

A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be. - Wayne Gretzky

Intelligent Risk Management

The goal of Enterprise Risk Management (ERM) is to minimize volatility and maximize opportunity resulting in increased performance and value for the organization, its customers, and stakeholders. The decision making process that drives this effort is qualified by the accuracy, integrity, and timeliness of information.

In today's risk management environment, technology has become increasingly important to identify, evaluate and respond to risks and opportunities. We look at risks and opportunities through the lens of future expectations. Risk is seen as a threat when there is a probability that a future situation might become worse than expected. Opportunity is seen as a future event or situation that exceeds our expectations. There is an element of uncertainty with both risk and opportunity. Depending on the impact, we consider an uncertainty as risk or opportunity.

Organizations have seen the value of fully integrating their ERM framework into all performance management systems thereby creating a holistic and unified approach to managing the business. Successful organizations view risk management as a core strategic principle and the source of operational excellence. They have learned how to optimize business performance by aligning strategy with operations across the enterprise. Optimizing business performance relies on the trusted data and insights that come out of strategic and operational risk management programs built and managed in the aggregate as a part of an organization's overall business management program.

Strategic risk can be defined as the potential for significant loss of value for the organization and its stakeholders. Operational risk is the uncertainty of loss due to failures in operational processes, i.e., the production and delivery of the organization's goods and services. Strategic risk is managed from the top-down, operational risk management is executed from the bottom up. Performing both activities synergistically produces an integrated ERM framework in which all enterprise management systems are in sync. For ERM to be value creating - to truly help the organization achieve its objectives - it must be fully integrated with Enterprise Performance Management (EPM) and Enterprise Decision Management (EDM) and be embedded within the corporate culture.

Business Intelligence (BI), as a discipline, can be defined as the intelligent use technology to perform analysis and deliver information to decision-makers in the most useful and advantageous way. But it is no longer enough to have accurate information if it is not available in real time and not able to offer some level of predictability of future events. Organizations need to know - What will the future look like for a particular event or activity? What is the risk of taking action to mitigate risk or exploit opportunity? Predictive analytics can resolve these risk uncertainties and enable decision-makers to anticipate threats and opportunities as probabilities and take appropriate action accordingly.

By analytics, we mean the extensive use of data, statistical and quantitative analysis, and predictive models to drive decisions and actions. Business intelligence and predictive analytics turn uncertainty about the future into usable probability, effectively improving forecasting and providing a more accurate assessment of risk. Much of the predictive analytics in use today is based on current or historical data, answering the "what is" question. Lately, we are seeing more sophisticated software with "what if" analysis capabilities, which enable organizations to set ranges of possible outcomes and

model potential risks of their strategic and operational decisions. This helps them better assess risk and uncertainty between “what is” and “what if” and decide which scenario is most likely to occur and which will have the highest impact. Software developers, essentially, have created risk-forecasting models supported by predictive analytics.

But the analytics needs to be used as input for human decision making. It would be a mistake to equate analytics solely with analytical technology. Rather, it is the human and organizational aspects of statistical and quantitative analysis that qualifies it with *authenticity*. Without that authentication, risk assessment can be at risk of false prophecy. Sometimes you get conflicting versions of the truth which requires a judgment call. Decision-makers must form a meaningful balance between mathematical and statistical certainty and subjective judgment calls. This is what we mean by the intelligent use of technology.

“The story that I have to tell is marked all the way through by a persistent tension between those who assert that the best decisions are based on quantification and numbers, determined by the patterns of the past, and those who base their decisions on more subjective degrees of belief about the uncertain future. This is a controversy that has never been resolved.”

- Peter L. Bernstein, *Against the Gods: The Remarkable Story of Risk*