

THE EFFECT OF BUSINESS STRATEGY AND EXTERNAL ENVIRONMENT ON MANAGEMENT CONTROL SYSTEMS: A STUDY OF MALAYSIAN HOTELS

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Abstract

This study was undertaken to investigate the use of Management Control Systems (MCS) in Malaysian hotels. MCS was conceptualized as Action/Results controls, Formal/Informal, Tight/Loose controls, Restricted/Flexible, Impersonal/Interpersonal controls and Financial/Non Financial information to represent management control bureaucracy. The framework also recognizes business strategy and external environment (perceived environmental uncertainty - PEU) as factors associated with organizations choice of MCS. A survey methodology was employed. Questionnaires were administered to the top management of the hotels in Malaysia. The findings indicate that hotels pursuing cost leadership strategy was positively associated with a more bureaucratic MCS while hotels pursuing differentiation strategy was associated with less bureaucratic MCS. PEU is negatively associated with less bureaucratic MCS which indicates tighter control when environment is perceived as unpredictable. Overall, the data demonstrates that type of MCS utilized by hotels is associated with the business strategy pursuit and the PEU.

Key words: Management Control Systems, Differentiation Strategy, Cost Leadership Strategy, External Environment

1. Background

The Malaysian government has been introducing and aggressively implementing many policies to boost the service industry in general, and the tourism industry in particular. Through the Malaysian Tourism Development Corporation (MTDC), many local and foreign promotions has been undertaken to encourage tourists to visit Malaysia. Despite the global economic downturn, the number of tourist arriving in Malaysia has been increasing from 10.6 million people in 2003 to over 20 million people in 2008. Although vulnerable to economic uncertainty, it can be seen that tourism does not stop. Instead, people continue to travel may be, in a different way. Thus, Malaysia is still at an advantage considering the low foreign exchange rate compared to other countries such as the United States or Britain. A key component to the tourism industry is the hotels. Data has shown that the hotels occupancy rate has been rather stable, at more than 60 percent for the past five years. Nevertheless, judging from the number of hotels operating in Malaysia, the business environment is no doubt highly competitive. As of February 2009, 1,735 hotels are registered under the Ministry of Tourism. To sustain their competitive positions and to be able to offer high quality of service packages to customers, it is important that hotels maintain an effective information and control systems.

Although numerous study has found the relationship between organizations' MCS and organizational effectiveness, prior works have revealed the lack of research in management accounting and control systems in the hotel industry (Collier and Gregory, 1995; Sharma, 2002). Considering service sector liberalization in general, and the importance of the hotel industry to the Malaysian economy, the issue needs to be enlightened. Motivated by this development and the lack of research in the MCS literature, this study aimed to investigate the practice of management accounting and control in the hotel industries in Malaysia. Findings from this study are expected to reveal practices that shall assist managers of hotels to uncover their potentials and weaknesses. Specifically, the research question will be directed towards ascertaining the importance of business strategy and external environment in influencing the design of organizations' MCS. This paper is organized as follows. Section 2 presents a literature review and precedes the development of the theoretical framework and hypotheses formulation presented in Section 3. Section 4 sets out the methodology of this study including a discussion on measurement of the variables. Section 5 reports the findings of this study. Section 6 summarises the study, identifies the limitation and suggests areas for future research.

2. Literature Review

Hotels face great competition from one another in the attempt to attract and maintain customer. The survival and success of hotel businesses thus, will depend on managers' endeavor towards meeting their customers' expectation.

Damonte et al. (1997) contended that, an appropriate information system in a hotel can help managers satisfy their customers' expectations and achieve organizational goals. It must be acknowledged however, due to the level of uncertainty in the work faced by managers, empirical evidence available in the manufacturing industry may not be directly applicable to hotel industry (Mia and Partiar, 2001). It is also important for managers in the hotel industry to understand the *business strategy* in order to achieve competitive advantage. It has been suggested that the *management control system* (MCS), as a system that provide information to business, should be tailored explicitly to support the strategy of the business to lead to superior performance (Langfield-Smith, 1997). The design of MCS in hotels should also consider the *external environment* in which the hotels operate as managers of these organizations are constantly exposed to customers and competitors. In fact it is argued that, service organizations, such as the hotels, may be more environmentally sensitive due to four factors; ease of transfer of innovations, size, ease of competitive entry and inability to buffer the productive core from high task and information variety (Lowry, 1990).

