

Stage Gates Can Kill Innovation

Risk Management Can Fuel It

By Wouter Koetzier, Adi Alon, and Kenneth Hooper

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It's hard to imagine a company discussing innovation and suddenly turning to risk management as the catalyst that will unleash it. Risk management is often viewed as the enemy of the innovation ideal: the start-up with its highly empowered teams, agile development, minimal controls, and executives staring down risk with steely courage.

Applying the startup ideal in large organizations has often been an outsized challenge. Many global enterprises are complex and a battery of controls often holds them together. But the side effects can be toxic to innovation: they can create a decidedly risk-averse culture. Some experts even argue that controls will always stymie innovation. Driving it often requires parallel systems of empowered teams with their own funds and decision-making authority.

We argue differently. Through our experience with both innovation and risk management, Accenture has come to see them not as adversaries but as a potentially powerful union if married properly. In our view, the marriage is about much more than the controls that mitigate downside risks. The fusion of innovation and risk management can play a major role in successfully pursuing upside opportunities that a risk-averse culture may be leaving on the cutting room floor: it can drive a company's innovation agenda by revealing blind spots and areas of underinvestment that threaten a company's future.

In many companies, however, the union of innovation and risk management is formed around an innovation-choking funnel process: a series of stage gates designed to reduce uncertainty as exposure to risk grows. For many companies, the funnels end up producing only weak, incremental ideas that often come to market slowly and miss cost targets. Despite such dismal results, many companies avoid unleashing innovation, fearing that capital requirements and business risks will soar.

We believe that the opposite is the case. By applying risk management tools, techniques, and governance models, organizations can drive to new levels of innovation. They can create a dynamic portfolio of experiments and investments confident that the risks are transparent and well managed.



Funnels Can Choke Innovation

A primary goal of the funnel is to ferret out the best innovations by winnowing them through a series of stage gates that reduce risk. The reality is often very different. Driven by risk aversion and poor risk management capabilities, the process often weeds out big ideas in favor of small ones. Decision-making bodies often send back proposals for additional research and work, creating time-consuming, creativity-numbing rework loops. Anything but agile and iterative, the process can be a slow, linear march that rarely moves the growth needle.

The tools used to support the funnel process can bog it down. They are often one-dimensional, inadequate measures of an initiative's value based on backward looking analytics. Net Present Value (NPV) models, for example, are designed to leverage market projections but often through the lens of recent trends.

As a result, innovation decisions can skew toward optimizing the company's existing product lines through extensions and incremental improvements. Although these are important considerations, they can define opportunities very narrowly and miss market discontinuities and new opportunities.

Ironically, a corporate culture that celebrates success can be the final nail in the coffin. Only infrequently does someone in a large enterprise rise in the ranks with a failed experiment on his or her resume—even if the failure provided insights about future opportunities or was an extremely cost-effective means of eliminating dangerously wrong directions. Our view is that perhaps managers should be rewarded for a portfolio that includes strategically intelligent mistakes.

Is Risk Management Key to Growth and Innovation?

One of the largest risk management surveys of its kind, the Accenture 2011 Global Risk Management Study found that advanced risk management capabilities are high on the executive agenda. They are seen as a critical business driver and source of sustained growth and long-term competitive advantage. The Accenture study was based on a quantitative survey of executives from 397 companies across ten industries. In the survey, companies indicated that, in addition to managing compliance, risk management is seen as an enabler of long-term growth and profitability (See Figure 1).

