ERM practices in Non-Financial Institutions in UAE

أي ار ام تمارس في مجال المؤسسات الغير الاقتصادية في ـ ا ع م

By

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Declaration

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institute of higher learning, except where due acknowledgment is made in the text of the report.

Seema Kumar

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Abstract

Enterprise risk management (ERM) has been the topic of increased media attention in recent years. Many organizations have implemented ERM programs, consulting firms have established specialized ERM units, and universities have developed ERM-related courses and research centres. Despite the heightened interest in ERM by academics and practitioners, there is an absence of empirical evidence regarding the impact of such programs on firm value. The objective of this study is to measure the extent to which specific firms have implemented ERM programs and, then, to assess the value implications of these programs. We focus our attention in this study on UAE corporate.

This research studies the ERM framework of UAE firms with the help of a survey that was answered by the Risk Managers of various corporate. The research gives information regarding the ERM processes in these firms and the various methods and tools used for the process. The research provides in depth study of ERM process in UAE and helps in assessing the efficiency of the programme.

خلاصة

إن إدارة أخطار المشاريع (إي آر أم) كانت موضوع نقاش متزايد بين وسائل الإعلام منذ سنوات حديثة عديدة حيث قام عدد من المؤسسات بتنفيذ برامج إدارة أخطار المشاريع وأن المؤسسات الإستشارية قامت بتأسيس وحدات متخصصة لإدارة أخطار المشاريع كما قامت الجامعات ايضا بتطوير دورات متعلقة بإدارة أخطار المشاريع ومراكز البحوث. على الرغم من وجود الرغبات المتزايدة في إدارة أخطار المشاريع من قبل وسائل التربية والتعليم وأصحاب المهن هناك فجوة عدم وجود دلائل تجريبية حول تأثير تلك البرامج في قيم المؤسسات. علما بأن هدف هذه البحوث هو قياس مدى مقدار المؤسسات المحددة في تنفيذ برامج إدارة اخطار المشاريع ومن ثم تقديم قيم تأثيرات هذه البرامج واننا نركز انتباهنا في هذه الدراسة في شركات الإمارات العربية المتحدة .

تقوم هذه البحوث بدراسة هيكل إدارة أخطار المشاريع في مؤسسات الإمارات العربية المتحدة بمساعدة إجراء أعمال المسح التي تم الإستفسار فيها من مدراء الأخطار في هذه المؤسسات العديدة حيث تزود البحوث المعلومات حول عمليات إدارة أخطار المشاريع في هذه المؤسسات والأسليب المختلفة والمعدات المستخدمة في العمليات وأن البحوث تزود دراسة عميقة عن عمليات إدارة أخطار المشاريع في الإمارات العربية المتحدة وتساعد في تقدير كفائة البرنامج.

Research Objective

The objective behind conducting this research was to know the current practices of ERM in UAE non-financial institutions. ERM over the past few years have gained considerable importance. There has been a considerable change in the opportunities and risks that a firm faces in the global economy.

Dubai being a commercial hub of the country needs to identify, assess, manage and monitor its risk and opportunities in order to sustain its financial growth.

The survey was conducted with the help of Questionnaires (included in Appendix-I) being sent to the Senior financial Managers such as CFO's, Group Finance Manager, ERM Managers etc being sent to more than 30 companies (Retail, Construction, Manufacturing) in order to assess their current state of ERM, their tools, systems and strategies and suggest strategies that could be applied to better manage the firms risks, bring stability in the financial realms and promote economic growth

Research Methodology

The survey was conducted with the motive of ascertaining the presence of ERM in UAE firms and to evaluate the strength of ERM policies and procedures within these organizations.

The research was conducted on large business firms, well established in the UAE market. It mainly catered to the giant non-banking institutions, mainly Retail sector, construction entities and manufacturing firms.

The survey was conducted amongst the CFO, Group Financial Controllers and Risk Managers of these firms. They were initially given a brief on the need for the survey and then the questionnaire was sent to them via E-mail. The greatest challenge of this survey was companies not willing to be public of their ERM activities. Although industrial giants like Damac properties, Dubai Holdings, Al Rostamani Group etc were having a fully fledged ERM, however the managers were reluctant in participating in the survey. However we were able to contact 20 senior executives and club there result to form the outcome of our survey results and conclusions.

The questionnaire prepared consisted of total 26 multiple choice questions. The first five were the introductory question to know about the respondent, his position and the company he is working for. Question 6 and 7 provided an ERM introduction of the company.

The first phase of the survey began from Question 8-10 whereby the respondents were tested on their knowledge of ERM, its benefits, challenges and barriers a firm faces in order to implement an effective ERM activity.

The survey reached its second level whereby Questions 11-14 were based on the executives approached was highlighted with respect to embedding ERM into the firms culture. Because the respondents were one of the main decision makers of their company as well it was important to know their view on the growth of ERM.

Question 15-17 gave a general overview of the various risks and challenges their company have faced over the past years and which stategical management have they invested the maximum into to face these challenges.

The last phase of the questionnaire (Question 21-26) provided an in-dept study towards implementing ERM and the firms approach towards the same at present and over the next 3 years

Introduction

In order for a firm to survive in the business world it needs to take risk. However with the change in the global economy, business opportunities, environment and risks are rapidly changing. The large and widen growth and development in both the financial and the technological sector have resulted in availability of greater and much better risk management techniques offering new and more important opportunities available to the managers to seek ways to build the firms and shareholder value.

However it was important to connect the risks and opportunities together while managing the business. It was not risk which was considered bad; it was the mismanagement of risk which was often a result of misunderstanding, mispricing and unintended risk.

It was in the 1990's when a significant change was bought about in the business environment, whereby organizations made a choice of discontinuing the wasteful, duplicate and inefficient ways and adopted a structured, integrated and a more disciplined approach towards managing the risk. The approach was aligned towards a strategy, technology, processes and the people together with the purpose of evaluating and managing the risks and uncertainties faced by the business.

'Integration of risk management' meant the identification and assessment of firms entire risks together and implementing the risk management strategy on it. These were generally categorized into Strategic risk (includes the firms objectives and the directions towards its achievement), Operational Risk ((involving the people and process to carry out these objectives), Financial Risk (the resources in terms of finances and investments required) and Insurable risks (also known as pure risks)

Thus with the development of evolution of Enterprise Risk Management, risk management has moved beyond its traditional risk mitigation process involving limited access to its exposures and resources towards optimization of portfolio management i.e. identification of the firms risk appetite, collective risk, resources and ways. It is thus a shift of focus from the tactical approach towards strategic approach.

ERM resulted to an addition to the stream of managing risk; addition to the responsibility of the activities involved such as the various functions, frameworks, methodologies, policies, procedures, standards, integrations of the various risks, prioritizing them, coordinating, communicating and guiding them at different management levels thus leading towards better decision making and enhanced results.

It is also essential for a good corporate governance, increasing the shareholders wealth, better decision making, better firm management by greater transparency, bringing about a balance between the risk and opportunities, better risk culture, effective resource allocation, efficient results thereby increasing the firm's reputational asset.

Concept of Risk and Uncertainty

‘Risk’ in English was derived from the word *risicare* an Italian word which means ‘to dare’. When related to the Chinese symbol of risk, the historical definition of risk comprised of two components: ‘danger’ and ‘opportunity’.

Thus risk is defined as the combination of the probability of an event and its consequences. In all types of undertaking, there is the potential for events and consequences that constitute opportunities for benefit (upside) or threats to success (downside).

Risk has been the core of study for various authors and different people have defined it in various ways. Hart, Schaffner & Marx(1921) defines it as a measurable probability of an adverse event, uncertainty is broader and comprises the impossibility to describe and/or assess the (probability of an) outcome or event due to its non-quantitative nature.

While the University of the Witwatersr and School of Economics and Business Studies defines risk as:

- A combination of hazards measured by probability.
- A condition in which losses are possible.
- Uncertainty of loss.

To add further to the aspects of risk Factor Analysis of Information Risk (FAIR) -2005 defines it as “*The probable frequency and probable magnitude of future loss”*

The Institute of Chartered Accounts of England and Wales (ICAEW) defines business risk as “the uncertainty as to the benefits that the business will derive from pursuing its objectives and strategies”

Risk is virtually anything that threatens or limits the ability of organization to achieve its mission. It can be unexpected and unpredictable events. Any of these can have the potential to damage the organization, cost money, or in a worst case scenario, cause the organization to close.

A firm’s competitive advantage is heavily dependent on the ability to manage the risk. With the advancement in the economic business environment various risks have emerged. These risks can be broadly classified as financial risks (Credit Risk, Market Risk, Operational Risk, Liquidity Risk) and non-financial risks (Counter Party risk)

What is Risk Management?

Risk management is a process of thinking systematically about all possible risks, problems or disasters before they happen and setting up procedures that will avoid the risk, or minimize its impact, or cope with its impact. It is basically setting up a process where one can identify the risk and set up a strategy to control or deal with it. It is also about making a realistic evaluation of the true level of risk.
Risk Management is increasingly recognized as being concerned with both positive and negative aspects of risk. Therefore this standard considers risk from both perspectives. In the safety field, it is generally recognized that consequences are only negative and therefore the management of safety risk is focused on prevention and mitigation of harm

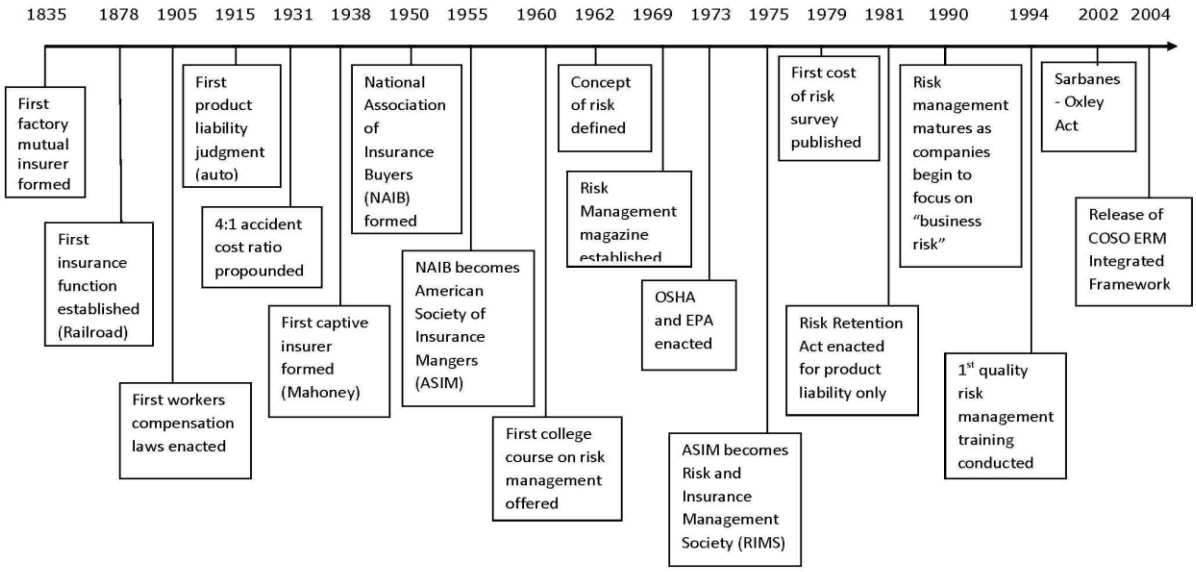
While discussing the importance of risk management International Organization for Standardization (ISO), April 2008, quoted the following to emphasis on the same.
"*Risk Management is a key business process within both the private and public sector around the world. Effective risk management and the resulting controlled environment are controlled to sound corporate governance and for this reason, much of the law that has been created in response to corporate collapse and scandals, now require effective risk management"*

Risk management is not a single step that can be followed by applying a formula. It is a combination of steps and follows a process to ensure it applicability:
First and foremost the management needs to understand the organizational objectives. It then goes about by identifying the risk that are associated with achieving these objectives and their impact on the same. Matrix, methods and programs are formulated to address these risks and finally they are monitored and evaluated to control the same.

Evolution of Enterprise Risk Management

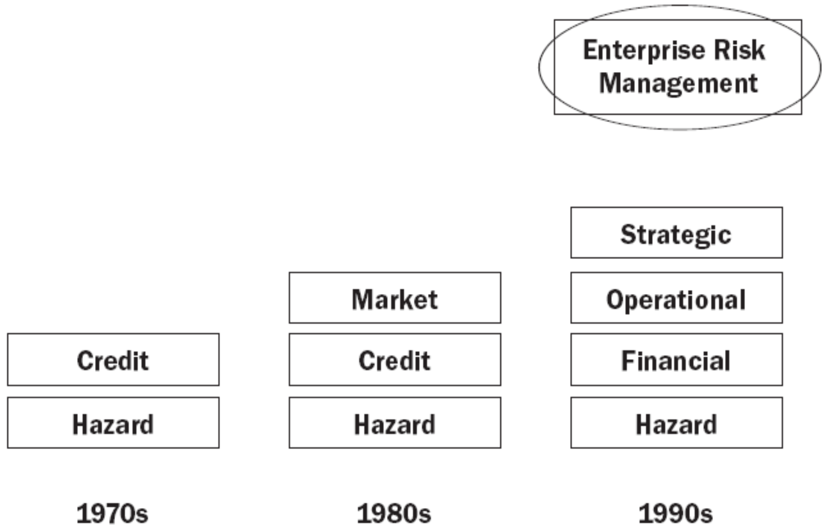
Although risk management had its origin as a profession way back in the 1830's with the set up of the first factory mutual insurer, it is in the 1990's that a significant change was observed owing to the change in the business environment.

From the 1830's to 1960 insurance was transaction oriented, whereby it was bought and claims were paid accordingly. However in the 1960' till 1980 change was observed as the customer had better understanding of the product and services offered. Quality was integrated with the risk management and insurance. It was in the 1990's which saw the beginning of enterprise Risk Management as with the increase pace of business environment, more liabilities, better technology and increasing risk the company had to choose more effective and efficient ways and systems to survive itself in the competitive zone.



History of Risk Management 160 Years of Change

CAS (2003) discuses various forces that led to the evolution of Enterprise Risk Management. Risk was forced to be prioritized only on a disastrous happening or when the risk was transfer onto an insurance company. The first and the foremost reason is the increase in the number of complicated risks. Initially the most common risk to be identified was the 'Hazard Risk' with later the importance been shifted to the 'Financial Risk' also. However it was most recently with the happening of Enron and Barring Bank that 'Operational and Strategic Risk' has also been included in the picture. It is thus important that a firm is familiarized with all types of risk and not just those it has being managing in the past.



Secondly it was because of the failure sited by the management, that External pressure was felt from various regulators, rating agencies, investor etc on the board and the senior management to manage risk. Increasing the shareholder wealth is consider to be the prime objective of every one, thus especially the publicly traded companies were given that push by the shareholders as well.

Another factor that led to the evolution of ERM was the development in the financial sector which widens the view from a narrow prospect of considering the risks individually to a collective risk assessment. Shifting the trend from the 'silos approach'; Modern Portfolio Theory thus focuses on this.

Fourthly with the advancement in the technology it was now possible to quantify risk. The unpredictable, unidentifiable and the infrequent risk which were once considered to evaluated are now made easier. Various models such as VaR have eased the measurement of such risks. Quantification of Portfolio Risk rather than individual risk help the management in better perspective of the risk.

