Understanding Risk:

Using technology to unlock the potential of raw data and deliver valuable risk intelligence

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Taking measured risks

Investing in risk management makes sense because the better we understand risk, the more risk we can take, so the more we can grow. It is therefore critical that we develop a deep understanding of what certain risks mean to our businesses, how they fit with our risk appetites, and how we can equip ourselves to make more informed business decisions.

In practical terms, taking a measured risk with confidence means:

- Driving the right risk behaviors as part of daily business and minimizing the need for complex checks and balances that are not revenue generating
- Having enough faith in our risk intelligence to make bolder decisions based on what it's telling us
- Truly understanding a regulation and how it impacts business activities, so that we can confidently minimize compliance effort and associated overheads
- Aggregating risk data effectively, so we spot what matters most

Managing disparate data sources

Central to risk management is the effective gathering and dissemination of quality risk data. This data is typically drawn from multiple sources, ranging from management and risk specialists through to assurance providers, both within and outside of our businesses.

It is not uncommon for risk practices to comprise multiple functions that are uncoordinated, often leading to companies generating data of varying quality. This can be both a blessing and a curse. For example, are different sources of risk information an opportunity to provide multiple perspectives, or do differences in data sources suggest that we have quality issues? Do multiple data sources provide deeper insight, or do they cause confusion, particularly when they do not meet consistent standards?

Technology has undoubtedly changed the way industries operate. A streamlined, automated process is a better way to structure internal and external data so that it provides more insight to the business and gives stakeholders an enterprise-wide view of risk.

Nonetheless, risk professionals have found that existing technologies struggle with the complex nature of risk data. New solutions are required.

Technology: Keeping you in the know

The right technology can coordinate disparate sources and help organizations make better sense of available data by providing a singular and consistent view. In so doing, it can also drive a consistent application of the rules and methodologies we use to capture, measure and monitor risk.

Using technology in this manner is not a new idea; however, where organizations have deployed solutions to meet these needs, they have often fallen short of expectations as the following examples illustrate:

Experience	Likely cause(s)
Risk information from differing sources cannot be consolidated.	Data inputs do not conform to a common standard, which was often a prerequisite for effective data sharing and consolidation on previous-generation solutions.
System speed/performance is unreasonably slow.	The data volumes and complexities in underlying risk processes that must be supported are becoming a stretch for previous-generation risk technologies.
Automated processes do not mirror established ways of working and/or do not support established reporting requirements.	Limitations exist on how closely an off-the-shelf system can be aligned to existing risk processes or reporting standards.

These causal factors highlight that simply overlaying established ways of working with out-of-the-box risk technology is unlikely to be the best approach. Maximizing technology leverage will always require amending existing ways of working and a commitment to standardize (as far as is practical) how we measure risk.

Nonetheless, it would certainly be helpful if available risk technologies could be more adaptable to differing stakeholder needs and better at managing a multitude of data entries in instances where standardization can never be fully achieved.

At the same time, it would also be helpful if next-generation technology could address some old problems left by the previous-generation solutions and also accommodate some emerging needs. Consider the typical experiences of the business user and the risk professional as set out below.

Experience	Likely cause(s)
From the business: "Risk processes are becoming too onerous. For example, I am forever being asked the same questions by the compliance department, must complete endless questionnaires, etc."	• This is frequently a consequence of multiple, overlapping risk and compliance programs that are fundamentally seeking to address the same considerations. • Previous-generation solutions already sought to address this by facilitating a consolidated approach to risk and regulatory compliance, but with mixed success. They were somewhat inflexible in their ability to map multiple risk processes to complex business structures and continuously adapt these as both the regulatory environment and the business itself evolved. How technology can help The necessary data mapping is complex, but no more so than that used, for example, for mapping and modeling customer relationships. Therefore, leveraging technology used for these purposes would advance our ability to streamline risk processes.
From the risk professional: "Not only do risk questionnaires and field-based compliance and audit exercises become onerous for the business, their quality is contingent on personal objectivity and experience."	• Using technology to fully execute, not merely facilitate, risk processes is somewhat of a holy grail that is already achievable with current technologies, albeit in limited areas only (IT risk being an obvious example). Challenges arise when the processes, controls or underlying systems to be interrogated are bespoke. • Similarly, automated transaction monitoring is an effective solution to risk profiling, but only if the technologies used can manage non-standardized or qualitative data. How technology can help Where similar challenges have arisen in other disciplines (e.g., when performing deep analytics on consumer data), fuzzy logic has been used to at least narrow down critical transactions that would benefit a manual review. This capability is transferrable to risk management exercises.
From both the business and risk professionals: "Automated reporting increasingly feels like 'one size fits no one.' I don't expect a system to predict my information needs, but it does need to provide me with access to broad intelligence sources from which I can choose what matters to me most on any particular day."	• Previous-generation solutions provided both dashboards and automated reporting, with the former seemingly offering drill-down capability – although with limited success. How technology can help Most organizations now use dedicated visualization solutions for a multitude of applications. Logically, utilizing these solutions to present risk data makes more sense than developing bespoke technologies. Such an approach also means that users are presented with one system for all business intelligence, not just risk data.

