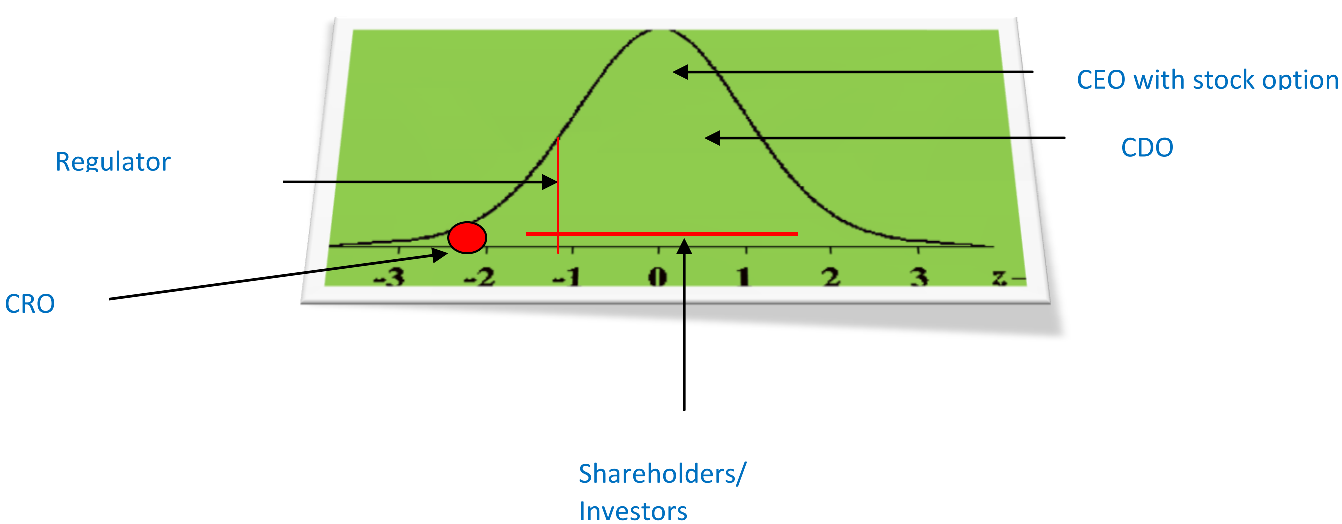
Value addition through Enterprise Risk Management

This article discusses the role of enterprise risk management in creating and protecting the shareholder's value in an organization as opposed to the traditional view of protecting the down side risk. The objective of risk management is not to eliminate risk but to identify, quantify and manage the risk in line with shareholder's value creation expectation.

Why there is a need of risk management? Because future is unknown and uncertain, the outcome could be good or bad but not known and shareholder's money is at stake. The risk as defined COSO is "***Events can have negative impact, positive impact or both. Events with negative impact are a risk which can prevent value creation or erode existing value. Events with positive impact may offset negative impact or represent opportunity. Opportunity is possibilities that an event will occur and positively affect the achievement of the objective supporting value creation or preservation*.** ISO 31000 define risk as "***The effect of uncertainty on the objective" the uncertainty may have upside or downside.***

Both the risk definition conveys the same message of unknown future and uncertain outcome. In the context of business, shareholders put the money to make more money when future is not know , there is a risk of loss of entire capital however there is a good chance of making money coming from the opportunity stored in future represented by probability. ***Probability is the most significant development of history laying the foundation of risk management centuries ago.***

In an organization different stakeholders have different stakes, for example, customer invests in a financial institution interested in solvency of the Company (security of its money) and so is the regulator (protection of customer), management have different stakes depending upon their role of creating the opportunity or managing the risk. The role of different stakeholders within the company is as shown in the statistical distribution below:



The CEO and CDO on the one hand explores the opportunity area of development within the business to increase the return while the CRO is essentially concerned about all the risk at the tail of distribution which could lead to insolvency of the company, while shareholder's are interested in reducing the variance of the return.