The fifth force is the scope of ERM which is not limited but are spread across the globe to various companies. Companies are usually willing to share the information regarding there practices and benefits with those who are not into the direct competitive line. Those different companies have different risks that they may face however the foundational principles for these remain the same.

Lastly is the changing perspective towards risks. Risk was always treated in a way in which it could be avoided managed or mitigated. However companies have now changed the outlook by considering opportunities that could be created through them. With the passage of time the risks had become manageable and familiar, thus efforts were now made to seek out opportunities that could benefit the firm.

Enterprise Risk Management

Committee of Sponsoring Organization (COSO), an organization dedicated towards helping the business and other entities to enhance their reporting by building up a framework aiming towards better internal control, corporate governance and better management. With its formation in 1985 it sponsored the National Commission on Fraudulent Financial Reporting also termed as the 'Treadway Commission'.
With the increasing importance towards the risk management and the need for a framework that could effectively identify and manage risk, scandals, failures and losses, in 1992, Treadway commission issued a report 'Internal control-Integrated Framework (COSO I). Later in 2004, COSO along with PriceWaterHouseCooper developed a framework providing principles and key factors that could be a great importance to the business firms for the risk management, Enterprise Risk Management-Integrated Framework (COSO II). The most acceptable definition as proposed by COSO is defined as below:

“Enterprise risk management is 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.”

Many other financial and educational institutions have also interpreted the definition of ERM. Chartered Enterprise Risk Analyst (CERA) defines it as
"Enterprise risk management (ERM) is the process of coordinated risk management that places a greater emphasis on cooperation among departments to manage the organization’s full range of risks as a whole. ERM offers a framework for effectively managing uncertainty, responding to risk and harnessing opportunities as they arise."

Individual authors have also taken stepped forward in defining ERM. Wang and Faber (2006) and Brodeur and Pritsch (2008) have concluded the following
“*An offensive discipline of studying the risk dynamics of the enterprise, the interaction of internal/external players and forces, and how players’ actions influence the behaviors of the risk dynamics, with the ultimate goal of improving the performance and resiliency of the system, thus maximize the enterprise value*”.

By taking all these broad and all encompassing approach of managing risk, The CAS Committee on ERM (2003) has concluded the following
"ERM is the discipline by which an organization in any industry assesses, controls, exploits, finances, and monitors risks from all sources for the purpose of increasing the organization’s short- and long-term value to its stakeholders".

In May 2008, Standar & Poor’s (S&P), a security rating agency, as a part of its expansion towards the analysis for rating included the reviews of ERM as a part of the methodology for the financial institutions according to which it defined ERM as:

- *An approach to assure that the firm is attending to all risks.*
- *Clearly defines the risk appetite and risk tolerance*
- *Provides for a set of methods for avoiding situations that might cause losses outside of the firm's tolerance*
- *Drives a shift in focus from cost/benefit to risk/reward*

- *A way to help fulfill a fundamental responsibility of a company's board and senior management*
- *A toolkit for identification and for trimming excess risks*
- *A language for communication the firms efforts to maintain a manageable risk profile, i.e. a common risk language*

ERM Framework

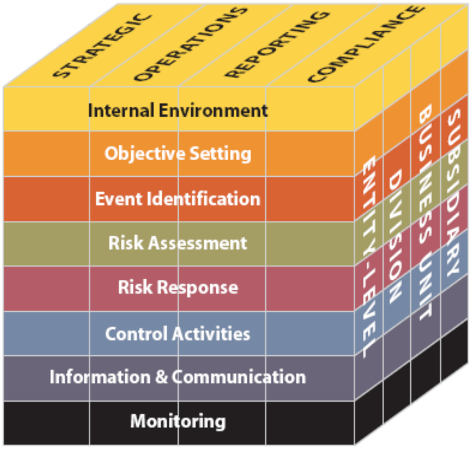
The ERM framework is represented by a 3 dimensional matrix :

On the top of it are the four objectives categories – strategic, operations, reporting, and compliance. These aims towards achieving a firms' objective, set forth as:

" * *Strategic* – high-level goals, aligned with and supporting its mission
* *Operations* – effective and efficient use of its resources
* *Reporting* – reliability of reporting
* *Compliance* – compliance with applicable laws and regulations."

There is further Eight Components of Enterprise Risk Management those are interrelated. These help towards the running of the enterprises and the various processes that are involved in it. These components are:

- *Internal Environment* – The internal environment reflects the organizations management towards risk, its foundation, policies, appetite ethical values and the environment in which it operates. In short is comprises of 'the tone of an organization', its people and procedures.
- *Objective Setting* – Every organization before initiating its events should ensure that the firms' strategic objectives are set taking into consideration its vision, mission and the risk appetite.
- *Event Identification* – the management should consider both the Internal and external events that can affect the firm towards achieving its strategic objective. These can be in form of positive events i.e. opportunities or negative events i.e. risks. Special attentions towards risk assessment should be done while the opportunities can be reconsidered while setting up the objectives.
- *Risk Assessment* – special care should be taken during risk assessment taking into consideration its positive and negative impact through both qualitative and quantitative methods, which are likely to affect the objective set over a period of time.
- *Risk Response* – The management takes into consideration various risk responses whether to avoid, accept, reduce, or transfer the risk depending on the firms risk appetite and risk tolerance.
- *Control Activities* – In order to ensure effective implementation of the risk responses the management ensures policies and procedures are established and implemented throughout the enterprise.
- *Information and Communication* – All the necessary information is identified, captured, and communicated from all sources in a form and timeframe thus prompting the employees to carry out their responsibilities as desired. Communication in order to give effective results flows down, across, and up the organization.
- *Monitoring* – All the ongoing activities are monitored and any modifications if necessary are made as desired. Enterprise risk management being a multidirectional process has its effect and influence on the other events.



The third dimension of the cubic matrix represents the enterprise's units. However in order to ensure that the framework process is effective, it is necessary that each give objective (Strategic, operations, reporting, compliance) are in accordance with the eight components at every level of the various enterprise units.

Components of ENTERPRISE RISK MANAGEMENT

Enterprise Risk Management represents a holistic approach to manage the various risks that a firm faces in its ever changing environment of the business world, where risk is considered to be a function of change and risk management being the technique to cope up with the effect of those changes. Various methods and practices have been adopted over the years to deal with risk. Initially risk management evolved around monitoring the adherence of risk whereas Enterprise Risk Management was a step above towards being more holistic and quantitative approach.

Various studies and research have been conducted to know to identify the components of ERM which would thus make it easier to study and ensure effective implementations. Amongst the various authors James Lam (2000, p1) discusses seven components of risk management which encompass all the important issues, in order to know what ERM is. These are discussed as below *Corporate governance:* it is the responsibility of the board and the management to ensure that the ERM program is effectively running by defining the risk appetite of the firm, ensuring the availability of the required skill, defining the roles at various managerial levels, drawing a integrated framework, etc. *Line Management:* risk assessment and pricing can best be determined at its inception. It is the responsibility of the line management to ensure that the business strategy is drawn in accordance with the firm's risk policy. Thus every time a new opportunity or a new product is launched it becomes necessary that the decision is taken considering its risk limitations.
– *Portfolio Management*: Being the direct link between the risk management and share holders wealth maximization it is important the portfolio is managed appropriately, for which it is necessary to consider not just the portfolio targets but their risk limits so as to ensure that the diversification give the best return. *Risk Transfer:* In order to benefit the firm by reducing the cost of hedging as well as increasing its capacity towards more concentrated risks, risk transferring strategic can be put in practice.
–*Risk Analytics*: this helps the management to measure and manage the credit to a considerable level. Advancement in risk analytical tools has helped in structuring costs in the most effective way in order to formulate the risk. *Data and Technology resources:* it is important to aggregate the data available both at the portfolio and the market level and combine them to be put into the risk systems. – Stakeholders management: Risk management does not finish at the internal level of the management, it rather helps in bringing about transparency at the shareholders level. This can be bought in practice but allowing the board to prepare periodic reports for thus as well as the regulators and the equity analysts for help in their decisions.

While the above components do not limit the scope of ERM, Lisa K. Meulbroek (2002,p23) to add further discusses this by emphasizing on the importance of integration of risks and the ways to manage risk. As no single risk is important, it is the firm's total risk and while assessment the aggregated risk helps which is of importance. Keeping in view that a firm's aim is not only to minimize the risk it faces rather to opt for the optimal risk best suitable for the shareholders wealth. It would thus be a combination of the firm's operations and its financial policies. The three most important tools which can thus form a firms' risk management strategy are *Operational risk management* whereby managers adopt different ways in which they can face the risk. Managers thus try to opt for a feasible operational approach which would result in favor of the firms' strategic goal. Operational goal could be such that would result in reducing the risk occurrence or reducing the actual impact of that risk on the firm. This is well exampled with the example of Disney World theme park which could have faced huge risk related to the various weather conditions. It thus chooses a location which remained warm and sunny (Orlando, Florida). Many-a-times there can be risks that are not effectively handled with the help of operational risk either because they are not feasible or the idea would be too expensive to be taken into action. In such a scenario the next best alternative is the use of *Target Financial Instrument* such as derivatives or insurance. They help in reducing/eliminating the effect of the risk itself. Considering the above example of Disney World the risk could be reduced by purchasing insurance against the bad weather. Risk exposure can not necessarily be from within the firm such as the inputs, outputs or production processes but can be laid by the suppliers, customers competitors etc. These instruments are best suited for companies have their risk exposure related to commodity, currencies and interest rates etc. risk management using these instruments benefit a firm as they target the specific risk with interrupting into the overall firms operations, however this also becomes its limitation. A firm can manage its *risk adjustments with the help of capital structure*. In the above two tool a firm needs to forecast and measure the amount of risk however using this tool would involve reducing the amount of debt in the capital structure thus resulting in the decrease of the shareholder's overall risk exposure. Though it does not result in reduction of the probability of risk occurrence, lower debt does result in lesser fixed expense thus greater flexibility towards firms' volatility. Also there are lesser chances of becoming financially distressed. Using equity in the capital structure to a larger extent helps a firm to provide a cushion against loss. However on the other hand by reducing debt results in reduction of the interest tax shield as well.

Importance of ERM

ERM over the last decade has gained considerable momentum with growing importance and many companies have implemented the process towards identification and management of risk. Such process helps to ensure portfolio risk faced by the firm remain within acceptable limits.

The importance of ERM can not limit itself to any level of the business. ERM creates values for the firm discusses about ERM creating value for the firm both at Macro and Micro level ;Brian W. Nocco and René M. Stulz (2006, p 3) At the MACRO Level a firm that manages risk can lessen the probabilities of losses and other adversity which would be as a result shortfalls due to cash flows. Hedging can help a firm in mitigating various risks at a lesser price. Though it reduces the cost of the firm however there is an increase in the probability of implementing the positive net present value projects which are available to it, since a firm does undertake many such risks which they are not able to lay down on the capital market or other risk transfer markets. ERM also holds its importance at the MICRO level for the firm. If a firm increases the total risk that should be undertaken, on the other hand it might also force the firm to give up certain projects as a result of its shortfalls. The total cost of risk which results into risk-return tradeoff should be sufficient enough to pay off it increased cost. Thus ERM helps a firm to correctly evaluate all the risks and the risk-return tradeoffs. This is done by taking into account all the material risks in order to measure the total risk, centralizing their evaluation to form a corporate grid-lock and lastly taking into account the each unit towards the total risk of the firm. This also helps in actual economic performance of every unit as well as helps the managers to perform better to manage these risks.

ERM has gained importance and become a standard owing to the lack traditional approach not giving good results, James Lam (2000, p2). However with the adoption of ERM the result was quiet evident. This was a mainly as a fact that in the past the approach was formed keeping in view the organizational prospective such as profitability in terms of Business units, lending and trading management in terms of the Credit and the Lending units etc. Risk being interdependent cannot be thus managed by independent unit was the biggest limitation of the traditional silo approach. This led to the start of ERM which was backed up by Internal Demand, external development and advancement of the risk methodologies and tools. – Factors such as financial crisis, Company loss and other related issues many a times result in emergence of internal demand by the management for risk management. These factors often lead to interference by the auditors and regulators for the assessment. Further the senior management also starts involving itself in the collecting information regarding effectiveness of control and the ability of the firm to manage its risk exposures thus resulting in the emergence of ERM. External developments such as Institutional investor and analysts, interested in the quarterly earnings, are always concerned about the firms risk exposures as these are directly related to the earnings. Such information can be best exposed with the help of enterprise Risk Management. Since regulator focus on all the aspects of risk, ERM also helps them to ensure that the management and the board are well aware and also practicing their key roles towards the organization. With the advancement in technology various techniques are accessible. Models such as Value-at-Risk (VaR) and Risk on return adjusted capital (RAROC) have been used towards the management and measurement of all types of market risk. As a result of further advancements in models such as default and portfolio management, credit risk and in some cases even operational risk is measurable.

Another aspect where the importance of ERM become highlighted was with regards to corporate governance by Betty & Steven (2008, p574). With the increase in complexity of business and the basic precepts of corporate governance every organization is being managed and supervised by the board of directors. However many undisclosed risk remain unrevealed to the board and thus undisclosed to investors. The article discusses various risks which due to improper risk management result in failure of the organization. These include Human Resource mismanagement (example of the Texco Oil Company), lack of internal control (Example of Baring Bank), Accounting fraud and weak Corporate Governance (Example of Enron). With the introduction of the Sanbanes-Oxley Act of (2002) greater importance was laid on understanding and monitoring the risks of the firm especially with respect to audit. Corporate governance gave the board the power to run the organization without giving much importance to risk management. This let the CEO become the Centre head of the organization. However with the introduction of the "SOX" the audit function upon the public corporation imposed which resulted in the intersection of ERM and corporate governance. However with the increase in importance of ERM the functioning of the firm as well as the response of the capital market towards risk came to a new level. Also risk management resulted in greater transparence amongst the management and the top officials as disclosure was a requirement.

It was the Economic crisis in 2008 the ERM gained momentum and corporate realized the gap and failure to implement effective ERM strategies; Michelle M Harner (2010, p48) "The financial crisis is the result of a failure of risk management on a colossal scale…How did so many major financial players miss or overlook such huge, systemic exposures?" *(Bill Coffin ed., 2009)

The major elements as highlighted in ERM with respect to the firm's objectives, risk factors, assessment and mitigation is the overall responsibility of the firm as a whole. As a result of crisis various firms restructured its ERM tools. S&P had even added this as an important guideline in assessing the firms rating. Many firms as a result of their failure even formed a separate Risk management Committee which would then on implement the Risk Management Principles as per the company's risk profile. This was practiced not just during the year end periods but as a continuous activity in the organization. Here the importance of the Board being active in order to cultivate this culture whereby they would compare and evaluate the risk, identify and define as well as make sure that enough resources are gathered not only to avoid but help in their mitigation. This is possible only when every level of the management is well communicated and coordinated about the ERM process whereby the CEO, Board, Senior Management as well as the staff are aware of the on-going process of ERM in their firm. Profit being every firm's priority, with the aim of seeking greater returns for the investor at the cost of lesser risk, firms tends to adopt these tools. Also failure in implementation of ERM program can result in legal liabilities as it would breach the duty appointed to the board to share with its shareholder thus weaking the firms' performance. ERM helps the board and its management in reviewing, monitoring, understanding, reporting and approving their firms risk appetite with the corporate strategies and thus taking appropriate measures.

