1978). The second follow-up responses received were used to test for a nonresponse bias. There was no significant difference between early and late respondents.

3.3 Measurement and validity of constructs

Tendency to create budgetary slack (TCBS)
Managers' tendency to create budgetary slack was measured by using a modified four-item five-point Likert-scaled instrument developed by Onsi (1973). This instrument is an established scale that focuses on subordinates' attitude toward slack creation (see Table 1 and Appendix 1). Responses were scored on a scale from 1 (strongly disagree) to 5 (strongly agree). The instrument relies upon managers' perceptions of the level of slack in their budgets. For example, "submit budget requests that are safely attained." The Cronbach alpha reported by Onsi (1973) was 0.70. Prior studies (Nouri & Parker, 1996; Lai, Dunk, & Smith, 1996) using the Onsi (1973) instrument reported Cronbach alphas of 0.75 and 0.74, respectively.

Importance of meeting the budget
Merchant (1985) used three scaled instruments to measure the importance of meeting the budget, and these instruments were employed in this study (see Table 1 and Appendix 1). The first instrument "required an explanation of variances" using four five-point Likert-scaled items. The second instrument measured reactions to "expected budget overruns" using a three item five-point Likert-scaled measurement. The third instrument measured the budget's link with "extrinsic rewards" on a modified five-item five-point Likert-scaled instrument. Merchant (1985) reported Cronbach alphas for the three instruments described above of 0.84, 0.72, and 0.79, respectively.

Budgetary participation
Budgetary participation was measured using a modified Merchant's (1985) instrument. "Influence on budget plans" was measured using two five-point Likert-scaled items, while "personal involvement in budgeting process" was measured using three five-point Likert-scaled items (see Table 1 and Appendix 1). Merchant (1985) reported the Cronbach alpha for influence on the budget plans and personal involvement in budgeting as 0.52 and 0.60, respectively.

Technology
The two measures of technology evaluated in the hotel rooms division are as follows: (1) in-room service integration and (2) managerial and operational level integration. The in-room service integration measures require respondents to indicate on two zero-to-five scales the degree of automation of their rooms division and the class their most automated rooms division equipment falls within, ranging from manual machines to self-measuring and computer-controlled equipment (see Table 1 and Appendix 1). The scale scores were total to derive an overall score for the measures (Price, 1972). The positive correlation ($r = 0.673$, $p < 0.001$) between the two scales provides the support to allow them to be added (Brownell, 1986). The managerial operational level of service integration was measured on a modified Merchant (1985) five-point Likert scale anchored by (1) low service integration and (5) high service integration.

Slack detection
The ability to detect budgetary slack was measured using a modified three-item five-point Likert-scale instrument developed by Onsi (1973). This instrument was also used by Merchant (1985). The Cronbach alpha value reported by Merchant (1985) was 0.61. The Onsi (1973) modified three-item five-point Likert-scale instrument is in Appendix 1.

4.0 Results

A total of 168 responses were received. Twelve responses were incomplete and therefore not usable, leaving a total of 156 usable responses, representing a 26% response rate. This response rate is consistent with survey research (Childers, Pride, & Ferrell, 1980). The respondents on average had held their current position for 4.23 years, and their average age was 36.4 years. Table 2 shows the property size distribution based on usable responses. Hotels with less than 500 rooms were classified as small, while

Table 2. Property Size Distribution

Size (number of rooms)	Frequency	Percentage
Under 500	74	47
500–749	47	30
750–999	18	12
1000–1249	11	7
1250 and over	6	4
Total	156	100

those with 500 or more rooms were categorized as large (Ramdeen, 2001; Ramdeen, Santos, & Chatfield, 2011). The t-test for size of the properties on the TCBS was not significant.

Table 2 illustrates the descriptive statistics of the variables measured. A reliability check using Cronbach alpha (Cronbach, 1951) was done to test the consistency of the budgetary slack constructs. Results from the nine constructs show the Cronbach alpha coefficient ranging from 0.74 to 0.86. According to Nunnally (1978), Cronbach alpha coefficients of 0.50 to .60 are acceptable. Table 3 shows the results from testing all four hypotheses. The correlation coefficient *r* shows the mathematical relationship that exists between the dependent variable (the tendency to create budgetary slack) and each of the eight independent variables. Cohen (1988) defines a small effect as a correlation coefficient, *r*, equal to 0.10; a moderate effect as *r* equal to 0.30; and a large effect as *r* equal 0.50. The results in Table 3 show a strong moderate effect for the correlation coefficient (*r*) for eight independent variables.

