A Systematic Approach to Developing and Implementing Risk Management Performance Reporting in a **Hotel Group**

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Abstract

This paper introduces a systematic framework for developing and implementing a risk management performance reporting system. It takes a single case study approach to analyse the risk management function within an international hotel group. Empirical data was gathered through a series of semi-structured interviews and focus groups conducted with 42 members of the group's risk management division. The identification of KPIs for each component required a balanced approach that had to be aligned with the core strategic drivers of the group. Apart from the framework, the study revealed also a number of challenges in the collection system and the reporting of appropriate company-wide data.

Keywords: risk management, performance measurement, reporting systems, key performance indicators, key risk indicators

Introduction

Performance measurement has been received a growing attention over the past three decades. The business environment characterised by intensified competition and rapid changes in technologies and customer demands (Laats et al, 2011), the changing nature of work, changing organisation roles and specific improvement of initiatives (Neely, 1998) have put performance measurement on management agenda. The performance improvement culture of current organisations mainly stems from the quality movement (Welch and Mann, 2001). A comprehensive literature review shows that various frameworks have been developed to measure the performance of organisations, which include the balance scorecard (Kaplan and Norton, 1996), the Business Excellence Model (Britici et al 1997), the Performance Prism (Neely and Adams, 2001), accounting performance measures (Eccles, 1991; Doyle, 1994), Capability Maturity Metrics (Cosby, 1980), Performance Pyramid (McNair et al, 1990). Although those various frameworks that have a solid academic grounding give guidance on how an organisation should design its performance measurement system, those rarely help with the practical realisation of specific measures at an operational level (Tangen and Stockholm, 2004).

Corporate boards have become increasingly aware of their responsibilities related to effective oversight of their companies' risk management processes. Having a robust risk management performance reporting system is a significant component of this oversight (Ingley and Van, 2008). The risk management function within an organisation is normally measured by a combination of key performance indicators (KPI) and key risk indicators (KRI) (Scandizzo, 2005). However, in spite of the progress that the corporate world has made towards establishing risk reporting systems, there is no specific framework proposed by either academic or practitioner literature for systematically monitoring the effectiveness of risk management function.

While pass literature has concentrated on developing and proposing frameworks to measure performance of an organisation and applications of risk management, this paper concentrates on a framework designed for developing performance measurement system of risk management functions. The framework application is illustrated by a single case study of the global risk management division of one of world largest hotel chains. The risk management performance reporting system will help to capture and report differences and similarities measurements used among different regions and brands. This study, using the BSC approach established by Kaplan and Norton (1992), examines what risk management should measure and how it can be measured across different risk management function. The paper specifically considers the following clusters of functions of risk management: risk financing, corporate risk, business continuity management, operational risk management, training and security. The rest of the paper is organised as following: it starts with reviewing the literature on performance measurement. It is followed by the introduction of the research methodology. Then a case study was demonstrated to illustrate how a hotel chain builds a performance system of its risk management function.

Finally, the key issues encountered and the solutions developed during the process of building risk management performance reporting (RMPR) system are discussed.

Literature review

Measurement of performance and productivity has collected significant interest recently among both academics and practitioners. In order for organisations to maintain and improve their competitive advantages, performance measures are widely used to evaluate, control and improve business processes (Ghalayini and Noble, 1996). Performance measurement is defined as "process of quantifying the efficiency and effectiveness of action (Neely, 1998). Brown and Devilin (1997) defines a performance measurement system as "a complete set of performance measures and indicators in a consistent manner according to a formal set of rules or guidelines" Neely (2004) believes measurement is the process of quantification and action correlating with performance.

Much progress has been made on establishing performance management systems, however, numerous researchers have exposed limitations of the traditional approaches to performance measurement using solely performance measure. Ghalayini and Noble (1996) found that traditional performance measures, for example, based on a cost management system, is not incorporated into strategy, difficult to implement in practice and neglect customer requirements. Due to the limitations of traditional performance measures, the emerging (non-traditional) performance measures have been discussed in the literature such as the Business Excellence Model (Britici et al 1997) and the Balanced Scorecard framework (Kaplan and Norton, 1992). Tangen and Stockholm (2004) that BSc is probably the most well known performance measurement system.

