A man in a dark suit, white shirt, and patterned tie, wearing thick-rimmed glasses, is looking intently at a large, messy pile of white papers. He is holding a pen over the papers. The background is plain white.

Good ideas are not enough

Adding execution muscle
to innovation engines

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Good ideas are not enough: adding execution muscle to innovation engines

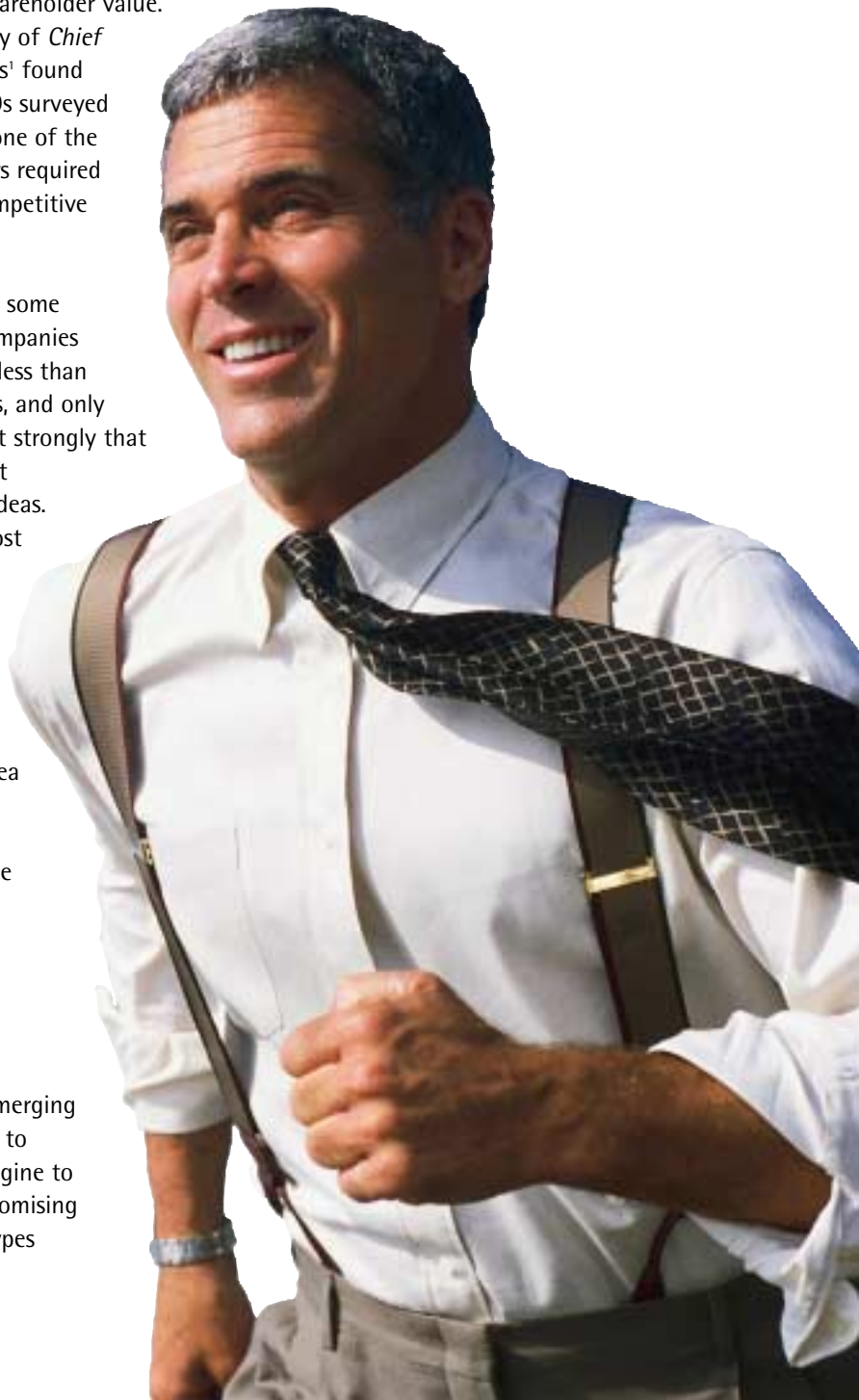
By Ajit Kambil

Despite a challenging economic climate, most CEOs recognize that innovation to renew products, services and business processes and models remains a key strategy for competitive advantage and growing shareholder value. Indeed an Accenture survey of *Chief Executive* magazine readers¹ found that two-thirds of the CEOs surveyed recognized innovation as one of the five most important factors required to succeed and sustain competitive advantage.