As a generalized view, taking into consideration every aspect of the business; Lisa K. Meulbroek (2002,p5) emphasized that by adopting Risk management facilitates the risk management amongst the equity holders of the firm. This is possible when the firm or its investor diversify their holdings having a mix both risky and safe holdings. The investors are better able to handle the exposure towards systematic risk, once the firm details them with their risk exposures. Also Risk management of the firm in turn helps in increasing the shareholders wealth as a result of reduction in various costs that are associated with financial distress, risk of non-diversified investors etc. However as discusses above risk management also reduces the cost involved in financial distress thus resulting in increase in the firm's value. Since companies are exposed to rapidly changing business environment any bad impact can result in destruction of its sustainable value. Although many-a-times the managers itself invest in the company's stock, however they are not able to diversify their holdings thus resulting in varied fluctuations in wealth. Risk management thus helps the firm's value by lowering the risk faced by such non-diversified investors. By applying risk management a firm can also reduce its tax burden since with the consistency in the earning rate the taxes get minimized and this is increases earning is enabled by risk management. Also by providing more debt capacity to the firm since the volatility of the firm decreases, its tax rates are fallen. In order to construct a benchmark for a company the outsiders need to evaluate the performance, which results being an expensive affair for the company. However risk management helps in better evaluation by disclosing off important information, evaluating the performance in a better and more productive way thus resulting in reduction of the cost involved with the external monitoring and thus the capital cost. Finally risk management becomes a helping hand in providing collection of the internal funds for various projects which it would want to invest into.

State of ERM across the Globe

With the advancement in the business world, globalization and international market, the meaning and the need of ERM has noticed a drastic change. It has become more holistic from the traditional 'silo' approach. It is one of the most widely used subjects for research. Professionals from around the globe have conducted surveys to know the state of practice in the targeted country and the how has it changed over the years.

ERM in US

Although initialized in the early 1830's within the insurance sector, things started to change in the 1960’s, and a drastic change in the world of insurance was seen after the 1980's. The rise of internal control and efficient ERM was seen after a number of scandals that took place during 2000-2003. The companies had to restore back their image and reputation. Many regulations and standards were set forth, the best among them being the Sarbanes-Oxley Act (SOX) whereby the CEO and the CFO had to report on the internal control and the financial reporting.

Regulation S-X, which required the external auditors to highlight the internal check and control, was emphasized after the 1929 market crash. It was then in 1977 that the US audit-oriented approach had seen a drift owing to the scandals particularly relating to bribery. Thus the 1977 Foreign Corrupt Practice Act (FCPA) and the US Securities and Exchange Commission (SEC) laid emphasis on recording, reporting and internal control. However these guidelines were seen in practice in 1991.

In addition, in 1982, Item 303 on Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) emphasis was laid on risk assessment. And the Treadway Commission along with COSO prepared Integrated Framework along with the Auditing Standards Boards issuing nine standards for auditing.

ERM in European Union (EU)

After facing a number of failures, EU added up a number of directives and issued a variety of rules that promoted internal control amongst the organization. Although it followed a principle based approach, it has recently become more participative in terms of company laws, accounting and auditing. The High Level Group of Company Law Experts in 2002 recommended disclosure of information for risk management. This proposal was endorsed in 2003 by the European Commission. It laid further importance to maintaining effective internal control system to restore the public confidence.

Further having into limelight the US scandals, the EU initiated 3 directives and 1 recommendation on security and company law that emphasized on risk management and internal control systems. It was the 2004 Transparency Directive that required the company's annual report to include in it the main risk and uncertainties that a firm faces, which further let to the installation of the uncertainty detection system.

This was similar to the Prospectus Directive 2003/71/EC and Commission regulation 809/2004 whereby the companies include the risk factors in their companies' prospectus. In 2006 and amendment to the Fourth and the Seventh company law directive was made requiring the companies to trade on their securities on a regulated market. Similarly in the same year, as per the Audit directive, it was necessary for public listed companies to have an audit committee so as to monitor the internal control more effectively along with the risk management systems. On a similar base the EU also developed industry-specific rules.

ERM in Australia and New Zealand

According to the survey conducted by Standard & Poor's (2006), discusses Australia and New Zealand being at the forefront of embracing ERM. They concluded this by conducting survey amongst the industrial and infrastructural companies which saw increase in the number of CRO's and the increasing importance of risk management.

It also discusses the importance and the growing popularity of ERM as a result of risk discipline and strategic planning. Playing a vital role in corporate governance it thus enables a management to make better decisions and thus protect its reputations. Since risk management provides a better and a transparent view of the various risk factors that a firm encompasses along with the oversight structures these will form the basis element of Standard & Poor's credit rating and their opinions on the firms' reports which in turn will be of great help to the investor and shareholder.

S&P further goes on to discuss that the difference after the introduction of ERM in these countries as revealed in the survey conducted was not considerable as most of their companies where sophisticated and highly commercial and were thus following this already.

In its survey S&P discusses the importance of 'transparency' amongst the companies with respect to their risk appetite, risk exposures, and the management of these risks. Irrespective of its various advantages the survey disclosed it limitation which despite being important and essential was not the solution to the various issues which were beyond the reach of the management. It highlights week judgment, imperfect information and resource constraints comprising the risk response as few of the backdrops for a successful risk management practice.

ERM in India

With the globalization and growth of the Indian companies in the Local and International market, it was necessary for the Indian companies to change the drift towards the Enterprise Risk Management (The Conference Board 2007-08).

Various factors such as the global competition from countries especially North America, Europe, Australia, rising economic and business factors suggested the need for the Indian market to adopt ERM. Indian companies not just in the domestic market but even beyond their borders were expanding successfully; as such these were more exposed to greater interrelated risk which had to be confront by international standards of risk management. Not just that if the Indian market had to welcome the foreign investments and international expansion it had to maintain their standards of ethics.

With the evolvement of the Legal standards such as COSO-Integrated Framework in 2004, the spread of ERM gained momentum. Similarly the conference of Indian Industries (1998) by published the Code for Desirable Corporate Governance towards the duties and the responsibilities of the Board for protecting the interest of the investors. Also in 2000 the Director of the Central Board of Directors of the Reserve Bank of India issued a release on Corporate Governance that recommended changes to be implemented by SEBI which later become mandatory. In 2003 'Narayana Murthy Committee' release a report towards modern corporate risk management describing the policies and frameworks for the business uncertainties

Importance was laid more on the strategic risk and development of more sophisticated risk matrix. More transparency, better communication both within and externally was noticed. Also companies that have adopted ERM as a management tool have enjoyed a competitive advantage over those for whom ERM is a future aspect.

ERM in China

According to the survey conducted by KPMG, it was the insurance sector that was highlighted in the survey. Although ERM in China have been setup in various organizations, but many shortcomings and inefficiency was noticed during the survey. However the presence of various other regulatory drivers have subsided the inefficiency arising. The joint efforts of both the regulatory bodies and the ERM system has managed to bring about great influence on the business complexities during the recent years.

The China Insurance Regulatory Commission (CIRC) Risk Management Circular (2007), The State-owned Assets Supervision and Administration Commission (SASAC) in 2006 were amongst the regulators which issued principles and standards for effective risk controls. The china listed companies were required to establish their internal controls as by the guidelines set by 'the Basic Standard for Enterprise Internal Control'.

Especially after the economy has gained recovery from the financial crisis the need and importance of ERM has increased. Various organizations have involved themselves proactively towards understanding and availing the opportunities of ERM. They are now better able to understand the organizational risks and strategic decision making.

ERM in Singapore

KPMG's survey in 2010 revealed that not many companies have implemented ERM system. However, 35% of implementation growth was seen as compared to 2006.

Although the companies still followed a tactical approach rather than the strategic one and weak towards risk management practice, however the financial crisis have pushed them towards the need to improve the backlogs. The major cause for this was cited as lack of knowledge and expertise and internal incapability's.

Singapore still being in its initial stages of adopting ERM aims to prioritize it over the coming years by aligning it with the business objectives as well as integrating it into the management process.

Steps in implementing ERM effectively

ERM is one of the crucial elements for any strategic decision making. Various methodologies have emerged over the years, each with its own advantage and disadvantage. However to frame a risk model certain guideline outlined by the COSO ERM Framework should be kept in mind to ensure optimum results.

"The underline premise of enterprise risk management is that every entity exists to prove value for its shareholders. All entities face uncertainty and all the challenges for management is to determine how much uncertainty to accept as it strives to grow stakeholder value. Uncertainty presents both risk and opportunity, with the potential to erode or enhance value. Enterprise risk management enables management to effectively deal with uncertainty and associated risk and opportunity, enhancing, the capacity to build value." COSO Enterprise Risk Management- application Techniques (2004)

Though the emergence of risk management was examined years back it was in the 1990's that ERM was recognized as a new approach. With the advancement in methodologies for quantifying risks, Tillinghast (2000,p8) divided managing risk with the help of Rational and Analytical Approach.

Rational Approach to assessing the risk can be discussed in three steps. It begins with identifying the various risk factors that can affect the business, by conducting interview at various levels about the how's and when's of the business. Risks can arise from various sources such as the operational, strategic, financial etc. This step thus follows the top-down methodology. The next step follows the prioritizing of the risk factors. Although various innumerable risks can be identified it becomes important to consider them as per their evaluation and score which is expressed by the Net Present Value. Thus the once scored highest levels and thus affect the strategic decision of the firm are given more importance. Finally these risks are classified in terms of Manageable or Strategic risk. Manageable risks are defined as those unattended, identified and solution based risks whereas Strategic risks are those whereby the firm enter an unfamiliar environment or lack the skills to handle them. The best was to manage the 'Manageable Risks' is to deal with them and for the 'Strategic risk' is to get involved into better and greater risk analysis.

The Scientific Approach is further divided in four steps.

Step 1 – Each risk factor is modeled individually by generating the probability distribution. This could either be with the help of historical data or the expert's advice. The correlation among these risks sources is determined. It is done in form of a matrix of the correlation coefficient which would be used for the following steps.

Step 2 – the risk factors are then linked with a common financial measure. The risks modeled above are of different measuring units. It is thus important to link them up with one common financial measure such as 'Free Cash Flow'. On selection of the financial matrix the financial model if linked with it and is measured in terms of its value.

Step 3 – a portfolio of risk remediation strategies is developed. This is done by identifying the remediation strategies (taking into account its benefits and the cost) which taken together form the portfolio.

Step 4 – the results from the above 3 steps are taken together to optimize the investment towards risk management portfolio. Various combinations taken together are compared based on the criteria determined in order to find the portfolio which best maximizes the function. It is also important to identify the various constraints which may hinder the progress of implementation. Also an efficient frontier is developed which helps in optimal allocation of the risk management budget.

A similar approach was identified by Christopher Bohn and Brian Kemp (2006, p6) whereby the process was divided in 6 steps starting with initially defining the framework of the risk which help in prioritizing the cause and the effect of each risk. This is followed by designing the model as per the above requirement so as to know the output or the indicators that would be used in it. It is always better to indulge into strategies that can lead to further reduction of the risk factors by either implementing new strategies, models or transferring of the risk (through insurance). Also review the present management risk strategy and those which have been successful for others is also quiet helpful. Keeping the above factors in mind, a flowchart can thus be drawn thus being the foundation towards the development of the risk model. This flowchart is thus converted to a model. The model is designed by collecting of data, selecting parameters and the probability of distribution. Once done the model is thus ready to be put into application. The model made up of different modules helps in better evaluation of the results. The results derived could be utilized in considering whether the risk should be transferred, mitigated, avoided or retained during the course of strategic decision.

In the same year Brooke Paul (2000) published a path-breaking paper whereby it defines 5 phase for risk assessment which are necessary during the application of the various risk management techniques and risk assessment to modern information security practice. During the process of risk assessment information is gathered about the business assets calculating their value and the vulnerabilities which are associated so as to measure the level of risk. The first phase was of determining the systems inventory which needs to be exhaustive so that it can be fully utilized in the assessment. Once the inventory is determined it needs to be valued. Without assigning appropriate business value it becomes difficult to give a supportive back up to the assessment. Once the inventory and its value have been well defined it becomes important that its vulnerability and the threat associated with it are measured. Vulnerability can be of various types and once these are listed it becomes important to classify them as per the possibility to which this vulnerability can be exploited i.e. threat and the level of these threats, which can thus help a firm and the management to know the level of risk in the absence of control. Thus the above two phases are categorized as "framework for the risk assessment". In the third stage these control are evaluated. Since controls help in minimizing the risk level. However implementation of controls lead to expense for the company. It is thus favorable to balance out the cost involved in application of control verses the risk to be mitigated or eliminated. Thus evaluating the risks results in maximizing the return of the firms' investment. Once all the necessary information and data is collected these are then evaluated. In the fourth phases it becomes important to decide upon the various alternative of now these risks can be managed. It becomes important to decide upon the whether these risks are accepted, mitigated or transferred. Here the top level management along with its IT department come together so as to develop a protection relating the business critical asset and processes. In the last and final stage these controls need to be communicated to the management and staff so as to comply with the politics formulated. Only once they are communicated can risk mitigation strategy be put into action and also help in spreading the risk in other areas of business. It is also necessary the continuous monitoring takes place so as to insure it implementations. Over a period if not monitored these methodologies lose their importance and thus fade away.

Difficulties/ Barriers/ Challenges towards effective implementation of ERM

Although ERM has evolved itself over the years and has seen changes for its improvement, however many challenges still stand prominent and are the root cause major loss faced especially during The Great Depression.

Amongst the various authors and institution who studied the main cause for the 2008 depression, Hans J Blommestein (2010, p4) states that the major cause for the emergence of "The Great Depression" was the role of Risk (mis) management which laid emphasis on the quantitative rather than the qualitative aspect. Due to inadequate system and the increasing complexity of the growing firm along with the need of the business as per the need of the hour to undertake such risks led to the adverse affect of pricing the financial assets which resulted in increase in systematic risk. This increase was still underestimated which became one of the major factors resulting in the financial crisis. This was also supported by quantitative risk tools which presented a wrong picture about the level of security thus encouraging the investors to indulge into bigger risks.

Due to underestimation of the risks the strategic and the technical system were affected. Being less focused on the qualitative aspects and principles of corporate governance, code of conduct, ethics and culture of the enterprise and the people resulted in fall of the risk management. Also the limitation of the various pricing model, identifying the 'regular risk' along with over-reliance on complex and high risk models led to losing its foundation support of the system i.e. "ability to deal with the fundamental role of uncertainty in the financial system." With the increase in such sophisticated models, due diligence is shifted from the originator to the credit rating agencies who because of inadequate critical information being provided to them fail to understand the true idea of the quality of borrowers. The key finding as per the author was that with the increase in the uncertainties and the various risk associated with the growing business firm it is also necessary that the state of imperfect academic knowledge and the inadequate risk management tools which are available to the business management should be focused on.

