Enterprise-Wide Risk Management (EWRM) Practices: Between Corporate Governance Compliance and Value Creation.

Norlida Abdul Manab[1], Isahak Kassim[2] and Mohd Rasid Hussin[3]

Although Enterprise-Wide Risk Management (EWRM) concept is still new in many parts of Asia, there are positive indications that EWRM is beginning to receive attention. As a matter of fact, this topic is being widely discussed on an industry-wide basis. The emergence of EWRM is cited to be driven most by corporate governance, and its effective implementation is claimed to contribute towards value creation. This paper thus examined the drivers and the success of EWRM implementation with corporate governance compliance and value creation in for-profit companies. A survey found that EWRM concepts and its efforts have become a growing concern among Public Listed Companies (PLCs). The motivation factor of corporate governance is evidenced especially in non-financial companies. Whilst financial companies cited that their EWRM practices were not only being driven by corporate governance compliance, but also for good business practice and improved decision making. In addition the motives of its implementation ensured the survival of the company and value creation.

Field of Research: Risk Management, Corporate Governance

1. Introduction

Effectively managing or controlling the factors that cause risk can result in market leadership, increasing a company's growth and investor confidence (Meier, 2000). Moreover, there is evidence in terms of theories that show how value can be created from the adoption and application of risk management and how risk can also destroy corporate value (Doherty, 2000). In essence, risk management has indeed now become a global issue and is considered highly essential for all types of organisations in the world.

However, risk management that began as a field in the early 1950s was limited in scope to pure loss exposures only where risks were managed through controlling and financing techniques. Insurance has been the most popular financing

[1] Dr. Norlida Abdul Manab, Risk Management & Insurance Division, College of Business, Universiti Utara Malaysia (UUM), MALAYSIA. Email: norlida@uum.edu.my.
[2] Associate Professor Dr Isahak Kassim, Faculty of Information Technology and Quantitative Sciences, Universiti Teknologi MARA (UiTM), MALAYSIA. Email: isahak598@salam.uitm.edu.my
[3] Associate Professor Dr Hj Mohd Rasid Hussin, Faculty of Business Management, Universiti Teknologi MARA (UiTM), MALAYSIA. Email: sid@salam.uitm.edu.my.

approach in managing corporate risk. It has been used to manage property, liability, and related insurable risks. This approach is known as *Traditional Risk Management* (TRM). In the traditional way of risk management, organisations manage risk by silos, or risk by risk. This has caused an overlapping and excessive cost in organisations, and it does not provide an overall view of risk reporting to senior managers and boards of directors (Lam, 2000). Traditional risk managers also do not consider shareholder value and responsibilities to investors in their risk management decisions (Meier, 2000).

In this regard, businesses and industries have realised the importance and necessity of managing risks on an enterprise-wide basis. Deloach (2000, p.5) defined EWRM as:

> *"A structured and disciplined approach: it aligns strategy, processes, people, technology and knowledge with the purpose of evaluating and managing the uncertainties the enterprises faces as it creates value."*

The definitions signify that EWRM is a comprehensive approach of risk management by looking at a portfolio view of risks; a process that aligns with the company's strategy; and involves employees at all levels of the organisation. Its implementation is for the purpose of increasing shareholder value.

There are four important issues in the EWRM concept. Firstly, EWRM views risk as being more complete, consistent, and collective rather than focusing only on hazard or financial risk (Davenport & Bradley, 2001). Secondly, EWRM is a process. Thirdly, the EWRM's concept encompass that everyone within an organisation is responsible for managing risks. Finally, the EWRM underlying concept is that each type of organisation whether profit, non-profit, or government agency, provides value for its stakeholders (COSO, 2003).