Yet the same survey found some surprising results. Most companies are able to commercialize less than one in five promising ideas, and only one in eight executives felt strongly that their companies excelled at implementing innovative ideas. What is more, even the most innovative companies commercialize less than 60 percent of their most promising ideas. The survey showed that people saw fewer barriers to idea generation than idea implementation. The underlying cause of this discrepancy is an imbalance in the innovation process: most innovation processes focus overwhelmingly on idea generation and not execution to value.

This paper identifies the emerging CEO role and key practices to tune-up the innovation engine to realize more value from promising ideas. It looks at various types

of innovation and the barriers to innovation that must be managed and provides examples of successful innovation practices. Based on our survey of CEOs, best practice cases and Accenture's own experience working with hundreds of companies to commercialize ideas, we conclude that CEOs should drive to create greater focus in their organizations on processes and support for executing and commercializing innovations.



The innovation difference

Business innovation is the discovery and implementation of the "new". It includes: new technologies, new products and services, new customer experiences, new processes, new markets, new channels and new business models. These innovations can often drive new value and growth in companies by helping to create new revenue and cost-saving opportunities. Sometimes these innovations can dramatically change the basis of competition in an industry (see Exhibit 1).

Given the strategic potential of innovation, it is no surprise that in another Accenture study, 83 percent of senior executives surveyed said innovation was vital to the future success of their company². Yet CEO commitment to innovation often has been cyclical. In the growth economy of the late 1990s many CEOs were faced with new entrants who threatened their established companies with disruptive technologies and business model innovations. They responded by investing in innovation capabilities geared toward creating new products and ventures, reaching new customers and testing new business models.

But the deflation of the dot-com bubble and a slowing economy has strained ongoing attention to and investment in innovation. Many executives feel burned by the poor

returns of prior investments in innovation, especially those related to the Internet. Yet investment in innovation remains as important in a slow-growth economy as it does in a fast-growth economy.

New technologies, processes and business model innovations can help to reduce costs and maintain corporate value in a slow-growth economy. Innovations can also create new assets that can help to position a company for future growth. To realize these benefits, executives need to focus on achieving a greater return on their innovation investments through actively designing and managing their companies' innovation engines.

Most companies are able to commercialize less than one in five promising ideas.

Exhibit 1. Illustrative strategic innovations

Locus of innovation	Strategic example
New technologies	Inkjet printing has evolved to dominate low-end printing solutions. The inventor, Hewlett-Packard, realized a major new source of revenue and became a leader in the printer industry.
New products and services	The introduction of the i-mode® wireless Internet service by NTT DoCoMo in Japan helped to revolutionize the basis of competition in both the European and Asian wireless industries.
New customer experiences	Home furnishing retailing has been transformed by having customers co-create and assemble furniture.
New processes	Dell's build-to-order personal computer process has dramatically changed the way people and businesses purchase technology. By continually focusing on the customer and providing them with customized products and services, Dell has become the leading, worldwide personal computer manufacturer.
New channels	Netflix is transforming the movie rental business by using the Internet and mail delivery channels to rent movies on DVD to customers for an extended period of time.
New business models	Southwest Airlines and other low cost, low frill airline business models have demonstrated profitability and changed the nature of competition in the airline industry.

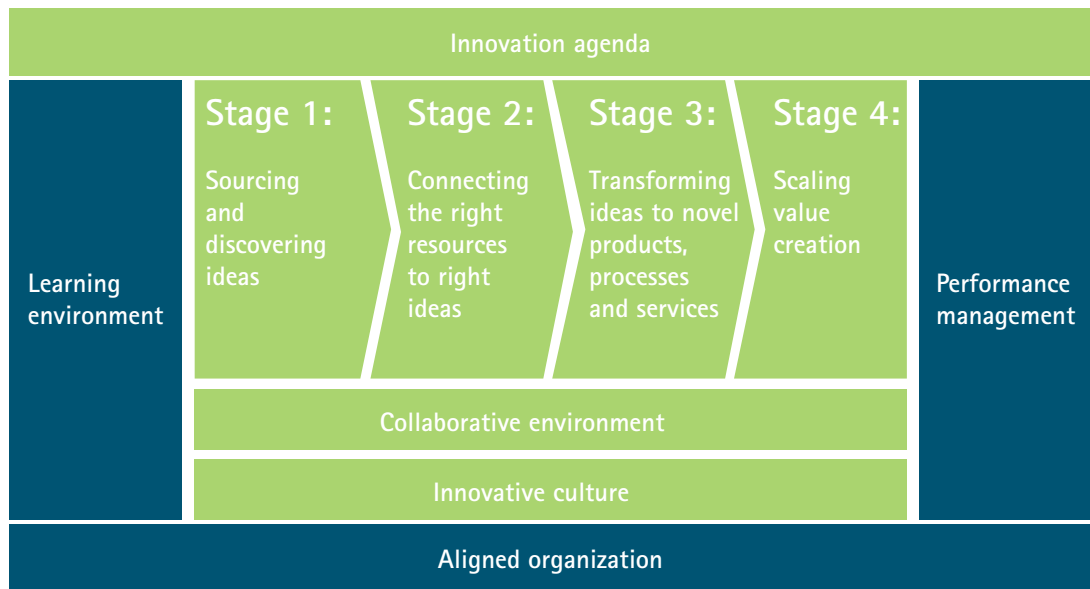
Shifting gears to manage the innovation engine