Other key findings from C-Level respondents include:

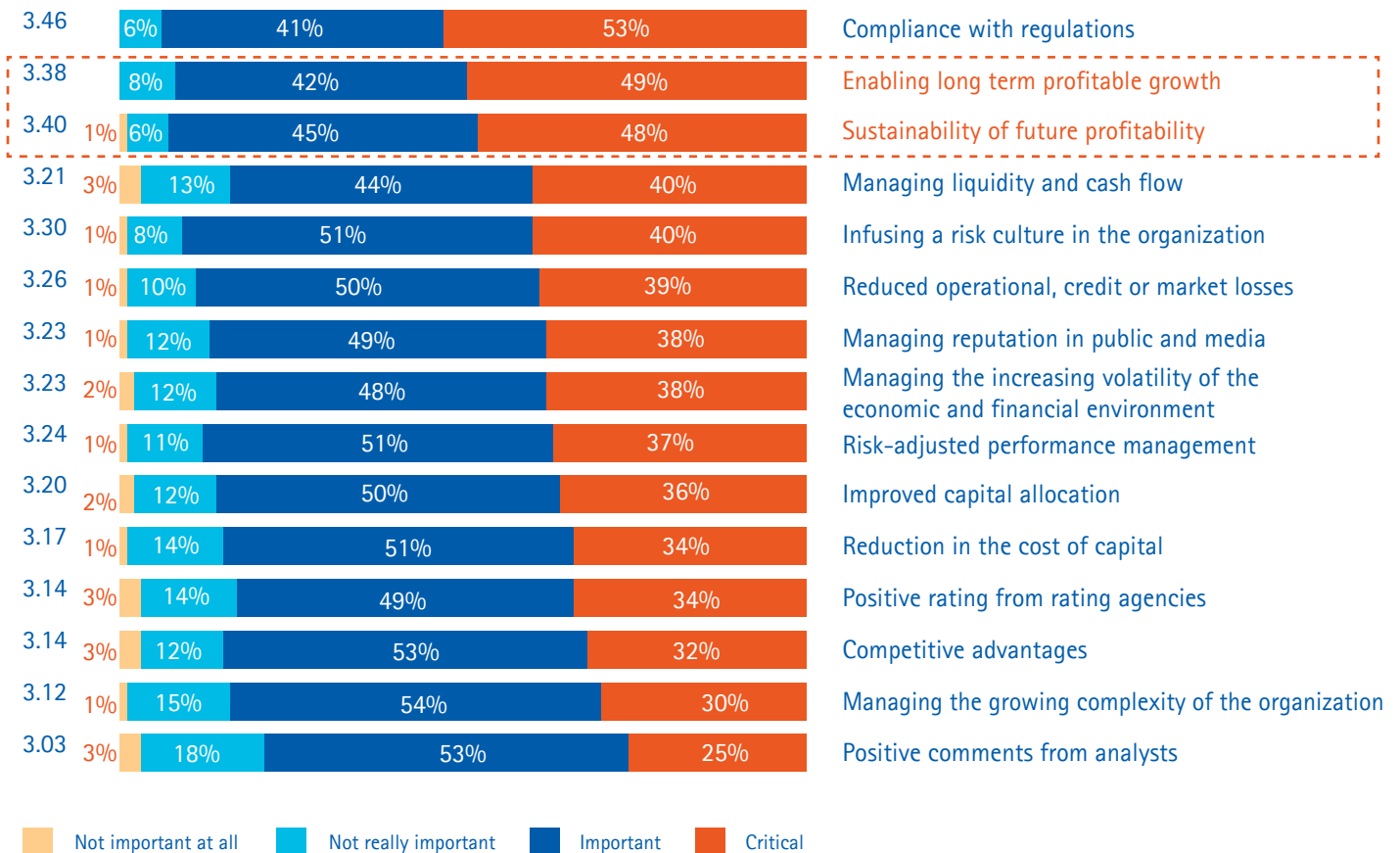
- 91% believe that the risk management organization is important to infusing the desired risk culture in the company.
- 91% believe that risk management enables long-term profitable growth.
- 90% plan to improve the integration of finance and risk management processes over the next two years.

- 86% identify the risk management organization as a critical or important driver to better manage the increasing volatility in the economic and financial environment.
- 86% find that risk management capabilities can improve capital allocation.
- 85% believe that risk management is critical to achieving competitive advantage.