Despite the growing concern over this issue, there is a surprising lack of evidence on EWRM practices and their relation to value creation. Furthermore, most of the documented evidence on EWRM is limited to the trade press and industry survey, which have been created by consultant firms, professional accounting associations, or internal auditors, rather than an empirical investigation by the academic community (Leech, 2002; Liebenberg & Hoyt, 2003). It is important to highlight that most of the studies on EWRM revealed significant findings in terms of the important relationship between EWRM and value creation, which is primarily based on the respondents' perception and belief, which is based on their knowledge and experience in real practices (see Miccolis, Hively & Merkly, 2001; Barton et al., 2002; PriceWaterHouseCoopers, 2004a).

For this reason, the objectives of this study are two-fold. First, is to identify the drivers of EWRM adoption and implementation among PLCs. Second, is to examine the success of EWRM practices with corporate governance compliance and value creation in PLCs.

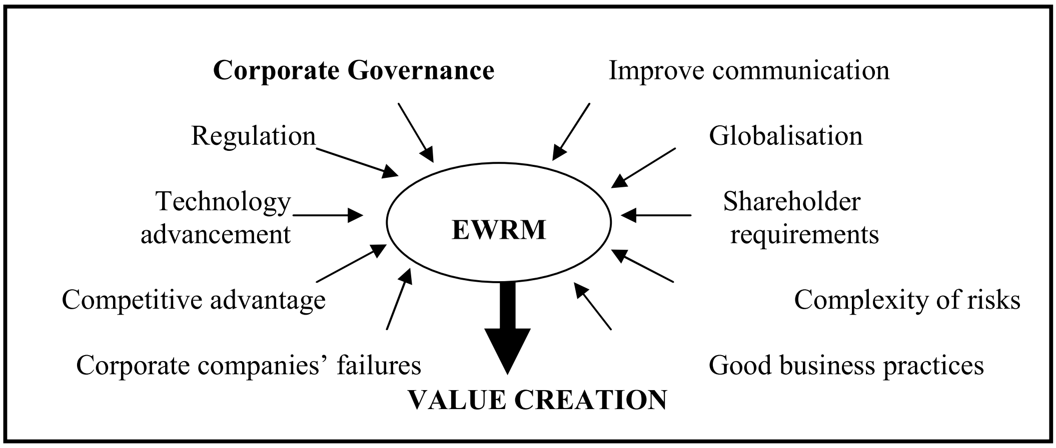
Next section and sub-sections discuss the relevant literature review regarding the EWRM concept and the issues of corporate governance and value creation as the main EWRM drivers. This followed by research methods and discussions of the findings.

2. Literature Review

The emerging EWRM approach is driven by external developments, internal demand, risk management methodology advances (Lam, 2000), recent corporate scandal and financial collapses (Dickinson, 2001; Sherris, 2007). The external and internal pressures and other risk drivers have increased the complexity and volume of risks and it has been discovered that the TRM approach is no longer appropriate to identify, assess, and respond to these complexity of risks (Beasley, Chen, Nunez, & Wright, 2006). The external driven factors that influence the EWRM implementation are corporate governance issues, institutional investor pressure, competitive advantage, technology advancement, increasing complexity of risk, increasing speed of business activity, and globalisation (Miccolis & Shah, 2000; Davenport & Bradley, 2001; Rosen & Zenios, 2001; Lam, 2003).

Corporate governance and shareholder value have both been identified as main motivational factors for corporate entities to adopt and implement the EWRM programme. EWRM is believed to "*provide a solid foundation upon which companies can enhance corporate governance and deliver greater shareholder value"* (Bowling & Rieger, 2005b, p.29). Figure 1 demonstrates the EWRM drivers, which are based on the literature review.

Figure 1: EWRM Drivers



2.1 Corporate Governance Compliance

The primary stage of EWRM is more about corporate governance and compliance (Shimpi, 2005). Berenbeim (2004) noted that compliance is considered as an essential complement to EWRM, hence an effective value based enterprise requires a strong reinforcement of compliance systems. The compliance function checks that all relevant laws are being properly complied with (Lipworth, 1997). Good corporate governance means "*putting the right internal infrastructure to manage the risk that the company faces"* (Javier, 2002).

