Performance Measurement System Design: The Effect of Management Control System on Small Medium Hotel Performance

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Abstract - Performance measurement system (PMS) is one of the main function in management roles and reflect the strategic goals of a firms. PMS particularly support the management control system (MCS) to manage increasing complexity. Traditionally, PMS models are more horizontal, process oriented and focus on stakeholder needs. Therefore, it is interesting to consider MCS in designing PMS to overcome the weakness of traditional PMS and to improve overall performance. Specifically, the objective of the study is to investigates the role played by the Interactive Control System (ICS) and Belief Control System (BCS) in the PMS design in the context of the Malaysian SMEs hotels. The study employs contingency theory to explain the relationship. Using survey data from a sample of small medium hotel sectors in the Northern part of Peninsular Malaysia, the study found that PMS is correlated to an each of the ICS and BCS and suggest that the design of PMS will influence the overall performance in small medium hotel sector through the acting of both control system.

Keywords: Performance Measurement System, Interactive Control System, Belief Control System, SMEs hotel

1. Introduction

Performance measurement system (hereafter called PMS) is a topic which has been aggresively discussed by both academics and practitioners since the early 1990s but rarely defined. Good design of PMS should consider multi-dimensional nature which will affect the performance of the whole organization. Today, in order for firms to compete in globalised and turbulent market and at the same time need to satisfy all their stakeholders, firms should move along all performance dimensions [11,24]. According to [24], there are three different levels of performance measurement which are the individual measures, the performance measurement system and the relationship between the PMS and the environment within which it operates. The ability of keeping the PMS continuously updated is a challenge for every firm, but particularly for small and medium sized enterprise (hereafter called SME). [6] mentioned that SMEs often do not understand the potential advantages of PMS as these systems are perceived as an obstacle to the flexibility of SMEs. Eventhough, some SMEs try to implement a system designed for large firms [14]) but, it would be unwise for SMEs to copy the approach of the large firms due to the different environment.

As performance measurement is one of the main function in management roles to show to what extent the firm has achieved their pre-designed strategies and goals, it is a right time to study on PMS in SME in Malaysia. The issue is focused on two dimensions of the Management Control System (hereafter called MCS) employed in small medium hotel sector with regard to performance measurement. Specifically, the issue is proposed in order to obtain a better understanding of the relationships between good performance measures (both financial and non-financial) and the two dimensions of MCS; Interactive control system (hereafter called ICS) and Belief control system (hereafter called BCS). This issue explores whether appropriate PMSs are used to evaluate changes in business results as well as a means of monitoring the management practices to assess their impact on these results. At present, little is known about the self-review activities of small hotel operators and the extent of their focus on operational and financial outcome improvements. Furthermore, there is little evidence of whether they link specific control system activities to the overall performance of the business.

Therefore, this study tries to develop an appropriate PMS framework that SMEs can use to evaluate their performance and identify the factors and directions for improvement. By negotiating ICS and BCS in the framework, it is hoped that a new framework can be used to improve the SMEs performance.

2. Literature review

2.1 Performance Measurement System (PMS) at SME

In order to develop a PMS assessment tool for SMEs, it is necessary to identify which are characteristics of a PMS that enable the company to effectively and efficiently measure and manage its performance. SMEs, according to [30] and [16], have a flat structure, which allows clear, uninterrupted streams of communication. In addition, [16] point out that current performance measurement in SMEs

is limited by barriers of limited resources and strategy oriented processes.

According to [11], important elements that considered as `best practices' for PMS are classified into two aspects; characteristics and requirements. All the characteristics have been grouped into two main categories; external environment and internal environment. As [10] mentioned, external environment represents the context in which the organizational operates and the factors essentially outside the control of organizational. While, internal environment includes the factors which are inside the company or under the managers' control, like the resources, both human and financial, and the way they are managed (managerial practice). With regards to requirements, [11] highlighted that PMS should divide into three categories; performance requirements, characteristics of the PMS as whole, requirements of the process of performance measurement and PMS use.