While numerous study has been undertaken to study the relationship between strategy and environment with organizations' MCS, most has been focusing on the manufacturing industry. Harris and Brander Brown (1998) point out three specific reasons for which the empirical evidence of the 'MAS use and performance relationship' in the manufacturing industry may not apply in the hotel industry. First, heterogeneity of customers in hotels that creates demand for multiple types of services. This creates high uncertainty in the work environment which unlike products in manufacturing, they go through standard and mechanized production process. Second, the personalized and customized nature of the hotel business creates a highly labor intensive provision of products and services in which managers play a key role in managing quality. The managers involvement adds uncertainty to the hotel work environment which unlike production of manufactured goods that can be mechanized through the use of technology. Finally, a hotel's products and services are highly perishable and intangible. Thus, they are affected by fluctuating demand, and their production, delivery and consumption takes place simultaneously. The research reported in this paper can be regarded as an attempt to gain an understanding of the MCS practices in hotels, particularly Malaysian hotels, relating the practice with hotels strategy and external environment that is seen as influencing their choice of MCS design.

2.1 Management Control Systems (MCS)

Management control systems (MCS) embody the techniques and mechanisms which companies employ to pursue objectives, accomplish goals and successfully pursue strategies (Cunningham, 1992). To be relevant, findings of research in this area should incorporate uniqueness of the hotel industry in developing the MCS framework. Auzair and Langfield-Smith (2005) suggest a framework particularly designed to incorporate uncertainty in providing services due to human interactions. It includes a broad view of MCS to assist in developing a coherent body of knowledge in the area.

The MCS framework incorporates several distinctive features identified from prior studies (see Ouchi, 1979; Modell, 1995; Merchant, 1998; Whitley, 1999; Chenhall, 2003) to characterize MCS. These attributes, which will be referred to as *MCS dimensions* include Action/Results controls (Merchant, 1998; Ouchi, 1979), Formal/Informal controls (Whitley, 1999; Merchant, 1998; Modell, 1995), Tight/Loose controls (Whitley, 1999; Merchant, 1998), Restricted/Flexible (Otley, 1994), Impersonal/Interpersonal controls (Whitley, 1999), Financial/Non Financial information (Modell, 1995).

Following Auzair and Langfield-Smith (2005), in this study, organizations are expected to exercise control along the MCS dimensions' continuum. It is suggested that on one end of the controls continuum is the *more bureaucratic* MCS with, action, formal, tight, restricted, and impersonal controls, and financial information. Consequently, the other end of the continuum is the *less bureaucratic* MCS with, results, informal, loose, flexible, and interpersonal controls, and non-financial information.

2.2 Business strategy

It has been suggested that the MCS should be tailored explicitly to support the strategy of the business to lead to superior performance (Langfield-Smith, 1997). Two commonly studied strategies suggested by Porter (1980) to compete at the business level include cost leadership and differentiation strategies. Cost leadership requires aggressive construction of efficient-scale facilities, vigorous pursuit of cost reductions from experience, tight cost and overhead control, avoidance of marginal customer accounts, and cost minimization in areas like R&D, service, sales force, advertising and so on. Budget hotels are among those found to pursue cost leadership type of strategy. Differentiation on the other hand refers to creating products or services that are perceived industry wide as unique. In trying to implement Porter's differentiation strategy, a hotel may offer services differentiated by quality of room design or types of conference package.

2.3 External Environment

Numerous empirical studies (Khandwalla, 1972; Gordon and Narayanan, 1984; Chenhall and Morris, 1986) have shown that the external environment or perceived environmental uncertainty (PEU) has an effect on the nature of MCS design in an organization. Studying the impact of external environment on hotels MCS design may provide fruitful insights as hotels increasingly faced a competitive environment (Abu-Kasim and Minai, 2009). Prior studies have identified several environmental dimensions. This includes environmental unpredictability, environmental complexity and environmental change. Prior literature indicates that these dimensions are related but not identical constructs (e.g., Milliken, 1987; Duncan, 1972). Therefore, in this study, these three environmental dimensions were selected to demonstrate the relationship between the external environment and MCS.