Hypothesis 1 tested the importance of meeting the budget and the tendency to create budgetary slack. Results in Table 4 indicated that that there is strong support for Hypothesis 1. The correlation between the tendency to create budgetary slack and each of the variables measuring the importance of meeting the budget is significant and positive at $p < 0.01$ and $p < 0.05$ one-tailed test. These results are consistent with the theoretical expectations from the literature.

Hypothesis 2 deals with budgetary participation and the tendency to create budgetary slack. The results in Table 4 illustrate that the tendency to create budgetary slack is negatively or inversely related to the extent of participation allowed in the budgetary process. The two participation variables are significant and have a negative correlation with the tendency to create budgetary slack. Therefore, results from Hypothesis 2 are in accordance with literature expectations.

Hypothesis 3 indicated that the tendency to create budgetary slack is negatively related to the predictability of the hotel technology process. As shown in Table 4, both variables (in-room technology service integration and managerial and operational level technology integration) are negatively related to managers' tendency to create budgetary slack.

Hypothesis 4 stated that superiors' ability to detect slack is negatively related to managers' tendency to create budgetary slack. The correlation presented in Table 4 is significant and negative, indicating support for this hypothesis.

5.0 Discussion

The purpose of this study was to provide some empirical evidence about how the design and implementation of a hotel organization's budgeting system might affect rooms division managers' tendencies to

Table 3. Descriptive Statistics of the Variables in the Study

Variable	n	Mean	S.D.	Theoretical Range		Actual Range		Cronb. alpha
				Min	Max	Min	Max	
1. Tendency to create slack	156	10.26	3.79	4	20	4	20	0.82
2. Importance of meeting budget								
Required explanation of variances	156	13.96	4.64	4	20	4	20	0.86
Reactions to budget overruns	156	6.91	2.93	3	15	3	15	0.74
Link with extrinsic rewards	156	16.17	4.84	5	25	5	25	0.80
3. Participation								
Influence on budget plans	156	7.87	2.71	2	10	2	10	0.78
Involvement in budgeting	156	12.53	2.91	3	15	3	15	0.80
4. Technology								
In-room service integration	156	10.07	3.61	2	10	2	10	0.77
Managerial and operational level integration	156	9.93	3.57	1	5	1	5	0.75
5. Slack detection	156	12.18	2.83	3	15	3	15	0.81

Table 4. Correlation Results from Testing Hypotheses 1, 2, 3, and 4

Correlation of tendency to create budgetary slack with:	r	p-value
Hypothesis 1: Importance of meeting budget		
Required explanation of variances	0.448	0.005**
Reactions to expected budget overruns	0.399	0.001*
Link with extrinsic rewards	0.389	0.001*
Hypothesis 2: Participation		
Influence on budget plans	–0.297	0.010***
Personal involvement in budgeting	–0.332	0.005**
Hypothesis 3: Technology		
In-room service integration	–0.381	0.001*
Managerial and operational level integration	–0.288	0.010*
Hypothesis 4: Ability to detect slack		
Slack detection	–0.336	0.005**

Note: One-tailed significance: * $p < 0.01$; ** $p < 0.05$; and *** $p < 0.10$.

create budgetary slack. Unlike Merchant's (1985) study, which was drawn from convenient samples obtained from the manufacturing sector and focused on the functional area of production, this study focused on managers in the functional area of hotel rooms operation in relationship to budgetary slack creation.

Merchant (1985) concluded that the TCBS is a general characteristic of managers. This tendency, according to Merchant (1985), can be affected both positively and negatively depending on the way in which the budgeting systems are designed and implemented. To be specific, Merchant (1985) examined managers TCBS in relationship to the administrative systems of organizations. Merchant (1985) examined four hypotheses and found very little support for them. The first hypothesis, that the propensity of managers to create budgetary slack is positively related to the importance placed on meeting budget targets, was not supported. The second hypothesis, that the propensity of managers to create budgetary slack is negatively related to the extent of participation, received marginal support. The third hypothesis, that the propensity of managers to create budgetary slack is negatively related to the degree of predictability in the production process, obtained very little support. The fourth hypothesis, that the propensity to create slack and the ability of superiors to detect it are negatively associated, received mixed results. Even though the literature review strongly supports the theory underlying Merchant's (1985) hypotheses, he received mixed results. Merchant (1985) suggested that the mixed results of his findings may be attributed to the fact that he used nonrandom sampling in his research.