There are two models which are developed purposely to performance measurement in SMEs; Organizational Performance measurement [9] and Integrated Performance measurement for small firms [21]. However, literature claims that it is still not clear whether these two models applied to the needs of SMEs. As [25] highlighted the fact that SMEs do not usually implement integrated PMS and that they are not aware of the existence of integrated PMS model. Furthermore, only [12] model is meant for service industries.

2.2 Performance Measurement System (PMS) in Hotel Sector

Lately in the local hotel sector, the issues of having balanced PMS has become an important issue where funds and resources are shrinking while at the same time stakeholders ask for these organizations to adopt a greater accountability and transparency towards the services provided to the customer.

The existing PMS in the hotel should change accordingly to the changing in their environment in order to improve quality and productivity of the organizations. Early PMS in hotel sector tend to reflect only the financial side of their performances wherethey are focus mainly on the accounting activities such as margins, cost and expenses allocations. They do not emphasize on the non-financial measures such as the process or the outcomes of customer care deliveries [31]. Rapid growth in economy globally, increase competition in the industry and the existence of continual pressure from the stakeholders of the hotel organizations have made financial figures insufficient in providing information regarding performance to the management, especially in hospitality industry. All of this brings towards more the reasons why the managements of these organizations have to give more attentions towards the improvement of the non-financial measures such as service quality and effective clinical outcomes by establishing the needs to address their current performance shortfalls.

Under the formal financially focused PMS practice by the hotel organizations, the evaluation of these non-financial measures are done separately by the managers, which according to [34], "three major deficiencies in measuring the hotel and integrated delivery systems performances, namely:

1) Any effort to improve financial performances will be less effective without taking into consideration of the managers' decisions because they influence the core activities, which are the primary cost drivers at these institutions.
2) Managers are likely to resist the management effort in controlling cost by improving productivity and reducing resource utilization if the issues of customer satisfaction and service quality are not dealt with.
3) And finally, separate evaluation processes are internally focused that reflect the evaluators' point of views only and dismiss external views from organizations stakeholders, thus affecting the effectiveness of the measurement systems."

2.3 Management Control System (MCS)

Management Control System is an integral part of management responsibilities. The system provides information to managers in order to assist them in making decisions according to their plans and objectives. There are several definitions given by previous authors such as [2], [28], [29] and [8]. Most of the previous work concerning MCS from the management – oriented view have cited [2] definition where he looked at the system process input and output. However, Anthony's definition could be questionable and outdated as it was too restrive concerning the procedure meeting the objectives.

[28], [29] defined MCS as "the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities". In a nutshell, control is a policy or procedure that facilitates organization to ensure that its goal and objectives are met. [29] introduced four key variables that must be used for controlling business strategy; belief, boundary, diagnostic and interactive.

According to [13], MCS was important for organizational growth as they liberated top managers' attention from processes that could be controlled by exception and provided them with information when their informal network was overloaded. The emergence of MCS was most important for organizations moving through their growth stage [23], when coordination and control problems could not be solved through informal interaction (as happens during the birth stage). MCS then emerged to formalize this learning by codifying routines and liberating management attention from repetitive tasks.

[20] stated that it was generally recognized in the contingency theory that, for enhanced performance, there needs to be a match between an organization's MCS and its strategy. By extension, the contingency framework suggested that when strategy changes, the MCS also changes. Contingency theory also argued that there was no universally appropriate control system applicable to all situations. As such, the appropriateness of different MCS mechanisms was contingent on the circumstances surrounding the organization. While a number of strategic typology frameworks have been advanced in the literature, this research uses the Simons Lever of Control [29] as the basis for the discussion, focusing on ICS and BCS.

2.3.1 *Interactive Control System (ICS)*

According to [29], the interactive management control system is a control system that managers use to involve themselves regularly and personally in the decision activities of subordinates. Based on Simons's previous study in 1990, top management will share their knowledge to motivate firms to learn and to create new ideas and new strategies. Hence, the use of new knowledge to assist managers to actively monitor and intervene in continuous decision activities of subordinates will make the management control system become interactive. Due to the fact that a management control system is a `system', the information is typically fed back to managers of the various phases and then appropriate action is taken based on data or information provided to meet the objectives.