3. Theoretical Development and Hypotheses Formulation

The preceding discussion suggests that organisations' business strategy pursued and their perceived environmental uncertainty may influence the choice of control design within an organization to form an effective system. As an organization strives to achieve effectiveness, it will seek to attain 'fit' between the contingent variables and the MCS, thereby creating relationships between these variables and the MCS. The framework for the study is presented in Figure 1.

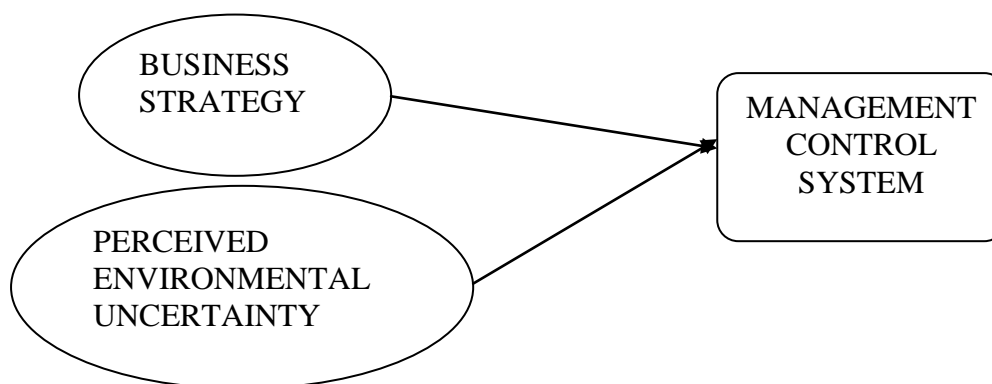


Figure 1: Theoretical Framework

3.1 Cost leadership and differentiation strategies

The literature suggests that certain types of MCS will be more suited to particular strategies. Kumar and Subramaniam (1997) found that cost leaders place a greater emphasis on 'formulating effective personnel policies', which is comparable to *action controls*, while the differentiator places highest emphasis on 'rewarding creativity' which is comparable to *results control*. Differentiation strategies are also found to be associated with *flexible* controls (Govindarajan, 1988; Van der Stede, 2000; Sim and Teoh, 1997; Simons, 1987). A flexible control attribute would allow hotels pursuing differentiation strategy to be innovative in creating services that are perceived as unique by customers. Cost leaders, on the other hand, have been found to be positively associated with *formal* controls (Miller, 1988). Cost leaders hotels would be actively pursuing cost reduction, tight cost and overhead control and cost minimization which suggests they are likely to adopt uniform rules to prevent employees from working outside strict boundaries. On the other hand, as differentiators need to create services that are perceived industry wide as unique, they need to allow employees more space to be creative and flexible. An impersonal approach to control may result in dysfunctional behaviour when employees perceive it as limiting their ability, and in turn may affect their creativity. Therefore, an *interpersonal* approach to control is more likely to be consistent with a differentiation strategy.

In summary, a differentiation strategy is associated with a less bureaucratic MCS (results, informal, flexible and interpersonal controls) while a cost leadership strategy is associated with a more bureaucratic MCS (action, formal, tight and impersonal controls). In the hotel industry both business strategies have been found to improve performance as differentiation strategy could improve customer loyalty and satisfaction while cost leadership strategy may reduce customer acquisition costs (see Abu-Kasim and Minai, 2009). The preceding arguments suggest the following hypothesis:

H_{1a}: A cost leadership strategy is positively associated with a more bureaucratic form of MCS.

H_{1b}: A differentiation strategy is positively associated with a less bureaucratic form of MCS.

3.2 Perceived Environmental Uncertainty

It has been argued that volatility, uncertainty, and competition in a service firm's external environment may cause complexity, and influence the design of its control system (Fitzgerald et al., 1991; Brignall, 1997; Lowry, 1990). Ezzamel (1990) explained that, in situations of high perceived environmental uncertainty, actual results seldom conform to budget targets. Therefore, elaborate and sophisticated accounting and reporting systems with detailed written explanations of causes of variances are needed, since deviation may not only be due to managerial competency but also due to the unpredictability of environmental changes. As hotels faced increasingly competitive environment, more uncertainties are likely to be perceived by the managers, thus a tighter form of control would be emphasized.