Figure 1 – Accenture 2011 Global Risk Management Study

What is the importance to your organization as a driver to achieve the following?

Average



Risk Management to the Rescue

Replacing the Funnel to Accelerate Innovation

What industry is better skilled at managing risk and driving innovation than venture capital (VC)? Imagine a VC firm that used proposals and meetings to winnow down 20 ideas to only one or two and then placed all their bets on those. Highly unlikely. Venture capital firms typically create a portfolio of investments and manage them through the insights gleaned from the results of each. These firms often know in advance that most experiments will fail.

They are often able to use their growing knowledge to double down on promising avenues and leverage the "skill to kill" to move away from investments that aren't panning out. They understand that the

fruits of one or two experiments may earn back the cost of the entire portfolio—and then some.

To achieve the highest return on their portfolios, many VC firms apply three principles to their work:

- Flexibility
- Speed
- Control

Companies can use these principles and techniques to create a powerful alternative to the funnel process. Let's look at each of these in the context of enterprise innovation.



Flexibility

Securing options through early investments



Speed

Frequent tests and rapid learning curves



Control

Risk governance and culture



Flexibility

Similar to the way an investor uses put and call options to build a flexible portfolio before knowing which investments will pan out, companies may want to consider building a portfolio of early innovation investments that act as options.

Monsanto is a prime example. It holds the number ten spot on the Forbes list of the world's 100 most innovative companiesⁱ. The company realized back in the 1970s that genetic modifications could become very important to its seed business in the years ahead. However, these modifications carried a wide range of significant risks. To mitigate them, Monsanto developed a portfolio of experiments. It began by investing in biotechnology companies in the 1980s, including Genentech Inc., Collagen Corp., Biogen N.V. of Switzerland and Genex Corp. With growing traction, knowledge and experience, Monsanto then opened its Life Science Research Center in 1984. The center came to house more than a thousand employees, state of the art labs, growth chambers and biotech research facilities. By the 1990s, Monsanto was capturing the value of its portfolio by making acquisitions into biotech delivery vehicles, enabling technologies, and processingⁱⁱ. Today, biotech anchors its highly successful seed business.

Monsanto's investment decisions were not based solely on NPV or through a winnowing process that yielded one or two safe bets. It built a biotechnology portfolio through early investments and experiments. Advanced analytics can guide these complicated decisions by continually assessing value against multiple variables and scenarios. Corporate risk management functions can provide the advanced analytical support required to build such a portfolio. This support can include risk methodologies and tools designed to measure uncertainty—positive and negative— and provide realistic estimates of results to assist business decision-making.

While financial risk measurement is important, we encourage companies to focus on the uncertainties that pose risks to their reputation and operational flexibility. Risk scenario analysis can be a powerful analytical tool to simulate results and better understand operational flexibility. Scenario analysis is a structured process designed to discover how multiple factors may combine to create both vulnerability and opportunity. The risk simulation process typically differs from traditional SWOT analysis and risk assessments. It is a forward looking perspective which focuses on the combination of disparate events and their potential consequences.

Risk simulation is often designed to expand perceptions by focusing on factors that are often short-changed when specific innovation investments are in the formulation stage. A case in point: Accenture recently helped a large global software company identify potential gaps in its ability to respond to multiple challenging events in a product launch. The management team used a structured simulation to improve its planning for unanticipated and overlapping responses by multiple partners, organizations and customers. As a result, the team had greater insight into the roles, responsibilities, decision criteria, interactions and boundaries of different stakeholder groups.



Speed

Companies can use rapid experimentation and agile development to increase their chances of filling their innovation portfolios with new products and extensions—with the risks well managed.

