



# Expanding the Innovation Horizon

Global CEO Study  
2006



## THE IBM GLOBAL CEO STUDY 2006

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*Worldwide, CEOs are not bracing for change; instead, they are embracing it. Inspired and enabled, some 765 CEOs share their views on innovation.*



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## PREFACE

*By Samuel J. Palmisano  
Chairman, President and Chief Executive Officer, IBM*

Two years ago, our first Global CEO Study found that leaders in every industry and in every part of the world were emerging from a period of retrenchment and cost cutting and moving toward a vision of sustained growth. The study indicated a growing recognition that new innovation was the preferred path to achieving organic growth and brand value.

This year's study, then, undertakes a deeper and more focused examination of the challenge of unlocking new innovation, and the opportunities it presents to the enterprises that do it most effectively.

The results – gathered through 765 in-depth interviews with CEOs around the world – provide valuable insight. We probed CEOs' view of innovation, which is evolving beyond the traditional focus on pure invention and new product development. We learned how globalization and other market forces are impacting innovation. We explored how cultures and management structures must change in order to sustain this kind of innovation.

I find the results fascinating. Fully 65 percent of chief executives and other leaders say they will have to make fundamental changes in their businesses over the next two years. New products and services remain a priority, but they're placing increasing emphasis on differentiating themselves through innovation in the basics of their business models. They believe that external collaboration across their business ecosystems will yield a multitude of innovative ideas. Further, our analysis indicates that companies with superior financial performance are pursuing this kind of collaboration.

At IBM, we have always believed that meaningful innovation – ideas and action that matter to individuals and societies – occurs at the intersection of invention and insight. That's the essence of one of the core IBM values our own employees shaped: "Innovation that matters – to our company and to the world."

It's our belief that this study advances that mission. And it's our hope that by creating new insight into the challenges and aspirations of today's business leaders, we can help leaders everywhere shape the role of innovation within their own strategic agendas.



*Since 1990, when Shanghai's Pudong district was designated a Special Economic Zone, it has been transformed from marshy fields and warehouses to ultramodern towers housing the city's economic and trading centers.*

## EXECUTIVE SUMMARY

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*“Innovation is a non-transferable asset.”*

– Study participant

Our 2006 CEO Study takes a comprehensive, global look at a topic that is increasingly important to CEOs and government leaders worldwide: innovation. We knew, from our 2004 Study, that CEOs were relying on innovation to drive profitable growth. But beyond innovation's bottom-line importance, we believed that business and public sector leaders were acutely aware of the phenomenal challenges society faces in the coming decades – and our mutual dependence on innovation to solve these issues.

We spoke at length with 765 CEOs, business executives and public sector leaders<sup>1</sup> from around the world – to learn more about their thoughts on innovation. They were remarkably frank, sharing with us their motivations, their plans and even their weaknesses. We learned that two out of every three CEOs expect fundamental changes for their organizations over the next two years. Surprisingly, CEOs do not seem daunted by this challenge. Instead, they see opportunity – opportunity to be seized through innovation. And what they told us may compel leaders to reevaluate their preconceptions about innovation:

- *Business model innovation matters.* Competitive pressures have pushed business model innovation much higher than expected on CEOs' priority lists. But its importance does not negate the need to focus on products, services and markets, as well as operational innovation.
- *External collaboration is indispensable.* CEOs stressed the overwhelming importance of collaborative innovation – particularly beyond company walls. Business partners and customers were cited as top sources of innovative ideas, while research and development (R&D) fell much lower on the list. However, CEOs also admitted that their organizations are not collaborating nearly enough.

- *Innovation requires orchestration from the top.* CEOs acknowledged that they have primary responsibility for fostering innovation. But to effectively orchestrate it, CEOs need to create a more team-based environment, reward individual innovators and better integrate business and technology.

In our conversations, we found a persistent, worldwide, sector- and size-spanning push toward a more expansive view of innovation – a greater mix of innovation types, more external involvement and extensive demands on CEOs to bring it all to fruition. Based on these CEOs' collective insights, we offer several considerations that can help organizations sharpen their own innovation agendas:

- *Think broadly, act personally and manage the innovation mix* – Create and manage a broad mix of innovation that emphasizes business model change.
- *Make your business model deeply different* – Find ways to substantially change how you add value in your current industry or in another.
- *Ignite innovation through business and technology integration* – Use technology as an innovation catalyst by combining it with business and market insights.
- *Defy collaboration limits* – Collaborate on a massive, geography-defying scale to open a world of possibilities.
- *Force an outside look...every time* – Push the organization to work with outsiders more, making it first systematic and, then, part of your culture.

By contributing their own ideas and perspectives, each CEO participant has played an integral, collaborative role in producing this study. And for that we are extremely indebted. In turn, we offer the insights from this study to CEOs worldwide in the ongoing spirit of collaborative innovation.



## METHODOLOGY

*The findings in this report are based on in-depth, consultative interviews with 765 CEOs, business executives and public sector leaders from around the world.*

Our IBM Business Consulting Services Partners and IBM Client Executives conducted over 80 percent of these surveys through face-to-face interviews. We collaborated with the Economist Intelligence Unit to conduct the remainder of the interviews by telephone.