The preceding arguments lead to the following hypothesis:

- H₂:** *PEU is positively associated with a bureaucratic form of MCS and negatively associated with a less bureaucratic MCS.*

4. Research Methodology

4.1 Sample and Respondent

A mailing list was obtained from the website of the Malaysian Association of Hotels (MAH). In this study, the number of rooms depicts the size of a particular hotel. According to Sharma (2002), hotels with less than 30 rooms were unlikely to implement formal budgetary systems and it was considered that operational complexities requiring implementation of sophisticated management control systems would not be present. The listed member selected were confined to hotels with thirty and over rooms. Based on past experience, a fairly low response rate was expected and thus a sample of 520 hotels was considered appropriate to provide the number of responses required for analysis. While the intention was to have hotels with thirty and over bedrooms, four respondents (7.1 per cent) firm indicate less than expected. As the number is close to the initial criteria, it was decided to maintain the respondents in our sample.

According to Queensland Hotel Association and Queensland Motel and Hotel Association, financial controllers or a person holding similar top management position would be the most appropriate subject. As the data collected will also require information on the form of control systems, top-level managers are the most likely knowledgeable person. Prior studies (Simons, 1987; Moores and Yuen, 2001) studying the MCS also focus on top-level managers. In this study, these managers were targeted as respondents. A total of 59 responses were received and found usable for analysis. This represent 11.3 per cent response rate which is considered rather low. Nevertheless, experience from past research and feedback from fellow colleagues utilizing the same method, an average response rate of 10 to 15 per cent is considered normal. Table 1 presents the number of respondents by their demographic details.

Table 1: Respondents' Profile

		N	Per cent
HOTEL Number of bedrooms	20-25	4	7.1
	35-50	13	23.2
	51-90	10	17.9
	106-192	10	17.9
	202-398	14	25.0
	400-602	5	8.9
MANAGERS Position	Middle management	31	52.5
	Top management	28	47.5
Experience	Below 3 years	17	28.8
	3 to 5 years	14	23.7
	6 to 10 years	16	27.1
	11 to 20 years	8	13.6
	Above 20 years	4	6.8

4.2 Survey Development

A detailed four-paged survey instrument was constructed to collect specific information about organizations' management control systems, performance, business strategy, external environment and general description.

4.3 Measurement of Variables

4.3.1 MCS

The instrument used to measure the MCS was adopted from Auzair and Langfield-Smith (2005) with modification to suit with Malaysian environment.

Respondents were asked to indicate on a 7-point scale, the degree of emphasis on the statements that best described the type of MCS emphasized in their hotels. The statements represent action, formal, tight controls and financial information which form a bureaucratic MCS and result, flexible, personal controls and non-financial information which form a less bureaucratic MCS. The items were factor analyzed to test for unidimensionality using Principal components analysis (PCA) as the extraction method. The Bartlett test and the KMO measure of sampling adequacy indicate suitability for factor analysis. All items load well in excess of 0.32 (as recommended by Tabachnick and Fidell, 2001) and therefore were retained in the analysis. The reliability of the Bureaucratic MCS scale was .772, well above the lower limits of acceptability for exploratory research, generally considered to be around 0.50 to 0.60 (Nunnally, 1978). The variance explained by the scale was 61.17 per cent. The reliability of the less bureaucratic scale was .788 and the variance explained by the scale was 61.94 per cent.

4.3.2 Cost Leadership and Differentiation Strategies

In this study, the instrument to measure cost leadership and differentiation strategies was adopted and modified based on published items of Chenhall and Langfield-Smith (1998) and Kumar and Subramaniam (1997). To measure cost leadership strategy, respondents were asked to indicate on a 7-point scale, the degree of emphasis on the following activities:

1. Achieving lower cost of services than competitors
2. Making services/procedures more cost efficient
3. Improving the cost required for coordination of various services
4. Improving the utilization of available equipment, services and facilities

For the product differentiation strategy, respondents were asked to indicate on a 7-point scale, their degree of emphasis on the following activities:

1. Introducing new services/procedures quickly
2. Providing services that are distinct from that of competitors
3. Offering a broader range of services than the competitors
4. Improving the time it takes to provide services to customers
5. Providing high quality services
6. Customizing services to customers need
7. Providing after-sale service and support

The reliability for these items was calculated at 0.914 and .870 respectively.