Balanced Scorecard

Most traditional performance measurements focus on financial measurement. To certain extent, a heavy dependence on financial performance measures could obstruct future competitive advantage since financial performance indicators are outcome driven, which do not reflect drivers of future performance and true value creation (Chia et al 2009). Unlike traditional approach, Kaplan and Norton (1992) introduced the BSc to evaluate whether an organisation is moving towards its strategic objectives from four different perspectives: financial, customer, internal business process, and learning and growth. The balanced scorecard was developed to address a number of significant weaknesses associated with "traditional" performance measurement systems. Kaplan and Norton (1992) believe that these three additional categories are as sets of measures of the firm's drivers of future performance, whereas the financial perspective represents the past performance. BSc focuses management efforts on drivers of performance by explicitly encouraging the utilisation of both leading indicators as well as lagging indicators (Eccles, 1991 Fitzgerald et all 1991). The performance indicators help management to gain an in-depth and comprehensive understanding of the company's overall performance (Wu and Liu 2010). Each business unit in the organisation should develop its own balanced scorecard measures to reflect its goals and strategy (Chavan, 2009).

Meanwhile, a casual relationship exists between the four dimensions with innovation and learning being the drivers to the success in the internal processes, which then in turn will meet customer and consequently shareholder needs (Atkinson, 2006). Cohen et al (2008) found that four BSc perspectives are correlated with each other at a statistically significant level. Cohen et al (2008) found that the companies that have improved their financial indicators have increased their efforts towards business activities more than the companies that have not. These four perspectives that collectively underpin the achievement of an organisation's vision helps organisation balance long-with goals short-term objectives/activities (Kaplan and Norton 1996, Chavan, 2009, Sorderberg, 2011); financial with non-financial concerns (Rasila 2011); internal with external environments (David 2005, Meng and Minogue 2011) and guide, control and challenge an entire organisation towards realising a shared goals and objectives (Chavan, 2009, Wu and Liu, 2010).

Benchmarking

Xero Corporation initiated the concept of benchmarking in order to encounter with the Japanese competitive challenge of the 1970 (Luu et al 2008). Following pioneer work at the Xerox Corporation, benchmarking has been extended to a business process and become increasingly popular for measuring the operational performance of companies (Campenhausen and Petrisch 2004). Camp (1989) defines that benchmarking is "a positive, proactive process to change operations in structured fashion to achieve superior performance". Spendolini (1992) defines benchmarking as "a continuous, systematic process for evaluating the product, services and work processes for organisation that are recognised as representing best practices for the purpose of organisational improve". Benchmarking can be conducted both internally and externally. With internal benchmarking, an organisation gathers data on its own performance and make improvements through comparing to past year (Ogden,1998), whereas the comparison between one organisation and competitor in the same industry is external benchmarking.

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Benchmarking is considered as the most powerful technique for gaining and maintaining competitive advantage (Codling, 1996). There is a substantial body of literature showing that benchmarking has been applied to a variety of company activities including HR activities (Holt 1994), accountancy practices (Weiss, 1993); innovation (Chia et al 2009), product development (Brady and Coughlan, 1995), supply chain management (Chia et al 2009), quality management (Wu and Liu, 2010) and incentive and reward systems (Emmanuel et al 1990, Johnson and Gill 1993 Garrison et acl 2003). Meanwhile, many studies have been undertaken on the application of benchmarking to productivity in tourism and hotels (Barros et. al, 2004; Kozak, 2004; Camp, 1992); healthcare services (Leibert 2010), manufacturing (Gomes et al. 2011) and construction (Chan and Chan, 2004).

Key performance indicators

KPIs are a measure of current activity and desired outcomes that will have an impact on a department's ability to deliver on policy objectives and targets in the future (SAS,2010). KPIs are general indicators of performance that focus on critical aspects of outputs or outcomes (Chan and Chan, 2004). A common question regarding the business function is: how do we know if we are doing well? KPIs are utilised by an organisation to evaluate its success or the success of a particular activity in which it is engaged and has been increasingly accepted by different industry sectors (Meng and Minogue 2011). In addition, KPIs are used internally as the evidence to inform management decisions, to challenge strategic assumptions and for continuous learning and improvement (Marr 2004). However, individual organisational functions have generally been slower to adopt the technique to measure the success of a business function (Smith 2000).