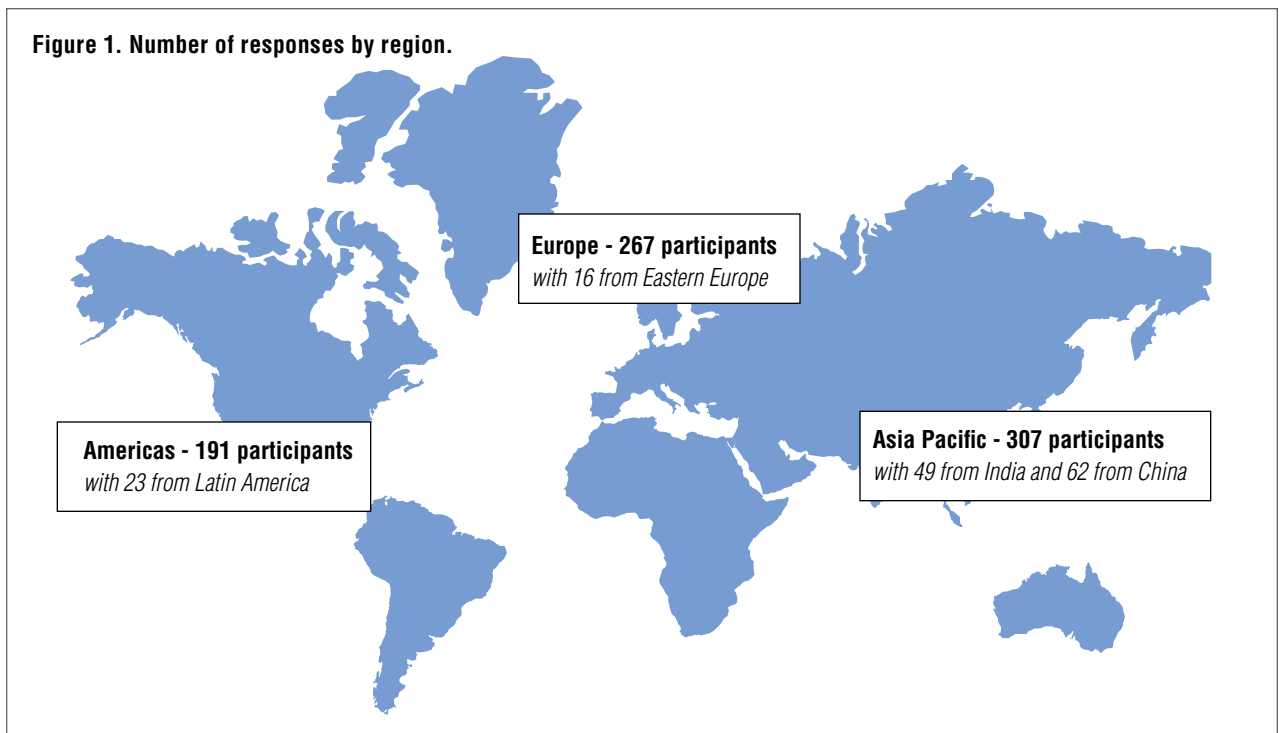
The overall intent of this major research program was to capture CEOs' current views on innovation. We wanted to learn what was on their innovation agendas, where their innovative energies were focused, and what they were doing to enable innovation. For the purposes of our discussions, we defined innovation as: *using new ideas or applying current thinking in fundamentally different ways to effect significant change.*

The survey population included a broad cross-section of CEOs and public sector leaders, spanning 20 different industries and 11 geographic regions (including representation both from mature markets and from important developing markets such as China, India, Eastern Europe and Latin America, offering a genuinely global perspective – see Figure 1). Our sample comprised leaders of companies both large and small, some public and some privately held. The interview format and the substantial sample size provided tremendous opportunities for both qualitative and quantitative analysis.

In addition to analyzing the survey responses, we wanted to ascertain whether the choices CEOs were making about particular types of innovation and key enablers had any correlation with financial performance. To perform this additional analysis, we looked at a subset of our sample where publicly reported financial information was available. For this subset, we compared their financial performance to that of an industry-accepted list of their nearest competitors (up to ten companies with similar revenue) – some of their competitors were CEO Study participants, but most were not. By taking a five-year view, we were able to identify which companies outperformed and under-

performed the average revenue growth, operating margin growth and historical operating margins of their closest competitors. Throughout our analysis, we used these top-half and bottom-half groupings to look for notable financial correlations. In this report, the term *outperformers* refers to the study participants that are in the top 50 percent based on this competitive comparison, whereas *underperformers* are those that fall in the bottom 50 percent. We expect this financial analysis to be of great interest to our entire CEO Study population and leaders around the globe who read this report because so few metrics are available to measure the impact of innovation, particularly innovation that goes beyond new products and services.