2.3.2 B*elief Control System (BCS)*

BCS is represented by a firm culture which comprises the pattern of values, beliefs and norms which are shared by the members of a firm, and which consequently tend to influence the ideas, behaviour and actions in their everyday work. [29] argued that firm culture can boost or hinder firm performance; therefore, management should consider management control system design which changes the culture of the firm. It has been suggested that if management fails to design management control systems which are consistent with their firm's culture can lead to active resistance to the control system. Such resistance could then potentially result in the ultimate failure of the control systems and will seriously hinder the firms' progression towards its goals and objectives.

This study defines BCS as *the shared values that interacts with the firm's structure and management control system and leads to behavioural changes*. Consequently, this study uses culture from an environmental management perspective, where the firm's environmental culture means people in the firm will share the environmental information which creates and builds the same value within firms. Thus, the value is able to change the behavioural aspects of the people in the firm in order to implement environmental management practices.

3. Theoretical Framework and Hypotheses Development

[3] framework, on the other hand, showed the inter-relationship between the management control system, firm structure, firm culture and human resource management in order to get the management control system to work according to the strategy. They proposed that effective control systems are highly situational and that the system should be tailored to the nature of each firm. In [3] framework, the firm structure describes the role and responsibility of the members of the firm to make a decision within the firm. The firm culture refers to the shared beliefs attitudes and norms that explicitly or implicitly lead managerial actions, while human resource management is the selection, training, evaluation, promotion and termination of employees in order to develop skill and knowledge to boost the firm's strategy.

In order to implement the intended strategy, based on [29] framework which proposed two levers of control which were inter-related each others, i.e. belief control systems and interactive control systems, the implementation mechanism of [3] framework could be discussed in [29] two levers of control. Therefore, based on [29] and [3] framework, the current study defines the management control system as 'any process or action taken by hotel managers to influence the possibility people in hotels behave in ways to design performance measurement and to allow the emergence of new ideas and opportunities to implement hotels' good strategy'

The model represented in figure 1 aims to test the direct and indirect effects of the ICS and BCS respectively on hotel performance. Direct and indirect effect is said to exist when the one variable (an antecedent variable) influences a consequences through another variable (an intervening variable).

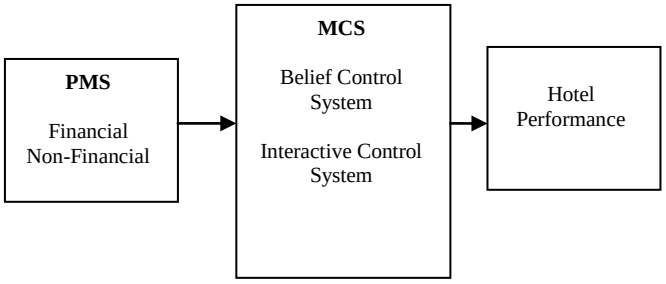

Figure 1: Research Framework

Based on the conceptualisation of the respective variables discussed above, therefore, the following hypothesis is proposed;

There is a positive and indirect relationship between peformance measurement system (PMS) and hotel performance through the use of management control system (MCS) in the small medium hotel sector.

4. Methodology

Data is collected by survey at small medium hotel sectors in the Northern part of Peninsular Malaysia. Total of 250 questionnaires were distributed to managers at 250 small medium–sized hotel in Northern Part of peninsular Malaysia. Out of this number, only 63 were returned and usable. Response rate is about 25.5%.

5. Analysis and Findings

5.1 Standard Multiple Regression

Standard Multiple regression is used to simultaneously examine the effects of several independent variables on the single dependent variable. A summary of the regression results of the individual predictors on hotel performance for the above model is presented in Table 1.

