Risk Intelligence in the Energy & Resources Industry

Enterprise Risk Management Benchmark Survey

Deloitte Enterprise Risk Services

Executive summary

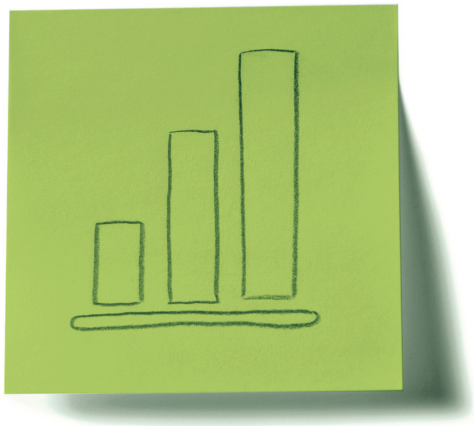
Substantial effort has been directed towards developing enhanced approaches to risk management in the energy and resources industry, particularly in the past decade. ERM has therefore become common practice within the industry, as evidenced by more than half of the survey respondents reporting that they have a fully operational ERM program. For ERM programs in development, most of the respondents indicated that the program has been under development for more than one year.

Several key themes concerning ERM emerged in the survey results, and also when making a comparison to the benchmark survey performed in 2009:

ERM programs are achieving enterprise-wide coverage, and risk-informed decision-making is growing
The scope of ERM has expanded in recent years, progressing towards a real enterprise-wide management practice. While traditionally focussed on financial matters, risk information is increasingly being incorporated into strategic decision-making processes, including business development, marketing, commodity trading, regulatory compliance, worker and contractor safety, and operational reliability.

The connection between ERM and management decision-making is still in development
The integration of ERM with other key management systems, such as asset integrity management, safety management and quality management, is still in development in most organizations.

Nevertheless, some leading energy companies are making the critical link between risk and decision-making, through the emerging discipline of Value-Based Asset Management (VBAM). This approach links risk management and operational reliability practices to create an integrated framework that helps prioritize and optimize operational and capital spending for asset intensive organizations.



Rewarded risks are slowly getting more attention. However, recent crises across the industry have once again put asset protection high on the agenda
The respondents in this survey, for the most part, indicated that their organizations are using the information gleaned from their ERM programs to deal with unrewarded risks. These typically include risks to the integrity of financial reporting, compliance with regulations and protection of assets. This is the traditional domain of risk management.

However, recent catastrophic events within the energy and resources industry such as nuclear and mining disasters and oil spills, have put asset protection high on the agenda again.

These events have demonstrated not only the immediate and drastic impact one event can have on a company's operations, as well as on the regulatory environment, but also the need for energy companies to implement a robust ERM system that includes the identification and mitigation of the (unknown) low probability/high impact risks.

Nevertheless, leading organizations have designed their risk management programs to not only address unrewarded risks, but also to consider rewarded risks. Rewarded risks are related to value creation. These typically include increasing operational reliability, improving asset performance, introducing new products, merging with or acquiring new businesses, and entering new markets. The management of these risks holds the potential for reward if they are intelligently managed, but can have seriously adverse effects if they are not.

Risk Intelligent Enterprises™ manage risk for two reasons: to protect what they have and to grow the value of what they have.

ERM frameworks, methodologies and tools are becoming more mature and advanced risk management practices are developing
Almost half of the organizations reported having an ERM practice that has progressed beyond its early stages. The fundamentals of the ERM program, i.e. a risk management framework, methodology and tools have been established and serve as the basis for the development of more advanced risk management practices. These include:

- consistent use of this central risk management framework across the organization;

- increasing integration of ERM with other management systems (e.g. asset integrity management systems, safety management systems and quality management systems, etc.);

- growing use of Key Risk Indicators (KRIs) and other tools to monitor risks on a continuous basis;

- expanding application of quantitative techniques for evaluation of risk, risk measurement, and risk monitoring; and

- use of advanced risk analytics, such as network- and pattern-recognition techniques, semantic analysis and artificial intelligence to analyze risks and more accurately, to model failure predictions and model interdependencies between risks, understand concentrations of risk exposures, aggregate risks, and perform immediate risk identification and analysis.

ERM processes are implemented but organizations still face challenges with respect to effective monitoring and reporting
ERM provides a robust and holistic enterprise-wide view of potential events that may affect the ability to achieve an organization's objectives. And because risks are constantly evolving as an organization strives to achieve its objectives, there is high demand for relevant and timely risk information.

