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Strategic RiskA cornerstone of risk transformation



Risk powers performance.



Risk has traditionally been viewed as something to be minimized or avoided, with significant effort spent on protecting value. However, we believe that risk is also a creator of value and, approached in the right way, can play a unique role in driving business performance.

Take the issue of strategic risk. Today's organizations operate in an environment that is increasingly volatile, uncertain, complex, and ambiguous. Consider business model threats from startups, the rapid adoption of social, mobile, and cloud-based technologies, and the changing demographics of customers and employees. It is clear the risks of strategic disruption are increasing.

Organizations that pull back from these disruptors to try and protect value will likely fall behind, while organizations that anticipate these strategic risks can actually power superior performance by taking advantage of these disruptors—for example through more timely merger, acquisition, disposal and reorganization activities.

This guide suggests ways in which senior executives can transform the management of strategic risk in their organizations—as well as actionable steps to power performance—including:

- How to identify risks that can give rise to a strategic risk opportunity
- The challenges of addressing strategic risk through traditional ERM programs
- The importance of risk sensing and a summary of risk-sensing survey results
- The roles of the businesses, risk management, and internal audit regarding strategic risk

Today's leading organizations are those that have learned how to protect their value through risk management. Tomorrow's leaders will be those that recognize the opportunity for risk to also create value. Deloitte's Risk Advisory professionals around the world can guide you on that journey and help you transform your organization into a place where risk powers performance.

To learn more, please visit us at www.deloitte.com/risk.

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Implementing risk transformation in organizations: Strategy

Risk transformation can enable a company to elevate risk management from a functional capability to an enterprise responsibility that permeates the entire organization. When that happens, risk is no longer seen as the domain of only the risk management function. Instead, every business, function, and individual becomes responsible for, accountable for, and capable of addressing the risks within their purview. This enables the organization to more effectively implement business strategies and achieve goals while addressing risks and complying with regulations.

This publication first summarizes Deloitte's four cornerstones of risk transformation and then focuses on risk transformation as it applies to strategy. As explained in <u>Risk Transformation</u>: <u>Aligning risk and the pursuit of shareholder value</u>¹, when these cornerstone frameworks and capabilities are in place, risk management, risk governance, and regulatory compliance can be implemented in a more aligned and integrated manner.

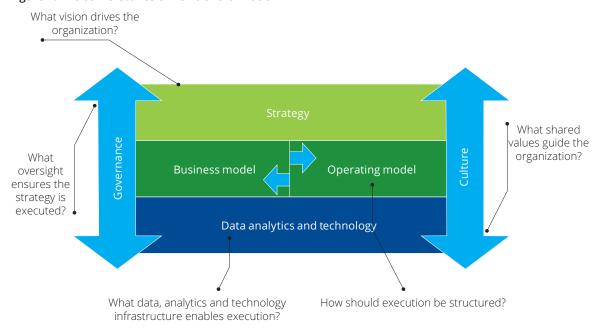


Figure 1: The cornerstones of risk transformation

As Figure 1 shows, strategy is the overarching element—the vision that drives the organization. The organization's strategy (or strategies) are management's chosen means of pursuing the company's goals. Governance and culture establish oversight and the environment in which strategies are implemented. Business and operating models, and data analytics and technology, enable the organization to conduct business, understand its risk positions, and manage risk.

Although the types and levels of risk that each organization faces vary from industry to industry and company to company, every organization relies on each of these cornerstones when it comes to managing and governing risk. By the same token, risks to the strategy and risks of the strategy can be particularly damaging and therefore should be addressed in any risk transformation effort.

Strategy as a transformational cornerstone

Deloitte defines strategy as an integrated set of choices that can position an organization to create superior financial returns and sustainable advantage relative to competitors. While various business units may require different strategies, management must reconcile and integrate those strategies and the board must approve and oversee them.