Corporate governance is vital for effective EWRM and none of the EWRM components can be achieved without corporate governance compliance (Rosen & Zenios 2001). It normalises the relations between shareholders, board of directors, top management, and stakeholders. The integration between corporate governance, risk management, and compliance are required in order to achieve objectives and maximise shareholder value (PriceWaterHouseCoopers, 2004b). Organisations have to comply with a rule, regulation, and a standard of listing requirement regarding the corporate governance and risk management (Ballou, 2005).

Corporate governance and risk management are interrelated and they are interdependent. The stability and the improvements of the company's performance are highly depended on the effective role of both components. The element of control is one of the corporate governance roles, while a controlled environment is developed from the risk management process (Knight, 2006). As mentioned by Knight (p.11) "*corporate governance may be regarded as the glue which holds an organisation together in pursuit of its objective. Risk management provides the resilience"*. In fact, the EWRM concept and practice have been observed as *"a vital engine for strengthening corporate governance"* (Bowling & Rieger, 2005a, p.33). Thus, Knight (2006, p.11) defined corporate governance in relation to risk management as "*the way in which an organisation is governed and controlled in order to achieve its objectives. The control environment makes an organisation reliable in achieving these objectives within an acceptable degree of risk"*.

A series of company failures, corporate scandals, and frauds are among the reasons for companies to effectively implement risk management programmes. These companies' failures are caused by poor risk management and corporate governance. In the East Asian financial crisis in 1997, weak corporate governance (Mitton, 2002) and poor risk management (Jin, 2001) have been found as the main factors of companies' failure.

Thus, a strong risk management and governance has been enforced specifically in the financial industry especially after the failure of many of financial companies and other factors that increase the risks. Regulators are emphasising risk management in financial companies and requiring greater capital adequacy to protect the public of default (Banham, 2000).

In ensuring that EWRM is effectively implemented, a risk management initiative has been integrated as one of the important part of corporate governance code in many countries in the world. Most of the countries, including Malaysia, have introduced their corporate governance codes and risk management initiatives. This code of conduct provides guidelines to organisations with the expected standard of behaviour regarding fraud, customer service, stakeholders' requirements, and company's performance (Knight, 2006). Corporate governance initiatives are developed through corporate governance bodies and institutional investors. Risk management is explicitly linked with corporate governance standards and has been cited as a key responsibility of the board of directors. This regulation is applied to the public listed companies (PLCs) and some of requirements have been legislated and some are simply recommended.

In 2000, Malaysia had introduced the Malaysian Code on Corporate Governance. As the code was released, more than half (67 percent) of Directors in PLCs expected that their role to be significantly affected by the Code (PriceWaterHouseCoopers, 2001). The Code incorporates risk management as part of good corporate governance practices. The requirement on best practices of the Code is voluntary. The Revamped Listing Requirements of Bursa Malaysia was introduced in 2001 to provide a mandatory statement of compliance with the Code.

2.2 Value Creation

The function and objective of both corporate governance and EWRM is to maximise shareholder value (Sobel & Reding, 2004; Busco, Frigo, Giovannoni, Riccaboni, & Scapens, 2005). They are linked together to assist how organisations can better understand the risks, to improve and deliver its objectives and to mitigate, assess, and manage risk in an appropriate manner. Davenport and Bradley (2001, p. 29) concluded that "*the drivers of corporate governance are often key drivers of enterprise risk initiatives…benefits of corporate governance are consistent with the goal and objectives of enterprise risk management"*.

By combining corporate governance and risk management, the organisation could gain a competitive advantage, and create, protect, and enhance its shareholder value. In fact according to Bradley (2003), a good corporate governance practice is a key determinant of investor's investment. This view is supported by a key finding in the survey of corporate governance, conducted by the Kuala Lumpur Stock Exchange (KLSE) and PriceWaterHouseCoopers (2002) on the local and foreign asset management firms, security research firms, security dealers and brokers, insurance companies, and local unit trusts. The survey revealed that if further improvements were made to strengthen corporate governance, it would encourage them (respondents) to invest in Malaysia. This indirectly increases the firm's value.