**Figure 1. Number of responses by region.**

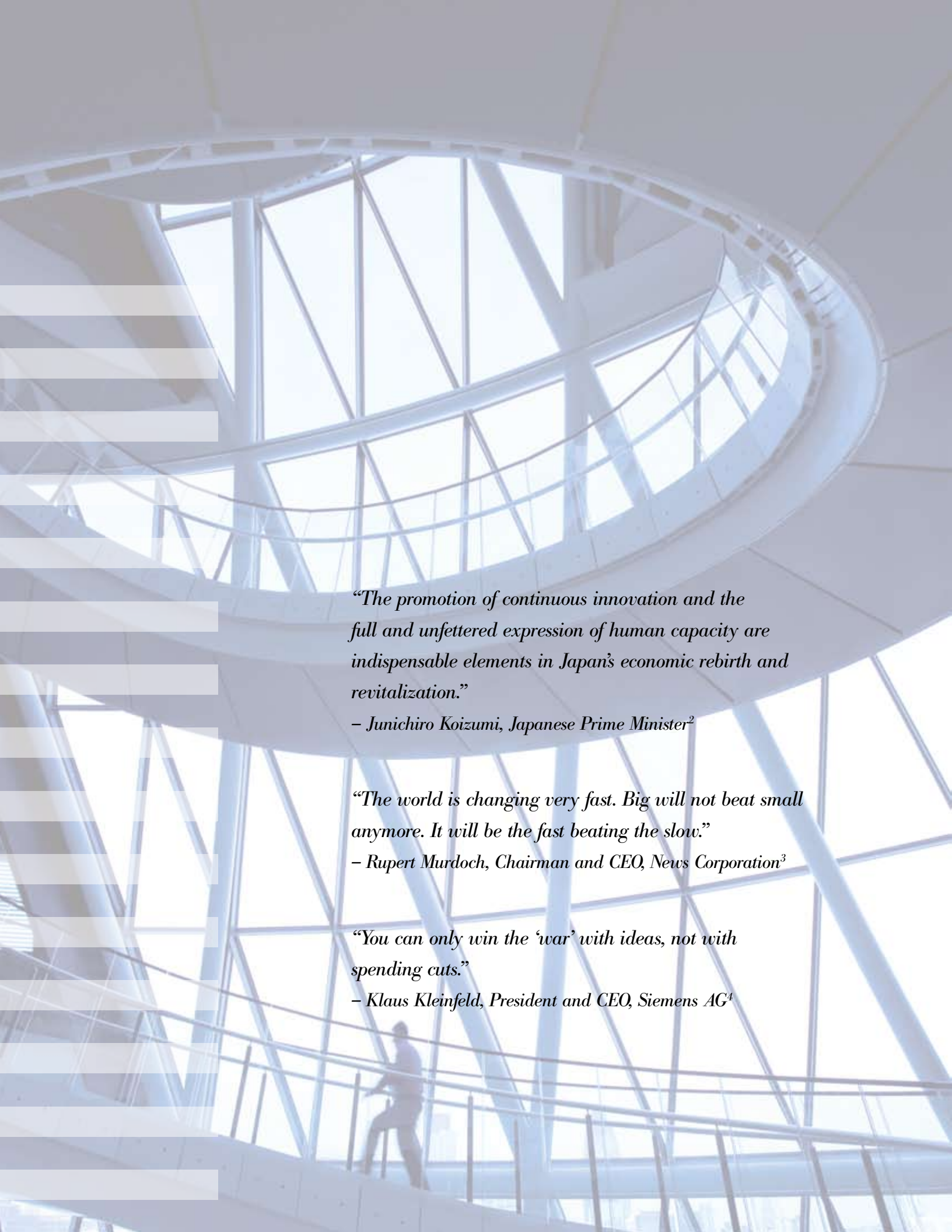


*Located on the south bank of the Thames near Tower Bridge, London's City Hall is designed to run on a quarter of the energy consumed by a typical high-specification office building. This is achieved not only through the use of ecologically sound, passive environmental control systems, but also through its semi-spherical shape.*



SECTION ONE





*“The promotion of continuous innovation and the full and unfettered expression of human capacity are indispensable elements in Japan’s economic rebirth and revitalization.”*

*– Junichiro Koizumi, Japanese Prime Minister<sup>2</sup>*

*“The world is changing very fast. Big will not beat small anymore. It will be the fast beating the slow.”*

*– Rupert Murdoch, Chairman and CEO, News Corporation<sup>3</sup>*

*“You can only win the ‘war’ with ideas, not with spending cuts.”*

*– Klaus Kleinfeld, President and CEO, Siemens AG<sup>4</sup>*

# Why Expand the Innovation Horizon?

*“The ‘complacency factor’ that any large organization with a history of success tends to develop can only be dispelled through abrupt and extensive change.”*

*– Study participant*

The short answer: to stay ahead of the curve and to grow.

Two-thirds of the CEOs we interviewed expect their organizations to be inundated with change over the next two years. Some writers and analysts, like Tom Friedman, view the world as increasingly flat; others, like Richard Florida, assert that it’s spiky; but virtually everyone agrees that the topography is fundamentally changing.<sup>5</sup> The forces overturning the status quo are many and varied. At the top of their list, CEOs mentioned market forces such as intensified competition, escalating customer expectations and unexpected market shifts. But there were more. CEOs told us that workforce issues, technological advances, regulatory concerns and globalization are all bearing down on their organizations, forcing significant change.

And their feelings are justified. Think about how the world is changing. China and India combined graduate half a million engineers and scientists annually, as compared to about 134,000 in the United States, and China is now home to more than 100 automakers.<sup>6</sup> In 2005, the

combined GDP of emerging economies increased by US\$1.6 trillion – which represents US\$200 billion more growth than the developed world combined. And it is not all about China and India – together, they only accounted for 20 percent of emerging market growth.<sup>7</sup> Emerging economies now control two-thirds of the world's foreign exchange reserves and consume 47 percent of the world's oil.<sup>8</sup>

Added to these economic upheavals are major demographic shifts. Between 2000 and 2050, the percentage of the world population 60 years of age or older is expected to double to over 20 percent – a trend that is even more pronounced in Europe and North America, where the 60+ age group will account for about 35 percent and 27 percent, respectively.<sup>9</sup> In Japan, 17 of every 100 people are *already* over 65, and by 2020, the ratio is expected to be closer to 30 percent.<sup>10</sup>

