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LITERATURE REVIEW: ON ENTERPRISE RISK MANAGEMENT

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ABSTRACT

The current study intends to examine the previous researches on Enterprise Risk Management (ERM). On examining the previous researches it is evident that there has been very limited work done on ERM. Furthermore, both primary based and secondary based approaches adopted by the studies which are taken into account shall be reviewed in this paper. It is noted that the previous studies based Risk Management (ERM) have mostly used primary data for research purposes. The scope of the previous studies are inclusive of variables such as financial institutions, construction, consumer products, service sector, technology, industrial products, plantation, and trade and services, and these studies used interviews and questionnaires through mail. Thereafter, evidently studies based on secondary data sources are noted to be inclined on companies based on industrial products, of which the data gathered is from the annual reports.

Key words: Literature Review, Enterprise Risk Management, Primary Data, Secondary Data.

INTRODUCTION

The Enterprise risk management is, in core; seemingly it is recent as well as persistently used term globally in the current time so as to refer risk management approach. As elaborated by Kawamoto (2001), the overall risks in an enterprise is dealt collectively than individually and hence this is indicative of one of the core features of ERM. Furthermore, the term 'enterprise' in context to Enterprise Risk Management (ERM) depicts a distinct meaning in contrast with Traditional Risk Management (TRM). In the views of Meulbroek (2002) the meaning of 'enterprise' is that to integrate risks of diverse kinds; with the help of integrated tools and techniques which alleviates the risks and further connects across on business levels as compared to Traditional Risk Management. Thereafter, the term integration in context to ERM as detailed by Meulbroek (2002), refers to employing targeted financial instruments along with adjustments in capital structuring as well as modification of firm's operations.

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Furthermore, on examining various researches conducted by scholars such as D'Arcy (2001); Kleffner et al. (2003); Hoyt and Liebenberg (2006); Manab et al. (2007) and Yazid et al. (2009) who are of the opinion that the name ERM is alike with Integrated Risk Management (IRM), Business Risk Management (BRM), Strategic Risk Management (SRM), Enterprise-Wide Risk Management (EWRM), Corporate Risk Management (CRM), and Holistic Risk Management (HRM).

Furthermore, Enterprise Risk Management (ERM) is defined as an integrated structure which involves managing of all business related risks such as market risks, credit risk, economic capital, operational risk, and risk transfer so as to upgrade the value of the firm as defined by Lam (2000). Whereas, on the other hand Makomaski (2008) refers to Enterprise Risk Management as a tool for decision-making in cases of companies holding varied business goals. Therefore, Walker et al., (2003) defines ERM as an integrated and a disciplined method which exists in organizations and facilitates systematic managing of firm related risks in an organization and helps in achieving the objectives of an enterprise. Therefore, in context to the above, the Enterprise Risk Management is detailed differently by various scholars with a persisting integrative feature of it in common mentioned in each of the definitions given by the scholars above summarizes the significance of ERM.

ENTERPRISE RISK MANAGEMENT, ITS ORIGIN AND DEVELOPMENT

D'Arcy (2001) suggests that the emergence of risk management roots back to 1950s by a group of professors, Robert I. Mehr and Bob hedges along with other innovative insurance professors. Furthermore, in the year 1963 the first text referring to risk management was published titled as –"Risk Management and the Business Enterprise" with an aim to bring about an increment in the productivity and efficiency of the enterprise specifically focusing on pure risks and speculative risks.

However, in the year 1990, evidently in the United States the usage of financial tools was prevalent such as 'futures' and 'forwards'. During this time notably risk management was not confined to hazard risks but dealt more with risks related to finances, strategies and operational risks. Furthermore, according to evidences managers efficiently were known to mitigate risks more proactively as a result of pressure imposed by shareholders' and stakeholders' end as a push to take more tasks rather than buying insurances to combat against the uncertain loses or financial crisis. Thereafter, as a result managers were seen to

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acquire better management techniques and better risk information Skipper and Kwon (2007).