Referring to a joint study by the Economist Intelligence Unit and MMC Enterprise Risk on senior finance and risk management executive, there is a significant correlation between risk management and enhanced shareholder value where it helps to improve price/earning ratios and decrease cost of capital (Banham, 2004). Also, loss avoidance and earning lower volatility have been found as among the elements of an effective enterprise risk management (PriceWaterHouseCoopers, 2004a). Companies with low earning volatility gained a higher level of market value added (Miccolis, 2000).

It is surprising to note that the findings from a study by Fatemi and Glaum (2000) on non-financial firms of PLCs differed from other findings in EWRM. The study reported that *ensuring the survival of the firm* was the most important goal, followed by *increasing the market value of the firm*. The result is contradicted the theories and other studies where maximising shareholder value is the ultimate goal in implementing risk management.

3.0 Research Methodology

The public listed companies (PLCs) which comprise of all companies in finance and non-financial sectors were selected as the population of the study because normally, EWRM is adopted by the larger organisations, such as the PLCs and multinational companies (Miccolis et al., 2001). Furthermore, the PLCs would have to exercise the best practice of corporate governance under the Malaysian Code of Corporate Governance and Bursa Malaysia Listing Requirements where risk management is part of it.

One hundred and thirty two (132) listed companies in the service sector were successfully contacted and 85 companies had agreed to participate. The questionnaires had been distributed to all the 85 companies. Table 1 below highlights some of the main reasons provided by the non-participating companies and the corresponding percentages of the companies in accordance to each of the reasons highlighted.

Table 1: Percentages of Non-participating Companies and the Reasons

Reasons	Percentages
Did not have a risk management programme.	15.6
Not prepared or disagreed to participate.	31.2
Used outsource for risk management programme.	45.4
Risk management programme is supervised by parent company.	7.8

Out of 85 questionnaires sent, 55 responded, although several follow-up procedures had been made. The number of responses is considered high compared with other studies in EWRM, such as in Tillinghast-TowerPerrins (2002), Kleffner et al. (2003a), Eick (2003), and Beasley, Clune and Hamerson (2004). From the total number of 30 non-responding companies, 43 percent of these companies gave a somewhat similar reason that they did not receive an approval from the top management concerned, where the information from the questionnaires had been viewed as confidential in nature. The overall study revealed that 40 percent of the companies had actually experienced time limitation in answering the questionnaires whilst the remaining 17 percent of the companies surveyed did not respond primarily due to the lack of resourceful personnel to answer the questionnaires.

The Statistical Package for Social Sciences (SPSS) was used to analyse the data. Analysis such as frequencies, cross tabulation, z test, Chi-square test, and independent t-test were use in this study.

4.0 Discussion of Findings

Essentially, the risk management concept and its efforts have become a growing concern among PLCs in Malaysia. From the survey conducted for this study, 94.5 percent of the PLCs agreed that risk management has become a major concern in their daily operations. The main focused are on identifying risks and prioritising processes. Based on the percentages, all companies (100 percent) from the financial sector agreed that risk management was their priority, compared to 92.7 percent from non-financial sector.

The findings indicated that the EWRM focus in financial companies were evidently higher than in non-financial companies in two activities of the EWRM programme. Firstly, all companies in financial sector mentioned that their risk management was linked into decision making process, where the proportion was 100 percent compared to only 63.0 percent in companies of the non-financial sector. Secondly, the proportion of financial companies that currently focused on internal risk reporting process was 93.0 percent compared to only 66.0 percent in non-financial companies. These were supported with the result of the z test, as illustrated in the last column of Table 2, where it indicated that the above activities were significantly different between the types of company. The p value showed that there was a strong significant difference between risk management decision making and types of company at the 1 percent significance level, and there was a significant difference between internal risks reporting process and types of company at the 10 percent significance level.