Not only has there a gap in effective implementation of risk management since The Great Depression of 2008, its failure was highlighted before when Brian W. Nocco and René M. Stulz (2006, p15) considered that the main difficulties that could be involved to make ERM work well could be the following. Various risks have been identified in addition to very common one which was initially focused on (Market and Credit risk). Risks like operational, liquidity, reputational, strategic risks etc have also gained importance. To identify and measure all such risks and using a common approach to identify and measure these risk that a firm is exposed to is a difficult task, thus in the absence of a common implication it would not only create confusion while allocating the capital, it would also result in unfair distribution of the risks. It is important to collect all the necessary information, make them compatible and update them so as to create the 'Inventory of risks'. This problem is specially faced by companies which has do not have a centralized IT department. The flow of information for the purpose of risk identification is both ways. It flows from the top to the lower management and vice-versa. This helps a firm to identify individual as well as collective risk profile. Another difficulty a firm can face is when 'Economic values are against the accounting performance'. Rating which are essential while determining the risk exposure of the firm can be well calculated only when the probability of default is further depends on financial ratios is measured accurately. Thus in order to have a better rating firm it positions itself by focusing on the ratios that are essential while considering the rating and thus those targets which are the determinants of these ratios. Yet another problem a firm can face is while 'Aggregating the risks'. The most widely used method to measure risk is using VAR. however while measuring market risk the distribution of return of a portfolio is usually symmetric, whereas for operational and credit risk tend to have asymmetric distribution. Also while estimating the correlation between the three the result is typically low which further states that there exists a diversification among the various risk categories. While 'Measuring risks' the most common approach as discussed above is VAR. However many controversies have risen on this method as it measures the loss exceeded with the probabilities while ignoring the extent of loss in case the VAR is exceeded. Conditional VAR however is helpful with this respect as it also hold economic justification with regards to the firms risk management. When a firm allocates it capital as per the guidance of the conditional VAR (i.e. being equal to the conditional VAR) there is lesser probability of default as this VAR is more than the typical VAR along with optimizing the present value of the financial distress cost which is general more than the PoD. This can also help a firm to measure the various costs involved in financial distress and concentrate on their probability distribution.

Although difficult to pin point any one barrier towards the successful implementation of ER, a few years later Charles A (2008,p8) in his article discusses a typology for the failure of risk management. Mismeasurement of risks that are known to the firm results in a wrong distribution. It is important to measure correlation accurately, as the benefit of correlation falls if correlation increases. He further goes on to discuss about the mismeasurement of risks that are ignored, ignored risk could be unknown to the firm or known to the manager but not revealed in the risk model or completely unknown to the firm. Unknown risks do not create much difference to the firm, as had the manager known them appropriate action could have been taken. Failure in risk management could also result due to inappropriate collection of data. Because collection of data for all types of risks if often expensive and a tedious task it becomes difficult to measure and collect data with respect to the various risks that the firm targets for.

Charles points out the *gap in communication* as the most vital cause for failure in risk management. Risk managers need to communicate the well to the board as well as to the top management. This would thus enable the board to take appropriate decisions as they would have a better understanding of the firms risk situation. Firms risk depend on the objective of the firm. Once the objective is set straight it becomes easier for the management to decide upon which are the necessary risks that need to be undertaken. Thus continuous monitoring is important to make sure that the firm does not involve itself into risks that it should not have taken. Failure in continuous monitoring of the risk thus result in risk management failures. Along with being monitored it is also the responsibility of the risk manager to manage these risks.

With no surprises, various policymakers and researchers who were at constant process of scrutinizing the various difficulties and challenges, amongst them was an unknown author who in one his studies (March 2009) discussed six ways in which a company could fails to live upto the level at which risk management proves to be successful. Many-a-times companies rely to a large extent on the data that is available from the past without taking into consideration whether the available data fits in the criteria at present (such as fluctuations), to identify the risk in future. Risk Management can also fail by concentrating on only the limited risk and narrow measures while ignoring the important ones that should be taken into account. Daily VaR the most commonly used measure to calculate the riskiness fails to capture the portfolio risk thus giving incomplete information with regards to the firm's financial condition. He also points out that during Risk Management the most common risks (Market, Credit, and Operational) are taken into account individually. Risk failure can further occur by ignoring the knowable risk (Market-concentration, Liquidity, Pricing etc) that can be of significant importance for the firm during the market transaction. Along with these, the people responsible for reporting with regards to the risk management fail or conceal the risk thus resulting in failure of risk management. Concealment may be encouraged owing to the incentives attached to it. Communication Failures by different levels of management to the board can also results in unwanted confidence of the Board towards the risk taking capacity of the firm. Lastly, Risk Managers need to be aware of the present scenario of the firm at every sector in order to manage and mitigate the risk.

As discussed above the various ways in which a firm may fail, Harvard Business Review (2009) in the article describes six common mistake managers make while considering effective risk management. The management mainly focuses on the events that have occurred in extremes. They neglect to focus on the impact of the events but are targeting on the types. Also they concentrate more on the historical data, while forgetting that the future is not always predictable but that numbers and data change with place and times is another common mistake. Many a times the risk manager laid more emphasis on profit maximization while neglecting loss minimization. Avoiding a particular risk at present can give better results in future. By using standard deviation while assessing and managing risk is another mistake as it can result in more complex calculations. Moreover the calculation and quantitative risk measurements should be described to the shareholders, invertors and the others interested to know so, in a way that gives them the real and true understanding of it rather being fooled psychologically. Lastly managers are often under the assumption that by limiting their scope however indulging into less amount of debt while availing the opportunities with the change in time can help to maintain efficiency in the company.

Risk management in its infancy stage has been a major reason for the credit crisis Stephanie Maziol (2009, p3). Various factors including the inefficiency and the lack of commitment towards to involvement of risk management in the enterprise is the major cause for such a immature Risk Management. The management foresees the profits while ignoring the losses that can affect the business. Adding to it is the fragmented risk activity which the companies follow. They may either be following the traditional approach or are ignorant of the different risks, their management and control. Further the managers often consider the historic data to be the foundation for prediction. However it is important that the critical risk factors and situation are analyzed and identified to have a better insight of these and accordingly do the planning. Apart from this it is also important that the firm's objective, the strategic risk planning and the risk management are considered together to build a successful way towards its achievement. The company's resources through a well defined procedure should be integrated in the business activity. However many companies have their own internal planning and management within each department thus resulting into a misalignment towards the corporate goal.

Another potential reason that was highlighted as the major barriers to ERM Solutions was the 'Behavioral Barrier and the Cultural Barrier' by Michelle M Harner (2010, p22). He explained this with the help of Citigroup as its example. Though Citigroup had the risk management procedures in action and well in place before the announcing of the 2008 recession and the required managers were well aware of the information yet they considered it to be nominal. Harner divides this into 3 types of biases which thus effect the decision making of the board and the management. Confirmation bias- giving excessive importance to the evidence that confirms the views and little to those that invalidates the views as reported in case of Citigroup. Over confidence/ optimism bias was well noticeable in case of Citigroup when they despite knowing the truth that was surrounding them had their willingness to involve themselves in buying the unrealistic and rosy projection. Framing bias- looking into the problem from the view point that one would want to view it from, was one of Citigroup's major reason for being in the situation which it was in. Cultural Barrier in Citigroup was more prominent when Mr. Prince was appointed as the CEO. Though Citigroup had its name for being quiet aggressive and obsessed for making profits, it was when Mr. Prince joining that he declared the corporate culture to be changed.

Suggestions to strengthen ERM implementation

Though ERM is gaining importance over the years however the recent financial crisis is the one the major witness for its failure in implementation. With the advancement in globalization and international growth it is critical for every firm to adopt and implement effective ERM process and systems. Various steps and measure were put forth in order to meet the challenges faced earlier thus to ensure better and more productive ERM solutions.

As discussed in the previous segment with regards to the barriers for ERM in relation with the behavioural and cultural barriers, Michelle M Harner (2010, p29) proposed various effective measures to strengthen the ERM. In order to *break down the Behavioral barrier* which are further divided in different types of biases the most well known approach is towards giving training to every individual specially involved with decision making. Though training does not necessarily result in unbiased decisions but it does help the management to wider it prospect towards decision making and thus yielding better returns. Ongoing trainings within the organization by the management or employing a outside consultant who can better play his role of identifying and thus formulate and advise ways to mitigate them along with teaching the top management and the board to understand and learn the same in order to communicate to its employees at all the time. Another importance of training could result in creating a better risk culture amongst the organizational staff. It thus becomes important for the board and the management to *break down the Cultural Barriers.* Since it is the responsibility of the top management to maximize the shareholder's wealth and produce maximum profits for the firm, thus they would be interested in undergoing such ERM trainings and thus initiating the risk culture within the organization. Another important technique that could result in effective ERM is done by Regulating ERM. A code of ethic which could cover the firm's risk management policy and training could be formulated so as to invoke legal consideration.

Although risks are both present and significant, it is not limited to only the ability to quantify such risks. According to the research conducted by the Economist Intelligent Unit (2009) various step that could fasten the recovery of the financial crisis was by bridging the risk management gaps. This could be initialized by having a risk management team and giving them the leadership to head the organization. This further could be done by appointing a senior executive or a chief executive officer who along with the help of the audit team is given the responsibility. It is important that the senior management and the risk managers are given the authority along with the responsibility which is often subsided owing to the profit-making objective of the firm. However even at this level, with the increasing complexity of the business environment, risk taking becomes difficult and thus the organization should ensure availability of experts and disposal of information to gain a better understanding of the risk. Risk management should be integrated with all the functions of the organizations and tied up by all the levels of the management. The information collected and the model used to arrive to a result should be combined with human judgment and qualitative approach rather than just the quantitative methods. Various factors responsible for the failure in events have been highlighted by stress testing scenario. This is thus gaining back its popularity amongst the management to add back the qualitative layers over the various tools and techniques. In fact many corporate rely on external sources to provide them with information and data, however such reliability should be limited to a certain extent and management should ensure that benchmark the information received from such sources. Also the corporate should ensure that the management follows a combination of the centralized and decentralized approach towards risk-taking. The centralized approach is the step towards setting the firms risk appetite, its implementation and control whereas decentralized approach ensures that every level of management is given the responsibility towards risk taking and information disclosing.

A simple reason for the increases interest in ERM was the ability to manage and quantify risk. In his publication as a practical guidance to the various corporate Bruce McCualg (2010, p4) seven effective steps towards risk management. The role starts with that of the management, whereby they need to assess the risk and make qualitative screening which to start off with the process of assessment. This is followed wherein the context of risk assessment is established taking into consideration the organizational objective and the set strategies. This is done by defining the boundaries of the risk assessment process. This helps in many the difficulties and the complexities of the firm simpler and thus creating values. It then moves ahead by identifying and prioritizing the risks which are likely to adversely affect the business and its value. However many risk remain unidentified but it is important that strategic risk though beyond the control of the firm are taken to account. Once these risks are identified it then becomes necessary to consider the severity of it, their probability to occur, and management of the risk. Thus, it involves choosing the appropriate tool for the assessment of risk which could be following standards such as the COSO ERM framework or ISO 31000. However these qualitative standards are in order to provide the firm with consistent assessment for the basis of severity and probability and need not always result in accuracy. After which the discussion of the aim of setting the risk management could be directly proportional to the firm strategies and objectives. ERM should be set in a way to add value to the firm which is in turn related to the risks and response undertaken by the firm. And finally it is the identification of the current systems and process which are involved in risk assessment and mitigation and thus provides them with the support in order to achieve their objectives. Thus if any gap is being located, it would be filled up, providing better efficiency and effectiveness and linked with the integrated governance and risk compliance. Every organization should have a single framework, and a common tool for managing the various risks.

Setting up a firms objectives or goals towards which it strives for, also helps in defining a set of stages that it has to go through for an effective risk management Stephanie Maziol (2009, p5). These include protection from the downside risks, management of the business volatility and optimization of the profits. Failure to identity any of these could result in flaws in the risk management. It is also important to define the company's risk appetite. It helps the firm to build its course of actions, decision and resources in accordance to it. Many a time's firms do not get the appropriate result as per the assessment they make towards risk management. This is possible only when continuous assessment is done in a disciplined manner by having internal control, strategic planning and execution. The assessment should be well communicated to the management thus highlighting the critical and important risk factors to as to undertake a strategic and operational planning.

While the ultimate responsibility of ERM lies with the top management, every one who are important in decision making and its implementation need to participate in the ERM process. Bruce McCuaig (2009) in his article focus on seven questions which the managers and professional should consider for an effective ERM. *Every manager should know and discuss the risk that has been pointed out during the assessment process in order to measure, manage and mitigate the cause of risk failure. *This is followed by assessment of the risk on context driven base. It is identified at every level of the organization and the assessment is taken place at the higher level of management. *Also every risk reported should be addressed by the root cause. *The control based approached followed at present fail to fulfill this. The managers should assess the performance of the business in order to know better the reason for the risk. *Performance evaluation can better disclose the unidentified and unmanageable risks. *With the changing business environment, a firm experiences different risk types thus becoming difficult for them to control. However management of such risks can be done by identification of the contexts, frequency, assessment etc. *every firm should be well equipped with the knowledge, skill and experienced professionals, the latest technology and framework for the assessment of risk.

As discussed above risk management should be made a part of the firms strategic objective, this would give optimum results only when risk management is integrated with the firm's culture. Every staff appointed to perform action should be given the required authority along with responsibility. The management should give the liberty to discuss and invite suggestions and identify back draws that could help the firm towards its objective achievement. Such employees could be encouraged by rewarding them. Every business unit should be held accountable for themselves. Any immaturity within the risk management process should be highlighted, and steps for improvement should be suggested by the managers themselves. The managers should be made to sign on any suggestion given by them and has been implemented. Robust control towards risk management should be followed to determine effective and efficient risk management in the firm. The board should conduct frequent checks pertaining to the progress and encouraging as well as suggesting them with appropriate actions. Regular discussion and communications amongst the employees helps in simplification of complex situations as well as breaking of the ice. Communication can help in consistency of information as well encouraging by adopting new technology. Ensuring risk management as a part of the firm's objective is thus led to focusing of the functions of risk management starting with the identification of the risk, collection of data and information, designing the framework filling up the gaps and implementing it as per the standards set.

Every firms’ focus should be on risks that are considered to be the greatest hindrance towards achieving its objectives. During the conduct of the survey on risk management for asset management, various factors provided an insight of the challenges faced by the corporate world. Thus the young professional identified actions that could be of help to the companies to manage their risks; Ernst & Young Survey (2009, p4). With the changing and a challenging environment, it is important to highlight the critical risks and compete with them. Further risk governance should be adopted at every level of the management. It should be considered as the initial step towards effective risk management by bringing about a balance between the various business and control functions. Also clear role for both the risk function and the risk committee should be defined and efforts should be made to ensure that its involvement is done at every significant decision. Communication of the risk appetite of the firm is important. Different firms have varied level of risk tolerance. Thus articulation of the board's risk tolerance is required for approaching towards risk management. Also communication across different firms helps in building up knowledge about the various risks, their types and the steps towards the management. Thus lack of this communication should be bridged in order to lead the firm into effective ERM. Along with this the management should ensure that all areas of risk are covered in order for an effective management. Areas that should be specially focused on include counter party risk, product risk and investment risk. Every firm should hire a person who is specifically for the task of risk management and is well aware of all the required functions in order to ensure a controlled and effective management. The senior management should also ensure that the reporting done gives clear and actionable result in order to help them the clients and the external authorities a better result.