Successful innovation is a complex, multistage process that goes from ideas to commercially valuable outcomes which can be summarized in four key stages sourcing and discovering ideas; connecting the right resources to right ideas; transforming ideas to novel products,

processes and services; and scaling value creation (see Exhibit 2). Next, we discuss the key findings from our survey as they pertain to these four stages.



Exhibit 2. Accenture Innovation Framework



Source: Accenture

Key innovation stages and enablement factors.

Stage 1:

Sourcing and discovering ideas

The first stage in the innovation process is to find the "new" ideas and insights to commercialize. Many of the organizations surveyed had a plethora of promising ideas—most of which were not commercialized. Yet discovering the valuable ideas that are customer relevant is not easy. One promising solution is to enlist customers to help co-create and deliver innovations.

More specifically, work by Eric von Hippel at the Massachusetts Institute of Technology shows that "lead

users"—the users who are the first to need a product, process or service that will eventually find a larger market—are an effective source of innovative ideas. Lead users often innovate and adapt existing products to meet their specialized needs³. By including lead users in the idea-generation process, companies can capture the value of customer discoveries and experiences.

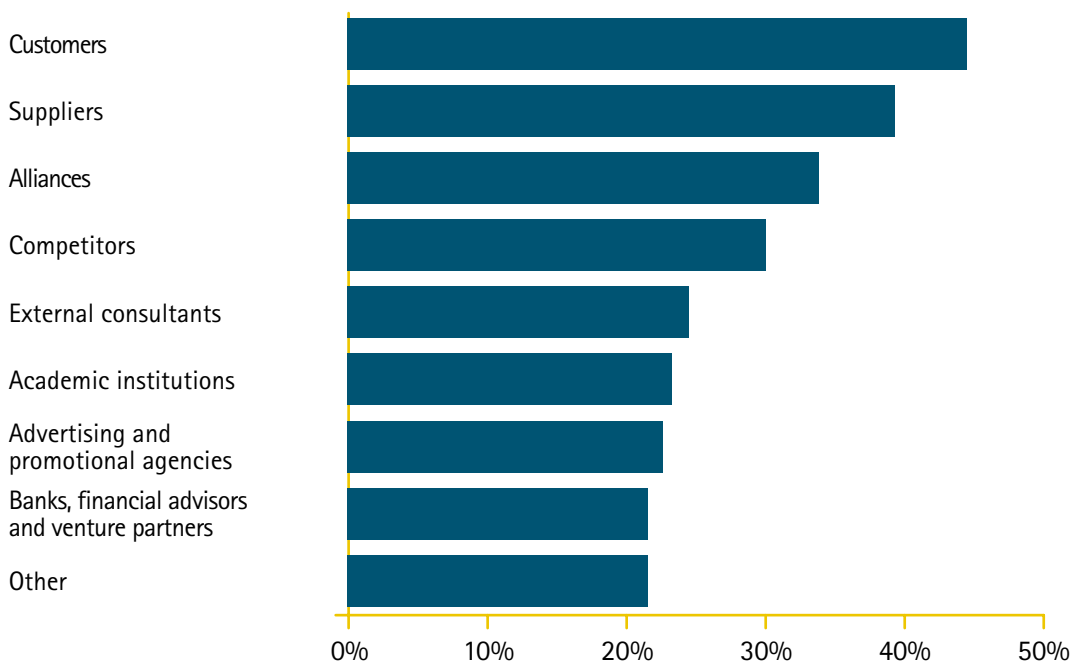
Innovative companies like 3M already have formalized the inclusion of lead users into the innovation process. When 3M wanted to boost its leadership in medical products and

create a new surgical drape to reduce post surgical infections it turned to a number of experts and potential lead users to help renew their existing products. By involving Mobile Army Surgical Hospital—better know as MASH—surgeons, veterinarians, antibiotic experts and even make-up experts in product design workshops, the company was able to create a drape that was easy to apply and that released antibiotics to reduce post surgical infections. The experts were paid an honorarium for their participation and contribution to the efforts. 3M estimates that products come to market more quickly and there are higher profit margins on "lead user" generated products.⁴

Microsystems turn to their suppliers to help them forecast technology changes that they may want to consider integrating into their products and services. While many companies are only beginning to formalize processes involving lead users or partners in product design, we found that CEOs recognize the importance of customers and suppliers as key sources of innovation. They ranked customers and suppliers as the two most valuable external partners (see Exhibit 3).