Agile development can move beyond the periodic risk review of checking off boxes. As an iterative approach closely linked to customers and markets, it can draw regular attention to risks and integrates them into decision making. Salesforce.com, which holds the top spot on Forbes' leading innovators listⁱⁱⁱ, used agile development to liberate itself from the innovation quagmire of the funnel.

In 2006, Salesforce.com embarked on a "big bang" transformation that eliminated its stage-gate process. When the company was launched in 1999, it had only a few people in its R&D department and could bring out four major software releases each year. Fast forward five years. The R&D staff had grown to 200, the number of annual releases plummeted to one and the time between major releases ballooned from three months to more than a year.

As the R&D team grew, it became less productive. Its stage-gate process suffered from a lack of visibility into the requirements and activities of each stage. Release schedules became long and unpredictable and feedback on product features only came at the end of the process. To address the mounting ills, Salesforce.com replaced its stage gates with an agile approach using cross-functional teams that worked iteratively with the market through frequent tests. The iterative approach streamlined decisions based on frequent market response. After the change, their innovation prowess started to return to the high-octane levels of its early years^{iv}.

Successful innovation often requires speed. Like a well-coached sports team, the company's operational and financial personnel should be aware of their specific roles in supporting quick deployment of growth strategies. Effective risk management often encourages risk-taking within the bounds of a company's risk appetite. It can stop big losses that affect the enterprise, not small ones that hit individual business units. Risk management can facilitate companywide dialogue to determine which risks are acceptable, which aren't, and how much risk is appropriate based on potential returns.

Many companies recognize the potential effects of risk on reputation, financial performance and operations. Accenture proposes that growth and innovation can become a fourth factor supported by risk assessment processes. For example, management may have a better chance of elevating its growth and innovation agenda and assess how its strategies affect innovation: what risks are embedded in the innovation program? How does innovation mitigate the top risks? Investments that clearly tie to corporate objectives and mitigate its top risks may be more likely to be funded.



Control

VC firms use controls. But these controls are often designed to achieve the opposite effect than they do in most enterprises.

They are often designed to increase risk tolerance by creating a culture that embraces the logic of intelligent mistakes and bridges two organizational mindsets that are often at odds: finance and operating units.

A failure-tolerant culture is essential to many VC firms. The reality is that every new idea won't work. By design, more will fail than succeed since a large number of small experiments is the mathematical logic of risk reduction. Innovative companies often create a safe ground for experiments. That ground is "safe" because risks are controlled, managed and measured. Intelligent learning imbues new ideas, experiments and strategies.

Many companies are starting to move down this path. Even an established, global advertising agency has created a comfortable space for failure—Grey offers an "Heroic Failure" award which it grants to especially clever ideas that nonetheless didn't work. Surepayroll.com takes a similar tact. It offers a "Best New Mistake" award. The award pays \$400 to employees who are trying to do a good job, but nonetheless made a mistake and learned from it⁴.

Interestingly, a company's financial and risk management organization is often the first to raise the red flag of insufficient innovation efforts. Nonetheless, the cultural divide between the finance and risk organizations and operating units can be a major stumbling block. To the finance organization, risk is often something to

avoid or mitigate. The operating side of the organization, on the other hand, may be on the hook for innovation—be it in technology, marketing, operations or product development. From their view, risk is often inherent and organizations need to boost innovation investments.

Effective risk governance can cross this divide. It can translate strategic challenges into specific risks to take and provides rules, parameters and measurements to guide the investments and process. Sophisticated risk management often creates buy-in and transparency: everyone in the organization understands what is funded, how, when and why.

Risk management groups can work as standard setters that provide specific risk governance techniques such as oversight committees, policies and assessment processes. These techniques are often the most visible evidence of an organization's commitment to a productive risk culture. That said, risk management groups may want to consider strategies designed to avoid over-estimating their ability to understand the myriad of risk factors that business owners confront. They may want to consider that the growth and innovation agenda is sometimes paramount to the company's success. Many leading risk management groups avoid process for process sake. They provide risk management education and tools to encourage risk-taking within defined risk tolerances.