4.3.3 Perceived Environmental Uncertainty

Following Sharma (2002), PEU was measured using the instrument developed by Gordon and Narayanan (1984). The current study regards environment as a strategic construct. To measure PEU, respondents were asked to indicate on a 7-point scale, their perception on the followings:

1. Intensity of manpower and price competition
2. Changes in new services, economic and technology, legal, political and scientific discoveries
3. Predictability of competitors and customers

A Varimax rotated exploratory factor analysis produced four dimensions explaining 70 per cent of the total variance. While the Bartlett test and the KMO measure of sampling adequacy indicate suitability for factor analysis (significant at .0001 and overall MSA at .632), examination of the individual items; intensity of manpower and intensity of price competition indicated individual MSA scores of below .50 (.487 and .444 respectively). Thus, the measure was refined by excluding these two items.

A second factor analysis was conducted with the remaining items. Two dimensions explaining 53 per cent of the total variance was produced. The factors were labeled environmental complexity and environmental turbulence. All items load above 0.32 (as recommended by Tabachnick and Fidell, 2001) with individual MSA above 0.5 and therefore were retained in the analysis. The reliability for these items was calculated at 0.678 and .623 respectively.

5. Results

5.1 Descriptive Statistics

Table 2 displays the correlations for all variables. Examination of the correlation matrix suggest there were not too highly correlated (0.9 and above), thus, multicollinearity problem is unlikely to exist (see Tabachnick and Fidell, 2001).

Table 2: Pearson Correlations

Variables	1	2	3	4
1. MCS -Bureaucratic				
2. MCS – Less Bureaucratic	.841**			
3. Differentiation	.570**	.724**		
4. Cost Leadership	.533**	.709**	.782**	
5. PEU	.249 [†]	.271 [†]	.352*	.362**
6. Organisational Performance	.415**	.466**	.494**	.390**

^aN = 59

**p<.01

*p<.05

[†]p<.10

5.2 Hypotheses Testing

Multiple regression analysis was performed to test H₁ and H₂. H_{1a} proposed that a cost leader is positively associated with a more bureaucratic form of MCS. H_{1b} proposed that a differentiator would be positively associated with a less bureaucratic form of MCS.

H₂ proposed that perceived environmental uncertainty is positively associated with a more bureaucratic form of MCS and negatively associated with a less bureaucratic MCS.

The format of the equation to test these hypotheses was estimated as:

$$Y = c_1 + b_1X_1 + b_2X_2 + b_3X_3 + e_1$$

Where,

Y = MCS (more bureaucratic, less bureaucratic)

X₁ = Cost leadership strategy

X₂ = Differentiation strategy

X₃ = External environment

Two equations were run separately for (1) more bureaucratic MCS and (2) less bureaucratic MCS as the dependent variables. For (1), significant positive standardized coefficients b₁ and b₃ would indicate support for H_{1a} and H₂. For (2), significant positive standardized coefficients b₂ and a negative significant standardized coefficients b₃ would indicate support for H_{1b} and H₂.

The results of regression analysis for testing H_{1a} and H₂ are presented in Table 3. The standardized coefficients b₁ (cost leadership), was positive and significant (one-tailed) at p ≤ .01. The standardized coefficient b₂ (differentiation) was positive while b₃ (PEU) was negative but not significant. This suggests that the data only partially supports the propositions.

Table 3 : Regression Results with a bureaucratic MCS as Dependent Variable

Contingent Variables	Standardized Coefficients	t value	Collinearity Statistics (Tolerance/ VIF)
Cost leadership (b ₁)	.394*	1.972	.341/ 2.929
Differentiation (b ₂)	.295	1.486	.346/ 2.892
PEU (b ₃)	-.071	-.566	.857/1.167
F	9.771***		
Adj R ²	.36		

* p≤.05 (one-tailed)

**p≤.01(one-tailed)

*** p≤.000

The results of regression analysis for testing H_{1b} and H₂ are presented in Table 4. The standardized coefficient b₂ (differentiation) was positive and significant at p ≤ .01 while b₃ (PEU) was negative and significant at p ≤ .05. This suggests that the data supports the propositions. Nevertheless, the standardized coefficients b₁ (cost leadership), was also positive and significant (one-tailed) at p ≤ .000. It was surprising however, that cost leader is positively associated with a less bureaucratic MCS. In sum, the data supports H_{1b} and H₂.