Research methodology

A single case study approach was adopted for the empirical element of this research since there is limited empirical research on how companies in hospitality industry measure the effectiveness of risk management function. The case study research method enables researchers to gain in-depth understanding a situation which is difficult to examine using other techniques (Yin, 1994) and a better opportunity to penetrate important issue (Norrman and Jansson, 2004).

The process of how the risk management reporting performance system has been developed and implemented was observed and documented. Data for the present case have been gathered through workshops, meetings and in-depth, semi-structured and unstructured interviews conducted with senior risk management team, regional risk managers across different risk management function and hotel general managers. Since the researchers were also members of the Project Working Group assisting in the development and the implementation of risk management reporting system, they have been able to get close, observe and be involved in meetings with various relevant stakeholders. This has been a significant advantage for the research as respondents were less reluctant to share information and the discussion flowed more freely.

Case study

WHR, is an international multi-brand hotel group, operating in many territories in the world and making cross-border business transactions between societies with different norms and cultures. The Risk Management function within the Business Reputation and Responsibility Function aims to share specialist knowledge and capability globally, whilst being aligned to the operational structure of the business, to ensure local circumstances are understood and respected, and achieve greater engagement of our people. Enterprise risks management (ERM) at WHR is a holistic view of risk management. At WHR, this includes managing all risks to WHR including the hotel portfolio within and outside of our direct control. The breakdown of risk types include: strategic risks, tactical risks and operational risks. The Risk Management team has developed a risk management framework. This framework begins with identifying and defining the risk profile and is a pragmatic guide to enable WHR employees to mitigate risk through developing policies and standards, considering practical ways of working, emphasising the need for training and communication, and developing systems and processes to operate and control risks.

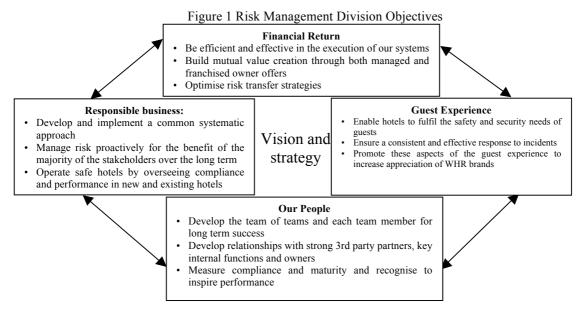
Framework for developing RMPR System

RMPR system is considered as a powerful tool for Global Risk Management Function to illustrate and communicate to its business what risk management do and how it is successful. The global risk management functions have been carried enormous efforts on protecting its guest, people and adding value on its financial returns over last two decades, however, the output in the past has not be clear. The senior risk management team believes RMPR system project is an opportunity for them to focus on results and correct it. In order to make RMPR system truly hotel driven, risk management, as a team, has to incorporate it with real world and engage with different stakeholders such as senior risk management team, risk managers, senior operators, finance management, general manager and hotel employee. The system drives intervention and recognition. Just as a

well-know adage says: "if you cannot measure it, you cannot improve it" (Hamel and Prahalad, 1994). A RMPR system Project Working Group has been formed to facilitate this process.

Step 1 Define division goals and objectives

The design and development of a performance measurement system and indicators should accoutre to the vision of an enterprise (Hoffecker and Goldenberg, 1994). At the highest level within the company, the strategy has defined the specific performance measures required in each of these four performance dimensions: financial returns, responsible business, our people and guest experience. When properly implemented BSC, it should enable employee to see how they contribute to the organisation's strategic objectives by translating theses goals into specific, measurable activities and enhances employee's learning and accountability by measuring and providing feedback on their actions (Kaplan and Norton, 2001). Therefore, as first step of developing risk management performance reporting system, risk management division has transferred the company's strategic objectives into its own division objectives and goals as shown in Figure 1.



This high level structure establishes solid foundation for the RMPR system project team to understand what to measure. Rest of steps provide guidance on how to measure it.

Step 2 Define individual risk management function and their objectives

Effective performance of risk management depends on the coordination and collaboration of different risk management functions. To effectively embed ERM framework into the organisation, it requires six risk management functions: operational risks (at hotel level), corporate risks, global security, business continuity, risk training and claims (insurance) management. KPIs were developed for each individual risk management function.