The importance of a particular topic could be discussed only when one has considerable knowledge about it and so is the case with ERM, Matteo Tonello (2007, p10). This knowledge could either be gained from information resources or with the help of experts. The management should determine the gap between the present and the professional Risk management technique in the firm by highlighting the limitations in the current structure. This could be initiated by allowing the firm to incorporate ERM as a part of it goal strategy. The board should then allocate executive who would be given the responsibility for various function of the ERM, thus an appropriate infrastructure should be designed. This is put into action by identifying and prioritizing the risk inventory in a transparent way as it forms the foundation for every successful portfolio of risks. In order to measure the risk it is necessary to determine the nature of risk and accordingly apply the technique required. The board should ensure a sound internal communication is practiced in the firm so that all strategic information is flowed at all levels of management. They should also monitor the flow of risk management. Another important step for its success could be developing compensation polices and strategies so as to encourage the employee towards risk management. Also by integrating it with the rest of the firm operational system can enhance the ERM program to an advanced level.

SURVEY RESULTS

ERM Practices in UAE

This chapter analyses the response of the executives, who participated in the survey, thus helping to determine the extent of implementation of ERM strategies within UAE no-financial firms. Each answer is analyzed in details and predicted in form of graph to provide a better understanding to the same.

The question discuss in details the growth cycle of ERM in the firms, its importance, the major challenges and barriers the firms face and the strategies that are used to overcome these difficulties.

The survey also helps the loopholes for managing an effective ERM strategy and few suggestion that could help in ensuring how every firms can initialize Enterprise Risk Management and hence manage the same effectively.

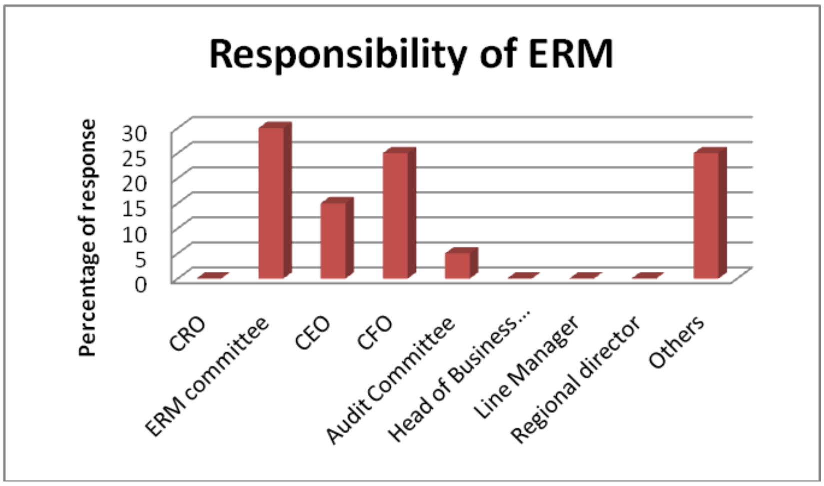
- ❖ Responsibility for ERM (Question 5)

According to the COSO framework it is the ultimate responsibility of the ERM begins at the top level, it is the responsibility of the CEO to take ensure its participation and implementation. However executives at various levels of the management also form an integral part of this structure. ERM should be an integral part of the organization as a whole and thus it is every managers responsibility and accountability to ensure good results.

The CEO holds the ultimate responsibility of strategizing and prioritizing the risks and its management. He delegates the authority along with its responsibility to down the levels. The Board of Directors helps in prioritizing the risks and taking care of the critical risks managements as a part of their oversight activity. While the Risk management Committee would be evolved with the decision making aspects involving the developing, evaluating, and monitoring the risk policies. The CRO who forms a part of the risk committee is also give the authority for managing and reporting the risks to the management. He binds the various strategic and planning processes of the business together with the assessment of various risks.

As per the survey conducted in UAE, majority of the firms had their separate ERM Manager /Risk Management committee who was responsible for managing the various risk activities. While 30% of them responded of having ERM/Risk Management Committee, the firms where the CFO was at the upper hand for taking decision related to the risk management were 25%. While for 15%% of the firms the ultimate responsibility was laid on the CEO, the minority 5% of these risks management activities were the responsibilities of the Audit committee.

There were also firms where none of the above directors were involved with the risk management activity. 25% of the firms either delegated these responsibilities to the Group Finance Manager, Compliance and Internal Audit or the Head of Credit Control.

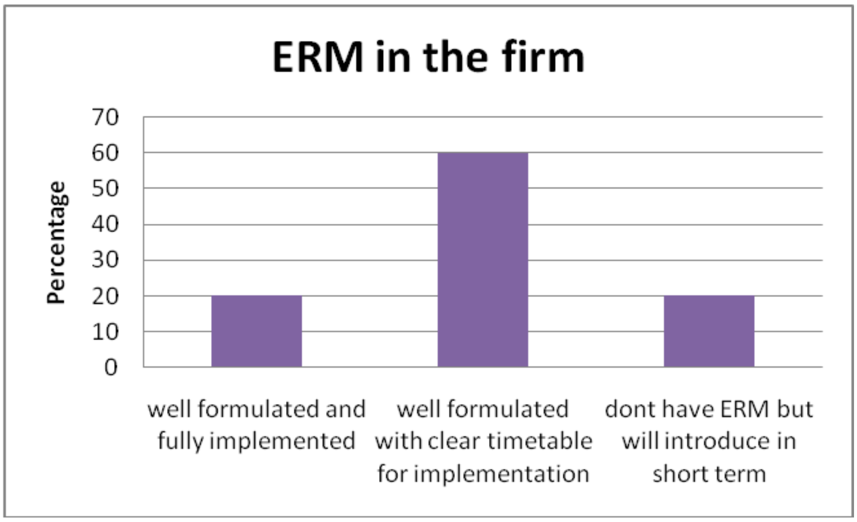


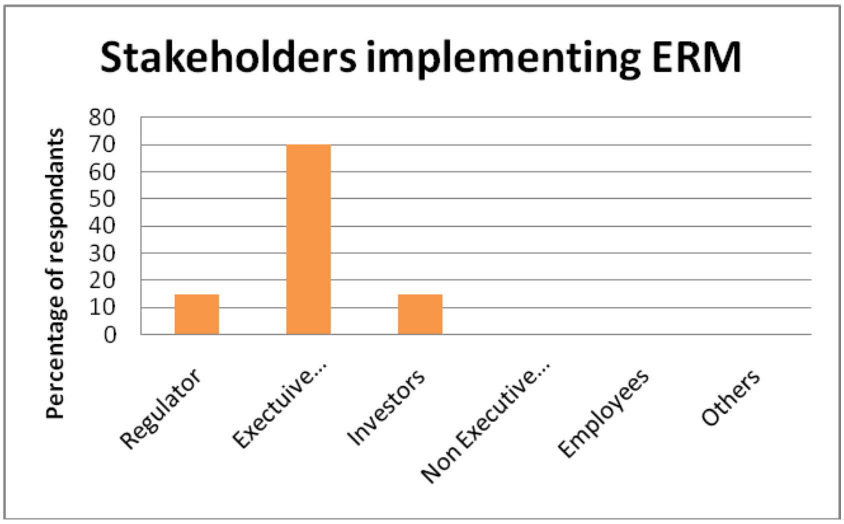
❖ Company approach to ERM and who is exerting the pressure towards its implementation? (Question 6 ,7)

With the ever changing business environment, organizations face challenges at every stage of investments. The CEO's and the management need to manage their resources parallel with the strategic goals set by the firm as well provide assurance to its investors and stakeholders. ERM thus forms an integral activity in ensuring that the firm meets its challenges by overseeing, controlling and effectively managing risks and resources. ERM needs to be applied across the enterprise. However for most of the firms the focus still is on the traditional silos risk management model where the objective lies more on the protection of the enterprise value rather than the protection and enhancement of the business value. The emphasis is more the financial and operational objective rather than the strategic setting objective. However few companies implemented ERM approach in all the aspects of business. While the others are still at the early stages of implementing and developing the ERM structure.

Just 20% of the firm's survey assured that they have the ERM strategy well formulated across the business and fully implemented while 60% of the companies had the ERM strategy well-formulated and defined a certain time table for its implementation. Knowing the importance and the need for ERM the remaining 20% of the firms agreed that they did not have any ERM Strategy but had plans to introduce the same in the near future.

Implementation of ERM requires the identification and the understanding of various risks and prioritizing them as per the need of the company. It involves setting up the current and the desired future risk capabilities of the firm and the bridge the gap between them. While 70% of the companies were implementing ERM practices as a decision by the Executive Management, however the investors and the Regulators (15% each) were also the driving force behind the implementation of the ERM approach.



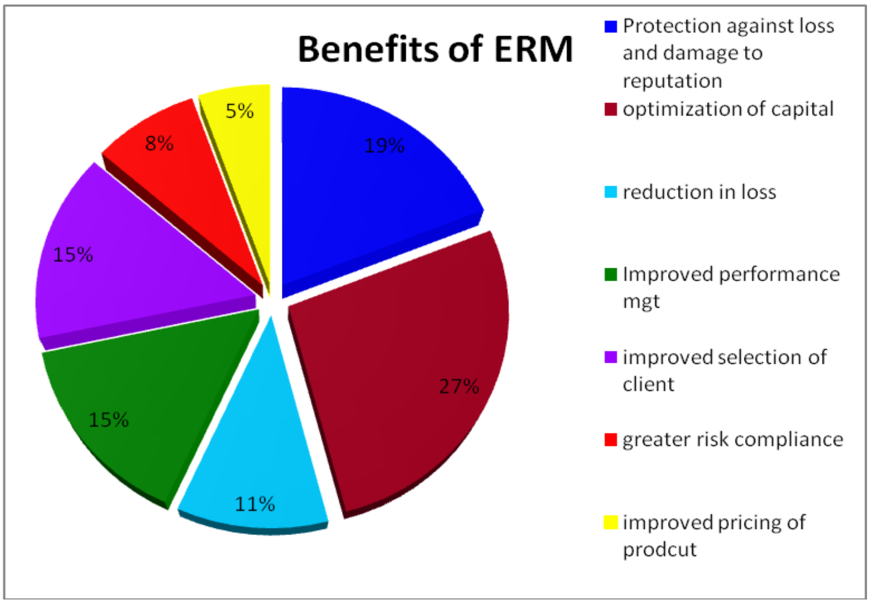


- Benefits of ERM (Question 8)

As per the definition of ERM by COSO, ERM being applied for strategy setting across the enterprise, it helps in the identification of those events that may affect the business and to manage those risks by providing a reasonable assurance towards the business goals. Thus as the definition itself explains the need and the objective for implementation of ERM is the assurance towards the achievement of business objective. It helps the management to set its strategic goals taking into consideration the risk appetite of the firm and identify and manage risks as well as their impact on the business.

Also with the continuous change in the business environment at an accelerating pace it becomes necessary for the firm to manage its risks by identifying them and prioritizing as the need required. Since ERM is to be applied across the enterprise it helps to create risk awareness amongst the management and the staff towards developing the culture within the firm.

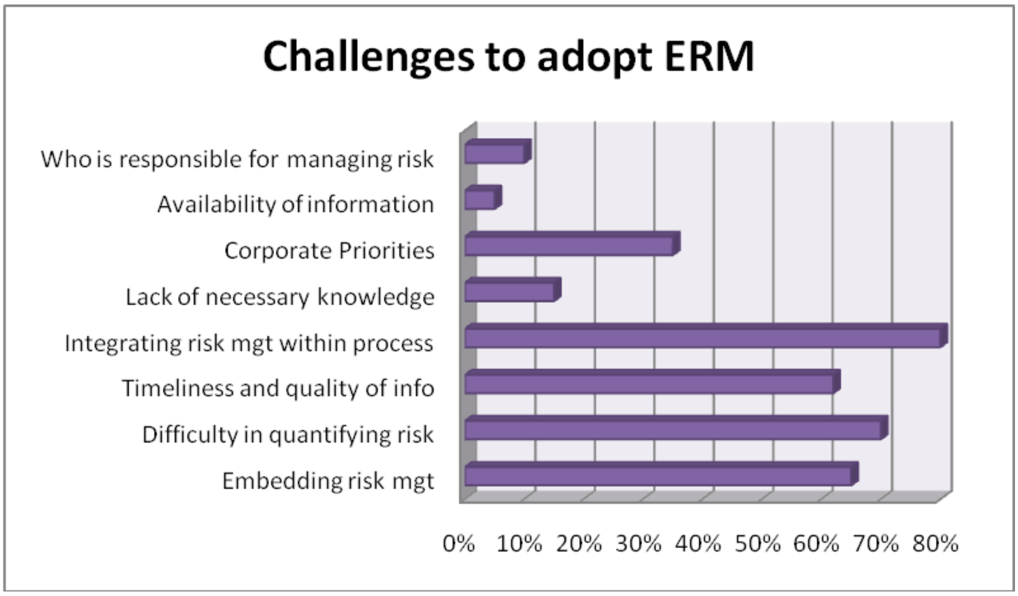
As per the results of the survey 100 % of the executive cite that the most important benefit of ERM for an organization is the optimization of the allocation of the economic resources and capital. While 60% considered protection against loss and damage to reputation to be the next most important benefit followed by 55% voting the improvement in the performance of the management and improved selection of cliental according to the risk profile. 40% considered reduction in losses to be the 4th most important benefit of ERM and last but not the least was the increase in the level of compliance and improvement in product pricing by 20% specially those in the Retail Industry.



❖ Challenges of adopting ERM (Question 9)

The COSO definition of ERM clearly states that it should be implemented across the organization, at every level taking into consideration every level of risk. With the advancement in technology and business environment, every firm is facing risk and to sustain in the present age no business can afford to ignore their risks. However irrespective of the size of the firm, they should make efforts to implement ERM be it less structured compared to other firms. It is more important to be associated with its own risk assessment and the strategic goals of the firm. However during the course of action a firm may face many challenges.

While majority 80% of the executives consider the difficulty in the integration of risk management with the other business process to be the great challenge a firm faces, 70% considered the difficulty of quantifying the risk to be the greatest challenge. Embedding risk management within the culture and timeliness and quality of information was amongst the top three challenges (65%) of ERM. Often the disputes with regards to the prioritizing its own corporate strategies within the organization, was considered to be another great challenge as cited by more than 30% of the respondents followed by the lack of information and clarity on the responsibility of risk management holding 15% and 10% respectively.