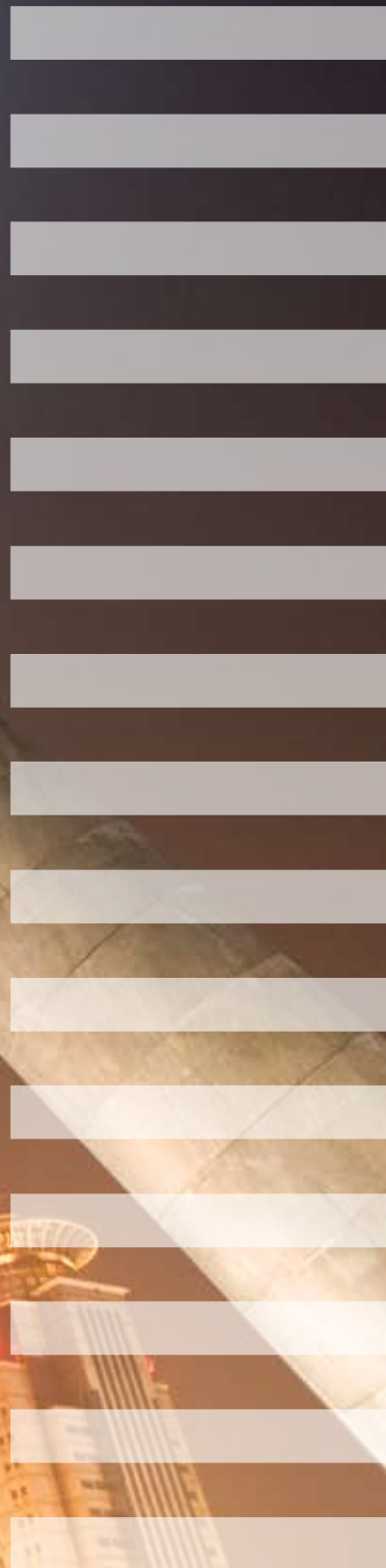
At the same time, the use of technology continues to intensify. Globally, the world now has over 1 billion Internet users.<sup>11</sup> Some 215 million of those are broadband subscribers – up from fewer than 5 million in 1999.<sup>12</sup>


Surrounded by change on so many fronts, CEOs do not seem intimidated, or content simply to cope. Instead, they are embracing change. CEOs see it as both reason and license to expand their innovation horizon – to pursue less traditional forms of innovation, to look high and low, outside and in, for innovative ideas and to accept greater personal responsibility for fostering innovation within and beyond their organizations.

*At 1,535 feet (468 meters), the Oriental Pearl Tower is the highest radio and television tower in all of Asia. With its monumental scale and distinctive design, the tower is a landmark of modern Shanghai.*



SECTION TWO





*“Constant reinvention is the central necessity at GE...  
We’re all just a moment away from commodity hell.”  
– Jeffrey Immelt, Chairman and CEO, GE<sup>13</sup>*

*“We will fight our battles not on the low road to  
commoditization, but on the high road of innovation.”  
– Howard Stringer, Chairman and CEO, Sony<sup>14</sup>*

*“Innovation is viewed as a multi-dimensional concept,  
which goes beyond technological innovation to  
encompass...new means of distribution, marketing or  
design. Innovation is...an omnipresent driver for growth.”  
– Erkki Liikanen, EU Commissioner for Enterprise and  
Information Society<sup>15</sup>*

# Business Model Innovation Matters

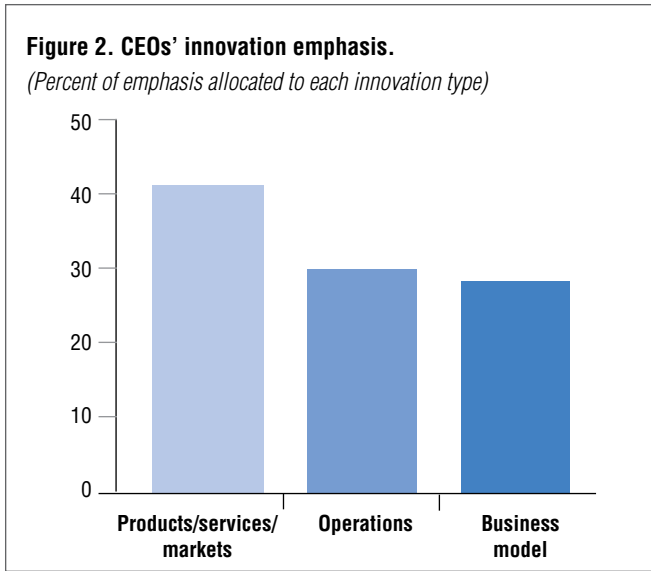
*“We are at the critical point where we should transform our business model itself.”*

*– Study participant*

Leaders frequently define their businesses in terms of the products and services they take to market and naturally focus their innovative energy there. But with technological advances and globalization presenting so many new opportunities – and threats – CEOs are now giving business model innovation as prominent a place on their agendas as products/services/markets innovation and operational innovation (see Figure 2). As one CEO suggested, “the three areas are essential, equally important and inseparable from each other.” Some CEOs who have not focused on business model innovation in the past now believe it is time. In one CEO’s words, “We are at the critical point where we should transform our business model itself.”

## **Innovation types defined**

- **Business model** – Innovation in the structure and/or financial model of the business
- **Operational** – Innovation that improves the effectiveness and efficiency of core processes and functions
- **Products/services/markets** – Innovation applied to products or services or “go-to-market” activities.



While the fact that CEOs are now focusing almost 30 percent of their innovation efforts on their business models is surprising, our financial analysis uncovered an even more interesting point. Companies that have grown their operating margins faster than their competitors were putting *twice* as much emphasis on business model innovation as underperformers (see Figure 3).

Although business model innovation is clearly important to CEOs, it is part of a combination – which makes it critical to understand more about how CEOs have been managing each type of innovation. In the following sections, we share insights from CEOs – about motivating factors, specific innovation actions and anticipated benefits – that can inform other CEOs as they construct and execute their own innovation agendas.