Is Innovation Really Risky?

Many organizations recoil at the idea of setting innovation free—it's simply too risky. Accenture research has found, however, that this isn't actually the case. We examined the 60 U.S. publicly traded companies included in the Forbes Magazine list of the world's most innovative companies^{vi}. The list moves beyond the typical measures of a company's innovation such as executive or employee perceptions. It looks at how investors vote with their wallets—the innovation premium they ascribe to companies they are investing in.

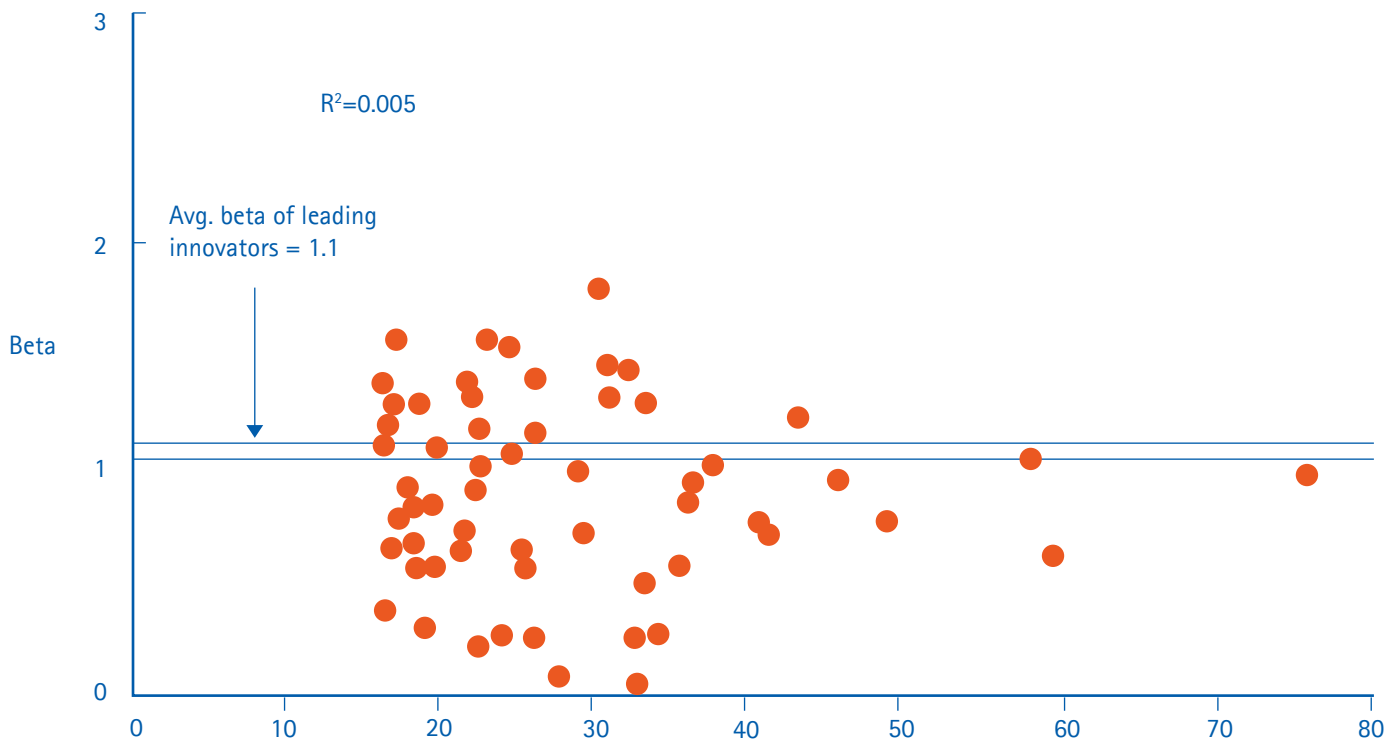
We examined the risk of these companies as measured by their Beta value (a measure of a company's share value volatility relative to the market volatility as a whole). A Beta of 1 indicates that a company's share price will move with the market fluctuations. Surprisingly, the beta of the most innovative companies averaged only 1.1—essentially no more risky than their less innovative peers (See figure 2). We also found no correlation between a company's beta and its position on the list. A higher innovation ranking doesn't translate into higher risk.