Table 4: Regression Results with less bureaucratic MCS as Dependent Variable

Contingent Variables	Standardized Coefficients	t value	Collinearity Statistics (Tolerance/ VIF)
Cost leadership (b ₁)	.504***	1.972	.341/ 2.929
Differentiation (b ₂)	.414**	1.486	.346/ 2.892
PEU (b ₃)	-.154*	-.566	.857/1.167
F	31.775		
Adj R ²	.66		

* p≤.05 (one-tailed)

**p≤.01(one-tailed)

*** p≤.000(one-tailed)

The multicollinearity assessment indicates that no VIF values exceeds 10.0 and the tolerance values show that in no case does collinearity explain more than 10 percent of any predictor variable's variance. According to Hair et al. (1995), this indicates that multicollinearity is not a problem.

6. Concluding Discussion

The purpose of this study was to contribute to the limited body of knowledge concerning the practice of Management Control Systems (MCS) in the hotel industry. Chenhall (2003) argued that the MCS of an organization is a broad concept and focusing on specific elements of control may lead to serious model under specification. This study answer this call by utilizing an instrument that captures a broad view of MCS developed by Auzair and Langfield-Smith (2005). A modification was made to operationalize the instrument whereby the dimensions for bureaucratic and less bureaucratic MCS was summated into two variables and analyze separately. Earlier study attempting to measure the broad concept of MCS has adopted the view that the instrument was able to capture both bureaucratic and less bureaucratic MCS in one macro construct. Problem was faced to analyze different contingency situation when firms placed equal emphasis on both bureaucratic and less bureaucratic MCS. In the current study, the Cronbach's alpha for the instrument was higher (.77 and .78) compared to the earlier study (0.62).

In this paper, the relationship between hotels MCS design, the strategy they pursue and their external environment were examined. In particular, it was proposed that, a cost leadership strategy is positively associated with a more bureaucratic MCS while a differentiation strategy is associated with a less bureaucratic MCS. Hypothesis 1 was only partially supported. It was found as expected that the cost leader, being firms with tighter cost control and vigorous pursuit of cost reduction, is positively associated with a bureaucratic MCS. On the other hand, the differentiator is positively associated with a less bureaucratic MCS . These findings support earlier studies (Auzair and Langfield-Smith, 2005; Chenhall and Langfield-Smith, 1998; Kumar and Subramaniam, 1997). Nevertheless, while it was expected that a cost leader would only be positively associated with bureaucratic MCS, the data also demonstrated a positive relationship between cost leadership strategy with less bureaucratic MCS. Although contrary to the widely-held view, this finding is consistent with prior works by Simons (1987). Simons (1987) found that high performing defenders (or comparatively cost leaders) appear to use their control systems less intensively. While it was expected that cost leadership strategy emphasize internal efficiency and protect their domain, the data in this study seem to suggest in a hotel industry, even cost leader allow less bureaucratic style of control system.

This may indicate that the nature of tasks in hotels have great influence on their MCS. Therefore, although we expect that a cost leader would focus a great deal on cost control, it should also be noted that 'financial controls may be relegated to a lower priority in a service-focused organisation' (Kemp and Dwyer, 2001 p. 87). In other words, hotels' management need to allow creativity in providing quality services that they tend to avoid tight controls. It was also proposed that perceived environmental uncertainty (PEU) will be positively associated with a more bureaucratic form of MCS and negatively associated with a less bureaucratic MCS. Hypothesis 2 was partially supported when it was found that PEU was only negatively associated with a less bureaucratic MCS. This finding confirmed an earlier study by Ezzamel (1990). Ezzamel (1990) contended that elaborate and sophisticated accounting and reporting systems with detailed written explanations of causes of variances are needed in situations of high PEU because actual results seldom conform to budget targets. Thus, an emphasis of non-financial information in the less bureaucratic form of MCS can be less effective when environment is perceived to be unpredictable. In reflecting upon the findings, specific research limitations need to be recognized. Firstly, it must be highlighted that by focusing on one industry, findings on the practice of MCS might not be generalized to other service industry. Furthermore, the sample of this study is considered rather small, thus, the results may be preliminary in nature.

