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Implementation status and determinant of implementation of Enterprise Risk management in India with reference to Nifty companies

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Abstract

Enterprise risk management (ERM) has been the topic of increased management attention due to the failure of the traditional risk management and major corporate collapses in last 2 decades. Despite the increased attention, ERM implementation across the globe remains immature and India is no exception to this. Further, little research has been done in India to understand the status and determinants of ERM implementation.

This study examines the status of ERM implementation in the companies listed in CNX Nifty and determinants of ERM implementation for the said companies. The study shows that considerable increase is seen in the Indian companies towards the implementation of the ERM. With regard to the determinants of ERM implementation, the findings are consistent to the previous work in this area, we find that the earning for the company have a strong impact on the ERM implementation. Further, firms in financial sector and Public sector undertaking have a high rate of ERM implementation.

Key words

Enterprise Risk Management (ERM), ERM implementation, Determinants of ERM implementation.

Introduction

First decade of the 21st century evidenced a major corporate collapses. This made the government and corporate leaders across the world to rethink on the management styles and control which need to be built with in the organizations to ensure that there are no corporate failures in the future. The major requirement was to have a collaborative risk management system which integrates all the functions of the organization to identify the risk on a timely basis. One of the management tool which was developed to satisfy the said need is the Enterprise Risk Management (ERM). ERM is an integrated and holistic approach of managing risk which the organization is exposed. ERM differs from traditional risk management, where organizations manage individual risks on an isolated basis and where risk interactions are not considered on an enterprise level (Aabo et. al., 2005).

Committee of Sponsoring Organizations of the Treadway Commission (COSO) funded by five main professional accounting associations and institutes headquartered in the United States namely the American Institute of Certified Public Accountants (AICPA), American Accounting Association (AAA), Financial Executives International (FEI), Institute of Internal Auditors (IIA) and the

Institute of Management Accountants (IMA), published "Enterprise Risk Management-Integrated Framework" in 2004 defines ERM as a

"…process, effected by an entity's board of directors, management, and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

The Institute of Internal Auditors (IIA) is a guidance-setting body for Internal Audit, defines "Enterprise risk management is a rigorous and coordinated approach to assessing and responding to all risks that affect the achievement of an organization's strategic and financial objectives."

The Casualty Actuarial Society (CAS) is a global professional society of actuaries, defines "ERM is the process by which organizations in all industries assess, control, exploit, finance and monitor risks from all sources for the purpose of increasing the organization's short and long term value to its stakeholders.

The Risk and Insurance Management Society, Inc. (RIMS) a professional association founded in 1950 dedicated to advancing the practice of risk management. Defines, "ERM is a strategic business discipline that supports the achievement of an organization's objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as an interrelated risk portfolio.

From the above definitions, it is evident that the ERM is an integrated framework with a main goal of achieving strategic and financial objectives fixed by the management. The said objective is achieved by identifying the risk and opportunity not only at the individual level but also at consolidated level. It also considers external risk faced by the organization along with the internal risk. After identifying the different risks the same is analyzed, responded and monitored.

Hence, Theoretically the ERM will assists the management in achieving the strategic and financial objectives. Considering that the ERM has both short term and long term benefit, research has to be done extensively to substantiate the benefits derived by the management. This will facilitate other companies to decide whether to implement the ERM. In this regard many studies are being conducted across the world. The research being conducted can be broadly classified into

- Framework of ERM
- Implementation status of ERM
- Determinants of implementation of ERM
- Value creation (Short term and long term) from ERM
- Interrelationship of ERM with other functions (namely internal audit, controlling, SOX, balance scorecard etc.,.)

The research in India on the ERM is still in infancy stage. There are only few studies undertaken in India to on the said subject. One of the prominent is the case study done by Conference Board in 2008 titled "Assessing the climate for ERM in India" (Hexter et al.) and another prominent

study done by Indian Institute of Management Calcutta in 2013 titled "An Empirical Investigation into the Enterprise risk management in India. (Ghosch, Arpita)
This study is done to supplement the above research in the area of Implementation status of ERM and determinants of implementation status of ERM in India. The result of this study will also be insightful to the key stake holder of the company namely regulators and shareholders who are interested in the risk management of the company.

Literature review
There are extensive research being done on ERM. Literature review under this study will be restricted to the 2 areas namely the implementation status of ERM and the determinants of ERM. Further, the literature review will also include the 2 prominent research done on ERM in India.

Implementation status of ERM:
ERM Initiative at North Carolina State University on behalf of the American Institute of CPAs Business, Industry & Government Team conducts research on the implementation of ERM on a periodic basis. Research during the year end of 2013 revealed that the percentage of organizations that claim to have a "complete formal enterprise-risk management process in place" has increased since the first year of our study (2009). In 2009, only 8.8% of organizations surveyed claimed to have complete ERM processes in place; by 2013, 24.6% made that claim. The fact that only a quarter of organizations surveyed have complete ERM processes in place suggests that there continues to be significant room for risk oversight improvement across most entities. Despite that, almost half of all organizations in the survey have no ERM processes in place, which is surprising given that nearly 60% of organizations describe their risk culture as "strongly risk averse" or "risk averse" and over two-thirds of organizations surveyed have faced significant operational surprises.