Suppliers are another source of innovation ideas. Companies like Sun

Exhibit 3. In helping my company innovate, the external partners who are valuable are:



Source: Accenture and *Chief Executive* magazine survey.

Stage 2:

Connecting the right resources to right ideas

As described earlier, organizations fail to convert a significant number of promising ideas into commercially valuable outcomes. The survey results indicate—and Accenture's experience corroborates—that many lack a clear innovation strategy including a decision-making team to evaluate different ideas for commercial feasibility.

While this lack of an innovation strategy affects all aspects of driving innovative ideas to commercialization, it has the most impact on allocating resources to get the job done. The majority of organizations assign the responsibility of implementing new ideas to cross-functional teams whose members continue their existing responsibilities. People are rewarded more for their day job than their innovation—less than one-third of companies say they have performance assessment processes that have innovation as a priority.

All in all, our survey identified the lack of an innovation strategy, culture and available staff and skills as key constraints to successful innovation (see Exhibits 4 and 5).

These results are consistent with prior work by Professors Michael

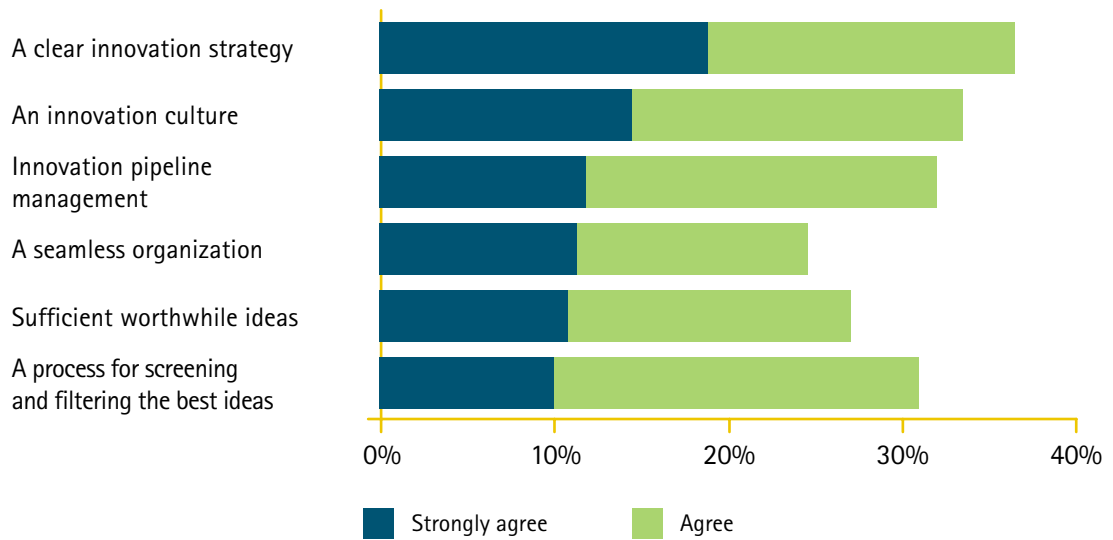
Tushman and Charles O'Reilly of the Harvard Business School. They note that innovations often fail to realize value because they often demand organizational and individual change. Yet many organizations, especially those without strong expectations for innovation-based performance are likely to resist innovations, seeking stability in individual work, organizational relationships and processes.

Innovations also fail to materialize into commercial value because they are inherently risky. At the outset of a promising idea, it often is unclear if the idea can be translated into a viable product or solution, and whether a corresponding market will materialize. These risks make it harder to drive innovations to market, as even talented managers can be risk averse, unwilling to risk their career on an unproven opportunity.

To enable successful innovation, CEOs need to create both an innovation agenda and a culture tolerant of risk. This includes setting expectations for innovation, and developing methods to measure the success of innovation activities. Twenty-eight percent of the senior executives in our survey said their companies did not have measures to track innovation, and another 13 percent used qualitative rather than quantitative measures.