In reference to risk management, Mango (2007) is of the view that due to the inability to well define and understand it one could say that strategic risk has no certain definition. He furthers the emergence of risk management could be of the result of regulatory technological innovations and political impediments. Whereas, according to Li and Liu (2002) the uncertainty of loss of organization in total, where the loss could either be profitable or non-profitable can be stated as strategic risks.

In context to operational risks which is defined by Basel Committee (2001), as the risk of direct or indirect losses acquired either due to the lack or failure of internal processes, people and systems or due to other related external events. Whereas, the further insight upon operational risk, by the committee, evaluates that operational risk is more related to internal problems such as employee fraud, segregation of duties, product flaws, and information risks.

In late 1990s the emergence of Enterprise Risk Management was evident due to the pertaining multiple perspectives on risks which resulted in a common conclusion stating that 'risk management' (Traditional Risk Management) is difficult to be managed separately and hence the need of it to be managed aesthetically rose. The risks faced by organizations are due to various factors the multiplicity of the risks existing in an organization are operational risk, strategic risk, political risk, technology risk, legal risk, financial risk, reputational risk and human capital risk. However, notably the literature concerns mostly with the risks namely of four types such as financial risks, hazard risk, operational risk, as well as strategic risk (D' Arcy, 2001; CAS, 2003; Cassidy, 2005). Furthermore, Cassidy (2005) assessed the existence of Enterprise Risk Management in context to organizational activities such as planning, organizing, leading, and controlling so as to minimize firms' major risks such as financial, strategic and operational risks.

PRIMARY DATA ANALYSIS

A study by Yusuwan et al., (2008) which focuses on the practices adopted by risk management taking into account the construction project companies specifically in Klang Valley of Malaysia. The study was conducted to identify the level of awareness of risk management, furthermore, to examine the policy adopted in order to deal with risks in a construction project, and lastly to identify the problems and challenges faced in the implementation of risk management. The study

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employed questionnaire survey and interviews. The respondents comprises of 27 companies from public and private sectors that are operated in Klang Valley of Malaysia. The study examines awareness and perception of risk management and is conclusive of that 44.4 percent of people are aware of risk management have heard of it occasionally, 29.6 percent have heard of it and have attended training, 14.8 percent have practiced risk management and 11.1 percent has never heard about risk management at all. Furthermore, 51.9 percent of the respondents believed that risk management could add value to daily work, 33.3 percent believed that risk management was useful in time of crises even it only benefits the organization. Therefore, from this study, we can conclude that risk management affects productivity, performance, quality and project budget and that risk management is suitable to apply for project with certain characteristics such as new technology and is suitable to company during unstable political conditions.

Rasid and Rahman (2009) investigated management accounting and risk management practices in financial institutions in Malaysia using mail surveys. These were sent to 106 financial institutions listed under Malaysian Central Bank, consisting of commercial banks, Islamic banks, merchant/investment banks, discount houses, development financial institutions and insurance companies. The questionnaires were mailed to the Chief Financial Officer or the most senior position in the finance department. Of this, 76 respondents or 68 percent responded. The study employed eight variables consisting of job designation, length of time holding current position, types of services, number of employees, annual revenue, annual total assets, firm's age, and ownership structure. The study found that size was not related to the extent of ERM development and concluded that financial institutions tend to adopt ERM because of the requirements set by regulators.

Thereafter, a research done by Manab et al., (2010) focused on the factors and the success of Enterprise Wide Risk Management (EWRM) implementation with corporate governance compliance and value creation in for profit companies in Malaysia. The study selected 132 listed companies in the service sector and only 85 companies agreed to participate. The study chose two types of company, namely financial companies and non-financial companies. Thereafter, 11 EWRM drivers were employed in the study: corporate governance; mandate from shareholder value, BOD; improved decision making; technology; improved

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communication; good business practice; globalization; competitive pressure; stakeholder pressure; and catastrophic event. The study found five main drivers which contribute to the success of EWRM for financial and non-financial companies. These were corporate governance, mandate from BOD, shareholder value, improved decision making and good business practices.