The risks emerge from the business operations from those stakeholders who are responsible for working on opportunities while CRO is looking into managing down side risk often creating conflict of interest.

To maximize the value of the Company there is a need to manage both upside and downside risk at enterprise wide level , where each stakeholder own its risks and take the mitigative actions when required while CRO provide a oversight to risk so that risk does not go beyond the appetite. By managing the residual risk and minimizing the tail risk, risk management help in creating value of the company; this is achieved by taking informed decision to accept the upside opportunity increasing the value further.

Customer fuels the business and his prime concern is protection of its money and wants the Company to be solvent; Shareholder on the other hand wants to infuse the minimum capital creating interesting dichotomy between customer and Shareholder.

What is the appropriate level of capital required to run the business and what is the level of return is required by the shareholders? Enterprise Risk Management (ERM) answers these questions.

The ownership of the risk in ERM starts at the top of the ladder at Board level which delegates the responsibility to CEO and CRO. The key to the success of ERM is integration of risk management culture through ownership of risk at enterprise wide level, without this ERM cannot be successful. As a first step there is a need to identify risk factors and prioritize them to differentiate between material risk and immaterial risk, determine how to model and quantify those risks. Risk strategies to be developed necessary to minimize the impact of these risks and implement these strategies. The capital to be developed based on each risk called economic capital. Economic capital is risk based capital, so when risk is minimized, the capital is also minimized.

Once the capital is allocated, there is a need to look at the return on capital. The shareholder's interest is to minimize the variance of the return to stay ahead in the capital market, for this purpose the Board must define and fix the risk appetite (the standard deviation on the return) to maximize the return on the portfolio for the management to focus on. The expected return on the portfolio can be found from capital market line given the risk appetite ($\boldsymbol{\sigma(A}$) on the portfolio as

$E(P) = r + [E(m)-r]/ \boldsymbol{\sigma(m})] * \boldsymbol{\sigma(A})$, r is the risk free rate and E(m) and $\boldsymbol{\sigma(m})$ is the mean and standard deviation on the market.

So the objective is achieving the return on the capital as E(P) given the risk appetite $\boldsymbol{\sigma(A)}$. What does this mean to a company, the different jobs and projects within the company may be broken down into small projects such that the weighted return is E(P) and overall risk is **σ(A**). Essentially, while the management is focusing on the upside opportunity, CRO is focusing on **σ(A**) and tail risk. Any return over and above the E(P) while staying within the risk appetite is the value addition to the shareholders. Risk management comes here handy in enhancing the shareholder value addition through helping in deciding which projects, which products, which decision to make and accept the risk. In the absence of such tool, the year-on-year variability on the return on company's price would be very high making its share suspect able in capital market.

While accepting the risk within an organization, the risk management framework provide a working model of risk identification, risk measurement, risk management, risk monitoring and risk reporting so that overall risk remain within **σ(A**). The risk management further provides tool of risk acceptance, risk transfer, risk avoidance and risk management. Risk governance is therefore important for smooth functioning of the risk management framework and taking the informed decisions. Risk governance cannot be successful without a good risk culture.

So risk management that on the one hand helps in reducing the economic capital due to lower risks through risk management, on the other hand it helps in maximizing the shareholder value through keeping the Company within **σ(A**).

Therefore, Solvency-II and Basel-II/III for insurance and banking institutions is based on three pillar approach, pillar-1 responsible for economic capital calculation, pillar-2 responsible for risk management and pillar-3 is for disclosure. When all the three pillars groove well within an organization, it helps in improving solvency, optimizing profit and minimizing the capital.

Despite these benefits when Basel-II regime was in operation, there have been failures in the banking industry in 2008. What does this mean? Is there a problem in the model, is there too much reliance on mathematical models, poor understanding or risk, Board rook failure or combination of all. Millions of pages have been written on this aspect, one key outcome of the economic crisis was increasing role of risk officer and better understanding of risk at all levels.