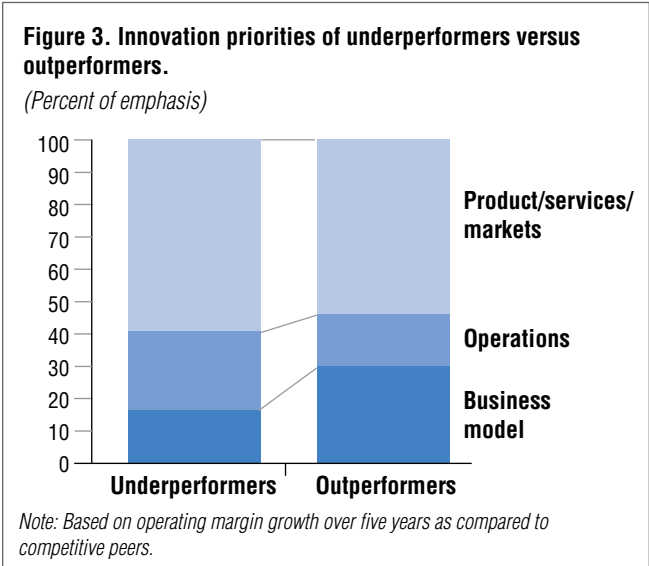
*“The business model we choose will determine the success or failure of our strategy.”*

– Study participant

**CEOs are using business model innovation to preempt threats – and create them**

Four out of every ten business model innovators were afraid that changes in a competitor's business model would upset the competitive dynamics of the entire industry. One CEO described his predicament in dire terms: “Since 70 percent of our business is based on a service that will no longer exist as we know it, we need to adapt our enterprise to survive.”

If you have any doubts about the legitimacy of this fear or the dangers of waiting too long to change your business model, just think about the Eastman Kodak Company. It has been a wrenching process for the company to “wean itself” from the traditional film business (with its 60 percent margins) and solidify its footing in the digital arena, with its stock price hitting a 20-year low in 2003.<sup>16</sup> But Kodak is focused on a business model turnaround. According to the company, 2005 marked the halfway point of its transformation, and it was also the first year in Kodak's history when digital sales (at 54 percent of total revenue) surpassed traditional revenue.<sup>17</sup>





CEOs were candid about the need to search out new competitive differentiators – even if that meant confronting a sacrosanct business model. “In the operations area, much of the innovation and cost savings that could be achieved has already been achieved. Our greatest focus is on business model innovation, which is where the greatest benefits lie.” “It’s not enough to make a difference on product quality or delivery readiness or production scale. We must innovate in areas where our competition does not act – by developing new competencies and alliances.” Global connectivity (created through telecommunications, IT infrastructure and open standards) makes new skills and partners accessible and practical to employ and enables entirely new forms of collaboration, and, thus, new business models. Of course, the same global connectivity also exposes firms to new competitors with very different business models and cost bases, which, in turn, can force business model innovation.

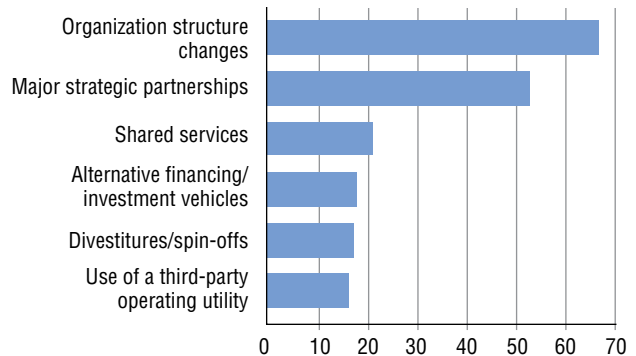
Instead of focusing on the threat, many of the CEOs we talked to described the top-line potential offered by business model changes. One CEO saw it as an absolute – “there’s *no growth* without changing ourselves and the industry itself.”

So, what actions are CEOs taking to adapt their business models?

Major strategic partnerships and organization structure changes topped the list of most significant business model innovations (see Figure 4). One CEO explained that the success of strategic partnerships depends heavily on a company specializing and then working toward mutually beneficial value creation. “We need to develop a business model based on strategic partnerships that creates value not just for our company, but also for the industry as a whole. We cannot do everything in this era of specialization.”

**Figure 4. Most common business model innovations.**

(Percent of respondents)



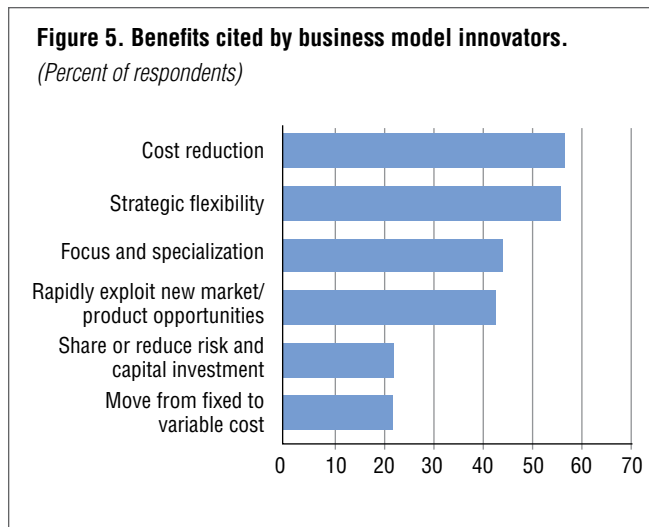
Note: This question was asked of business model innovators only.