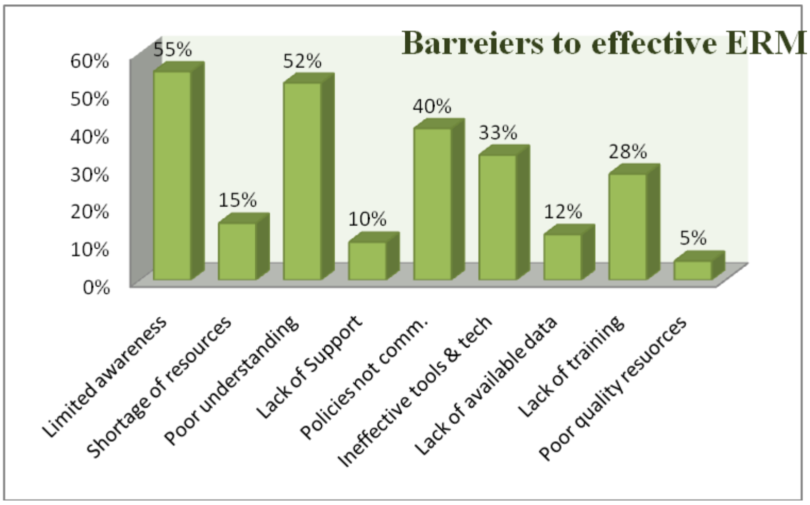


- Barriers towards effective ERM (Question 10)

The above challenges are also be considered as a barrier towards effective implementation of ERM across the firm. As stated earlier that ERM application should be forced across the enterprise at every level of the management, it is thus necessary that every unit of the firm is well aware of the importance and the application of ERM and it is thus embedded within the risk culture of the organization. When combined togather limited awareness along with poor understanding are consideed to be the biggest barriers for a company. Limited awareness or the culture of risk in an organisation results to poor understanding of issues. 55% consider limited awareness to be a major barrier while 52% cite poor understanding as a reason for the same.

Every ERM policy should be formulated taking into consideration the firms strategic objectives. It is the responsibility of the management to decide a policy that fits the firms objectives, risk profiles, its financial capabilities, competitive surroundings etc. Once decided upon the same should be communicate well down the line. However 40% of the UAE firms considers lack of such communication of the policies and procedure formulated by the top management to be well communicated towards the lower level.

As a step towards building the risk, management capabilities the firm needs to access the risk in terms of its process, planning and prioritizing and develop its responses. Accordingly, it does it by designing and implementing its capabilities, which include various processes, methodologies, and technologies. Thus, lack of effective tools and technologies (33%), shortage of resources (15%) and lack of training (28%) are amongst the list of few of the barriers towards effective implementation of ERM.

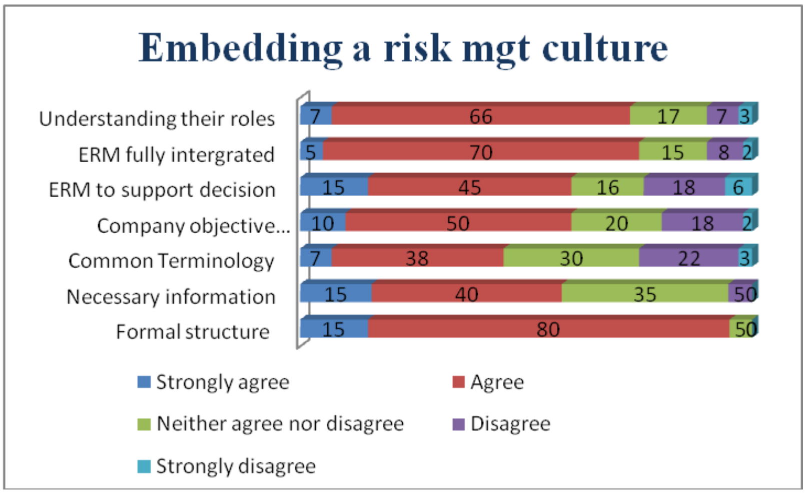


❖ ERM in UAE Firms (Question 11,12)

ERM emphasizes on strategic setting of the firms objective, thus lending its responsibility to the top management, executive management and down the organization. It is thus necessary that a formal structure is in place whereby appropriate risk planning and monitoring of the risks and responses conducted. 80% of the UAE firms surveyed agreed to having such a formal structure.

Although there is no guaranteed result towards success but ERM does help in providing information beneficial to the managers and process. In order to decide upon the nature of ERM the management need to prepare the foundation of its objectives, planning, risk appetite, financial structures etc thus providing the necessary information to manage such risks at various level. Considering the above fact, 75% of them support this view. Along with 40% - 60% also support the fact that their firms need to have a common terminology, methodology and set standards which helped them in managing the risk.

While a sophisticated and a highly complex process are not necessary for evaluating the risk, what is more important is selection of an appropriate method and technologies keeping in context with the strategies of the firm. The ERM solutions should be such that they support the business decision and are fully integrated within the organization and all its business units. 70% and above of the firms supported and agreed to these views, however the ERM implementations should lay more efforts with respect to the ERM strategy being applicable though out the business unit at all its levels.

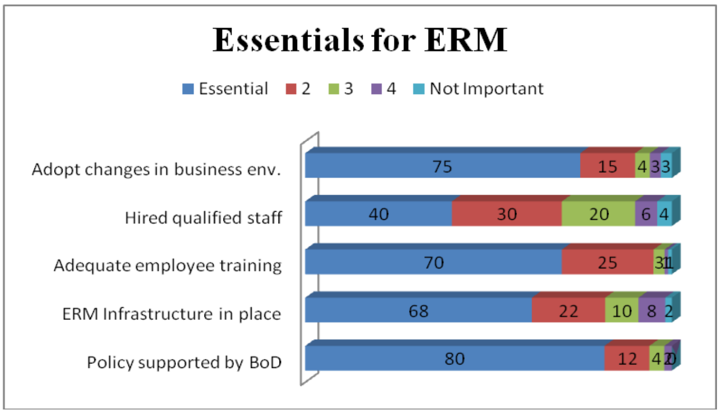


Although the ultimate responsibility lies at the top level management with regards to decision making, planning and implementing, however executives at every level of the firm need to contribute their efforts and accountability to ensure a successful ERM process. A mixed response from the UAE market was received with respect to the integration of ERM. Business units which were educated of the organizational risks and it strategies, were also well aware their roles and responsibility along with the level of accountability with regards to managing the same.

The senior managements of the UAE firms were well aware of the essentials necessary to carry a successful implementation. ERM provides a back up support to the management that the objectives set by the firms can be achieved. Amongst the 5 most important fundamentals for implementing a successful ERM, 'Policy being supported at the BoD and Executive level' was at the top with all the respondents considering it to be the most critical. A firm sets its strategies keeping in view the risk structure and appetite of the firm, and this decision is ultimately the responsibility of the top management.

With the continuous change in the business environment risk increases at every level, it is thus important that the business identifies plans and prioritizes its risk to the changing needs. The next most important essential considered (75%) was the ability of the firm to adapt itself to the changing business environment, as new risks emerge, it becomes important to take new actions as per the need of the hour.

Similarly employees training (70%), having an enterprise risk data infrastructure (68%) and qualified staff (40%) were some of the important essentials.



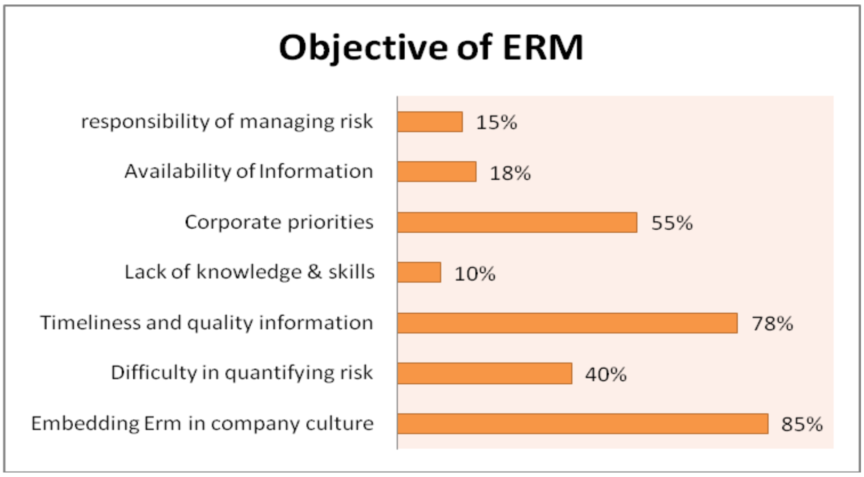
- ❖ Objectives of adopting ERM (Question 13)

ERM, despite the changing environment, helps in constructing an oversight of the firm, help in its control, improvement, and achievement of the firm's objectives by prioritizing its risk and risk appetite. It thus helps in proving the management with the assurance of achieving the objectives and goals set by the management.

85% of the firms consider 'embedding of the risk management within the company's culture' to be the most important benefit of ERM. Every firm faces risk, whatever be the size and turnover of the business. With the increasing complexity and the challenges faced by the firms, no firm can afford to ignore such risks. Thus, ERM provides a framework within which a firm can compare its present capabilities.

78% considered the timeliness and the quality of information to be the second most essential objective of ERM. Though ERM does not guarantee success however, it helps manager gaining information that helps in better and more profitable decision-making, planning, and performance.

55% considered 'avoiding the conflict in corporate priorities' to be amongst the main objective for adopting ERM. To implement ERM it is necessary to emphasize on the strategic-setting. Every firm needs to prioritize its risk , set organizational goals, structure, financials, profile and considering these factors implement the ERM framework. Thus it needs to identify and accordingly prioritize its risk and objectives.



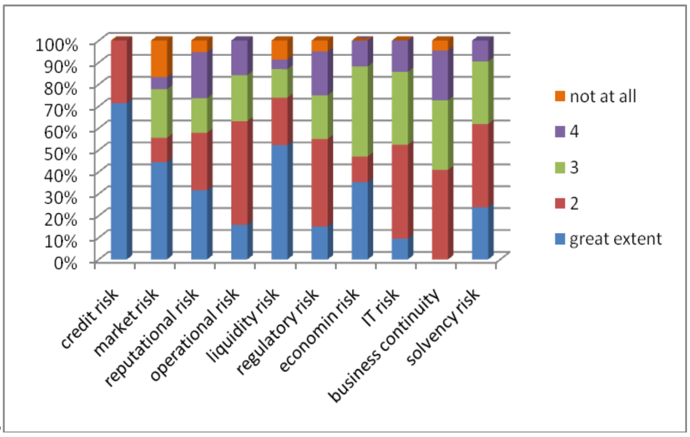
❖ Please rate the following issues in terms of the challenges they pose to your business? To what extent do you believe an ERM strategy could help your business address these issues? (Question 15,16)

All the firms surveyed had a clear and define ERM policy and procedure which covered almost all types of risks. Because of the change in the business environment firms keep facing new risks.

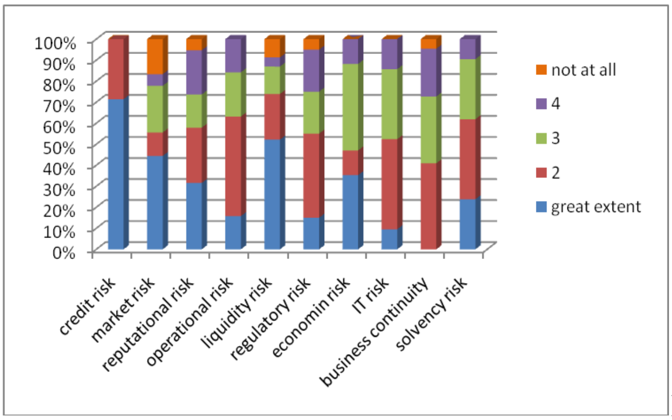
Credit risk stands at the forefront of the ERM development. With the recent global financial crisis, credit market has been highlighted as a potential difficulty (70%). Most of the respondents were confident of aggregating the credit risk policies and putting it forth into a well documented and applicable to the business units.

Reputational risk is considered one of the great concerns in today's time. Although difficult to quantify, it is a combined effect of various risk put together, although for some firms(10%) it is not a matter for great concern. They do not consider it a separate risk category, however majority of it (55%) are considering ERM strategies to manage it. Although defined as one of the important risk factor, most of the firms had no clear idea of defining, measuring and monitoring reputational risk with no specific policies and procedure to deal with the same.

IT Risk can pose great threat to the business if overlooked. As collection of data and proper communication forms the basis of effective ERM, it is this department, which helps in gathering, analyzing and reporting accurate and timely information to various managers and departmental heads. Unfortunately, not many respondents consider it to be of great



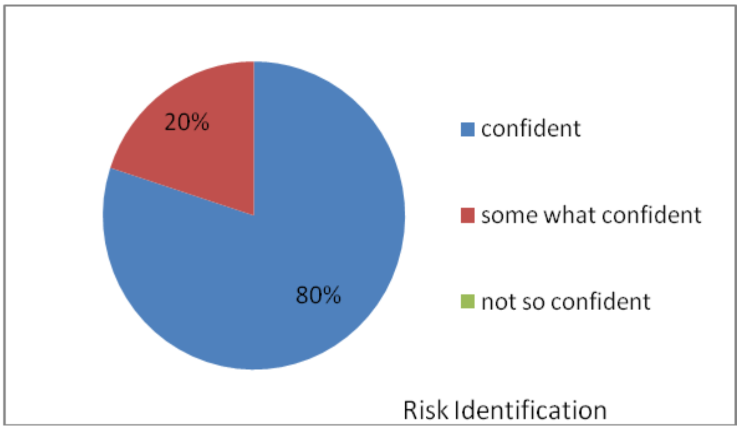
importance. As a challenge to business



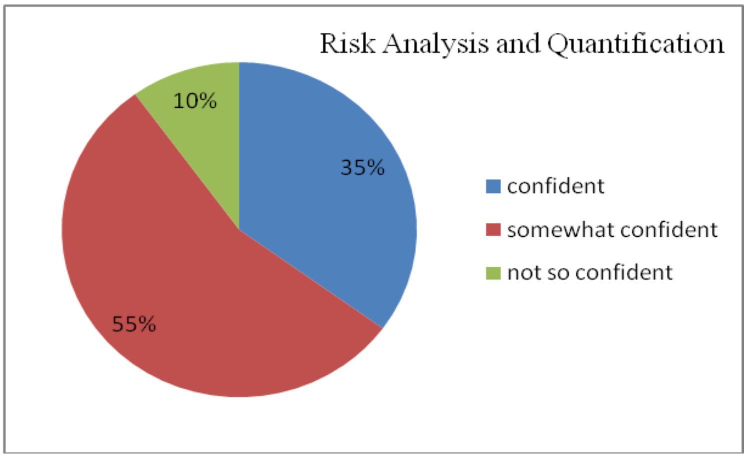
ERM strategy for the risks

- ❖ Elements of Risks (Question 18)

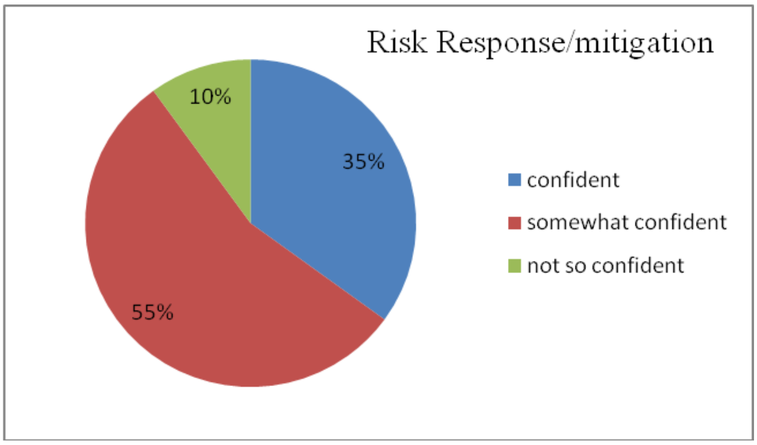
UAE managements are 80% confident that their firms are effective in identifying its risk, being the first and the most important step towards ERM process. Regardless of the size, every firm faces risk. Since the firm needs to achieve its' objective, to gain the return over its investment, it is vital that it identifies and manages its risk as per its capabilities.