Strategic risks are those that threaten to disrupt the assumptions at the core of an organization's strategy. A strategic risk can take the form of a potential event that can undermine implementation of a business strategy or achievement of strategic goals. It can arise from an operational, financial, technology, security, legal, or other familiar risk that escalates to the point at which it poses a threat to implementation of a strategy or achievement of a goal. Or it can emanate from an external event or events that negate management's assumptions or undermine strategy or strategic goals. Strategic risk events can invalidate the rationale of a strategic decision, threaten competitive position, and erode performance. But they can also point toward new opportunities to generate value and improve competitiveness and performance.

In the current environment of mounting economic, regulatory, and marketplace pressures and constant technological disruption, virtually all industries face increasing strategic risk. For example, in response to regulatory pressure, financial institutions have been moving toward less capital-intensive businesses and increased capital efficiency. The need to make that migration would in itself present enough strategic challenges. However, financial organizations must also cope with a slow-growth, low-demand environment (e.g. financial technology startups in areas such as payment systems and peer-to-peer lending), and other developments that pose strategic risks.

Similarly, the automotive industry faces strategic risks arising from rapidly evolving technologies, supply chain issues, and closer regulatory scrutiny, as well as persistent recalls related to basic components. Strategic risks also arise from changing patterns of consumer demand, decline in car ownership among millennials, and rapid urbanization in emerging markets. Yet as in many other industries, most automotive suppliers have not updated their approach to strategic risk. A recent study² by Deloitte and the Original Equipment Suppliers Association (OESA) found that 85 percent of respondents rate their companies as "not effective" or

"somewhat effective" in identifying strategic risks and their implications. Only 13 percent see their companies as "very effective" in that area.

A transformative approach to strategic risk is clearly in order for many companies across most industries.

Strategic risks: Not what you're thinking

Strategic risks may lack historical precedent and/ or originate outside an industry. Signals related to emerging strategic risks are often faint or intermittent, which can make them hard to detect, easy to dismiss, and difficult to interpret. Traditional tools cannot reliably locate and analyze them.

In addition, strategic risks may be:

- Unique to the organization because the strategy, culture, governance structure, and business and operating models are unique to the organization
- Damaging to the entire organization because a risk involving, say, reputation or the supply chain in one part of the company may affect other parts
- Easy to overlook because they often seem irrelevant, unthreatening, or highly unlikely—and management may believe they are being monitored and managed when they are not
- Difficult to address with customary risk management methods

Strategic risks may arise from low-likelihood/high-impact, so-called "black swan" events. These events can escalate rapidly and render those who have not anticipated them confused, paralyzed, or prone to mistakes.

Although they may take the form of financial, operational, technological, political, or other familiar risks, strategic risks tend to be difficult to quantify and track. For example, entire industries ranging from retail, travel, advertising and entertainment have seen their strategies essentially undone by technological and business model disruption. In particular, emerging technologies warrant continual monitoring as potential sources of strategic risks—should new or existing competitors harness them—and a source of opportunities. However, such technologies challenge conventional risk management methods when their distribution is uncontrolled and their uses are unanticipated.

Essentially, strategic risks can gum up, delink, or erode drivers of value. If ignored, they can become what Deloitte has described as "value killers" (see Figure 2 and sidebar: Beware of the value killers). On the flip side,

Beware of the value killers

Deloitte's report, <u>The value killers revisited: A risk management study</u>³, updated its earlier study <u>Disarming the value killers</u>⁴. These studies define "value killers" as risk events that destroy 20 percent or more of corporate value in one month relative to the growth or decline of the MSCI⁵ All World Market Index in the same period.

The update identifies patterns in loss-creating risks of the Global 1000 in the decade before 31 December 2012. Value killer losses were experienced by 38 percent of the Global 1000, with a small subset of those companies seeing losses exceeding 50 percent of their corporate value.