Table 2: Proportions of Current Focuses on EWRM Programme According to Type of Company

EWRM Programme	Type of Company		'P' Value
	Financial	Non- financial	
Identifying and prioritising processes.	0.86	0.88	0.843
Measuring and quantifying financial risks.	0.79	0.71	0.578
Measuring and quantifying operational risks.	0.86	0.78	0.545
Measuring and quantifying strategic risks.	0.43	0.63	0.185
Educating and communicating risk management approach.	0.71	0.73	0.902
Internal risk reporting processes.	0.93	0.66	0.051*
Integrating risk management into daily operations.	0.86	0.80	0.669
Improving the amount of information disclosure.	0.36	0.46	0.498
Managing risk in explicitly factored into decision making.	1.0	0.63	0.007***
Integrating risk and compliance functions.	0.57	0.51	0.708
Integrating risks and financing functions.	0.36	0.39	0.830
Incorporating risk into incentive compensation.	0.14	0.17	0.812
Organisational risk management changing.	0.21	0.29	0.578
More interacting with other departments	0.57	0.71	0.359

Note: ***significant at 1 percent;**significant at 5 percent; *significant at 10 percent.

Nevertheless, it must be mentioned that although the findings confirmed the result of the study by Miccolis et al. (2001) that PLCs have more tendencies to adopt the EWRM programme, in Malaysia however, the risk management requirement, as part of best corporate governance practices has become compulsory for the PLCs [which is part of the Malaysian Code on Corporate Governance (MCCG) and Bursa Malaysia Listing Requirements].

The main motivation factors for companies to adopt EWRM are corporate governance compliance. Other factors that motivate the PLCs to implement EWRM are improved decision making, increased shareholder value, receiving a mandate from the BOD, and for achieving good business practices. The finding indicates that all of the EWRM drivers in PLCs are more toward internal than external influences. It is a good sign, where it shows that the level of awareness on the importance of risk management among PLCs is increasing.

Table 3 specifies the drivers for companies to adopt EWRM programme between the types of companies. The findings showed that 85.7 percent of financial companies mentioned that compliance, decision making, corporate governance and good business practice were the driving factors for them to adopt and implement the EWRM. Improving corporate governance had been found as the highest motivating factor for the non-financial companies to adopt EWRM programme (100 percent) and this is followed by compliance (75.6 percent), mandate from BOD (75.6 percent), shareholder value (73.2 percent), decision making (68.3 percent) and good business practice (65.9 percent). The study also showed that there was an association between corporate governance and type of company at the 10 percent significance level but not at 5 percent significance level.

Table 3: Percentages of PLCs with EWRM Drivers According to Type of Company

EWRM Drivers	Percentage within Type of company		'P' Value
	Financial	Non- financial	
Corporate governance	85.7	100.0	0.061*
Mandate from BOD	57.1	75.6	0.165
Shareholder value	78.6	73.2	0.494
Technology	7.1	4.9	0.594
Improved decision making	85.7	68.3	0.182
Improved communication	21.4	14.6	0.413
Globalisation	7.1	9.8	0.623
Competitive pressure	7.1	7.3	0.735
Stakeholder pressure	0.0	4.9	0.552
Good business practice	85.7	65.9	0.141
Catastrophic event	7.1	7.3	0.735

Note: ***significant at 1 percent, **significant at 5 percent, *significant at 10 percent

Corporate governance compliance is vital mainly at the initial stage of EWRM implementation. In fact, improved corporate governance is the most selected reason for all non-financial companies (100 percent) to adopt and implement EWRM and in financial companies it is among the main motivation factors. The efforts toward EWRM approach among PLCs began after the issue of the Malaysian Code on Corporate Governance in 2000, where risk management is part of it. Hence, the findings seem to be consistent with the related literature on the importance of corporate governance compliance (see Rosen & Zenios, 2001; Berenbeim, 2004; Shimpi, 2005; Ballou, 2005).