	Model 1		Model 2	
Variables	β	t-value	β	t-value
Constant	1.399	3.556**	0.095	1.687**
PMS	0.153	1.696**		
Non Financial Perspective			0.305	17.093**
Financial Perspective			0.632	30.009**
BCS	0.140	1.123	0.013	0.678
ICS	0.227	2.322**	0.015	1.078
	R^2 = 0.433 *F = 15.018* *P= 0.000*		*R^2 = 0.987* *F = 1131.6* *P= 0.000*	

Table 1: A Summary of Standard Multiple Regression Analysis to Test the Main Effect of the Individual Predictors on Hotel Performance

Table 1 shows that 43.3 percent (R^2 = 0.433) of the level of hotel performance in the model 1 is explained by the independent variables. The R^2 was statistically significant with F = 15.018 and p <0.000. The analysis shows that among each of the management control system elements, interactive control system is the only variable which provides significant explanatory power. On the other hand, Model 2 shows the increase in R^2 where 98.7 percent of hotel performance is explained by the independent variables (F=1131.6, p=0.000) and none of control system becomes the variable which provides significant explanatory power. Eventhough while taking PMS as a whole (Model 1) gives significant explanation to the level of hotel performance, both indicator ; financial and non-financial perspective is actually really contribute to the better performance of the hotel where non-financial explains 30.5 percent and financial indicator explains 63.2 percent of the level of hotel performance (Model 2).

5.2 Hierarchical Multiple Regression

As this study intends to examine the influence of the ICS and BCS on the relationship between PMS design and hotel performance, hierarchical multiple regression is used as suggested by many previous researchers, such as [4] and [27].

According to Baron and Kenny [4], to test mediation, three (3) regression conditions should be met. First, the independent variable (e.g. Hotel PMS) should affect the mediator (e.g. ICS or BCS). Second, the independent variable should have significant effect with the dependent variable (i.e. Hotel Performance) and third, the mediator, should affect the dependent variable, when controlling for the independent variable.

Correlation analysis shows that PMS is correlated to an each of the two selected individual management control system (i.e; Belief Control System and Interactive Control System) at p <0.01. The regression result in which ICS and BCS were regressed on PMS also shows the significant value (ICS – PMS ; Beta 0.721 and p < 0.05 and BCS – PMS ; Beta 0.53 and p <0.05). Thus the result confirms the first requirement of the mediation process.

The second requirement for the mediation effect is that PMS must significantly affect hotel performance. As [4] suggested that the independent variable must be related significantly to dependent variable. As shown in correlation analysis, hotel PMS and hotel performance are significantly correlated. The regression result in which hotel performance was regressed on hotel PMS is shown in Table 2, Model 1. As indicated in Table 2, PMS was significantly related to hotel performance in Model 1 (Beta 0.182 and p < 0.05). This result suggests that PMS was a significant indicator to hotel performance. Thus, the second requirement for mediation was confirmed.

To demonstrate mediation, it must be shown that the PMS is related to hotel performance, when hotel performance is regressed on both PMS and each of management control system element. Refer to Table 2, Model 2 and Model 3 show that each of the management control system elements (i.e; Belief Control System and Interactive Control System) is significantly related to hotel performance.

The standardised coefficient (β) provides evidence a significant direct link between Belief Control System; Interactive Control System and hotel Performance, while controlling PMS. All of them are significant at p<0.001. The third requirement for mediation is supported.

In order to reach the perfect mediation, the independent variable should has no significant effect on the dependent variable, when the mediator is controlled for [4]. Therefore, the second test is done to Model 2 and Model 3. By controlling for each management control system element, the variance in hotel Performance, explained by PMS declined to non-significant level where significant at p < 0.05.

Variables	Model 1	Model 2	Model 3
PMS	0.366** (0.087)	0.243 (0.084)	0.145 (0.090)
Belief Control System		0.348** (0.089)	
Interactive Control System			0.305** (0.068)
R^2	0.225**	0.381**	0.421**
R^2Change		0.156	0.196
Belief Control System		0.348** (0.089)	
Interactive Control System			0.305** (0.068)
PMS		0.243 (0.084)	0.145 (0.090)
R^2		0.381	0.421
R^2 Change		0.085	0.025

**significant p<0.05; ** significant p <0.001*
Figure in bracket is a standard error, All beta are standardised

Table 2: Hierarchical Multiple Regression: Small Medium Hotel Performance

In sum, the result suggest that there is complete mediation for each element of MCS (i.e; Belief Control System and Interactive Control System) on the relationship between hotel PMS and hotel performance. The results also support the argument which said that the development of PMS will influence the overall performance in small medium hotel sector through the acting of Belief Control System and Interactive Control System.