### Creating a variable virtual company

Lam Research is making strategic partnerships fundamental to its overall business model, creating what it calls a “variable virtual company.” Lam designs, manufactures, markets and services semiconductor processing equipment through more than 40 customer support centers in North America, Europe and Asia. In 2001, the company began shifting a significant portion of its cost to variable status through outsourcing. Today, it relies on partners for functions as diverse as HR, IT, Finance and Accounting, Facilities Management, Customer Service, Indirect Materials Procurement, Module Engineering and Manufacturing. In 2003, Lam extended its model by co-founding CapOneSource, a buying alliance which aggregates the buying power of a broad range of capital equipment companies, reducing each company’s total outsourcing costs even further. Together, the members leverage common, standardized business processes based on the capabilities of “A-list” providers in each functional area. Lam’s results have benefited from its innovative business model; it was among 26 companies chosen by Forbes in December 2005 for the prestigious “Best Managed Companies” list.<sup>18</sup>

As global connectivity reduces transaction and collaboration costs, companies are taking advantage of the expertise and scale that lies hidden in their own organizations and across the globe. They are assembling a business model fashioned from groups of “specialized” capabilities – combining internal expertise and scale through shared services centers with the capabilities of specialized partners to create truly differentiating business designs.<sup>19</sup>

Cost reduction and strategic flexibility were considered top benefits from business model innovation – reported by over half of all business model innovators (see Figure 5). Business model innovation allows companies to specialize and move more quickly to seize emerging growth opportunities. Overall, CEOs’ rankings suggest that business model innovation is helping their organizations become more nimble and responsive, while at the same time lowering costs. One CEO explained: “Innovating with respect to business models and operations will not only create opportunities for cost savings, but will also lead to additional revenue generation opportunities.”



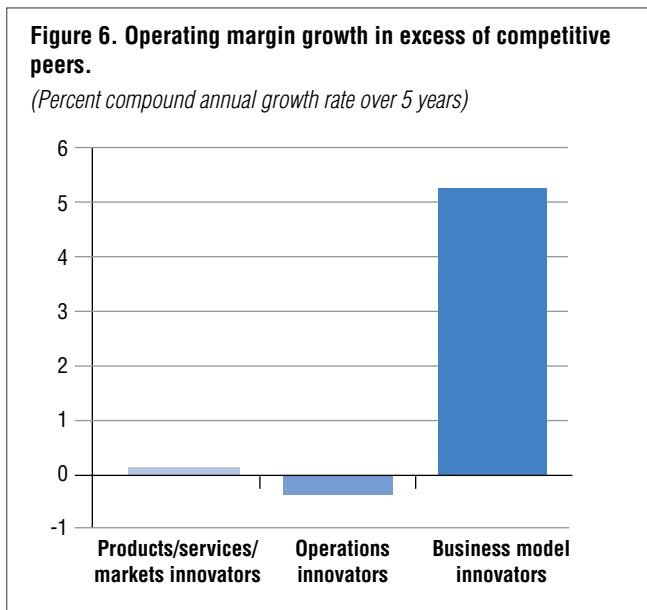
**Partners can be instrumental in establishing new business models**

Porto Media is an example of a company that has relied on strategic partners to establish a totally new business model. The company had developed proprietary technology that enabled fast loading of digital content onto flash media cards. It envisioned a totally new business where customers could download music and movies onto these cards from kiosks at retail locations and play the content on compatible devices such as handheld players, phones or home media centers. The success of its new business model depended on two factors: Porto Media had to convince content providers that their content would be protected and used appropriately, and it needed a way to deliver that content to a network of retail locations.

Through collaboration with 4C (a consortium comprising Intel, IBM, Toshiba and Matsushita), Porto Media found a solution to its content protection dilemma. In response to requirements expressed by companies such as Porto Media, the consortium enhanced its Copy Protection for Recordable Media (CPRM) technology, creating the ability for content providers to specify flexible usage rules such as *play only once*, *play until a certain date* or *play over a set time period*. Porto Media combined its proprietary loading technology with the standards-based content protection technology developed by 4C into an attractive offer for content providers. Porto Media also partnered to meet its second challenge. It is using a strategic partner to develop and manage the content delivery infrastructure that is core to its new business model.<sup>20</sup>

CEOs are making some fundamental changes to their organizations and business designs as part of their innovation initiatives. And an examination of their financial performance suggests why.

When we looked at financial performance over a five-year period, we found striking differences across the three types of innovation. Business model innovation had a much stronger correlation with operating margin growth than the other two types of innovation (see Figure 6). Looking across the top actions business model innovators were taking, we found that companies innovating through strategic partnerships enjoyed the highest operating margin growth. As one CEO remarked, “reducing the cost base through cooperative models is important for any growth strategy.”

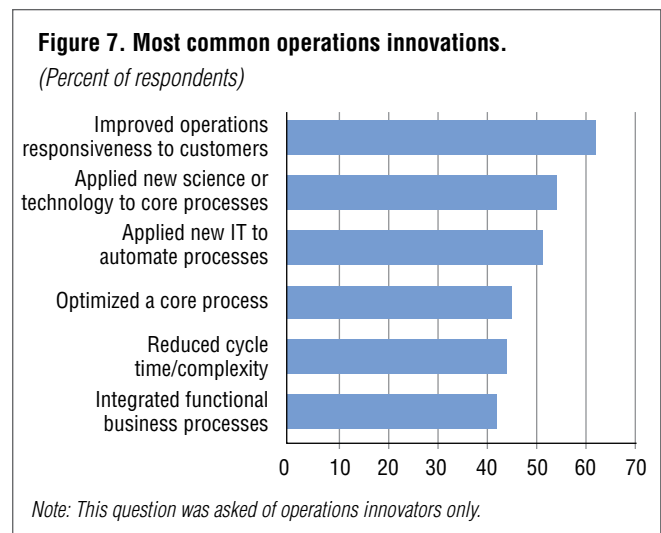


## CEOs use operational innovation to drive much-needed efficiency

More than a few CEOs ranked operational innovation at the top of their priority lists, viewing it as a matter of survival. “We had such a large operating loss that we had to focus entirely on a financial turnaround.” *High-cost, slow-responding, inefficient* and *antiquated* are the adjectives CEOs used to describe the aspects of their current operations that prompted them to concentrate on operational innovation. One CEO stressed the enormity of past inefficiencies by labeling his enterprise’s operation “a cross between a government agency and a church.”