The Conference Board (2008) conducted case study on four Indian Based multinational companies and found that three of the four companies have adopted ERM. The study also revealed that Board members at those companies believe that a comprehensive approach to managing risk is one way to satisfy listing requirements across geographies.

Determination of ERM implementation:
Paape, Leen and Spekle, Roland (2011) based on survey found that publicly traded firms and organizations with a Chief Risk officer (CRO) and audit committee have more mature ERM systems, whereas the applicability of governance regulation does not appear to influence ERM adoption. Other finding of the study are 1. larger organizations and firms in the financial sector tend to have more sophisticated ERM systems, 2. no auditor-related influences, suggesting that in the Netherlands, Big 4 and non-Big 4 audit firms are equally effective in promoting high quality ERM among their clients. 3. Found a positive association between the extent of ERM implementation and perceived ERM effectiveness. 4. Found no evidence of an effect of institutional ownership.

Kurt Desender (2007) examined 100 pharmaceutical companies listed in NASDAQ and found that position of the CEO in the board has an important influence on the level of ERM implementation and Firms with an independent board and a separation of CEO and chairman show the highest level of ERM.

Pagach, D., and R. Warr (2011) Using CRO hires as a proxy for ERM adoption found that firms that are larger, more volatile, and have greater institutional ownership are more likely to adopt ERM. In addition, when the CEO has incentives to take risk, the firm is also more likely to hire a CRO. Finally, banks with lower levels of Tier 1 capital are also more likely to hire a CRO.

Arpita Ghosh (Indian Institute of Management Calcutta) 2013, studied the determinants of ERM adoption for top 100 National Stock Exchange Indian companies and found that firm size, leverage, profitability, and firm complexity influence the likelihood of ERM adoption.

Hypothesis

Globally, regulators are pressing firms to improve risk management and risk reporting (Collier, Berry & Burke, 2006). Examples of regulatory pressure include the NYSE Corporate Governance Rules and the Sarbanes Oxley Act in the US, and the Combined Code on Corporate Governance in the UK. Adoption of the principles of these codes is typically mandatory for publicly traded firms. In India, two governing bodies for listed companies namely Companies Act 2013 and SEBI have specific requirement to comply with ERM. Section 134 of Companies Act requires that the Board of Director's report must include a statement indicating development and implementation of a risk management policy. Also, the revised Clause 49 of the Listing Agreement from SEBI widens the requirements for risk management. It requires the board to be responsible for framing, implementing and monitoring the risk management plan for the company. It has often been argued that ERM initiatives within organizations arise in response to regulatory pressure (e.g. Collier et al., 2006). Because this pressure is largest for publicly listed firms more likely to adopt ERM.

H1: Listed companies in India have implemented ERM

The next questions the study examines relates to determinants of ERM implementation.

Liebenberg & Hoyt (2003) argue that pressure from shareholders is an important driving force behind ERM adoption (cf. also Mikes, 2009). Global MNC companies being listed in many stock exchanges will be mandated to have a fully developed ERM system. Hence they tend to implement the same in the Company they own in India.

H2: Indian Listed Companies owned by Global MNC have implemented ERM

The implementation of ERM is believed to be more in the private sector than that of the Government sectors. However, the scenario has changed and the public sector sees the importance of the good governance and ERM to facilitate the same. (Woods, 2009).

H3: Public sector undertaking has implemented ERM systems

Adoption of ERM requires significant amount of resource commitment. Companies will be able to commit towards the implementation of ERM provided they are having higher income and higher EPS. Further, higher the income of the company, higher will be the risks faced by them and higher probability of implementing ERM to manage the Risk.

H4: Companies with higher earning/EPS have implemented of ERM

Another internal factor to influence ERM development is the age of the company. Older the company, the more matured will be the management of the company. Added to this the company would have seen many ups and downs in the market and would have put the Risk management system in place to face the future risks.

H5: Age of the company determines the ERM implementation

It is often proposed that larger auditing firms (i.e. the Big 4) provide higher audit quality. It is based on the assumption that the company which appoints high quality auditors are also more committed to good governance and risk management (Beasley et al., 2005):

H6: Engagement of a Big 4 audit firm is positively associated with the degree of ERM implementation.

Companies in the financial services industry are more likely to embrace ERM (Beasley et al., 2005; Kleffner et al., 2003; Liebenberg & Hoyt, 2003). Since the release of Basel II, banks experience strong incentives to adopt ERM, as that may help to reduce capital requirements (Liebenberg & Hoyt, 2003; cf. also Mikes, 2009). In addition, ERM may serve as a valuable commitment device in the banking industry, lowering the cost of capital (Liebenberg & Hoyt, 2003).

H7: Firms in the financial services industry have more fully developed ERM systems.