6. Discussion and Conclusion

Result reveals that MCS is found to be positively correlated to performance measurement system design and overall hotel performance. However, the finding does not postulate that hotel performance will be influenced by the MCS. Eventhough there is a positive correlation between all types of MCS and hotel performance, the hotel performance does not necessarily depend on whether or not the hotel integrate MCS in their PMS design.

6.1 Interactive Control System

Interactive control system, was found to be significant indicator to the level of hotel performance. This finding similar to the study done by [17] which found positive significant relationship. This study also found that good PMS design was a good indicator of the use of an interactive control system. There was a positive and significant relationship between PMS and the interactive control system (refer to Table 2). This finding suggests that the use of interactive control system would boost hotel performance if top management and employees are involved adequately equipped with the relevant knowledge and skill. Eventhough SME's hotels employ PMS, without staffs knowledge and skill, the result suggests that hotel performance will not improve. As [29] suggests, an interactive control system may motivate firms to search for new strategies and to adapt to the new strategies and practices to enhance performance. For example, even though the top management and employees are involved personally and interactively in PMS dan decision making, if they do not have a sound skill and knowledge base regarding the issues of performance measurement, their decision making ability may be limited. This finding may also be related to several factors such as the setting of the firm, resistance of adapting to a new culture, an adequate rewards system designed, and may also related to the size of the hotel.

Therefore, this study suggests that the following factors might influence the level of hotel performance when designing appropriate PMS.

i) Hotel staff should be equipped with adequate skill and knowledge by conducting regular training regarding performance measurement system.
ii) Implement a sensible bonus and reward scheme for staff which rewards them for improving hotel performance.
iii) Educate customers to accept a new emerging culture in the hotel environment.

6.2 Belief Control System

Belief control system was related to the culture of the firm where it was surrounded with the vision and mission which shared and communicates to all of the employees. This study found not to be significantly related and contribute to the level of hotel performance. This result suggess that belief control system does not act as an indicator to ensure hotels will achieve better performance. [18] suggests that firms should integrate belief control system in PMS design to increase people's willingness to share knowledge to create values and change their beliefs in measuring performance. Performance does not only refer to financial indicator but also need to balance with non-financial indicator. If people in SMEs hotel does not willing to change, the objective to compete with large hotel would likely not be achieved.

Most of the SMEs hotels who respond to the study were categorised as budget and economy hotels and employed customer differentiation strategy. This strategy is referred to creating services which unique that can attract more customer to come. Therefore it is obvious that with this strategy, SMEs hotels more focus on profit in order to measure performance. The more customers, the higher the profit and the better the performance is. Thus, with this beliefs, adaptability to a new belief is more difficult and this finding is similar to the traditional control system which is formal and familiar to small medium firms [2].

In the other hand, this insignificant finding may be due to the balanced PMS which use BSC as performance measurement tools being a new concern in the Malaysian SMEs hotels and not currently properly implemented by the hotel sectors. One reason may be related to interactive action from the top management and employees. On the other hand, basically, BSC is mostly used by the large hotels. Interview findings also suggests that belief and culture build from day-to-day experience. Therefore, being a BSC followers and believers are not one-day experience. In order to integrate the believe in PMS design, the management and employees should be ready and flexible to accept this new ideas and create a new culture extensively.

6.3 PMS, ICS , BCS and Performance in Small Medium Hotel Sector

Previous study examined the MCS and PMS separately. This study investigates the inter-relationship of PMS, MCS and hotel performance . Primary contribution is recognition of the mediating effect of MCS (i.e: ICS and BCS) on hotel performance. The first requirement to test the mediation effect was met where PMS is significantly related to each of MCS types. This relationship also coincides with the correlation analysis where the correlation coefficent suggest significant correlation between PMS and each of MCS levers individually.