The update identified five key types of value killers

- **High-impact/low-frequency risks:** These rare, but potentially devastating events often catch companies by surprise, leading to rapid losses.
- Correlated or interdependent risks: Almost 90
 percent of the companies suffering the greatest
 losses were exposed to more than one type of
 risk, which usually exposed a weakness that
 cascaded through the organization.
- Liquidity risks: Financial crises expose the dangers of liquidity risks, which can draw intense regulatory attention toward banks and increase their cost of capital.
- Merger and acquisition risks: Business combinations may not only fail to deliver anticipated value, but can also, despite traditional due diligence, expose organizations to unexpected risks
- Culture and compensation risks: Incentive programs that reward short-term performance may create unsustainable business models while inconsistent leadership or tone at the top can increase conduct risk

Regardless of their classifications, value killer risks must be understood and addressed by the board and senior executives, who must also establish mechanisms for detecting and monitoring them.

strategic risks can present new drivers of value, suggest modifications to current drivers, or indicate the need to abandon existing drivers.

Figure 2: Value killer risks



A necessary shift in perspective

Most organizations manage financial, operational, security, and other risks in the normal course of their business. That, however, is partly why recognizing strategic risks may be challenging. Strategic risks can result from and amplify risks that the organization ordinarily faces, or emanate from other very unfamiliar risks.

That calls for a shift in perspective, also necessitated by ongoing business and economic conditions, and other developments. Indeed, ongoing developments create the need for organizations to monitor strategic risks continually, while maintaining a high level of strategic flexibility.

Generally, the following shifts in perspective would be useful:

- From a focus only on understanding traditional financial and operational risks to a broader view of risk and the interrelatedness of risks
- From a mindset of managing known, fairly predictable risks to one of positioning the organization to detect and respond to unknown—and even unknowable—risks
- From a sense of mastery over risk to curiosity about risk
- From a focus on traditional risk reports to a focus on scanning for emerging strategic risks
- From an inside-out view of risk to a more outside-in view

From the risk management standpoint, strategic risks pose challenges because of their complexities and potentially high stakes. Therefore, new methods of addressing them are needed, now and going forward.

Addressing strategic risks

To detect and address strategic risks, companies might consider the potential benefits of investing in one or more of the following areas:

- Identifying hard-to-predict strategic risks: Building on their own and other organizations' experiences, leaders can brainstorm potential low-likelihood/ high-impact events and then systematically examine those that could undermine strategies, and identify ways in which the company could recognize and assess them.
- Sensing capabilities: Technology can now enable organizations to monitor numerous variables in real time—from a huge range of credit indicators to the likelihood of storms and droughts—that may be precursors to a risk event (see sidebar: Key risk sensing survey results).
- Modeling and scenario analysis: Given the role
 of interrelated risks in strategic risk impact-andresponse modeling, generating scenarios that
 incorporate multiple risks can clarify the likely impact
 of risk events.
- Response capabilities: Not all risks can be anticipated; however, simulating responses to risk events and developing response plans can help improve response capabilities.

Transforming strategic risk management goes even further. It includes broad and deep risk analysis, scenario planning, and contingency, resiliency, and recovery plans. It examines risks generated by a strategy as well as risks to the strategy. It considers potential strategic risks in decisions related to market entry or expansion, product initiatives, M&A activities, compensation plans, new hires, and talent management. At the same time, it fosters awareness of strategic risks across the organization and of potential opportunities that developments may present to generate value and gain competitive advantage.

In addition, big data scanning tools and sophisticated analytics can help organizations gather and analyze the vast amounts of information now available in cyberspace. Activities include monitoring news feeds and blogs for developments among competitors and following—and even influencing—evolving consumer tastes and business needs. But these activities must be sustained, and conducted within a framework that identifies what to seek, where to look, and how to monitor developments.

Key risk sensing survey results

Technologies related to real-time scanning, big data, text analytics, visualization tools, and early warnings can, when combined with human analysis, enable a risk sensing program. When used to scan the internet's structured and unstructured data, such programs can sense nascent risk events, monitor changes, trends, and patterns, and distill them into actionable information.