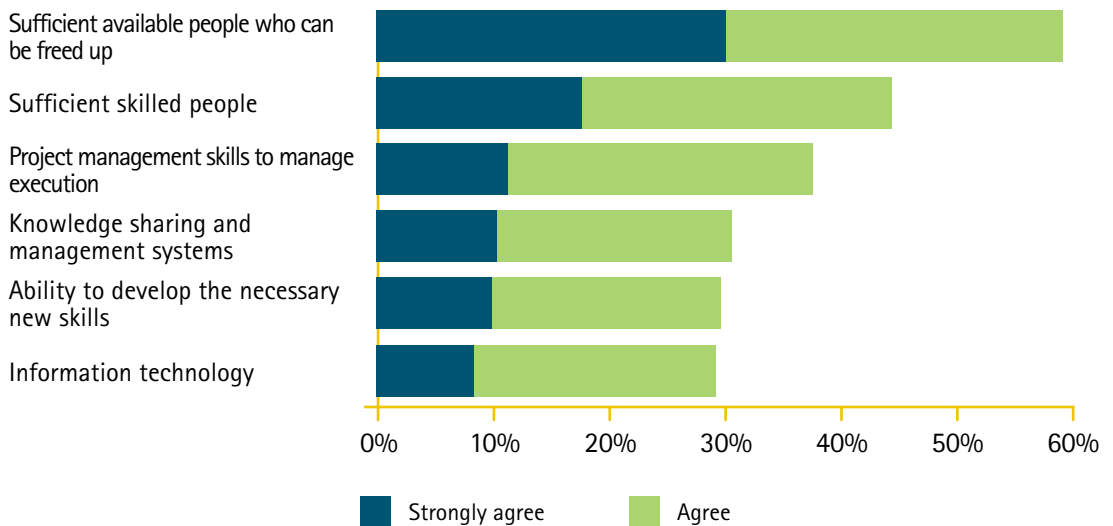
Only one in eight executives felt strongly that their companies excelled at implementing innovative ideas.

Exhibit 4. What prevents companies from commercializing more promising ideas?



Source: Accenture and *Chief Executive* magazine survey.

Exhibit 5. My company is limited in its ability to implement ideas by lack of:



Source: Accenture and *Chief Executive* magazine survey.

In contrast, innovation leaders like 3M have well-defined strategies, processes and measurement in place. At 3M the centrality of innovation to the company agenda is built into the goal of having a substantial part of annual revenues derive from new products. Other high-technology companies measure the success of innovation investments through the number of patents they acquire and the resulting value derived.

CEOs also need to free up budgets and staff resources to support the development of the innovation. The Accenture survey also found most organizations had a flexible budgeting process for implementing innovations. But this is a double-edged problem—budgets allocated to innovation can vary widely with the economic climate. As innovations take time to nurture, sacrificing innovation budgets to maintain short-term earnings could potentially undermine future growth and the successful implementation of innovations.

Stage 3:

Transforming ideas to novel products, processes and services

Effectively transforming ideas to commercially useful applications is not easy, and many innovations fail in this stage of the process. Interestingly, while the survey shows that there are more barriers to implementing ideas than generating them, external resources are valued more for idea generation and validation than to overcome the implementation barriers.

Our survey data found that those companies with a formal process in place for evaluating and transforming innovations to products and services derived greater success in implementing innovations. Not surprisingly given the communication and high-tech industry's rate of introducing new products and services, the survey shows companies in this industry were most likely to put together a dedicated team to implement innovations and to have permanent innovation teams.

But what should formal innovation processes include? Based on our survey, Accenture believes formal innovation processes should focus on establishing collaboration and alignment across diverse organizational and interorganizational resources to transform innovations to novel products, processes and services. Indeed, survey respondents identified organizational and interorganizational collaboration as a key to success.

These findings are consistent with the emerging research on successfully implementing innovations. Based on an extensive multiyear research program, innovation researchers from Rensselaer Polytechnic Institute⁵ identified a number of key success factors including: the need to create cross-functional innovation execution teams that bring together idea development and operational expertise to convert ideas into products. In addition, successful innovation programs required secure funding commitments, collaboration

across functional and organizational units, and the development of new staff skills, practices and structures. By aligning these resources some companies are able to better manage innovations to successful outcomes.

Transitioning ideas to new operations, products and services is especially difficult when the innovation results in a product or service that serves a new customer base, or when the innovation requires new expertise, manufacturing or other resources not currently available to the company. This often requires recruiting new expertise and creating a separate organization that must work with the traditional corporation.

Consider Analog Devices' entry into the automotive markets with micro-electromechanical systems for accelerometers and airbags.⁶ Analog Devices, a leading manufacturer of precision high-performance integrated circuits, had little experience with the automotive market. The company set up a separate business unit, which faced a

number of challenges while it built a new market, including tension between the parent company and the new venture.