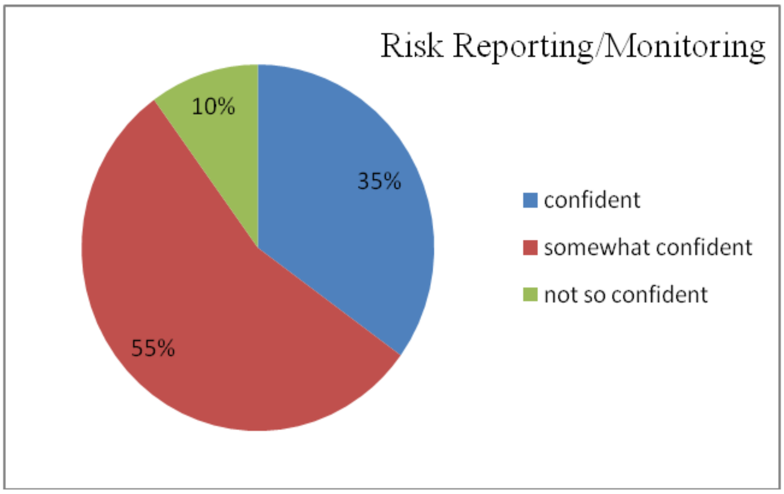
Once the risks are identified, the next vital step is to analyze and quantify the risk. The firm surveyed were partially confident about its application. Assessment helps a manager to estimate the effect of each risk on the firm and its contribution to the total risk. It helps to focus on the planning process of the priority risks and accordingly develop the policies and resource allocation.



Once the risks is identified and assessed, the management needs to decide upon how to respond to these risks and mitigate them. Most of the firms (75%) were somewhat confident enough in responding to their risks. ERM benefits a firm by making conscious decision. Responding to the risks is considering by the fact as to what decision the management takes and what are the benefits and consequences of the decisions taken. The decision should be such that it result in residual risk within the risk appetite of the firm. While 10% of them responded that the firm in not confident when it comes to responding to there risks.



This is then followed by reporting and monitoring of the risk information. Communication that is risk-related should flow effectively up, down and across the firm amongst all its departments. This further helps the employees and the management to adapt to the changing environment easily. Monitoring also ensures that risk management practices are inline and also helps in discovering the mistakes at an early stage. It also provides the feedback into all its activities for improving the current and the future prospects. 35% of the respondent were confident about there firms having a proper channel of reporting and thus effective monitoring, while majority of them (55%) where reasonable confident about it.

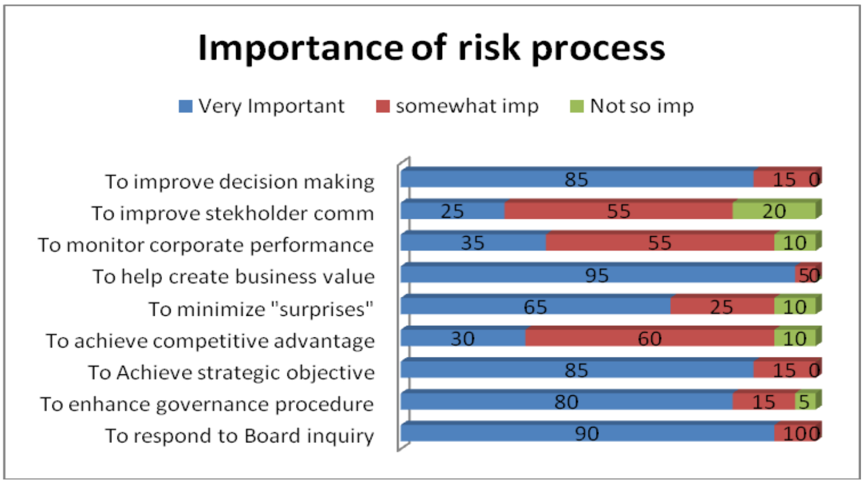


❖ Importance of the Risk Elements Process (Question 19)

ERM as popularly known, an integrated approach, that helps to understand and manage the risks thus improving upon the quality of decision making by the management. As discussed above the management of the risk elements process within the organization, as a whole these elements hold great importance in each sphere of the firm. All those surveyed (90%) were very confident in knowing the importance of these elements specifically in responding to the Board inquiry/request/directives. The senior management has gained confidence over the significant changes they have made over the past years by understanding the risk and the capabilities they have to manage them. Of the firms surveyed, 80% considered it important for achieving the strategic objectives of the firm. ERM provides a back up to the management towards striving its goals and objectives by defining the risks and the risk appetite of the firm and accordingly allocating its resources.

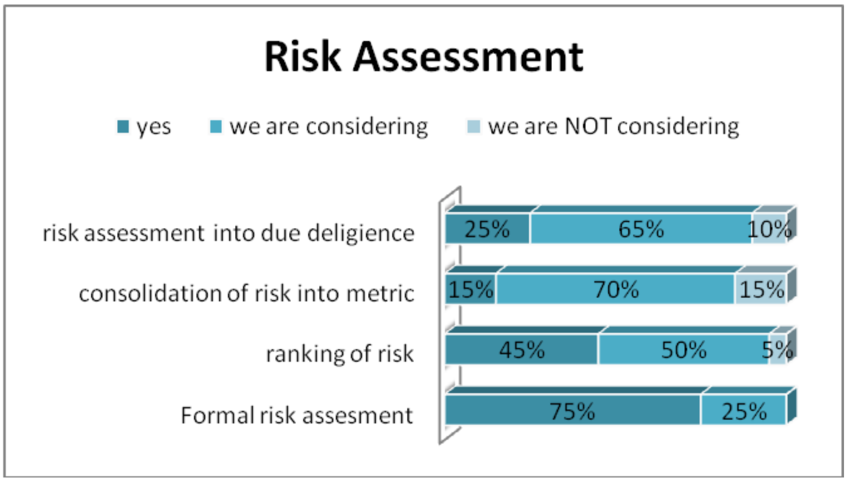
These elements of risk also hold its importance towards enhancement of governance procedure. As governance is a procedure whereby the Board relooks into the executive decisions in accordance with the laws towards the achievement of its business objectives, thus giving enough confidence to the investor and the stakeholders towards its transparent attitude, ERM on the other hand provides a similar confidence to the Board, executives and the investors by identifying, analyzing and managing its risk based on the foundation of transparency. While more than half of the respondents considered it 'very important' while for the rest of it did hold its importance though not at a great level. At the same time, it also leads to better and more improved communication with the shareholders/stakeholders.

Achieving competitive advantage, minimization of "surprises", creation of business value and improvement of organization-wide decision making where considered few of the other factors that hold importance in the firm. Business value can be enhanced by first defining the business objectives and thus allocating the resources and its funds towards it achievement. Evaluations of the key variables that assist towards greater performance level are exposed with the help of ERM.



- Risk Assessment (QUESTION 20)

Risk assessment is considered to be one of the most vital element o the risk process. It is a process whereby the risk identified are evaluated and thus creating an interrelation between them. It is thus systematically analyzing the impact of these risks on the organizational objectives. These results to risk responses whereby the available information is applied to determine a favorable future event. Knowing its importance towards an effective and more productive ERM, UAE firms do conduct a formal enterprise risk assessment. Almost 75% of the firms surveys did conduct the same while the others are under the process of considering the same. Almost than half of the firms (45%) did this by ranking the materiality of individual risks from enterprise risk perspective and thus consolidating the ranks into a common metrics. Risk assessment was also incorporated into the organizations due diligence process by few of the firms (15%) while most of the others were considering making risk assessment a part of it.

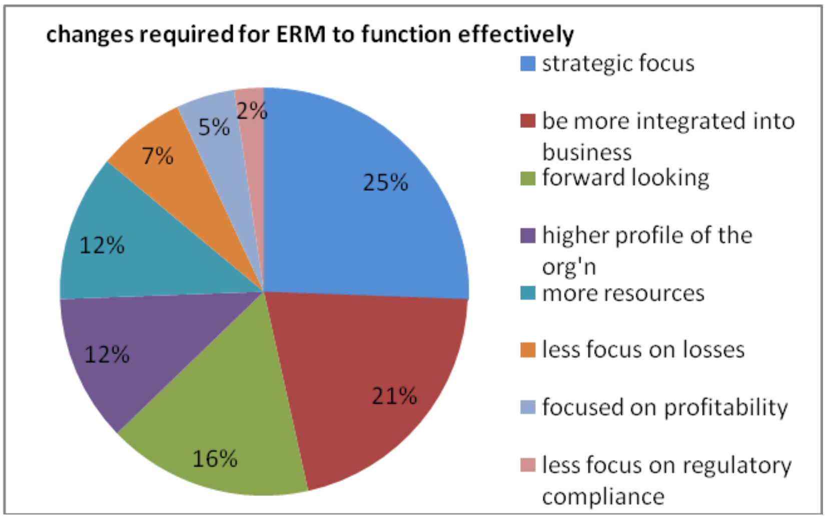


- Risk and Control Management (Question 21,22,23,24)

With the increase in the challenges of the business world, opportunities and risk are at a constant change. it is thus important to recognize, assess, evaluate and manage these risks to achieve the firms objective. When survey about the changes that a firm need to adopt for an effective control management, almost all of the respondents (95%) considered having a strategic focus by the firm and its management to be the most important factor. Identification of the risk factors is not the only vital step for an effective ERM, the firm needs to identify these risk factors and group them as per their impact on the business objective.

As ERM is about integrating the risk process into every unit, division and individual of the firm, 80% of the respondents considered it to be the next most change that could result to an effective risk control. Every unit of the firm need to be educated and informed of the strategic goals as well as the risk related to the firm and their impact to the future events that can thus become an obstacle in the firms success.

While having more recourses, a forward-looking approach and a higher profile in the risk management team were considered to the next important factor. As strategy objective as set at the top level management, thus the management need to be identified and given the accountability along with the responsibility to ensure successful implementation. Their focus should be more on the opportunities and events that result to the profitability of the firm rather than the losses incurred. In addition, respondents believed that less focus should be laid on the regulatory compliance .



- Internal Factors (question 22)

Those surveyed for this report emphasized that the increased focus on the risk and the controls by the senior management and the board had maximum impact towards the development of the risks and control management. Survey results indicate that 70% of the respondents supported this.

Whereas amongst the other main internal factors that could bring an impact on the development of risk and control to the organization were Focus on the reduction of cost and increase efficiency, expansion of market such as product development, geographic expansion, emergence of new operation risks, occurrence of unexpected events, and adoption of ERM model. While strong culture of risk instilled within the organization and other factors such as the size of the firm in terms of business and work force could also relatively have an impact on the firm development.

- External factors (Question 23)

When questioned about the external factors that could have the greatest impact on the same, 80% cited the regulatory pressure and financial market volatility to be on the top of the list. While emergence of new business risks and the greater level of uncertainty at political and macro-economic level was cited by 65% of the respondents to be the next most impact able factors. Amongst the rarest situations governance scandals, change in ownership and occurrence of unexpected events could have such impact to the firms.

- Overcoming these barriers (Question 24)

Although communication of information provides the bases for ERM, but it is the people and the process that help in managing the risk. It is thus vital that awareness and knowledge of risk management builds up higher profile and control within the firm. Of those survey 78% opted it to be the most essential, for overcoming the various internal and external barriers. Risk capabilities of firm need to be formulated keeping in mind the firms resources and thus make a conscious decision. Along with this, a more innovative approach towards risk and control management is also required.

By adopting integrated risk management, a firm evaluates the firm total risk instead of individual risk at a time. This also benefits a firm as the others offset some risks. Thus 55% executive considered it is necessary to strengthen the links between risk and corporate performance in order to ensure a success in future.

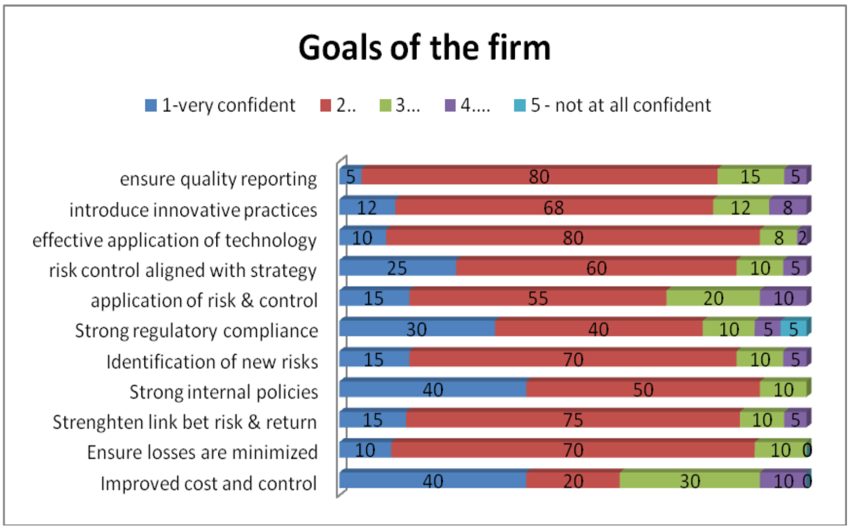
With the ever changing business environment, new risks keeping emerging. Also with the advancement in technology, the executives need to be aware of these. These technologies have also enriched the palette of risk management techniques available to the manager. Thus, greater reliance on technology is considered an important step towards overcoming these barriers by 45% of the respondents.

While amongst the others few steps that could overcome the risk control barriers were greater use of outsourcing/co-sourcing for ERM, recruitment of risk and internal audit professional, greater focus on the toning up of top officials and encouragement of greater mobility of the staff.

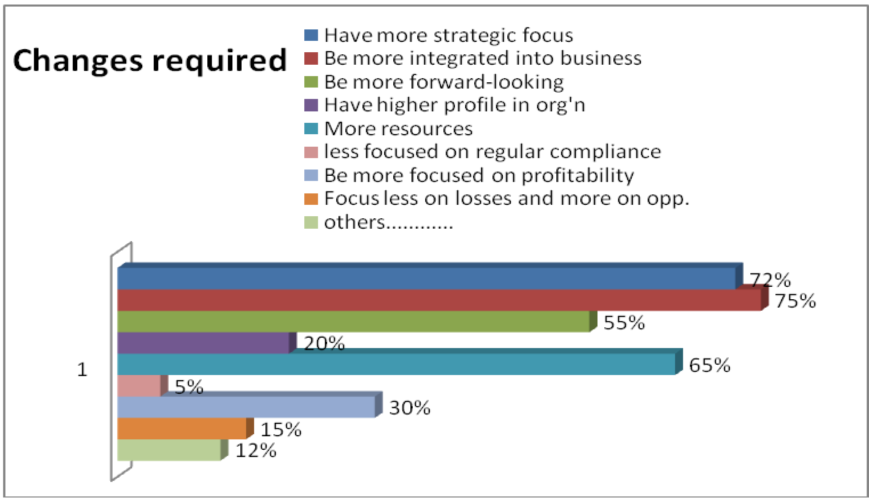
- ❖ Organizations' ERM Priorities to achieve its Goals (Question 25,26)

The last to questions took a sneak into the future priorities a firm would develop in order to achieve its goals with respect to the ERM policies and procedures to ensure its effectiveness.