These risk sensing capabilities, which Deloitte has developed and deployed, can enable an institution to:

- Scan cyberspace for factors considered critical to the success of a strategy and for events that may affect value
- Define thresholds and indicators, and combine them iteratively with human judgment to deliver increasingly useful insights
- Establish a system that continually improves its ability to detect earlystage reputational, technology, market, economic, and security risks
- Revisit organizational strategies and underlying assumptions to ensure alignment of strategies, assumptions, thresholds, escalation procedures, and response plans

A formal, properly resourced approach to identifying emerging risks—and opportunities—will provide far better capabilities than periodic or part-time efforts. Data on risk is quite diffused and people focus mainly on their operational responsibilities; therefore, a dedicated risk sensing program may provide superior monitoring and analysis of emerging risks.

Many companies have—or believe they have—risk sensing programs, but the 2015 survey, *Risk sensing: The (evolving) state of the art*, conducted by Forbes Insights on behalf of Deloitte Touche Tohmatsu, found that a good number of programs have potentially serious shortcomings.

The following are among the key findings from the global cross-industry survey:

- About 80 percent of the 155 participating companies state they use risk sensing tools
- Respondents apply risk sensing most often to financial risk (70 percent) compliance risk (66 percent), and operational risk (65 percent); they apply risk sensing less often to strategic risk (57 percent)
- Approximately two-thirds of respondents believe they have the right people in risk sensing, but that leaves one-third who are less certain
- A total of 40 percent of respondents saw the value of an outside perspective on risks, although about 50 percent were less certain and a troubling 10 percent disagreed that such a perspective had value
- Key specific risks that could impact strategy over the next three years included the pace of innovation (30 percent), increased regulation (30 percent), talent (25 percent), and reputation (24 percent)

Properly designed and implemented, risk sensing generates real-time awareness of strategic risks, which can help the organization to identify emerging problems while there is still time to avoid, mitigate, or prepare a response to them.

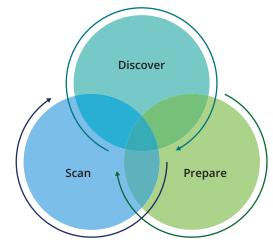
Scan, discover, and prepare

Many organizations believe they are already managing strategic risks when they are not. This is particularly the case when it comes to emerging strategic risks—early-stage, off-the-radar developments that can rapidly escalate or morph into value killer risks.

To address this, Deloitte has developed the following iterative, three-step approach to scanning, discovering, and preparing for strategic risks (see Figure 3):

- **Discover:** Employ analytics and human capabilities to identify potential risks and gauge potential outcomes
 - Use scenario planning to identify potential impacts
 - Conduct simulations to gauge potential outcomes and responses
- Scan: Monitor the environment and interpret the signals
 - Apply risk sensing technologies and tools to big data and media feeds
 - Analyze signals being tracked
 - Summarize results in dashboard or executive summary formats
 - Add insight through human analysis
- Prepare: Identify responses that will mitigate impacts or exploit risks for advantage
 - Reassess your assumptions and identify new strategic options
 - Develop contingency and recovery plans
 - Mitigate and manage risks (such as insurance, hedging, diversification, or exit)

Figure 3: An integrated approach to strategic risk



Deloitte has found this three-step approach, described here at a high level, to be structured, practical, and relevant enough to be sustainable. It incorporates risk sensing at the scanning stage as well as human review, and continually uses the findings of the process to improve the process.

This is not to say that every strategic risk can be detected at embryonic stages. It is to say that large organizations should consider a repeatable, integrated approach to risk sensing to help prepare for major risk events as well as for subtle yet potentially profound changes that could undermine strategy or achievement of goals.

Goals of strategic risk transformation

In an organization that has transformed its approach to strategic risk, the following five conditions prevail:

- Senior leaders manage strategic risks proactively:
 Senior executives, in concert with the Chief Risk Officer
 (CRO), if present, and business-unit leaders, work
 proactively to identify, detect, monitor, and address
 strategic risks. Contingency and response plans are in
 place, with specifics such as backup sources of capital
 identified. Insurance, diversification, hedging, and other
 tools are used to mitigate strategic risks. The board
 and management appropriately disclose strategic risks
 and measures taken to address them.
- Transactional and portfolio risks are well understood: Strategic decisions determine the kinds of transactions the organization will engage in and the portfolios it will construct. While there are tools for analyzing quantifiable risks in these areas, management realizes that less quantifiable risks are generally less understood. Therefore, management looks beyond quantifiable risks to assess all strategic risks.
- Risk infrastructure is aligned with business strategy: The risk governance and management infrastructure is capable of recognizing and addressing strategic risks. This infrastructure includes the riskrelated roles and responsibilities of individuals, as well as policies, procedures, and mechanisms for managing risk. The risk culture and business strategy must be aligned in order for a strategy to succeed. This alignment also enhances the three lines of defense of risk governance (see sidebar: Implications for the three lines of defense).
- Capital allocation is in line with risk appetite:
 While moving to increase capital efficiency and meet
 regulatory expectations, management understands
 the risks of new business models and changes to the
 risk profile. They therefore adjust the risk appetite—or
 the strategy—to allocate capital to the most profitable
 uses.
- Regulatory environment is factored into strategy:
 Regulatory issues are considered in the business
 strategy, as are issues of talent, organizational culture,
 and risk governance resources. In addition, strategic
 flexibility enables the organization to adapt its strategy
 as regulations evolve.

Case study: Aligning risk strategy to GRC structures

A major oil and gas company was struggling to align its risk function mandate with other risk and assurance functions to meet management and broader stakeholder expectations. We worked with the key governance, risk, and assurance functions to develop an integrated strategy, mandate, and operating model to ensure delivery of the risk strategy and to embed sound risk practices across the organization.

This involved:

- Assessing and aligning the risk function and the broader governance, risk, and compliance (GRC) operating models
- Aligning the risk function and GRC operating model with stakeholder expectations
- Designing risk processes and assurance processes and functions, including governance, regulatory compliance, legal, ethics, forensics, and internal audit functions
- Aligning risk and broader GRC functions and processes across a common value chain to identify common process and methodology touch points and to integrate reporting and other outputs
- Developing an integrated business case to drive change and deliver an integrated mandate, internally and to stakeholders

Key results included:

- A practical integration and alignment of GRC functions, processes, and work methods
- A transformation strategy and business case for integrating key governance, risk, and assurance functions at both the process and systems
- A common understanding and strategy to ensure efficient delivery of the risk and assurance strategies to the business

A practical, transformative approach

An organization needs a transformative approach to address strategic risks. Risk transformation represents an integrated, sustainable, strategic response—rather than a piecemeal, ad hoc, tactical response—to evolution in the regulatory and competitive landscape. This goes beyond identifying "black swans," employing risk sensing capabilities, and improving risk escalation procedures, although those are important.

Risk transformation focuses on all the practicalities that senior executives and board members must attend to in order to identify and address strategic risks. This begins with leaders recognizing that strategic risks may differ, in kind as well as in degree, from other risks. Leaders must acknowledge that every strategy is predicated upon certain assumptions and poses certain risks, and then analyze those assumptions and risks. Moreover, that analysis should be integrated into the strategic planning process.

These actions position management to reconcile and integrate strategies across the various lines of business and into risk management and governance activities.

In addition, management should:

- Monitor strategic risks at all levels: Although strategic risks are owned at
 the C-suite and board level, risk sensing capabilities are needed on the front
 lines of most business units and functions. These capabilities make risks
 more visible and manageable in the business and functions. While real-time
 monitoring of strategic risks is now practical, the potential impact must be
 gauged and responses calibrated such that management neither ignores
 important risks nor overreacts to unimportant ones.
- of value, management should use specific methods appropriate for the organization to identify threats to those drivers. These methods can include obtaining an outside-in view, and practices such as red-team/blue-team exercises and the champion-challenger approach. In the latter, a new or proposed policy or procedure (the "challenger") is evaluated against an existing one to project the new one's impact. In general, key drivers of value must not only be recognized, but understood, periodically evaluated, protected, and, when necessary, modified or even abandoned.
- **Develop strategic flexibility:** In a rapidly changing environment, the ability to modify a strategy or adopt an alternative one when needed can earn high rewards. Yet this can rarely be done on the fly. Strategic flexibility⁷ depends upon senior management building future scenarios, creating optimal strategies for each of those possible futures, determining which strategies are required, and then managing the portfolio of options. This calls for senior leaders to focus on the intermediate- to long-term future, rather than only on daily operations and near-term issues.
- Extend risk management: Risk transformation extends risk management down to the levels where risks can be identified, tracked, and managed in the businesses and functions. This does away with the notion that risk management is solely the responsibility of the function with that name. It makes risk management the responsibility of everyone, as appropriate to their positions. That is the goal of risk transformation, and it is easy to overlook its importance where strategic risks are concerned because they can be perceived only as leaders' bailiwick.