The findings are also aligned with the government efforts and Bursa Malaysia Listing Requirements, which is to improve corporate governance. Indeed, the introduction of the Malaysian Code on Corporate Governance and the requirement from Bursa Malaysia regarding the risk management have created awareness, more interest, and focus among PLCs to adopt and implement EWRM. This is in line with the findings from Kleffner et al. (2003b).

In PLCs, 94.5 percent of the companies believed that EWRM practices have an effect on value creation. The result is consistent with those other studies in this area (see Miccolis et al., 2001; Barton et al., 2002; Tillinghast-TowersPerrin, 2002; PriceWaterHouseCoopers, 2004b). From the findings, it was found that EWRM helps the companies to manage bottom line and protect shareholder value, where its implementation indirectly affects the firm value. The conclusion of the findings supports the previous literature by PriceWaterHouseCoopers (2002).

However, the study found that the successes of EWRM implementation in the financial companies are not only being driven by corporate governance compliance. This was confirmed in the above finding, where 85.7 percent of financial companies pointed out that good business practice and improved decision making were driving factors for them to adopt and implement EWRM, as compared to only 65.9 percent and 68.3 percent respectively, in non-financial companies. The financial companies are more focused on internal risk reporting in their daily risk management activities and able to link it into decision making process. In order to sustain their success, the financial companies are forced to effectively and successfully practise the risk management as mentioned by Banham (2000).

In other findings, the overall mean scores of the indicators on shareholder value among financial companies were higher than in non-financial companies. This indicates that financial companies are more concerned, focused, and active in practising the risk management programme than non-financial companies. Table 4 shows the mean analysis on shareholder value and type of company, and the result of the independent t-test.

Table 4: Mean Analysis on Shareholder Value between Types of Company

Shareholder Value	Type of Company		'P' Value
	Mean Score Financial	Mean Score Non-financial	
Revenue growth	3.93	3.75	0.440
Earnings growth	4.07	3.78	0.198
Return on capital	4.00	3.80	0.403
Earning Volatility	4.14	3.90	0.181
Reduce expenses	3.71	3.80	0.731

Table 5: Mean Analysis on the Purpose of EWRM Implementation between Type of Company

Objective	Type of company		'P' Value
	Mean Scores Financial	Mean Scores Non-financial	
Create value	4.36	4.10	0.207
Survival	4.36	3.80	0.034*

*Significant at 5 percent

In addition, the financial companies, which their EWRM practices are, considered more advance compared to non-financial companies cited that ensuring the survival of the company and creating value are the motive of EWRM adoption and implementation Even though the mean scores of creating value and surviving were equal in financial companies, the result of the independent t-test showed that only survival had a significant difference between company types at the 5 percent significance level (see Table 5). The financial companies had agreed more that the survival was an objective of the companies to implement effectively the EWRM programme, than in non-financial companies.This supports the findings from Fatemi and Glaum (2000).

5.0 Conclusion

The research has made a significant contribution to academic risk management literature and knowledge, which is so far, most of the literature, has been concurred by the consultant firms and professional bodies. Furthermore, the research has proved the empirical evidence on the topic of EWRM. The evidence from this study recommends that in order to sustain and continuously grow, the companies must be forced to effectively and successfully practice risk management. The adoption and successful implementation of EWRM are not only driven by corporate governance and compliance, but also driven by good business practices, value creation, and survival. In brief, the importance and the reimbursement of risk management practices to the companies' performances and value creation have encouraged the companies to continuously improve their risk management efforts.

References

Ballou, B. 2005. "A building-block approach for implementing COSO's enterprise risk management- integrated framework". *Management Accounting*, vol.6, pp. 1-10.

Banham, R. 2004. "Enterprising views of risk management". *Journal of Accountancy,* vol.197, no. 6, pp. 65-67.