While 60% above of the firms were 'some-what confident' about improving its cost and control position, they were more confident on minimizing their losses to begin with and thus strengthen the link between risk and returns. At the same time their aim was also to ensure that strong internal policies and procedures are developed and the same are applied thus to improve the business performance. Although not many were confident enough to ensure that the risks identified are aligned as per the strategy of the business however by applying the latest technologies and tools firm were positive about providing it a support for the risk and control.



In order to achieve the firm's objects it was also required that the firm change its methodologies and prospects. More than 70% of the respondents highlighted this change by having a more strategic focus and integrating ERM into in business units. Also UAE firms lack the required tools, technologies and resources in order to assure its success. By being more forward-looking a firm could direct itself to its goals. They also agreed that less focus should be on losses and more on the opportunities, thus availing the best out of it.



Conclusion of survey

ERM is a concept that has gained momentum over the past few years. With the increased the business environment and new risks emerging it is important that a firm identify and manage these risks and availing the best of the opportunities. Although COSO was not being considered and used as a tool for guidance and no specific CRO was assigned for this task, different companies had designate either the CFO or a Risk Management committee for their process. Majority of the firms survey had a well formulated and integrated ERM approach. The others were planning to introduce the same in the near future. Because Dubai is considered to the commercial hub of the country it is exposed to various risks which are inherent for such a growing economy. It was thus the executive management that exerted maximum pressure towards the implementation of the ERM strategy within the organization.

Although majority of the respondents were well aware of the concept of ERM, its benefits, challenges and barriers a firm faces in implementing these ERM strategies. It was encouraging to know that they considered it to be a tool of optimizing the firms resources and achieving its present objectives taking into consideration the various risk.

As a step towards effective implementation the firms did have a formal structure in place for monitoring its risks. They were also well aware of the various information required, its terminologies, methodologies and the importance of integrating the process within its planning process. However, there was still the need to put these into practice at a wide scale. In order to ensure the same a formal training program for the employees with the help of external consultancies or well-defined ERM committee needs to be promoted where the firms and each of its executive at every level and unit is made well aware of it need and importance for adopting such a program.

As a requirement of COSO to apply ERM “across the enterprise”, firms in UAE fail to do so uniformly across the business, thus lacking the focus on all key business risks. However large organizations diversified into various different sectors of business have implemented it as defines while other have began their journey toward this goal. Although some firms did conduct formal risk assessment, there was a need to consolidate these into a common matrix.

There is thus a need that the government takes a comprehensive step towards the formulation of such polices and procedures that enforce a regulatory mandate to be applied by the firms to accommodate along with their regular policies. And also adopt a common risk language and management as well as an oversight of the firm and its governance.

APPENDIX- I

QUESTIONNAIRE (Enterprise Risk Management)

1. Name :
2. Designation :
3. Name of the Company :
4. Industry :

5. Who in your organization has primary responsibility for overseeing risk management activities

- CRO
- ERM / Risk management committee
- CEO
- CFO
- Audit committee
- Head of Business Risk
- Line manager
- Regional Directors
- Others, please specify …………………………………………………..

6. Which of the following best describe your company's approach to ERM

- We have ERM strategy in place but not well communicated across the business or between departments
- We have an ERM strategy that is well-formulated across the business, with clear timetable for implementation
- We have an ERM strategy in place but it is not a fully developed concept and there is no clear time table for implementation
- We have an ERM strategy that is well-formulated across the business and fully implemented
- We don't have an ERM strategy in place but we plan to introduce one in he short-term
- We have no plans to introducing an ERM strategy

7. Which of the following stakeholder are currently exerting pressure on your organization to implement or refine an ERM strategy?

- Regulators
- Executive Management
- Investors
- Non-Executive Director
- Employees
- Others, please specify……………………………………………………..

8. Which of the following do you believe are the most important potential benefits of an ERM strategy

	Protection against loss and damage to reputation
	Optimized allocation of economic capital
	Reduction in losses
	Improved performance management
	Improved selection of client according to risk profile
	Greater levels of compliance
	Improved pricing of products
	Other, please specify……………………………………………………

9. What are the three main challenges of adopting an ERM strategy

	Embedding risk management within the culture
	Difficulty in quantifying risks
	Timeliness and quality of information
	Difficulty integrating risk management with other business process
	Lack of necessary knowledge and skills within the organization
	Corporate priorities are often conflicting
	Availability of information
	It’s not clear who is responsible for managing risk
	Others, pleas specify……………………………………………………

10. Barriers to effective risk and controls
(Multiple responses allowed)

	Limited awareness or culture of risk in the organization
	Shortage of resources
	Poor understanding of issues in wider business
	Lack of support from senior management

	Policies and procedures around risk and controls not communicated clearly enough
	Ineffective tools and technology
	Shortage of available talent Lack of available data
	Lack of training
	Poor quality of resources
	Other, please specify ………………………………………………………………………………
	Don't know

11. To what extent do you agree or disagree with the following statement

a- Strongly Agree b- Agree

c- Neither agree nor disagree d- Disagree e- Strongly disagree

	There is a formal structure in place for monitoring risk and response
	We have the necessary information to manage risk at enterprise level
	We have a common terminology, methodology and set standards for managing risks.
	Company objective, policies and tolerance for risk are clearly communicated through the organization
	Enterprise risk management is used to support our business decisions
	Our risk management process is fully integrated within the business planning process
	Risk management is fully integrated across all functions and business units
	Everyone in our organization understands the role they play and their level of accountability with regards to managing risk

12. How important do you believe each of the following would be in implementation of a successful ERM strategy

1. Essential 2.. 3… 4…. 5. Not Essential

	Policy is supported at board of director or executive level
	Having an enterprise risk data infrastructure in place
	Adequate employee training
	Hired qualified staff
	Ability for organizations to adopt changes in business environment

13. In your opinion, what are the <u>three main objectives</u> of adopting an ERM strategy

	Embedding risk management within company culture
	Difficulty in quantifying risk
	Timelines and quality of information
	Lack of necessary knowledge and skills within the organization
	Corporate priorities are often conflicting
	Availability of information
	Its not clear who is responsible for managing the risk
	Others, please specify…………………………………………………

14. What resources have you used to improve your business' understanding and implementation of ERM?

	Formal Training program for employees
	External Consultancies
	Enterprise Risk Management Committees
	Industry Forums
	Industry reports
	Analysts

15. Please rate the following issues in terms of the challenges they pose to your business

1. Significant 2.. 3… 4… 5. Not significant

	Credit Risk
	Market Risk
	Reputational Risk
	Operational Risk
	Liquidity risk
	Regulatory risk
	Economic Risk
	IT Risk
	Business Continuity/ Disaster recovery
	Solvency Risk

16. To what extent do you believe an ERM strategy could help your business address these issues

1. Great Extent 2.. 3… 4…. 5. Not at all

	Credit Risk
	Market Risk
	Reputational Risk
	Operational Risk
	Liquidity risk
	Regulatory risk
	Economic Risk
	IT Risk
	Business Continuity/ Disaster recovery
	Solvency Risk

17. In which one of risk has your business invested the most over the last 12 months

	Credit Risk management
	Internal risk management, methodology, process policies
	Operational risk
	Risk data infrastructure
	Market risk management
	Anti- money laundering
	Asset and liability management
	Risk management solutions

18. How confident are you that your corporation effectively manages the following elements of the risk process?

a-Very Confident b- Somewhat confident c- Not so Confident

	Risk identification
	Risk analysis and quantification
	Risk response/mitigation
	Risk reporting and monitoring
	Risk convergence

19. How important are each of the following in driving improvements in your company's risk management programs or initiatives?

a- Very Important b-Somewhat Important c-Not Too Important

	To respond to Board inquiry/ request/directive
	To enhance governance procedures
	To achieve strategic objectives

	To achieve competitive advantage
	To minimize “surprises”
	To help create business value
	To monitor corporate performance
	To improve stakeholder/ shareholder communication
	To improve organization-wide decision-making

20. With respect to risk assessment does your organization

a- yes b- we are considering c- we are not considering

	Conduct a formal enterprise risk assessment
	Rank the materiality of individual risks from an enterprise risk perspective
	Consolidate the ranking of disparate risk using a common metric
	Incorporate formal risk assessment into organization’s due diligence process for mergers, acquisition’s or major investments

21. What are the changes required for risk and controls to function more effectively

	Have a more strategic focus
	Be more integrated into business units
	Be more forward-looking
	Have a higher profile in the organization
	More resources
	Focus less on losses and more on opportunities
	Be more focused on profitability
	Be less focused on regulatory compliance
	Other, please specify
	Don’t know

22. Over the next three years, which of the following internal factors do you expect will have most impact on the development of risk and controls management at your organization? Select up to three.

	Increased focus on risk and controls by senior management and the board
	Focus on cost reduction and efficiency
	Market expansion (e.g. new product development)
	Geographic expansion
	Emergence of new operational risks
	Stronger culture of risk instilled within the organization
	Aim to secure competitive advantage Aim of increasing value derived from risk and controls structure
	Adoption of enterprise risk management model
	Unexpected events incurred at the organization
	Concern that risk and controls structure is no longer fit for purpose
	Other, please specify
	Don’t know

23. Over the next three years, which of the following external factors do you expect will have the greatest impact on risk and controls management at your organization? (Select up to three)

	Regulatory pressures
	Emergence of new business risks
	Increased focus on risk and controls from shareholders or investors
	Demands for greater accountability from stakeholders
	Greater levels of macroeconomic and political uncertainty
	Financial market volatility
	Increased use of off-shoring
	Governance scandals at other organizations

	Unexpected events incurred at other organizations
	Change of ownership (e.g. take private, acquisition)
	Other, please specify
	Don’t know

24. Which of the following steps is your organization taking to overcome this barrier?

(Select all that apply)

	Higher profile for risk and controls within the organization
	More innovative approach to risk and controls management
	Greater reliance on technology
	Strengthening links between risk and corporate performance
	Greater focus on “tone from the top”
	Recruitment of risk and internal audit professionals
	Greater use of outsourcing
	Greater use of outsourcing/co-sourcing for ERM or internal audit skills
	Encouraging greater mobility of staff
	Other, please specify
	Don't know

25. How confident are you that your organization will be able to achieve these goals over the next three years?

Rate on a scale of 1 to 5, where 1=Very confident and 5=Not at all confident.

	Improve cost and control position
	Ensure that losses are minimized
	Strengthen links between risk and return
	Maintain strong internal policies and procedures

	Ensure that new and emerging risks continue to be identified
	Maintain a strong focus on regulatory compliance
	Apply risk and controls management to improve business performance
	Ensure that risk and controls is aligned with strategy of the business
	Ensure that technology is effectively applied to support risk and controls
	Evaluate and introduce innovative practices, such as continuous audit
	Ensure quality of reporting

26. Which of the following would need to change in order for the risk and controls structure in your organization to meet its goals more effectively? (Select all that apply)

	Have a more strategic focus
	Be more integrated into business units
	Be more forward-looking
	Have a higher profile in the organization
	More resources
	Focus less on losses and more on opportunities
	Be more focused on profitability
	Be less focused on regulatory compliance
	Other, please specify
	Don’t know

Bibliography

Andrew Berry and Julian Philips (1998) ; Enterprise risk Management – Pulling it Together

Anette Mikes ; Risk Management at Crunch Time: Are Chief Risk Officers compliance champions or Business Partners?

Betty Simkins , Steven A Ramirez (2008) ; Enterprise-Wide Risk Management and Corporate Governance. *Loyola University Chicago Law Journal, Vol. 39, 2008* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1657036

Brian W. Nocco and René M. Stulz (2006) ; Enterprise Risk Management: Theory and Practice.

Brooke Paul (2000) ; How Much Risk is Too Much?—Risk Management helps companies balance risk of inaction Vs The Cost of Action to Cut Risk http://lirnproxy.museglobal.com/MuseSessionID=1642ee7d873747765a4ff79ce71f3160/MuseHost=web1.infotrac-custom.com/MusePath/pdfserve/get_item/1/A52754218038.pdf

Bruce Mccuaig ; Practical Guidance: Seven Steps For Effective Enterprise Risk Management

CAS (2003); Overview of Enterprise Risk Management

Charles A (2008); Risk Management Failiure: What are they and when do they happen. http://www.ssrn.com/abstract=1278073

Christoph Van der Elst, Marijn van Daelen (2009) ; Risk Management in Euproprean and American Corporate Law. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1399647

Christopher (Kip) Bohn (2006); Enterprise Risk Management Quantification – An Opportunity

Danijela Milos Sprcic, Zeljko Sevic, Metka Tekavcic (2008) ; Corporate risk-management practices in Slovenian companies

Deloitte (2008); Perspectives on ERM and Risk Intelligent Enterprise –ERM Benchmark Survey

Donna Scimia (2010) ; Mitigating the cost of Organizational Behavioral risk.

Economist Intelligent Unit (2008) ; The bigger picture Enterprise risk management in financial services organizations.

Economist Intelligent Unit (2009) ; Managing risk in perilous times- Practical steps to accelerate recovery

Ellen Hexter, Matteo Tonello, and Sumon Bhaumik ; Assessing the climate of ERM in India http://www.kpmg.com.au/aci/docs/ent-risk-mgt.pdf

Ernst & Young (2009) ; Survey on Risk Management for Asset Management.

Gabriel Sabato ; Financial Crisis:Where did Risk Management Fail? http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1460762

Hans J Blommestein (2010) ; Risk Management after The Great Crash; Journal of Financial Transformation, April 2010, Volume 28, pp 131-137

Institute of Management Accountants (2008); Enterprise Risk Management; Frameworks, Elements and Integration

James Lam (2000) Enterprise-Wide Risk Management and the role of the Chief risk Officer

John R S Fraser, Karen Schoening-Thiessen and Betty J Simkins (2008); Who reads What Most Often? A Survey of ERM Literature Read by Executives

Kevin Dowd, David L Bartlett, Mark Chaplin, Patrick Kelliher, Chris O'Brien (2008) ; Risk Management in the UK insurance industry: the changing state of practice

Leen Paape, Ronald F Spekle; The Adoption and Design of Enterprise Risk Management Practices –An Empirical Study

Lisa K. Meulbroek (2002) ; Integrated Risk Management for the Firm: A Senior Manager's Guide

Mark Foster, Daniel T London, Eva Dewor (2009); Outlook Constructive Tension

Michelle M Harner (2010); Ignoring the Writing on the Wall: The Role of ERM in Economic Crisis. *Journal of Business and Technology Law, Vol. 5, p. 45, 2010* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1489586

Michelle M Harner (2010) ; Barriers to Effective Risk Management

Nevins Mokhtar Eid ; Enterprise Risk Management: Corporate Mind Set Creates Value

Oracle (2009) ; Risk Management : Protect & Maximise Shareholder Value

Robert Charette (2008) ; Enterprise Risk Management

Standard & Poor's (2006) ; Global Credit Portal

Stephen P D'Archy (2001) ; Enterprise Risk Management . *Journal of Risk Management of Korea, Volumn 12, Number 1*

Tillinghast -towers Perrin (2008); Enterprise Risk Management