Though most CEOs still thought of operations innovation as an efficiency play, others saw it as dual-purpose. Newfound efficiency and effectiveness not only allow them to control costs, but also help them to compete more formidably, take share and grow revenue. One CEO explained: “Although the main focus is strategically on revenue generation, we first need to create the operational and technological foundation for that growth, so that product and customer strategies are sown on fertile ground.”

Given this backdrop of motivations, operational innovators cited a variety of significant innovative actions that they had recently implemented. Although CEOs were pursuing a wide range of operational innovations, they were most focused on making their operations more responsive (see Figure 7).



The next two most frequent responses point to *how* they were achieving greater responsiveness – by automating processes and applying new science to persistent operational challenges.

**Tagging tomatoes leads to operational excellence**

As an Australian produce company that supplies supermarkets, fruit markets and national restaurant chains, Moraitis Fresh is keenly aware of rising demands for fresher produce. By placing radio frequency identification tags on tomato trays, the company can track the origin, packing date, type, quality and size of the tons of tomatoes it ships every day. Because it knows the precise amount and quality of tomatoes in its supply chain at any point in time, the company can respond rapidly to retailer requests for a specific volume and grade of tomato. The company can tell its retail customers exactly when and where the produce was grown, packed and shipped, which is particularly important as the world works toward food traceability and safer food supply chains. Improved information also allows Moraitis to pay growers based on the actual quality and number of tomatoes received (instead of by tonnage, regardless of grade).<sup>21</sup>

Although we found the correlation between financial performance and operational innovation to be generally weaker than it was with business model innovation, this does not mean CEOs can afford to ignore the operational realm. The weaker correlation could indicate that operational innovation and products/services/markets innovation have become “table stakes” in the competitive game. Yet, there are some aspects of operational innovation that may still offer differentiated results. When we compared the financial performance of companies pursuing different categories of operational innovation, we found that companies that were making their operations more responsive to customers outperformed their competitors in terms of operating margins.

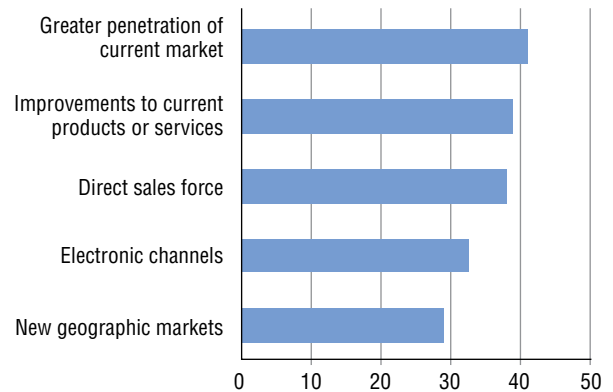
**Products/services/markets innovation remains fundamental**

In many industries – such as media, consumer goods and fashion – a regular stream of products/services/markets innovation is fundamental. “Innovation *is* our business,” those CEOs explained. As one consumer goods CEO put it, “Last year’s products are last year’s dollars.” After all, products, services and markets form the core of the business. And in the words of one CEO, “products and markets are the starting point to drive innovation in business model and operations.” To sum up the prevailing view: “If you don’t get your products, services and markets right, the other stuff doesn’t matter.”

Products/services/markets innovators have implemented a variety of innovation actions (see Figure 8). CEOs’ attention was fairly evenly distributed, from market penetration to continuous product improvement to channel enablement. Overall, products/services as well as markets garnered more investment than channels. But priorities shifted as companies entered new markets or new customer segments. “Channels in our business are well established – but as we target new geographic markets, we expect some scope of innovation on the channel front as well.” CEOs also mentioned “developing multiple channels with different approaches for different customers.”

**Figure 8. Most common products/services/markets innovations.**

(Percent of respondents)



Note: This question was asked of products/services/markets innovators only.

### Extending the market through innovative services

Visa International CEMEA is leveraging the popularity of mobile phones to grow its share of the payment market and drive greater adoption of mobile payment solutions. For customers, the service is straightforward. After registering their Visa cards, mobile phone users can recharge airtime or pay their phone bills by simply sending a message from the handset. For operators, it is an attractive proposition as well. Visa, with help from technology partner Upaid, provides a standard platform that brings together multiple banks and operators in a local consortium in each market. As customers become more accustomed to making remote payments for mobile phone-related services, Visa expects to parlay this initial success into a wider range of payment applications.<sup>22</sup>

As CEOs contemplate their innovation priorities, how much attention does innovation in products/services/markets warrant? In our financial analysis, we noted a positive correlation between products/services/markets innovation and above-average operating margins. Over a five-year period, products/services/markets innovators edged past competitors' operating margins by just over 1 percent (see Figure 9).

Put in context, companies that are using business model innovation enjoyed significant operating margin *growth*, while those using products/services/markets and operational innovation have *sustained* their margins over time.