Barton, T.L., Shenkir, W.G., & Walker, P.L. 2002. *Making enterprise risk management pay off: How leading companies implement risk management*. New Jersey: Financial Times/Prentice Hall PTR, Pearson Education, Inc.

Beasley, M., Chen, A., Nunez, K., & Wright, L. 2006. "Working hand in hand: Balanced scorecards and enterprise risk management. *Strategic Finance*, pp. 49-55.

Beasley, M. S., Clune, R., & Hermanson, D. R. 2004. "Enterprise risk management and the internal audit function". Retrieved April 16 2005, from http://www.mgt.ncsu.edu/faculty/accounting/workshop%20papers/Beasley%20workshop%20paper.pdf.

Berenbeim, R. 2004. "The value based enterprise: A new corporate citizenship paradigm". Paper presented at The Asia Foundation's Hong Kong Symposium on Corporate Citizenship and the Taipei Corporate Citizenship Forum, held in Hong Kong, October 27-29, 2004

Bowling, D. M., & Rieger, L. 2005a. "Success factors for implementing enterprise risk management". *Bank Accounting and Finance,* 18(3), 21-26.

Bowling, D. M., & Rieger, L. A. 2005b. Making sense of COSO's new framework for enterprise risk management. *Bank Accounting and Finance,* Vol.18, no.2, pp. 29-34.

Bradley, N. 2003. Corporate governance: A risk worth measuring? Selected Issues in Corporate Governance: Regional and Country Experiences, New York and Geneva: United Nation Publication.

Busco, C., Frigo, M.L., Giovannoni, E., Riccaboni, A., & Scapens, R. W. 2005. "Beyond compliance: Why integrated governance matters today". *Strategic Finance,* Vol. 87, no.2, pp. 35-43.

COSO. 2003. “Enterprise Risk Management Framework: Draft”. Retrieved September 17 2005, from http://www.enterprise_wide_risk_management+&+De+Loach+html.

Davenport, E.W. & Bradley, L.M. 2001. “Enterprise risk management: A consultative perspective”. Retrieved August 28, 2005, from http://www.casact.com.

Deloach, J.W. 2000. *Enterprise-wide risk management: Strategies for linking risk and opportunity.* London: Financial Times, Prentice Hall.

Dickinson, G. 2001. “Enterprise risk management: Its origins and conceptual foundation”. *The Geneva Papers on Risk and Insurance, Vol.* 26, no.3, pp 360-366.

Doherty, N.A. 2000. *Integrated risk management: Techniques and strategies for managing corporate risk*. New York: McGraw-Hill, Inc.

Eick, C.L.M. 2003. “Factors that promote effective risk management at universities classified by the carnegie system”*.* PhD Dissertation: Auburn University, Alabama. Retrieved June 16 2005, from http://www.lib.umi.com.

Fatemi, A. & Glaum, M. 2000. “Risk management practices in German firms”. *Journal of Management Finance,* Vol. 26, no.3, pp 1-17.

Finance Committee on Corporate Governance 2000. Malaysian Code on Corporate governance: Securities Commission.

Javier, R. S. 2002. “Enterprise-wide risk management - The driver of corporate governance”. Retrieved August 5, 2005, from http:/www.pwcglobal.com/

Jin, F. E. 2001, June 1. “Poor risk management causes ailing firms' downfall”*. Business Times.* January 6 2001.

Kleffner, A.E., Lee, R., & McGannon, B. 2003a. “The effect of corporate governance on the use of enterprise risk management: Evidence from Canada”. *Risk Management and Insurance Review*, Vol. 6, no.1, pp 53-73.

Kleffner, A. E., Lee, R., & McGannon, B. 2003b. “Stronger corporate governance and its implications on risk management”. *Ivey Business Journal,* Vol. *67, no.* 5, pp. 4-10.

KLSE & PriceWaterHouseCoopers. 200). *Corporate governance: 2002 Malaysian survey of PLCs*: BSKL & PWHC.