Daud et al., (2010) investigated the relationship between quality of Chief Risk Officer (CRO) and Enterprise Risk Management (ERM) in Malaysia. The study focused on the level of Enterprise Risk Management adoption within Malaysian companies and the quality of Chief Risk Officer in implementation of Enterprise Risk Management. The questionnaires were sent to 500 companies through main from seven types of industry such as Technology, Industrial Product, Property, Consumer Product, Plantation, Trade and Services and Construction. Among these, only 89 respondents participated in the study. The study focused on four levels of adoption of Enterprise Risk Management: complete ERM in place; partial ERM in place; planning to implement in ERM; and (d) investigating to adopt ERM. The results of the study showed that only 43 percent of various companies have complete ERM program while 57 percent were considered as partial. The study also found that the quality of CRO and ERM were significant indicating that CRO is an important factor for companies to adopt ERM. This section will discuss brief on the development of ERM especially the developing factors that impact companies to shift from risk management practices (Traditional Risk Management) to Enterprise Risk Management. Therefore, the discussions will aim at the theoretical perspectives; academic and professional bodies.

SECONDARY DATA ANALYSIS

According to sources Liebenberg and Hoyt (2003) are considered to be the inventors of the study of ERM which successfully taken secondary data into account. The notably focuses on the determining factors which are known to influence the companies to practice Enterprise Risk Management. The major objective of the study is to specifically forward to the existence of Chief Risk Officer in the implementation of Enterprise Risk Management. Whereas the other significant dynamic factors that thrusts the implementation of ERM which is also evidently discussed in the study. Thereafter, the study facilitates the identification of two major factors, internal factors which refers to issues related to the maximization of shareholders wealth and external factors which comprises of globalization, corporate governance and

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technological progress. Therefore, in all six hypotheses were formulated for the study:

H1: firms with greater earnings and stock price volatility are more likely to appoint CRO.

H2: firms that are more highly leveraged are more likely to appoint a CRO.

H3: firms with greater growth opportunities are more likely to appoint a CRO.

H4: firms that are more financially opaque are more likely to appoint a CRO.

H5: firms with a higher percentage of institutional shareholder ship are more likely to appoint a CRO.

H6: firms that have subsidiaries in the United Kingdom or Canada are more likely to appoint a CRO.

Variables engaged in the study were eight in number: average size; earnings volatility financial services dummy; average leverage; stock price volatility; average market-to-book ratio; average percentage of institutional ownership; and U.K/Canadian subsidiary dummy. The final sample consisted of 26 U.S. firms which were gathered from Lexis-Nexis, Dow Jones and PR Newswire. Logit regression approach is employed in the study since the independent variable was a dummy variable. The results of their study showed the prominence to appoint CRO in order to lessen irregular information, and the most important was the role of CRO in applying and managing the ERM program. The results were also indicative that firms with greater financial leverage were more likely to appoint a CRO and size was also found to be substantial to ERM.

Thereafter, in another study, Hoyt and Liebenberg (2006), which examines the determinants of Enterprise Risk Management for 275 insurance companies based in United States during the period of 1995 to 2004. The aim of the study was to determine the factors associated with insurance companies so as to exercise Enterprise Risk Management and to assess the relationship between Enterprise Risk Management and value of the firm. The study found that, out of 275 companies, only 166 firms were could be considered for analysis. The study adopted CRSP/COMPSTAT as a primary database, followed by Factiva, Thompson, financial reports, newswires, and other media for evidence of Enterprise Risk Management activities. Using Probit regression, the study employed five independent variables: percentage of institutional ownership, size; international diversification dummy; industrial diversification dummy; and life insurance dummy. Enterprise Risk Management noted as dummy 1 = user, 0 = else was the independent variables. The results of the study indicated that

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size, institutional ownership and international diversification were important in determining ERM adoption.