Case study: Assessing a financial institution's risk and pricing strategies

The bank wanted a strategic assessment of pricing across its businesses to achieve adherence with leading practices in pricing capabilities and execution.

This involved:

- Conducting a series of interviews to identify the different views of specific business stakeholders and executives
- Documenting pricing practices across all relevant stages of the credit lifecycle
- Deploying a pricing assessment framework to assess existing policies, practices, and procedures in light of global leading practices in pricing
- Identifying significant pain points in pricing analytics, governance, strategy, and execution
- Prioritizing gaps between current and desired practices

Key results included:

- Definition of an end-to-end pricing strategy that served as a platform for subsequent pricing enhancement initiatives
- Identification of sector issues and their impacts while distinguishing between strategic and tactical responses required to sustain long-term growth
- Development of a means of comparing profitability and return benchmarks for other portfolios

• Go beyond covering regulatory bases: Regulators are driving much of the rationale for change. This can prompt leaders to see regulatory compliance as the chief priority. Risk transformation takes the pervasive nature of these requirements as a rationale for substantive, organization-wide change because ad hoc, piecemeal, tactical responses have proven inadequate and wasteful. Again, this calls for a change in mindset for most executives and directors.

Fortunately, when you prepare to address certain strategic risks, whether they affect supply chains, operations, capital, talent, market access, or reputation, you actually prepare for a range of risk events. Similarly, once an organization establishes plans to address disruptions in communication, technology, cybersecurity, and funding, those plans can be applied in a range of circumstances.

The business case

Making the business case for transforming the strategy cornerstone means distinguishing strategic risks from other risks. This can be challenging. Also, many management teams assume the organization "has these covered" or is "already monitoring them" when that's not the case.

To be sure, senior executives realize that strategic risks can originate with regulators, competitors, clients, investors, cybercriminals, the media, or other areas, such as technologies or social trends seemingly unconnected to the industry. However, leaders may fail to appreciate that these risks differ from "normal" risks. Also, in contrast to the business case for transforming the other three cornerstones, the case for transforming strategy must often be made on more qualitative information.

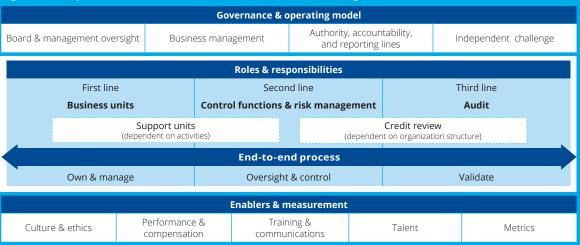
The characteristics of strategic risks create this situation. Still, management can gauge the potential financial impacts of possible events, understand when assumptions could be invalidated, and prepare responses. Indeed, these are responsibilities of the board and management with regard to strategic risks.

In summary, transforming strategy enables leaders to better understand risks, build strategic flexibility, allocate resources more efficiently, and adjust strategies in response to changing conditions.

Implications for the three lines of defense

Risk transformation strengthens the three lines of defense model—the business units, risk management function, and audit function—a generally accepted framework⁶ (see Figure 4). Transforming strategic risk strengthens the three lines of defense by linking the daily activities of each line to the risks that could undermine implementation of the strategy and achievement of strategic goals.