- Operational risk management are managing day to day fire health and life safety at both hotels and corporate sites
- Security risk management is to ensure that hotels establish and maintain security measures
 commensurate with the ambient security threat level and have flexible response plans to mitigate
 specific security threats;
- Corporate risk management oversight risk management process and major risks across the Group; to mitigate risks exposed by the Group,
- The claim management team works with the wider business, insurance brokers, and the wider Global Risk Management team to maintain the Group's insurance programme and manage insurance claims.
- Risk Management training provides employees and contractors with knowledge and skills needed to
 perform their assigned roles and responsibilities safely. It is a cornerstone because automatically every
 other measures it could have impacts are by the people who are in the business

Step 3 Approach to establishing risk management performance reporting system

KPIs should originate from risk managers themselves and links back to strategic objectives. To get meaningful KPIs, rather than limited by existing measures and current data, the Project team encourage risk managers start with a blank sheet. Fundamental questions were asked to develop KPIs are: what is your impact on WHR's business? What the value do you add to the business? And what are your key performance indicators? Instead of top down, a number of consultation techniques such as meetings, workshops, interviews and project focus group

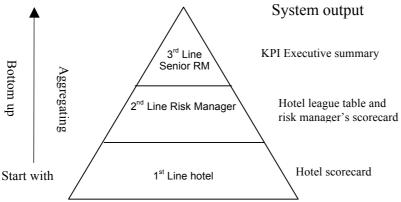
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have been carried out with risk managers from different regions. The Project Working Group facilitates risk managers to answer these questions based on company's strategic objectives.

*Bottom up approach**

The process of building a BSc is a fairly involved process which requires significantly understanding and commitment and for some business unit leaders, a lot of facilitation (Chavan 2009). The Project Working Group utilises bottom up approach to develop KPIs for most of its risk management functions as shown in Figure 2. Although the Global Risk Management is looking for a global consistency in order to measure and compare, the Project Working Group believes it is best to start from hotel level. KPI's relevant at hotel level should therefore be relevant at risk manager level and so forth. Therefore, the hotel level KPIs should get agreed and produce consistent outputs then those KPIs can be aggregated the next level and all the way up to senior management team.

Figure 2 Approach for developing KPIs for Operational Risk Management



RMPR system

The RMPR system consists of three key components: KPI BSc at hotel level along with hotel league table, risk managers scorecard and KPI executive summary for senior risk management team. The framework should be reported and reviewed at all levels. The hotel balanced scorecard contains a diverse set of performance measures: financial performance e.g. average cost of claims, unrecoverable cost allocation and insurance policy compliance; responsible business e.g. compliance to brand safety standard, risk management maturity rating and average number of incidents by guest, employee and property; our people e.g. risk management training metrics, employee incidents and employee engagement safety survey; and guest experience e.g. safety related guest relations complaints, guest incidents and guest safety survey. The BSc measures tell a concise complete story about risk management culture and performance of a hotel towards its risk management objectives. It provides a holistic view of what is happening regarding to risk management activities in a hotel. The consistent hotel BSc communicates beforehand and afterwards. The system creates awareness on occupational health and safety, motivates the employees, and improves commitment level among all employees:

- By reviewing scorecard executive summary, senior management team can oversight risk management process and risks of a hotel, a particular brand and a region
- By reviewing scorecard executive summary, regional risk management leader can see how its regional compared with others
- By looking at the hotel league table, risk managers are able to identify problem hotels
- Hotel BSc is to give risk managers and hotel general managers a comprehensive view of risk management at a hotel and allow them to focus on the critical areas, driving the organisation's strategy forward.

Step 4 Benchmarking and performance improvement

KPI working Group has identified region specific issues but there is also a high number of commonality among regional operations. One of the goals of this project is to produce global performance indicators that are consistent among regions. Traditionally, hotel league table are utilised to benchmark among different brands, countries, regions and risk managers. However, the weakness of benchmarking by brands, regions, countries is that it does not take other attributes such as type of services, room count and location into account. Therefore, the KPI Working Group developed a peer hotel finder Model to locate similar characteristic hotels across the global locations. There are ten attributes which have been factored into the model: location type, service type, type of employee, room count, food and beverage intensity, brand, RevPar, room night, owner and guest segmentation. For example, a hotel in Americas has similar attributes as a hotel in Europe or Asia Pacific should have similar risk exposure.