Figure 2 – Equity beta versus innovation premium of leading U.S. traded innovation leaders

Innovation=Risk?

On average, leading innovators have a only slightly higher beta to the market average with no correlation between their beta values and level of innovation premium index

Equity Beta vs. innovation premium of US traded leading innovators



Innovation Premium Index*

The Innovation Premium is a measure of how much investors have bid up the stock price of a company above the value of existing business based on expectations of future innovative results (new products, services and markets). Members of the list must have \$80 billion in market capitalization, spend at least 1 percent of their asset base on R&D and have seven years of public data. Source: Forbes

Source: Yahoo Finance

Getting Started

Executives around the world are focused on growth strategies, their associated risks, and risk management capabilities. Programs to accelerate innovation are becoming more common, in part, because successful innovation is the cure for many risks companies face. By the same token, risk management has moved forward because of its ability to provide controls in complex business environments.

Many organizations must leverage their investments in risk management structure and techniques to support innovation. Risk management can add a level of discipline and transparency while supporting the desired risk culture and appetite.

To fuse innovation and risk management processes in a way that unleashes innovation in a disciplined way, we recommend considering these principles:

Culture

Recognize that small failures are acceptable as long as they occur within the business' defined risk tolerances.

Oversight

Provide lean risk and innovation governance and processes in an effort to support investment decisions and speed.

Business Model

Map how company strategies, upside and downside uncertainties, risks and innovation activities are related.

Analytics

Use risk measurement and scenario analysis techniques to better understand individual risks, combinations of events, and untended consequences—including the risks of underinvesting.

Innovation Portfolio

Align your innovation portfolio with company strategies and top risks with a goal of maximizing the potential benefits from investments.

Innovation Processes

Focus your innovation process on speed in an effort to shorten learning cycles, recognize failures early, and make timely course corrections.

Innovation is a front-burner issue for companies around the world. Yet, management is usually frustrated by the results. They crave the freedoms of speed and flexibility. At the same time, they fear these mandates will increase risks. As corporate imperatives, risk

management and innovation are growing in focus. Marrying them is the next logical step. Risk management can be harnessed to boost innovation efforts by creating confidence that its risks are well managed—and better managed than they had been before.

About the Authors

Wouter Koetzier is the global Managing Director of Accenture's Innovation and Product Development Consulting practice and holds responsibility for the management consulting relationship with Philips globally. He is an expert in business strategy and transformation, with a special emphasis on commercial and innovation performance in the Consumer Goods and High-tech industries. Based in Amsterdam, he can be reached at wouter.koetzier@accenture.com.

Adi Alon is a Managing Director in Accenture's Innovation and Product Development Consulting practice. His work focuses on supporting clients in upgrading their innovation execution capabilities, reduce time to market and aligning their operating model and processes with their innovation strategy. Mr. Alon has served clients in Energy, High Tech, Life Sciences, Financial Services and the Consumer Goods industries. Based in Boston, he can be reached at adi.alon@accenture.com.

Kenneth Hooper is a Senior Principal in Accenture's Management Consulting practice where he leads the cross-industry risk management group. Over the last decade, Ken has provided risk management consulting services to large corporations in many industries and has published multiple articles on risk management and capital management topics. Prior to his work in consulting, Ken headed up the corporate treasury, market and credit risk, and enterprise risk management functions at a Fortune 200 company. Based in Raleigh, he can be reached at kenneth.Hooper@Accenture.com.

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