The parent company wanted to focus on ramping up production of airbag components versus many in the new business who wanted to diversify the applications of the micro-electromechanical systems technology to new industries. Fortunately, the new venture was able to weather these challenges and grow to be successful. This is an example of how selecting an organizational model, which aligns incentives and goals within and across an organization, can be critical to successfully realizing an innovation.

Interestingly, while the survey shows that there are more barriers to implementing ideas than generating them, external resources are valued more for idea generation and validation than to help overcome implementation barriers.

Stage 4:

Scaling value creation

CEOs can realize value from innovations when they scale to successfully help to create significant revenues or generate substantial savings. Scaling the adoption of any innovation and particularly process innovations often requires dissemination of the innovation and buy-in from multiple parts of the organization.

At steel products manufacturer Nucor, for example, innovations are driven through the company's CEO sponsored "best-marking" program. In this program, innovative ideas are partly shared through an intranet. Innovations, such as a better way to procure resources, are selected for the best marking program. The CEO recognizes contributors of the selected best marking practices. To diffuse the innovative practice throughout the organization, travel to the company's distributed units is funded so the innovators can share what they have learned.

However, scaling innovations usually requires much more than the diffusion and acceptance of the innovation across an organization. It usually requires the creation of new systems and processes to support the commercialization of the innovation—from new production, channels, customer relationship management, human resources, payroll and financial administration systems. Fortunately many business processes can now be outsourced to enable companies to scale quickly and outrun the competition.

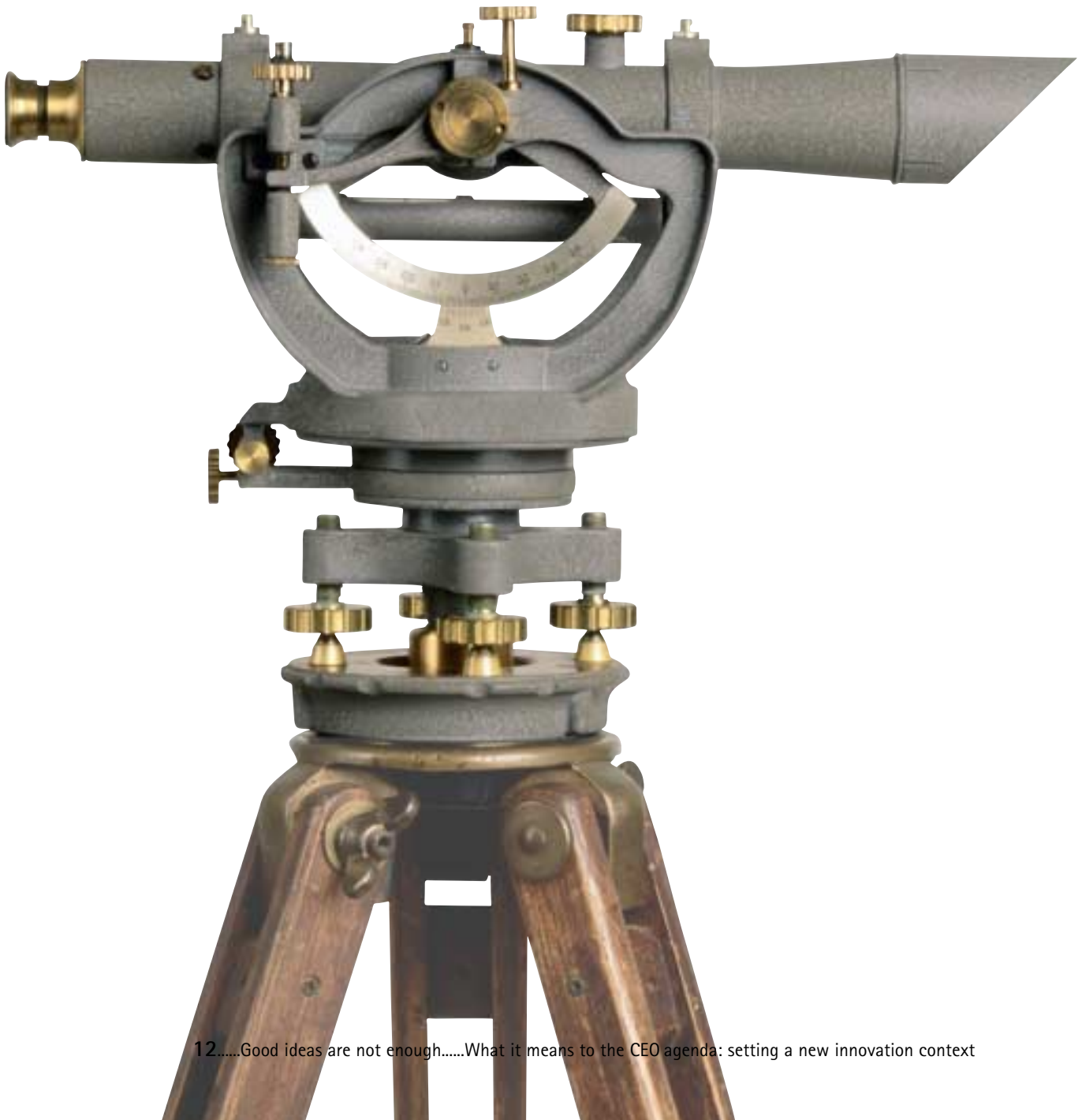
For instance, TiVo, a start-up television service provider, used an outsourcing arrangement to quickly develop distinctive customer support capabilities. TiVo realized that its unique product had unusual needs; success would depend on helping each customer install, understand and use the new product in a way that specifically suited them. Ordinary call center scripts and routine approaches would not do the job. To prepare the call center agents for this challenge, TiVo and its call center provider worked closely to jointly establish processes and develop innovative training materials and incentives to enable the agents to "think like a TiVo customer."