It should be noted however, that the sample size is considered enough for a meaningful statistical analysis to be undertaken. A specific design feature of this study is its attempt to understand MCS practice from a broader perspective by summing several attributes into bureaucratic and less bureaucratic MCS. Nevertheless, one limitation of this measurement was its assumption of firms emphasizing bureaucratic and less bureaucratic MCS separately. Had more data been collected, analysis could be made for firms that emphasize MCS (1) low on both bureaucratic and less bureaucratic (2) high on both bureaucratic and less bureaucratic (3) low on bureaucratic and high on less bureaucratic, and (4) high on bureaucratic and low on less bureaucratic. Another limitation to the study is the use of self-reporting measures in survey instrument that may create systematic bias as the same respondent answered the independent and dependent variables. However, there are few alternative means available to capture all variables with a cross-sectional sample. Superior ratings for example, cannot be used in this study as we guaranteed anonymity to respondents.

Notwithstanding the above limitations, the study has implications for practice and theory. Changes in the world economy which affect the hotel industry forced the top managers in these hotels to recognize organisation's potentials and weaknesses. Thus, an understanding of the need for an effective MCS to successfully implementing its strategy would provide decision makers a clearer view of their competitive position and how to manage their organizations. From a methodological perspective, this study offer an extension from prior study by using an aggregated measure that captures the broad concept of MCS. Overall, this study provides empirical evidence on the practice of MCS in the hotel industry, a sector known for its significant contribution to the economy yet very few research had codify its management development. Future research might consider the use of in-depth case studies as methodology for exploring relationships. Such methods would not only add significantly to our understanding of the relationship between strategy pursuit by organizations but also assist in development of measures especially the MCS broad framework. The complex relationship between contingent variables and MCS may also likely to be uncovered if more data are collected and more service industries such as airline or healthcare industry included in the analysis. This would allow service organizations to be grouped into similar typologies and thus, comparison can be made to develop a generalize proposition to assist in the understanding of effective MCS practiced.

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References

- Abernethy, M. A., and Stoelwinder, J. U. (1991). Budget use, task uncertainty, system goal orientation and subunit performance: a test of the 'fit' hypothesis in not-for-profit hospitals. *Accounting, Organizations and Society*, 16(2):105-102.
- Abernethy, M. A., and Stoelwinder, J. U. (1995). The role of professionals in the management of complex organizations. *Accounting, Organizations and Society*, 20(1):1-17.
- Abu-Kasim, N.A. and Minai, B. (2009). Linking CRM strategy, Customer performance measures, and performance in Hotel Industry. *International Journal of Economics and Management*, 3(2), 297-316.
- Auzair, S.Md and Langfield-Smith, K (2005). The effect of service process type, business strategy and life cycle stage, on bureaucratic MCS in service organizations. *Management Accounting Research*.16(4):399-421
- Chenhall, R. H. (2003). "Management control systems design within its organizational context: findings from contingency-based research and directions for the future", *Accounting, Organizations and Society*, 28(2/3):127-168.
- Chenhall, R. H., and Langfield-Smith, K. (1998). Relationship between strategic priorities, management techniques and management accounting: an empirical investigation using a systems approach. *Accounting, Organizations and Society*, 61:243-264.
- Chenhall, R. H., and Morris, D. (1986). The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems. *The Accounting Review*, 61:16-35.
- Collier P. and Gregory. A. (1995). "Strategic management accounting: a UK hotel sector case study" *International Journal of Contemporary Hospitality Management*, 7, 1:16-21
- Cunningham, G. M. (1992). Management control and accounting systems under a competitive strategy. *Accounting, Auditing and Accountability Journal*, 5(2):85-102.
- Damonte, L., Rompf, P., Bahl, R., Domke, D. (1997). Brand affiliation and property size effects on measures of performance in lodgings industry. *Hospitality Research Journal* 20 (3):1-16
- Drury, C. (1998). "Management accounting Information systems in UK building societies". *The Service Industry Journal*, 18(2):125-143.
- Duncan, R. B. (1972). Characteristics of organisational environments and perceived environmental uncertainty. *Administrative Science Quarterly*, 17(3):313-327.