Methodology and Sample

The companies listed in the National stock exchange of India represents the overall companies in India. Hence the sample for this study is considered from companies listed in NSE. Since large number of companies are listed in NSE, only the companies listed in CNX Nifty are considered. The CNX Nifty is a well diversified 50 stock index accounting for 23 sectors of the economy. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds. For this study the list of CNX Nifty companies as on 31-Mar-2015 is considered.

The primary objective of our study is to examine the firms' adoption of ERM in India. Since the adoption of ERM is not mandatory, firms do not publicly announce the adoption of ERM. Hence there is no straight forward method to identify the implementation status. Considering this limitation, studies are done based on information disclosed by companies in their Annual Report.(Arpita Ghosh, 2013). An Annual Report is a comprehensive report on a company's activities. It is intended to give shareholders and other interested people information about the company's activities and financial performance. Company would be willing to disclose the adaptation of ERM as it increases the credibility of the Company. So, this study examines the annual reports of the companies to look for following key words

- enterprise risk management',
- managing risks in a 'holistic'
- comprehensive risk management
- integrated risk management
- corporate level risk management
- risk management committee' (of the Board),
- risk management framework',

These contexts are then manually analyzed to judge whether the firm has ERM in place.

Below table summarizes the expectations and describes the measurement of the relevant variables.

Summary of expectations and measurement of variables

Expectation	Measurement
ERM implementation	IMPLE is a dummy variables that take on a value of 1 if the company has implemented ERM
Companies owned by Global MNC	GLOBALMNC is a dummy variables that take on a value of 1 if the company is a subsidiary of any Global MNC
Public sector undertaking	PSU is a dummy variables that take on a value of 1 if the company is a Public sector undertaking
Earning /EPS	EPS is an ordinal variable expressing the Earning per share of the company (1=less than 20%, 2=between 20 and 50%; 3=between 50 and 100%; 4=more than 100%).
Age of the Company	AGE is an variable indicating the year in which the Company is incorporated in India. (1=before 1980, 2=between 1980 and 2000; 3=after 2000).
Big 4 audit firm	BIG4 is a dummy variable that takes on a value of 1 if the auditor is a Big 4 audit firm.
Financial services industry	FINSER is a dummy variable that takes on a value of 1 if company is a Financial Service Industry

Analysis and Results

Overview of the descriptive statistics is given in the table below.

Ordinal and ratio variables

	Mean	St. Dev.	Min	Median	Max
EPS	2.10	1.093	1	2	4
AGE	1.52	0.614	1	1	3

Distribution ordinal variables over response categories

	1	2	3	4
EPS	20 (75%)	12 (100%)	11 (100%)	7 (86%)
AGE	27 (93%)	20 (85%)	3 (66%)	

Nominal variables

	Total	Yes (=1)	No(=0)
IMPLE	50	44 (88%)	6 (12%)
GLOBALMNC	4	3(75%)	1(25%)
PSU	11	10(91%)	1 (9%)
BIG4	31	28 (91%)	3 (9%)
FINSER	10	10 (100%)	-

Correlation Matrix

Variables	IMPLE	GLOBALM	PSU	BIG4	FINSER
IMPLE	1				
GLOBALMNC	0.75	1			
PSU	0.91	0.11	1		
BIG4	0.91	0.63	0.11	1	
FINSER	1	0.11	0.05	0.05	1

The average of IMPLE is 88% reflecting an encouraging scenario that 88 percent of companies listed in CNX Nifty have ERM in place. With regard to the determinants of ERM implementation, the study shows that the earnings of the company has a positive impact on the implementation of ERM ie higher the Earning per share higher is the probability of ERM implementation. This is in line with the finding of the (Ghosh, Arpita, 2013) which suggests that the companies with higher profitability are investing the resources they have earned, into ERM adoption towards creating a competitive advantage. In consistent to the previous study it is observed that the firms in financial sector are having probability of implementation of ERM and Public sector undertaking are also having a high implementation rate.

In contrary to the expectation the age of the company and having Big 4 as a Auditors are having very less impact on the implementation of ERM.

Conclusion and future research direction

Considerable increase is seen in the Indian companies towards the implementation of the ERM. The companies are realizing the benefits for implementation of the ERM and disclosing the benefits they have experienced to the stakeholders though Annual reports. However, this result cannot be generalized to the Indian scenario, as these companies has the following characters namely size, leverage, profitability, liquidity, opacity of assets, volatility of stock returns, extent of global customers, firm complexity and governance factors like board independence, which is considered as the major drivers for implementation of ERM. (Ghosh, Arpita, 2013). Further, the major drawback in this study is the reliance on the pre-existing data of secondary data (annual report) with the assumption that the Company would disclose the adaptation of ERM in Annual report. Future research could widen the information source namely interview or questioners to the companies. Other area of research can be the reason of implementation, stages of ERM implementation, performance of the company, Value creation to the Company, short term and long term benefit derived from the ERM implementation, ERM processes and transparency about risks to stakeholders.

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