Outsourcing takes advantage of the expertise of the outsourcer to help provide basic business systems and processes, and allows innovators to scale and add new capacity flexibly as they grow. It also allows companies to focus on their core capabilities while leveraging economies of scale in other areas by sharing the costs of key business infrastructures and processes across multiple companies.

What it means to the CEO agenda: setting a new innovation context

Our survey showed more than 45 percent of CEOs recognized that they were primarily responsible for driving innovation into the organization (see Exhibit 6). But given the demands on their time, CEOs can only personally shepherd a few of the most important ideas to successful value creation, while continuing, of course, to encourage companywide innovation.

But if the CEO is not directly involved in sponsorship, then another executive should take on the responsibility. Accenture experience demonstrates that all promising ideas need an executive sponsor, ideally someone connected to the area of the company most affected by the idea, to guide the idea through the innovation process. This concept leads us to the next point: Nearly 25



percent of the survey respondents said their company's ability to innovate is limited because the company lacks a seamless innovation organization.

So how should CEOs tune up the innovation engine and realize more value from their untapped ideas and latent assets? Two areas of focus suggested by our research are to improve the context of innovation by investing in a number of enablement factors and outsourcing to expand implementation capability.

As illustrated in Exhibit 2, creating a strong innovation context in which the four innovation stages work well includes setting a clear innovation agenda with tangible goals and promoting an innovation culture. At Hewlett-Packard, for example, CEO Carly Fiorina has created tangible goals and rewards for HP engineers to acquire key patents.⁹

Improving the context of innovation also includes building performance management and learning infrastructures to track the effectiveness of innovation investments and diffuse them effectively through the organization. Our survey showed organizations with clear innovation programs were able to more successfully implement innovations, and practices such as Nucor's best marking program can accelerate the take up of innovations in organizations. CEOs also can encourage greater cross-functional and organizational cooperation to support innovation and permit multiple models of organization from separate business units to cross-functional teams to nurture and

implement innovations. Investing in the innovation enabling factors can greatly amplify the CEO's impact on innovations.

A second area of investment, which is gaining in importance, is the use of external resources in general and outsourcing in particular to augment resources and accelerate value creation throughout the innovation process. Our survey shows that currently less than 20 percent of the respondents indicated that their companies regularly use external resources to deliver innovation.

Evidence for the outsourcing of innovation is growing,⁹ and it can be an advantage in each of the different stages of innovation from outsourcing lead user capabilities for sourcing ideas, to services for business planning, evaluating and testing the feasibility of ideas, and for selectively acquiring capabilities to transform ideas into products. Outsourcing innovation should complement internal development, and is especially pertinent to industries with rapid technological change where a company using only its internal capabilities is unlikely to "out-innovate" its competitors.

For innovations implemented through new ventures, outsourcing also can provide the vital systems and processes to scale operations, the channels to access customers and the execution capabilities to operate basic infrastructures.