- Ezzamel, M. (1990). The impact of environmental uncertainty, managerial autonomy and size on budget characteristics. *Management Accounting Research*, 1:181-197.
- Gordon, L. A., and Narayanan, V. K. (1984). Management accounting systems, perceived environment uncertainty and organization structure: an empirical investigation. *Accounting, Organizations and Society*, 9(1):33-47.
- Govindarajan, V. (1988). Appropriateness of accounting data in performance evaluation: an empirical examination of environmental uncertainty as an intervening variable. *Accounting, Organizations and Society*, 9(2):125-135.
- Hair, J. F., Anderson, R. E., Tatham, R., and Black, W. C. (1995). *Multivariate Data Analysis With Readings*. New Jersey: Prentice-Hall inc.
- Harris, P., and Brander Brown, J.(1998). Research and development in hospitality accounting and financial management. *International Journal of Hospitality Management* 17:161-181
- Kemp, S and Dwyer, L. (2001). "An examination of organizational culture – the Regent Hotel, Sydney", *International Journal of Hospitality Management*, 20:77-93.
- Khandwalla, P. N. (1972). The effect of different types of competition on the use of management controls. *Journal of Accounting Research*, 10:275-285.
- Kumar, K., and Subramaniam, R. (1997). Porter's strategic types: differences in internal processes and their impact on performance. *Journal of Applied Business Research*. 14(1):107-123.
- Langfield-Smith, K. (1997). Management Control Systems and Strategy: A Critical Review. *Accounting, Organizations and Society*, 22(2):207-232.
- Lowry, J. F. (1990). "Management accounting and service industries: an exploratory account of historical and current economic contexts", *Abacus*, 26:159-184.
- Lowry, J. F. (1998). "An exploratory study of the relevance of management accounting in service industries", Unpublished Doctoral Thesis (University of New Castle).
- Merchant, K. A. (1998). *Modern management control systems: text and cases.*, Upper Saddle River, NJ: Prentice Hall.
- Mia, L. and Partiar, A. (2001). The use of MAS in hotels: an exploratory study, *International Journal of Hospitality Management* :111-128.
- Miller, D. (1988). Relating Porter's business strategies to environment and structure: analysis and performance implication. *Academy of Management Journal*, 31(2):280-308.
- Miller, A., and Dess, G. G. (1993). Assessing Porter's (1980) model in terms of its generalizability, accuracy and simplicity. *Journal of Management Studies*, 30(4):553-585.
- Milliken, F. J. (1987). Three types of perceived uncertainty about the environment: state, effect and response uncertainty. *Academy of Management Review*, 12(1):133-143.
- Modell, S. (1995). A three dimensional approach to management control systems. *Journal of Business and Management*, 2(2):35-74.
- Modell, S. (1998). "Management control systems in services: a contingency study of responsibility accounting in highly interactive services", Unpublished Doctoral Thesis (University of Karlstad).
- Moores, K., and Yuen, S. (2001) Management accounting systems and organizational configuration: a life-cycle perspective. *Accounting, Organizations and Society*, 26:351-389.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw Hill.
- Otley, D. T. (1994). Management control in contemporary organizations: towards a wider framework. *Management Accounting Research*, 5(3/4):289-299.
- Ouchi, W. (1977). The relationship between organisational structure and organisational control. *Administrative Science Quarterly*, 22:95-113.
- Ouchi, W. (1979). A conceptual framework for the design of organizational control mechanisms. *Management Science*, 25(9):833-848.
- Perrow, C. (1970). *Organizational analysis: a sociological view*. California: Wadsworth Publishing Company.
- Porter, M. (1980). *Competitive strategy*. New York: The Free Press.
- Sharma, D. S. (2002). "The differential effect of environmental dimensionality, size and structure on budget system characteristics in hotels", *Management Accounting Research*, 13:101-130.
- Shields, M. (1997). "Research in management accounting by North Americans in the 1990s". *Journal of Management Accounting Research*, 9:3-61.
- Sim, A. B., and Teoh, H. Y. (1997). Relationships between business strategy, environment and controls: a three country study. *Journal of Applied Business Research*, 13(4):57-124.
- Simons, R. (1987). Accounting control systems and business strategy: an empirical analysis. *Accounting, Organizations and Society*, 12(4):357-374.
- Simons, R. (1995). *Levers of control*. Boston: Harvard Business School Press.
- Tabachnick, B. G., and Fidell, L. S. (2001). *Using multivariate statistics*. Boston: Allyn and Bacon.
- Tymon Jr., W. G., Stout, D. E., and Shaw, K. N. (1998). Critical analysis and recommendations regarding the role of perceived environmental uncertainty in behavioral accounting research. *Behavioral Research in Accounting*, 10:23-46.
- 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*, 2(6):609-622.
- Whitley, R. (1999). Firms, institutions and management control: the comparative analysis of coordination and control systems. *Accounting, Organizations and Society*, 24(5/6):507-524.