This study used stratified random sampling. Therefore, the results of this study provide support for all four hypotheses presented. The results are consistent with the literature review's expectations. Although there is no evidence to suggest that stratified random sampling is the factor that enabled the results of this study to be consistent with those expectations, there is a strong theoretical basis for employing stratified random sampling in hypothesis testing (Kerlinger, 1986). The findings presented in this study indicate empirical support for hotel room operations that are generalizable within the hotel industry, but not outside of it.

The results indicate that managers' TCBS does change with the setting and depending on how the budgeting system is implemented (importance of meeting the budget). Therefore, the TCBS does seem to be increased by the imposition of a formal budgeting process. However, allowing managers to participate actively in the budgeting processes seems to reduce their tendencies to create budgetary slack.

Technological predictability also has negative impact on the tendencies to create budgetary slack. The results suggest that technology may interact with the way in which a budgeting system is employed. With respect to participation, it may reduce subordinates' tendencies to create budgetary slack in settings that are relatively predictable (ie., a bottom-up approach). Finally, superiors' ability to detect slack also seems to have strong negative effects on subordinates' tendencies to create budgetary slack.

6.0 Limitations and implications

This study has some limitations. First, the study examines the rooms division managers' tendency to create budgetary slack in hotel organizations (service sector). Due to differences between the service sectors and manufacturing sectors, the generalization of this study's results to the manufacturing sectors will not give accurate results. Therefore, generalizability of findings should be considered in this context (hotels rooms divisions managers).

Second, this study only investigates the effect of importance placed on meeting budget targets, budgetary participation, technology applications and predictability, and the ability to detect budgetary slack on managers' tendency to create budgetary slack. However, there are other factors (see Future Research) that could affect the tendency to create budgetary slack that are excluded from the study. Third, although the data was collected from stratified random samples of rooms managers, the findings are limited to the functional area of the rooms department within the hotel industry. Fourth, a possible inherent limitation is that managers do not always want to give information or sometimes give incorrect information related to the budget in the field of their responsibility when filling out survey instruments.

Regardless of these limitations, the results from this study show evidence of conditions that could influence the creation of budgetary slack in the hotel rooms division. Also, the results show significant statistical support for all four hypotheses. This study contributes to the literature on budgetary slack and suggests how budgetary slack might be controlled if the ability of superiors to detect it is improved.

These results have potentially important practical implications for top management dealing with indiscriminate levels of budgetary slack. The following are proactive approaches with which top management could reduce TCBS. First, top management could invest in better information systems, providing closer supervision, and/or by using more frequent or more thorough operational audits. Second, top management could use external benchmark (i.e., the STAR Program Benchmarking Reports at https://www.strglobal.com/products/star-program with Key Performance Indicators provides excellent external benchmarking on the global hotel industry and can be obtained daily, weekly, monthly, quarterly, and annually for an annual subscription fee) performance measures to reduce a manager's ability to set budget levels that are easy to achieve.

Third, top management could be regularly involved in understanding what their subordinate managers are doing and mentoring them. Fourth, part of top management's responsibility is to promote commitment among the employees to a set of core values and norms. These values and norms describe what constitutes acceptable and unacceptable behavior. Fifth, top management could design innovative performance evaluation measures that reward subordinate managers based on the subsequent accuracy of the forecasts used in preparing budgets.

While the majority of the empirical literature has interpreted budgetary slack as being dysfunctional to companies' operations, practitioners can use budgetary slack in a meaningful manner to benefit their organization. Budgetary slack can be useful if incorporated into the budgeting system using underlying management accounting assumptions. For example, when a hotel is faced with uncertainty and several short-term objectives, budgetary slack can enable managers to be more focused and motivated because of the availability of additional financial resources. Therefore, budgetary slack can provide managers with a hedge against unexpected adverse circumstances. However, budgetary slack should not convey misleading information to top management because it would destroy the integrity and effectiveness of the budgeting system. Therefore, subordinates using budgetary slack must hold "honest" communication between themselves and their bosses.

7.0 Future research

This research covers only the rooms division managers' tendency to create budgetary slack. Future studies could examine the tendency to create budgetary slack in other function areas of hotels, such as food and beverage, marketing, accounting/finance, recreation, and facilities management. Also, this study used agency theory to provide explanation for managers' tendency to create budgetary slack. Future research could examine attribution theory, cognitive theory, contingency theory, and motivational theory.

Budgetary slack is an important area of research in management and behavioral accounting. There are several variables of interest that could affect managers tendency to create budgetary slack in the hotel industry. Therefore, future research could examine the following factors' impact on budgetary slack in the hotel industry: information asymmetry, budget emphasis, ethical work climate, environmental uncertainty, and job satisfaction.