Making sense of data: The challenges and opportunities

Problems relating to gathering and analyzing internal risk data are rife within many large businesses, and are further compounded by the additional need to make use of and analyze external data. Standardizing data that is derived from a variety of disparate sources from across the globe is an issue that many organizations struggle with. There is no easy answer, but the more risk data that an organization can capture, consolidate and understand, the less likely they are to exceed their risk appetites.

Ultimately, the demand for technology is driven by three factors:

• The propensity for high-impact events

• Regulation

• Reputational risk

These drivers are evident in industries such as banking and asset management, telco businesses, utilities and mining, and pharmaceuticals. The three lines of defense approach still has an important role to play in these types of businesses, but does tend to "bucket"' data and is not adequate for making sense of the large amounts of disparate, non-standardized data with which organizations are faced. The focus therefore needs to be on finding new ways to improve the quality of the data available, augment its completeness and then make sense of it in terms of managing risk.

What's next?

While a new wave of technology attempts to plug existing shortcomings, it will also ideally meet a new wave of demands. For example, the move towards greater personal responsibility for understanding and managing risk will mean that individuals will require information in a form that can be manipulated and used to answer questions that may change from one day to the next. The automation of static reports will not fulfill this need. Risk profiles are also influenced by external factors and the ability for one solution to ingest and integrate external risk intelligence with internal risk data will be truly advantageous in understanding total risk.

So what can and should we expect from the next wave of risk technology? Perhaps the best way forward is to harness leading technologies that support a variety of business growth

needs and focus on extracting real value from complex and non-standardized data. This could, for example, be in the form of technologies developed to understand consumer needs or researching Web-based intelligence and applying these technologies to meet our needs for thorough and digestible risk information.

Gaining greater insight on how to utilize internal and external data more effectively is essential, and our next set of papers in this series will examine data standardization in more detail, as well as lessons learned from GRC-centric approaches to risk management. We will also explore the tools available to help organizations effectively map external data to internal organizational structures through automation.
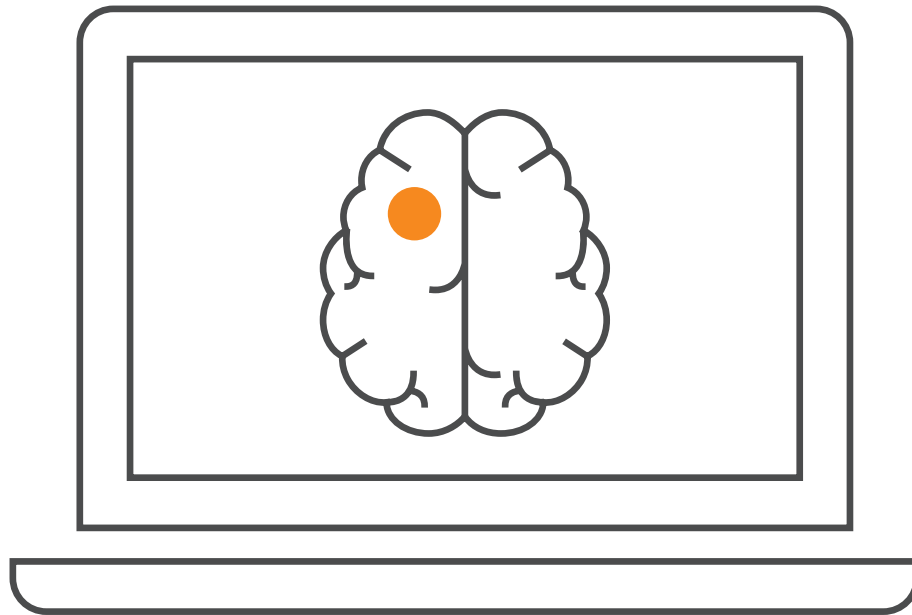
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