Knight, K.W. 2006. "Risk management a journey not a destination*".* Paper presented at the Executive Meeting 2006. Hotel Do Frade & Golf Resort, Angra Dos Reis, Brazil. 20th May 2006.

Lam, J. 2000. "Enterprise-wide risk management and the role of chief risk officer". *eRisk*. March, pp. 1-5.

Lam, J. 2003. *Enterprise risk management from incentives to controls*. Canada: John Wiley & Sons, Inc.

Leech, T. J. 2002. "Risky business". *BizEd*, (July/August): pp. 52-55.

Liebenberg, A.P., & Hoyt, R.E. 2003. "The determinants of enterprise risk management: Evidence from the appointment of chief risk officers". *Risk Management and Insurance Review,* Vol. 6, pp. 37-52.

Lipworth, S. 1997. "Risk management at the heart of good corporate governance". *Management Accounting,* Vol. 75, no. 1, pp. 24-25.

Mallin, C. 2003."The relationship between corporate governance, transparency and financial disclosure". Paper presented at the United Nations Conference on Trade and Development. United Nation Publications.

Meier, R.L. 2000. "Integrating enterprise -wide risk management concepts into industrial technology curricula". *Journal of Industrial Technology*, Vol. 16, no. 4, pp. 1-15.

Miccolis, J. 2000. "Enterprise risk management: What's beyond the talk?" Retrieved February 12, 2005, from http://www.IRMI.com

Miccolis, J.A., Hively, K., & Merkly, B.W. 2001. *Enterprise risk management: Trends and emerging practices*. Florida: The Institute of Internal Auditors Research.

Miccolis, J., & Shah, S. 2000. "Enterprise risk management: An analytic approach", *Tillinghast-TowersPerrin Monograph*. Retrieved April 8 2005, from http://www.tillingast.com.

Mitton, T. 2002. "A cross-firm analysis of the impact of corporate governance on the east Asian financial crisis". *Journal of Financial Economic.* Vol. 64, pp. 215-241.

Mobius, J.M. 2002. “Issues in global corporate governance. In L.C. Keong (Ed.), *Corporate governance: An Asia-Pacific critique”.* pp. 39-56. Hong kong: Sweet and Maxwell Asia.

PriceWaterHouseCoopers. 2001. “Board of directors: A survey on remuneration & practices 2001 in Malaysia”. Retrieved September 3, 2005, from http//:www.pwcglobal.com.

PriceWaterHouseCoopers. 2002. “Operational risk: The new frontier”. Retrieved October 12, 2005, from http://www.cfr.jims.com.ac.uk

PriceWaterHouseCoopers. 2004a. “Enterprise-wide risk management for the insurance Industry: Global study”, PriceWaterHouseCoopers. Retrieved June 13, 2005, from http:www.pwcglobal.com

PriceWaterHouseCoopers. 2004b. “Integrity-driven performance: A new strategy for success through integrated governance, risk and compliance management”. PriceWaterHouseCoopers. Retrieved June 13, 2005, from http:www.pwcglobal.com

Rosen, D., & Zenios, S.A. 2001. *Enterprise-wide asset and liability management: issues, institutions, and models*. Nicosia, Cyprus: HERMES Center on Computational Finance & Management, University of Cyprus.

Sherris, M. 2007. “Enterprise risk management”. Paper presented at the 11th Annual APRIA Conference, National Chengchi University, Taipei, Taiwan. July 22-25, 2007.

Shimpi, P. 2005. “ERM from compliance to value”. *Financial Executive,* Vol. 21, pp. 52-55.

Sobel, P. J., & Reding, K. F. 2004. “Aligning corporate governance with enterprise risk management”. *Management Accounting Quarterly,* Vol. 5, no. 2, pp. 29-37.

Tillinghast-TowersPerrin. 2002. “Enterprise risk management in the insurance industry: 2002 benchmarking survey report”. Retrieved March 24, 2005, from http://www.tillinghast.com