Although empirical researchers (Kren, 1992; Dunk, 1993; Yuen, 2004; Yuliansyah et al., 2018)

suggested that there are considerable opportunities and reasons for subordinates to build slack into their budgets, factors such as task and environmental uncertainty may underscore the utility of slack as being organizationally functional in responding to these factors. Even though the primary motivation for slack creation may be self-interest (Schiff & Lewin, 1970; Ozer & Yilmaz, 2011), its usage may take place in many ways that are beneficial to the organization (Dunk, 1993). Therefore, further research could be undertaken to investigate the link between budgetary slack creation and its subsequent utilization.

Since there are potential factors provided that may impact whether subordinates build slack into their budgets, there are opportunities for future research to be done to provide evidence of whether these factors do affect budgetary slack as stipulated.

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Appendix 1

Measurement instrument (survey) used to test hypothesis

Onsi (1973) modified to measure the tendency to create budgetary slack

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. As a manager, to protect myself, I submit budget requests that can safely be attained.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. As a manager, I usually set two types performance standards: one between myself and my subordinates, and another standard between myself and my superiors, to be safe.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
3. In good business times, my superior will accept a reasonable level of excess resources in my budget.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
4. Padding the budget is good to do things that cannot be officially approved.
   Strongly Disagree 1—2—3—4—5 Strongly Agree

Merchant (1985) modified to measure importance of meeting budgets (required exploration of variance)

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. My explanation of budget variances is included in my performance reports.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. I investigate favorable as well as unfavorable budget variances for my rooms division.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
3. I am required to submit an explanation in writing about causes of large budget variances.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
4. I am required to report actions I take to correct causes of budget variances.
   Strongly Disagree 1—2—3—4—5 Strongly Agree

Merchant (1985) modified to measure importance of meeting budgets (reaction to budget overruns)

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. My superior calls me in to discuss variations from my budget.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. My superior expresses dissatisfaction to me about results in my rooms division when the budget has not been met.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
3. My superior mentions budgets when talking to me about my efficiency as a rooms division manager.
   Strongly Disagree 1—2—3—4—5 Strongly Agree

Merchant (1985) modified to measure importance of meeting budgets (linked with intrinsic rewards)

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. Performing job tasks that are critical to the overall success of the hotel organization.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. The opportunity to use all of my knowledge, skills, and abilities on the job.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
3. Solving major work-related problems in the rooms division.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
4. The ability to have more control over the rooms department operations.
   Strongly Disagree 1—2—3—4—5 Strongly Agree

5. The chance to be in a position of leadership within the hotel organization.

   Strongly Disagree 1—2—3—4—5 Strongly Agree

Merchant (1985) modified to measure participation (influence on budget plan)

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. I have adequate information to make optimal decisions to accomplish my performance objectives.

   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. I am able to obtain the strategic information necessary to evaluate important decision alternatives.

   Strongly Disagree 1—2—3—4—5 Strongly Agree

Merchant (1985) modified to measure participation (involvement in budget)

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. I am involved in setting all portions of my budget.
   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. My budget is not final until I am satisfied with it.

   Strongly Disagree 1—2—3—4—5 Strongly Agree
3. My opinion is an important factor in setting my budget.

   Strongly Disagree 1—2—3—4—5 Strongly Agree

Merchant (1985) and Lee et al. (2003) modified to measure technology (in-room service integration)

Please indicate the extent of automation with each statement by CIRCLING a number from 0 to 5 based on scale provided.

1. The degree of automation of the rooms division.
   No Automation 0—1—2—3—4—5 High Degree of Automation
2. The class your most automated rooms division equipment falls within ranging from manual, machines to self-measuring and computer control equipment.

   No Automation 0—1—2—3—4—5 High Degree of Automation

Merchant (1985) and Lee et al. (2003) modified to measure technology (managerial and operational level)

Please indicate the extent of service integration by CIRCLING a number from 1 to 5 based on scale provided.

1. The levels of managerial operational service integration.

   Low Service Integration 1—2—3—4—5 High Service Integration

Onsi (1973) modified to measure budgetary slack detection

Please indicate the extent of your agreement with each statement by CIRCLING a number from 1 to 5 based on scale provided.

1. My superior has enough information to determine if I include excess resources in my budget.

   Strongly Disagree 1—2—3—4—5 Strongly Agree
2. My superior receives detailed information on the activities and resources consumed in my area of responsibility.

   Strongly Disagree 1—2—3—4—5 Strongly Agree
3. My superior has means of detecting if I include excess resources in my budget.

   Strongly Disagree 1—2—3—4—5 Strongly Agree