Figure 4: A depiction of the three lines of defense model of risk governance



Source: Deloitte, What's the next for Three Lines of Defense?

A clearly understood strategy provides a strong sense of direction and common purpose for all three lines of defense. At the same time, each line plays a management-mandated role vis-à-vis the strategy. Those working in each line must understand and interpret that mandate and its implications for each line, and conduct themselves accordingly.

- Business units: Due to their front-line positions, business units implement strategies. Thus an awareness of strategic risks—and underlying assumptions—helps them to understand the challenges they face and potential impacts of risk events. That awareness can enable them to view customer behavior, new technologies, and other developments through a strategic lens. While they should remain focused on goals and risks they can directly address, they should also recognize emerging strategic risks and know when to communicate them to relevant parties.
- Risk management: Risk managers should provide the organization and its leaders with an awareness of strategic risks, and with the capabilities needed to identify, detect, track, and manage them. It is the role of the CRO (if present) to point out the risks to (and of) a strategy, challenge assumptions, and point out unacknowledged assumptions. The CRO should also oversee efforts of the business units and management to detect and monitor strategic risk.
- Internal audit: The internal audit function should be aware of strategic risks and periodically assess the
 adequacy of risk management, control, and compliance systems in light of value killer risks. Internal audit
 should not act as a management quality assurance or quality control function or "police" the other two
 lines of defense, but should serve as periodic overseer, advisor, and backstop in the context of providing
 assurance.

Proper attention to the other three cornerstones of risk transformation is critical to aligning the lines of defense. Strong governance and culture enable the business units and risk management to balance risks taken in creating value against anticipated rewards. Practical integrated business and operating models define the role of each line in implementing the strategy. High quality data, analytics, and technology provide much of the risk-related information each line needs to do its job.

Conclusion

Strategic risks often pose greater threats than those posed by other types of risks. Yet most organizations and management teams remain focused primarily on financial, operating, security, and regulatory compliance risks—for understandable reasons. Managing those risks is their primary risk management focus and in many industries regulatory demands have reached new heights.

However, strategic risk can destroy huge amounts of value, very quickly. They can jeopardize lines of business or the entire enterprise. Therefore, strategic risks demand attention and resources and a transformative approach.

Transforming strategic risk enables executives and boards to understand and address a broad range of risks and interactions among risks. It enhances business and operating models, as well as risk governance and risk culture. This transformation encourages management to adjust strategies or their implementation in response to changing conditions, while prompting the board and the CRO to challenge the assumptions underlying strategic decisions.

Finally, only senior management and the board can lead the transformation of the organization's approach to strategic risk. Given the current environment, now is the time to begin this transformation.

References

- ¹ Risk Transformation: Aligning risk and the pursuit of shareholder value, Deloitte, 2014 http://www2.deloitte.com/us/en/pages/risk/articles/aligning-risk-and-the-pursuit-of-shareholder-value.html
- ² From Deloitte and OESA Supplier Barometer Deep Dive, Deloitte, 2014, as reported in Deloitte on... Disruption in the Automotive Supply Base, Deloitte, 2015 < https://www2.deloitte.com/content/dam/Deloitte/us/Documents/consumer-business/us-cb-Deloitte-disrupt-on-automotive-supply-base-single-031015.pdf>
- ³ The value killers revisited: A risk management study, Deloitte, 2014 http://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/dttl-cfo-risk-ValueKiller-011614.pdf
- ⁴ Disarming the value killers, Deloitte, 2005 http://deloitte.wsj.com/cfo/files/2014/05/DisarmingTheValueKillers.pdf
- ⁵ Morgan Stanley Capital International
- ⁶ The Three Lines of Defense in Effective Risk Management and Control, The Institute of Internal Auditors (IIA), January 2013 < https://na.theiia.org/standards-guidance/Public%20Documents/PP%20The%20Three%20Lines%20of%20Defense%20in%20Effective%20Risk%20 Management%20and%20Control.pdf>
- ⁷ Risk sensing: The (evolving) state of the art, Deloitte, 2015 https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-global-risk-sensing-pov.PDF

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