Organizations reported being mature regarding risk identification, assessment and prioritization, as well as the design and implementation of mitigating actions. Many organizations, however, still struggle with monitoring and reporting risks. A lack of appropriate tooling is one of the reasons. Other reasons include the lack of suitable methodology for aggregating risks, the lack of ability to measure and integrate risk exposures from both the top-down (organizational level) and bottom-up (operational level). However, the use of key risk indicators to monitor risks in a cost-efficient way is emerging.

ERM training is mostly incorporated into a structured training plan, although it is still largely limited to risk specialists and people directly involved in risk management activities
Few organizations provide ERM training to all employees. However, best practice organizations do integrate ERM training in their corporate training programs, ranging from basic risk management principles (e.g. what is a risk and what does it mean for daily operations?) to more in-depth training for senior management.

A risk intelligent culture is becoming more important
Essentially, a risk intelligent culture exists within an organization when its employees' understanding and attitudes toward risk lead them to consistently make appropriate risk-based decisions. Consequently, an organization's risk culture drives the behaviors that influence day-to-day business practices, and is a significant indicator of whether the organization embodies the characteristics of a Risk Intelligent Enterprise™.

To a large degree, an organization's culture determines how it manages risk when it is under stress. For some organizations, their risk culture is a liability. For others, it facilitates both stability and competitive advantage. To that end, an organization wishing to cultivate a risk intelligent culture should first understand and measure its existing risk culture.

An organization's risk culture not only depends on the tone set by the board of directors but also on the culture's pervasiveness throughout the business and the ability of employees to identify and mitigate risk independently of an ERM function.

Risk culture is an evolving concept that may be challenging to implement. For example, it may involve reconciling multiple cultures in both regulated and unregulated businesses in multiple jurisdictions.

Technology can help to smooth the ERM process, but many organizations still struggle with it
Technology can facilitate the ERM process (e.g. risk identification, documentation, aggregation, assessments, quantitative techniques and risk monitoring and reporting etc.) although organizations indicated they are not yet at that level.

Despite a proliferation of technology vendors competing in the ERM marketplace with integrated packages, take-up has been limited so far.

ERM done right: the Risk Intelligent Enterprise™

The management of risk is inherent to the survival of mankind. When early man built a fire at night to ward off predatory animals while he slept, he was managing risk. All of us manage risk on a daily basis, often without being aware we are doing it.

Risk management is not new but ERM, an approach to managing risk, is a relatively new concept. Risk Intelligent Enterprises™ manage risk for two reasons: to protect what they have and to grow the value of what they have. The premise of ERM is that it attempts to present an overall and integrated view of the risks to which an enterprise is exposed. Ideally, with this information, the enterprise is then able to make better informed decisions about how it can protect what it has and how it can, in an intelligent manner, add value to what it has. In other words, the organization can be smarter about the risks it needs to take. It can be "Risk Intelligent."

ERM is an enabler of risk intelligence; its true value may lie in its ability to enable the systematic identification of possible causes of failure – failure to protect existing assets (unrewarded risk) and failure to achieve value creation (rewarded risk).

The extent to which an organization uses risk information from its ERM framework to influence decision making in both areas (unrewarded and rewarded risk) is a direct reflection of the maturity of its ERM program and of its risk intelligence.

Of course, the path to this lofty designation is long and sometimes arduous. Every organization that charts its progress will find itself in a different location on the map, depending on the unique business challenges it faces and the competencies and capabilities it possesses. But every organization that attains the status of a Risk Intelligent Enterprise™ will find that they share similar characteristics, including the following:

- risk management practices that encompass the entire business, creating connections between the so-called "silos" that often arise within large, mature, and/or diverse corporations;

- risk management strategies that address the full spectrum of risks, including industry-specific, compliance, competitive, environmental, security, privacy, business continuity, strategic, reporting, and operational risks;

- risk management approaches that do not solely consider single events, but also take into account risk scenarios and the interaction of multiple risks;

- risk management practices that are infused into the corporate culture, so that strategy and decision-making evolve out of a risk-informed process, instead of having risk considerations imposed after the fact (if at all); and

- risk management philosophy that focuses not solely on risk avoidance, but also on risk-taking as a means to value creation.

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