Furthermore, according to Pagach and Warr (2007) who assesses the factors that influenced firm to adopt Enterprise Risk Management? This study was quite alike with Hoyt and Liebenberg (2006) but they seem to improve in terms of approach used in the study. The study had larger sample of ERM adopters, more variables and different model used to test the data. The study employed data from 1992 to 2004 for all firms listed in COMPUSTAT. They focused mostly on banks and utilities companies. To apprehend for firms that appoint Chief Risk Officer (CRO), the study used business archive of LEXIS-NEXIS. The variables were grouped into four categories. Firstly, financial characteristics consisted of leverage, cash ratio, earnings volatility and size. Secondly, asset characteristics consisted of capacity and growth options. Thirdly, market features consisted of standard deviation of the firm's daily returns over the year (SDRET) prior to the hiring of the CRO. Fourthly, managerial incentives consisted of Vega and Delta ratio as a proxy of the CEO's risk taking incentives. The study also used number of operating segment of the firm, institutional ownership, institutional investors and firm size as control variables. For the model, the study used hazard model (Cox Proportional Hazard Model) which was commonly used in medical research. The results of their study indicated that increased in leverage at 10 percent will increase 7.8 percent for companies to hire CRO. In addition, the study found that 10 percent increased in size will increase 27 percent for companies to hire CRO, increased in 10 percent of earnings will result in 4.7 percent likelihood companies to hire CRO.

However, Hoyt and Liebenberg (2008) advanced their study done in 2006 by improving the previous model i.e. probit regression to maximum-likelihood treatment effect to estimate the determinants of company that practiced Enterprise Risk Management (ERM). The study also extended the time period, from 1995 to2005 (previously up to 2004). Specifically, the study only concentrated in 2000 to 2005, in terms of ERM activity. The sample of the study consisted of 275 insurance which were gathered from CRSP/COMPUSTAT database. To ensure the activity of ERM for firms was valid, detailed search from financial reports, newswires, Factiva, Thompson were used. Eight independent variables were employed as function of ERM (ERM = 1, as a dummy variable for companies that involved in ERM). These variables consist of institutional

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ownership, size), industrial diversification dummy, international diversification dummy, life insurance dummy, leverage, intra-industry diversification and reinsurance used. In terms of number of firms with ERM activity, there were 24 companies or 19.2 percent out of 125 companies engaged in ERM. Furthermore, for an appointment of CRO, out of 125 companies, the study found that 15 companies had CRO, where 8 of these companies announced the appointment of CRO.

The results of the determinants of ERM evidently shown that larger firms were more likely to engage in ERM as compared to the smaller firms. This was maintained by force from institutional owners (institutional ownership) for companies to engage in ERM. Whereas, the other independent variables i.e. leverage and reinsurance were negatively and significantly related to ERM. According to Yazid et al. (2008) who focused on a cross-sectional study on foreign exchange risk management by Malaysian manufacturers. These companies were selected as they were significantly into export and import activities. From 152 companies, 100 companies were selected randomly. The data was collected from annual report for 2005. The study mainly focuses on foreign exchange risk management (FERM) . The results of the study found that 45 percent of the companies were considered to be User (FERM) and 55 percent as a Non-User. The study also evaluated two factors which influenced companies to involve in risk management, i.e. assets and employees. Furthermore, from the study it was found that 18 percent of users of risk management have adopted ERM framework in their strategic business operation.

CONCLUSION

The current study aims at the discourses over the definitions of ERM, its emergence and its gradual development happened over the years. In addition, previous studies that are related to the determinants of companies that practiced Enterprise Risk Management (ERM) are also discussed. The paper starts with the definition of ERM and its development. The further section discusses researches based on two approaches such as on primary data which comprises of interviews and mail questionnaire; and further researches based on secondary data. From the previous study it was found that most of the studies significantly conducted in Malaysia on risk management or ERM used primary data. The scopes of the previous studies in Malaysia were construction, financial institutions, service sector, technology, industrial products, consumer products, plantation and trade and services, and these studies used mail questionnaire and interviews. While from the secondary data

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study, the focus was only on industrial product, of which data was gathered from annual reports.

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