By reviewing list of quantifying hotels and their key operating metrics, peer group hotels are selected for benchmarking. The hotels within the same peer group can collaborate and share "best practice" online through

Intranet. Meanwhile, by comparing KRIs in a hotel from time to time and within its peer group, a further analysis or diagnosis should explain how the actual performance has occurred. Appropriate actions for performance are set up to improve its performance. Meanwhile, targets are set and the hotel then puts in place action plans to meet the preset targets. A closed loop process of measurement, evaluation, diagnosis and actions continuously leads to performance improvement (Mehrabad and Anvari, 2011).

Findings

The evaluation of performance has been an area of concerns for risk managers for a long time. Risk managers should understand the level of their performance, the reasons for poor or good performance and the criteria for which improvement is required. If one compared the performance measurement systems used today with those used two years ago it is likely that they would be significantly different (Welch and Mann 2001). The risk management system evolves with risk management's experiences. Furthermore, KPIs is not a short-term process that presents answers but a long-term view how we track the process of risk management. It helps company to achieve consistency in business intelligence through the KPI project.

Aligning with business data

The Project Working Group found that there is significant correlation between some business data such as occupancy rate and risk management data by analysing a league table of 248 hotels. For example, Average occupancy rate has a strong positive correlation with total incurred Work Compensation cost but has no correlation with General Liability cost. It is found that such information is very powerful for risk managers and hotels to identify what might be the root problems. Therefore, along with KPIs, there are a number of hotel business performance parameters which have been built in the hotel scorecard.

Culture changes

Chavan (2004) concludes that the balanced scorecard approach may require some substantial changes in culture within the organisation. During first round interviews with regional risk managers, the Project Working Group encountered a certain degree of culture resistance from them to the idea of performance measurement. Enormous efforts such as presentations and workshops made by the Project Working Group to illustrate the risk managers that the purpose of the project is to develop a system with meaningful measures that can help risk managers do their job better. Incident does happen, but it is not necessary anybody's fault, where there is early warning signal and where data is available, actions can be taken to avoid it.

KRIs and KPIs

Risk managers found that KPI alone is not enough to support their jobs and they need supportive information KRI to help them do their job better. KPIs are metrics used by organisations to provide an early signal of increasing risk exposures in various areas of the enterprise. It is typically derived from specific events or root causes, identified internally or externally, that can prevent achievement of performance goals. The vision of the project is, therefore, further defined as "to develop a robust global risk management performance system which provides risk managers early warning signals and highlight risks". The score of the RMPR system project was extended to development of both KPIs and KRIs, which also helps in significantly reducing resistance to changes from risk managers. KRI plays important role in effective risk oversight and gives risk managers/hotels early warning signal highlight some potential problems. Simultaneously, the Project Working Group has gained commitment and support from the very top of the senior leadership as a culture changes and develops to accept the new approach.

Risk management ownership

One of key output of KPI hotel scorecard is to win hearts and minds of the hotels. Global Risk Management educates and incentivise hotel to take ownership of risk management as risk management is everybody's responsibility. One of the key points made by regional risk management leader is that they struggle to get hotels take ownership of the risks because the hotels view insurance claims as WHR's problem rather than theirs. With a consistent reporting format (hotel Scorecard) risk management can illustrate to hotels and business what their issues are and the best way for everyone to solve these problems.

Data capture

It is difficult to get KPIs/KRIs across all regions without regularly identifiable and downloadable data from the system. A Poor incident reporting is a standard industry problem for most businesses. In order to avoid disincentivising hotel reporting incident, the group takes coaching approach to encourage hotel to report incident. Incident reporting is used as a leading indicator: the more incidents hotel reports, the better risk management culture is embedded in a hotel. However, hotel would be penalised if it is found out not reporting serious

incidents. There is a need for appropriate technological platforms for risk data capture, storage and retrieval and there is a need for incidents reporting culture across the organisation.

Conclusion

This paper introduces a systematic framework for developing a risk management performance measurement system and took a case study method to demonstrate how a major multinational group utilised the framework to develop its risk management performance reporting system.