The standardised coefficent also provide support for the existence of a direct link between PMS and hotel performance which is shown in Table 2, Model 1. Thus the second requirement for the mediation is supported. Table 2 also shows that ICS and BCS are significant mediators to hotel performance. The result indicate that there were strong indirect effects of PMS on hotel performance acting through both control system types. The relationship between PMS and hotel performance can be influenced by integrating ICS and BCS in PMS design.

Table 2 Model 2 highlighted the significant explanatory power of hotel performance when integrating belief control system in PMS design. R square increase for about 15.6 percent and this is also explained by the strong relationship between belief control system and hotel performance. The plausible explanation regarding the significant indirect effect on hotel performance through the acting of belief control system is likely to be due to the increasing of awareness among employees of the hotels. It seems that they are all positively hold the same belief and culture that by having good and proper PMS design according to vision and mission will likely enhance their performance. PMS design also should not focus to only financial indicator but also should highlight the non-financial indicator along, as what implemented by large hotels.

Similar to this, interactive control system is also contribute to the strong relationship between PMS and hotel performance. The effect of the integrating interactive control system in PMS design can be explained by the increase in R square for about 19.6 percent (Table 2 Model 3). The strong indirect effect is more likely to result from the strong relationship between an interactive control system and hotel performance. This result is similar to that of [15] and [18] where they found that increase in performance could result from a better bonus system (one of the indicators of the interactive control system). The expected result is supported since the interactive control system is known to be an important control system in order to emerge new ideas and share knowledge regarding new approach [29] of PMS design in order to be more effective and efficient in tracking performance of the hotels.

The results provide evidence on the link between PMS and MCS. As mentioned by [22] that MCS do not operate in isolation, but they have to be considered as a package. This study uses Simons' Levers of Control – Beliefs Control System, Boundary Control System, Diagnostic Control System and Interactive Control System. The results support the argument that PMS are able to influence hotel performance through various types of formal and informal control used by hotels.

7.0 References

[1] Abernethy, M.A. and Brownell, P. "The role of budgets in organizations facingstrategic change: an exploratory study", *Accounting, Organizations and Society*, vol 24, pp.189-204, 1999

[2] Anthony, R. N. *Planning and Control Systems: A Framework for Analysis*. Boston: Harvard Business, Division of Research, pp18-24, March-April 1965.

[3] Anthony, R. N., & Govindarajan, V. *Management Control System*, New York: McGraw Hill, 10th ed., 2001.

[4] Baron, R. M., and Kenny, D. A., "The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, vol 51, pp 1173-1182, 1986.

[5] Blair and Hitchcock. *Business and Environment*. Taylor and Francis Group. 2001.

[6] Bourne, M., Wilcox, M., Neely, A., and Platts, K. "Designing, Implementing and Updating Performance Measurement Systems", *International Journal of Operations and Production management*, vol 20 (7), pp 754-771, 2000.

[7] Brown, M. G. Keeping Score*: Using the right metrics to drive world class performance*. Quality Resources, New York, USA. 1996.

[8] Chenhall, R. H. "Management Control System Design within its Organisational context: findings from contingency-based research and directions for the future", *Accounting, Organisations and Society*, vol 28(2/3), pp127-168 ,2003.

[9] Chennell, A., Dransfield, S., Field, N., Saunders, I., and Shaw, D. OPM: A for organizational performance measurement. *In conference proceedings performance measurement*, Cranfield University, pp. 96-103, 2000.

[10] Cocca, P. and Alberti, M., 'SMEs´ Three-step Pyramid: A new Performance Measurement framework for SMEs". *Proceedings of the 16th International Annual EurOMA Conference "Implementation – realizing Operations Management knowledge"*, Göteborg, 14–17 June, 2009.

[11] Cocca. P., and Alberti, M., "A Framework to assess performance measurement systems in SMEs', *International Journal of Productivity and Performance Management*, vol 59(2), pp186-200, 2010.

[12] Fitzgerald, L, Johnston, R, Brignall, T J, Silvestro, R and Voss, C, "Performance Measurement" *in Service Businesses*, CIMA, London. 1991.

[13] Flamholtz, E. and Randle, Y. *Growing Pains: Transitioning from an Entrepreneurship to a Professionally Managed Firm*, new rev. ed. Jossey-Bass, San Francisco, 2000.