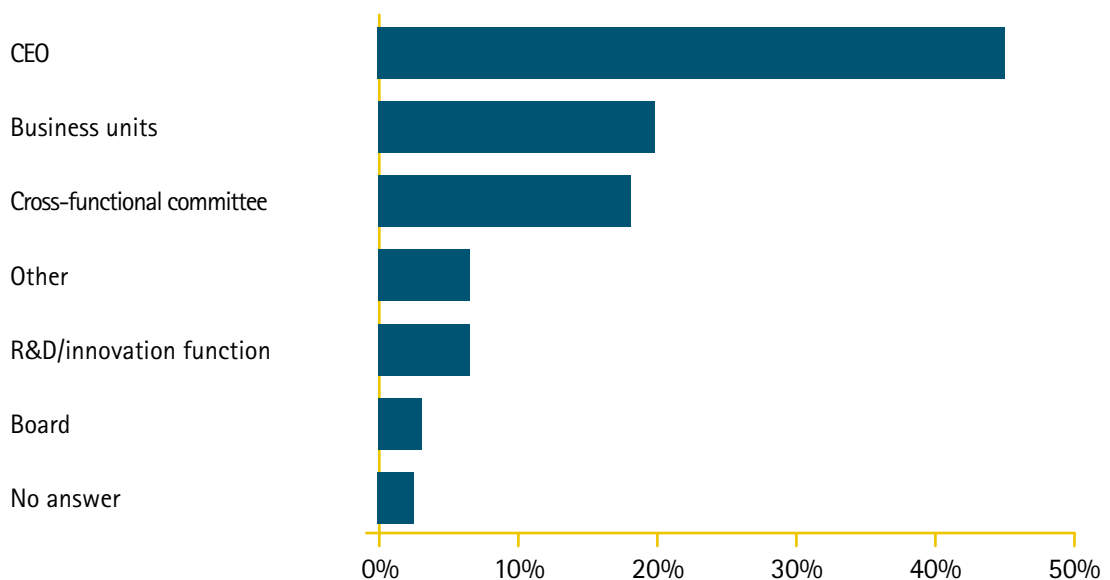
Our survey found most companies lack enough staff and skills to support innovation. Three out of five

respondents said the inability to free up their skilled resources to work on ideas hindered innovation implementation. Forty-five percent of respondents had an even bigger problem than freeing up in-house skilled resources. They said the biggest innovation hurdle was lacking a sufficient base of appropriately skilled people in the first place.

function. Outsourcing key processes frees up management to focus on key aspects of the innovation process and allows management to accelerate the deployment of innovations. Outsourcing also allows innovators to tap into economies of scale from shared infrastructures and the ability to flexibly scale operations.

The emergence of business process outsourcing provides new strategies for dealing with the attention and skill deficits that can impede innovation implementation. Outsourcing learning capabilities can quickly develop new skills at the point of need, as TiVo has done to build from scratch a new kind of customer relationship management

Exhibit 6. Drivers of innovation



Source: Accenture and *Chief Executive* magazine survey.

Conclusion

Despite a challenging economy our survey showed that CEOs continue to recognize the importance of innovation for growth. But while ideas abound, many companies fail to execute innovations successfully and realize value. We believe CEOs can amplify the returns on innovation in two important ways: by improving the context for innovation and by using outsourcing and other external resources to add muscle to innovation execution capabilities.



Notes

¹Survey included with *Chief Executive* magazine's April 2002 edition. Three hundred and fifty of the magazine's US-based subscribers from a variety of industries responded.

²*The Unexpected eEurope*, Accenture, 2001

³Eric von Hippel, *Sources of Innovation*, Oxford University Press, February 1988.

⁴*Lead User Research at 3M: A new approach to anticipate user needs* presentation by Mary Sonnack, division scientist, Corporate Marketing, the 3M Company, at the Institute for the Study of Business Markets Annual Meeting, Pittsburgh, June 2000.

⁵Richard Leifer et. al., *Radical Innovation: How Mature Companies can Outsmart Upstarts*, Harvard Business School Press, 2000

⁶ibid

⁷*Business Process Outsourcing Big Bang: Creating Value in an Expanding Universe*, Accenture, 2002

⁸"More Patents Please: Tech Companies Urge Staffers to Submit Innovative Ideas: Cash Rewards, Plaques at HP", by Pui-Wing Tam, *The Wall Street Journal*, October 3, 2002.

⁹The following articles: "Ally or Acquire: How Technology Leaders Decide," by Ed Roberts and Wenyun Kathy Liu, *Sloan Management Review*, Fall 2001, Volume 43, Number 4, pp 26-34; and "Outsourcing Innovation: The New Engine for Growth" by James Brian Quinn, *Sloan Management Review*, Summer 2000, Volume 41, Number 4, pp 13-28.

Ajit Kambil is an associate partner and senior research fellow at the Accenture Institute for Strategic Change where he leads research on innovation, electronic commerce and supply chains. He is widely published in leading management and technology journals, and his latest book *Making Markets: How to Profit from Online Auctions and Exchanges* was published by Harvard Business School Press in 2002. Kambil has a Ph.D. in information systems from Massachusetts Institute of Technology.

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