Since the risk management function in the hotel group of the case is a complex one, a robust RMPR system is a key for achieving its strategic objectives and improving its performance. Instead of using RMPR system to penalise poor performance hotels or individual risk managers, the system is primarily designed to empower risk managers and hotels and provide them with the relevant information to do their jobs better. The effective implementation of this tool should enhance motivation and further pave the way for improving workplace safety in all locations of an organisation.

The paper provides key insights for risk managers and hotel general managers to appropriately understand the fit between risk management activities/culture and the strategic objectives of the company. A clear project vision can significant reduces the cultural resistance to the idea of performance measurements and help hotels take ownership of risk management. The findings encourage risk management to embed Key Risk Indicators into their performance reporting system and use data wisely. Finally, the study revealed a number of challenges in the collection system and the reporting of appropriate company-wide data that would serve the performance measurement system, requiring a substantial redesign of this system.

This study proposes a structured approach for the development of a system that measures the effectiveness of the risk management function within a hotel group. One limitation is that different hotel groups may have different approaches to risk management; however, the proposed approach to performance measurement will be the same. The challenges that emerged during this study provide avenues for further academic research in the areas of performance measurement, risk monitoring, change management and information technology and management.

References:

Atkinson, H. (2006). "Strategy implementation: a role for the balanced scorecard?" *Management Decision* 44(10) Barros, M. d. O., C. M. L. Werner, et al. (2004). "Supporting risks in software project management " *The Journal of systems and software* 70(21-35).

Britica, U. S., A. S. Carrie, et al. (1997). "Integrated Performance Measurement System: an audit and development guide." The *TQM Magazine* 9(1): 46-53.

Brown, J. and J. Devlin (1997). "Performance measurement - the ENAPS approach." *The International Journal of Business Transformation* 1(2)

Camp, R. (1989). "Benchmarking: the search for best practices that lead to superior performance." *Quality Progress*.

Camp, R. (1992). "Learning from the best leads to superior performance." Business Strategy Series Campenhausen, C. v. and G. Petrisch (2004). "The benchmarking matrix." *Managerial Auditing Journal* 19(2). Chan, A. P. C. and A. P. L. Chan (2004). "Key performance indicators for measuring construction success." *Benchmarking: An International Journal* 11(2).

Chavan, M. (2009). "The balanced scorecard: a new challenge." *Journal of Management Development* 28(5). Chia, A., M. Goh, et al. (2009). "Performance measurement in supply chain entities: balanced scorecard perspective." *Benchmarking: An International Journal* 16(5).

Codling, S. (1996). Best Practice Benchmarking: An International Perspective. Houston TX, Gulf Publishing Cohen, S., D. Thiraios, et al. (2008). "Performance parameters interrelations from a balanced scorecard perspective An analysis of Greek companies." *Managerial Auditing Journal* 23(5).

Cosby, P. B. (1980). *Quality is Free: The Art of Making Quality Certain*. New York, McGraw-Hill. David, F. R. (2005). *Strategic Management: Concepts and Case Studies*. NJ, Pearson Englewood Cliffs. Doyle, P. (1994). "Setting business objectives and measuring performance." *Journal of General Management Decision* 20(2).

Eccles, R. G. (1991). "The performance measurement manifesto." *Harvard Business Review*, 69(1). Emmanuel, C., D. Otley, et al. (1990). *Accounting for Management Control*. London, Chapman & Hall,. Fitzgerald, L., R. Johnston, et al. (1991). *Performance Measurement in Service Businesses*. London. Garrison, R. H., E. W. Noreen, et al. (2003). *Management Accounting*. London, McGraw-Hill Education,. Ghalayini, A. M. and J. S. Noble (1996). "The changing basis of performance measurement." *International Journal of Operations & Production Management* 16(8).

Gomes, C. F., M. M. Yasin, et al. (2011). "Performance measurement practices in manufacturing firms revisited." *International Journal of Operations & Production Management* 31(1).

Hamel, G. and C. K. Prahalad (1994). *Competing for the Future*, Harvard Business School Press. Boston, MA. Hoffecker, J. and C. Goldenberg (1994). "Using the balanced scorecard to develop company-wide performance measures." *Journal of Cost Management* 8(3).

Holt, B. (1994). "Benchmarking comes to HR." Personnel Management 26(6).

Ingley, C. and van der Walt, N. (2008). Risk Management and Board Effectiveness, *International Studies of Management and Organization*, 38(3), 43-70.