[14] Garengo, P., Biazzo,S., & Bititci, U. "Performance measurement systems in SMEs: A review for a research agenda", *International Journal of Management Reviews*, vol 7(1), pp 25-47, 2005.

[15] Govindarajan, V., & Gupta., A. K. "Linking Control Systems to Business Unit Strategy: Impact on Performance", *Accounting, Organization & Society, vol 10*(1), pp 51-66, 1985.

[16] Hanif, A. and Manarvi, I. "Performance based segmentation of small and Medium Entreprise: A data Mining Approach" in *proceeding of International conference on computers and Industrial Engineering*, pp 1509-1513, 2009.

[17] Henri. J.F. and Journealt, M.A.. "Eco-Control: The Influence of MCS on environmental and Economic Performance", *Accounting, Organisations and Society*. vol 35, pp 63-80, 2010.

[18] Hunt C.B. and Auster E.R. "Proactive environmental management: avoiding the toxic trap", *MIT Sloan Management Review*. Vol 31(2), pp 7-18, 1990.

[19] Kaplan, R. and Norton, D.. "Using the balanced scorecard as a strategic management system",

Harvard Business Review, pp 75-85, Jan-Feb, 1996.

[20] Kober, R. et al. "The interrelationship between management control mechanisms and strategy*",* In *Management Accounting Research*, vol 18, pp 425-452, 2007.

[21] Laitinen, E.. *Framework for small business performance measurement: towards integrated PMS.* Paper presented to Vasaa, proceedings of the University of Vasaa, 1996.

[22] Malmi, T., and Brown, D.A. "Management control systems as a package – Opportunities, challenges and research directions" *Management Accounting Research*, vol 19, no 4, pp 287-300, 2008.

[23] Moores, K. and Yuen, S. "Management Accounting System and Organizational configuration: A life-cycle perspective", *Accounting, Organisation and society*, vol 26, pp 351-389, 2001.

[24] Neely, A., Mills, J., Platts, K., Richards, H, Gregory, M., Bourne, M., & Kennerley, M.. "PMS design: developing and testing a process-based approach" *International Journal of Operations & Production Management*, vol 20, no 10, pp 1119-1145, 2002.

[25] Raintenan, H., and Holtari, J. "Performance analysis in Finnish SMEs*" Eleventh International Working Seminar on Production Economics*, IGLS Austria, vol 21 -25 February, 2000.

[26] Schaltegger, S., R. Burritt, and H. Petersen. *An introduction to corporate environmental management—Striving for sustainability*. Sheffield,UK: Greenleaf. 2003

[27] Sharma, D. S. "The differential effect of environmental dimensional, size and structure on budget system characteistics in hotels" *Management Accounting Research, vol* 13, pp 101-130, 2002

[28] Simons, R. "How new Top Manager Use Control Systems as Levers of Strategic Renewal", *Strategic Management Journal, v*ol 15 no 3, pp 169-189, 1994.

[29] Simons, R. "Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal. Boston: Harvard Business School Press" Also see Simons, R. 1995. Control in an age of empowerment. *Harvard Business Review*, vol 80-8, March-April 1995.

[30] Sousa, S. and Aspinwell, E. "Development of a Performance Measurement Framework for SMEs", *Total Quality Management*, vol 21 no10, pp 475-501, 2010.

[31] Stewart, L. J.and Lokamy III, A. "Improving competitiveness through performance measurement system", *Healthcare financial management, vol* 55 no 12, pp 46-50, 2001.

[32] Tekavčič, M and Peljhan, D., "Insights into managerial tools related to cost management in Slovenia companies" *Rijeka Faculty of Economics Journal of Economics and Business*, vol 21 no 1, pp 83-99, 2003.

[33] Tekavcic, M., Peljhan, D., & Sevic, Z. "Management control system, strategy and performance: The case of a Slovenian Company", Slovenia: University of Ljubljana, Faculty of economic, 2005.

[34] Walker, K. "Efficiency and Effectiveness Reviews in Health Care Organization" *Journal of Cost Management*, pp 80-86, Spring 1996.