Johnson, P. and J. Gill (1993). Management Control and Organisational Behaviour. London.

Kaplan, R. S. and D. P. Norton (1992). "The Balanced Scorecard-measures that drive performance." *Harvard Business Review*.

Kaplan, R. S. and D. P. Norton (1996). *The Balanced Scorecard: Translating Strategy into Action*, Boston, MA. Kaplan, R. S. and D. P. Norton (2001). The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment. Boston, MA.

Kozak, M. (2004). "Introducing destination benchmarking: a conceptual approach." Hospitality Tourism Research 28(3).

La¨a¨ts, K., T. Haldma, et al. (2011). "Performance measurement patterns in service companies An empirical study on Estonian service companies." *Baltic Journal of Management* 6(3).

Leibert, M. (2010). "Performance of integrated delivery systems: quality, service and cost implications." Leadership in Health Services 24(3).

Luu, V. T., S.-Y. K. b, et al. (2008). "Improving project management performance of large contractors using benchmarking approach." *International Journal of Project Management* 26.

Marr, B. (2004). "Automating intellectual capital – integrating measures for intangibles into corporate performance management applications." *Int. J. Learning and Intellectual Capital* 1(3).

McNair, C. J., R. L. Lynch, et al. (1990). "Do Financial and nonfinancial performance measures have to agree?" *Management Accounting Research*.

Meng, X. and M. Minogue (2011). "Performance measurement models in facility management: a comparative study." *Facilities* 29(11).

Merna, T. and Al-Thani, F. (2010). *Corporate Risk Management* (2nd edition), Chichester: John Wiley & Sons Ltd.

Neely, A. (1998). "Three models of measurement: theory and practice." *International Journal of Business Performance Management* 1(1).

Neely, A. (2004). "The challenges of performance measurement." Management Decision 42(8).

Neely, A. and C. Adams (2001). "Perspectives on performance: the performance prim,." *Journal of Cost Management Working paper*.

Nocco, B. W. and Stulz, R. M. (2006), Enterprise Risk Management: Theory and Practice. *Journal of Applied Corporate Finance*, 18(4), 8-20

Norrman, A. and U. Jansson (2004). "Ericsson's proactive supply chain risk management approach after a serious sub-supplier accident." *International Journal of Physical Distribution & Logistics Management* 34(5): 434-456.

Ogden, S. M. (1998). "Comment: benchmarking and best practice in the small hotel sector." *International Journal of Contemporary Hospitality Management* 5(10).

Paraskevas, A., Ludlow, J. and Chu, C. (2011). Towards a Model of Corporate Compliance, *Risk Management Working Paper Series*, Oxford Brookes University

Rasila, H., J. Alho, et al. (2010). "Using balanced scorecard in operationalising FM strategies." *Journal of Corporate Real Estate* 12(4).

SAS (2010). "Designing KPIs for improved Public Sector Performance."

Scandizzo, S. (2005), Risk Mapping and Key Risk Indicators in Operational Risk Management. *Economic Notes*, 34(3), 231–256.

Smith, A. M. (2000). "Using consumer benchmarking criteria to improve service sector competitiveness." *Benchmarking: An International Journal* 7.

Soderberg, M., S. Kalagnanam, et al. (2011). "When is a balanced scorecard a balanced scorecard?" *International Journal of Productivity and Performance Management* 60(7).

Spendolini, J. J. (1992). The Benchmarking Book. New York.

Tangen, S. and S. Stockholm (2004). "Performance measurement: from philosophy to practice." *International Journal of Productivity and Performance Management* 53(8).

Weiss, H. P. (1993). "Benchmarking: learning from the best." The CPA Journal 63.

Welch, S. and R. Mann (2001). "The Development of a Benchmarking and Performance Improvement Resource." *Benchmarking: An International Journal* 8(5).

Wongrassamee, S. and J. E. L. Gardiner (2003). "Performance measurement tools: the balanced scorecard and EFQM Excellence Model." *Measuring Business Excellence* 7(1).

Wu, S.-I. and S.-Y. Liu (2010). "The performance measurement perspectives and causal relationship for ISO-certified companies A case of ISO-electronic industry." *International Journal of Quality & Reliability Management* 27

Yin R.K. (1994). Case study research design and methods 2nd edition, California