*“If you don’t get your products, services and markets right, the other stuff doesn’t matter.”*

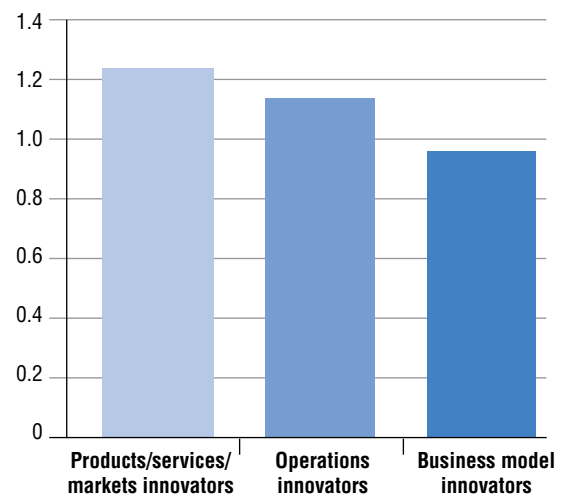
– Study participant

If CEOs' emphasis on business model innovation continues (or intensifies), such innovation could become the relentless battleground that operational and products/services/markets innovation represent today.

Although the causal relationship is indeterminate, products/services/markets innovators that extended or improved current products and services outperformed their competitors in terms of operating margin. This type of correlation was not found for the other popular products/services/markets innovation actions listed in Figure 8.

**Figure 9. Historical operating margin in excess of competitive peers.**

(Percent)



## CEO TO CEO

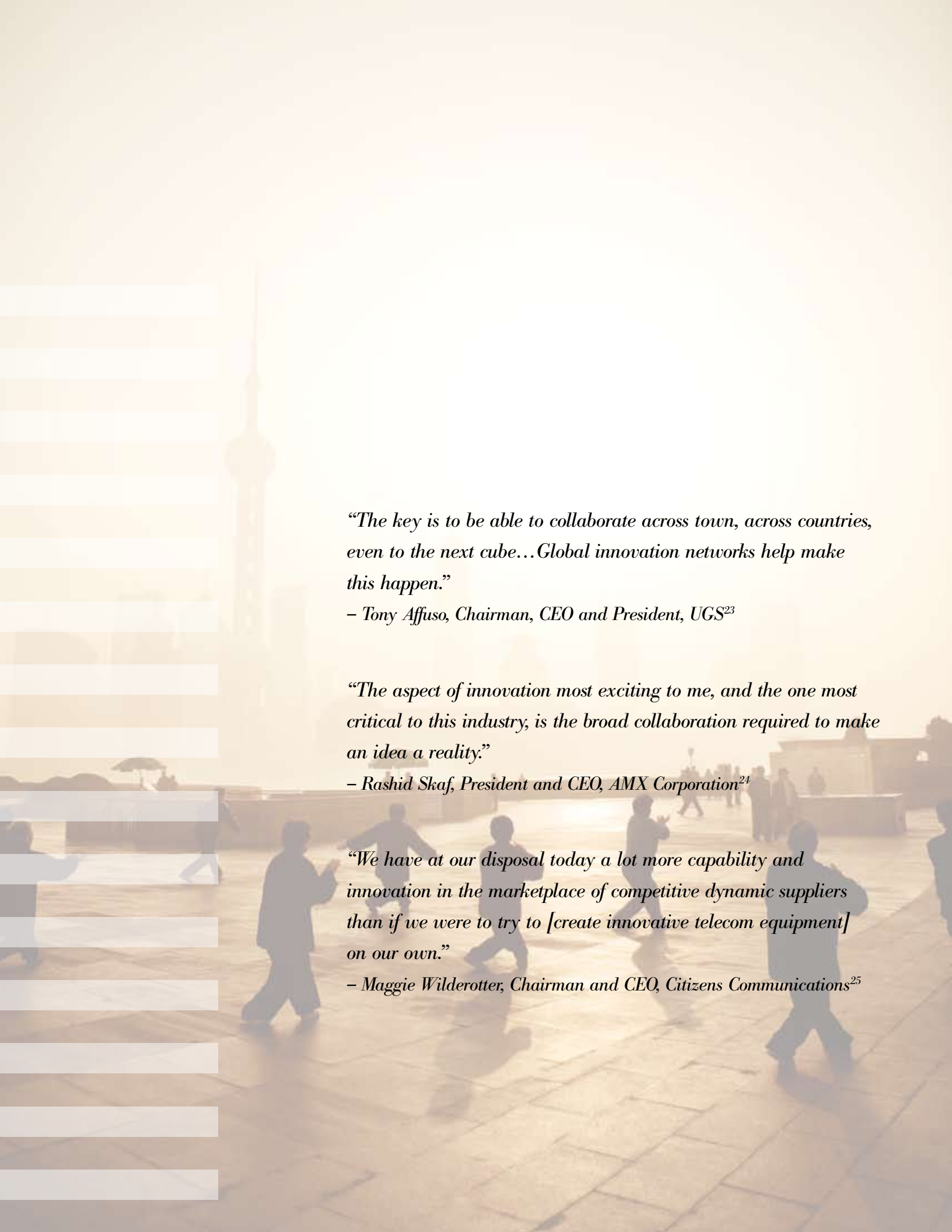
### MIX MATTERS

*It is vital to combine the different types of innovation – products/services/markets, operational and business model – to meet your particular objectives and help establish sustainable differentiation. And if business model change is not already part of your innovation agenda, it should be.*

*Tai chi at sunrise on the Bund Promenade. The Bund, which runs along the western side of the Huangpu River, has been an icon of Shanghai for nearly a century. The silhouetted towers of Pudong – the new visual icon of Shanghai – are seen in the background.*

SECTION THREE





*“The key is to be able to collaborate across town, across countries, even to the next cube... Global innovation networks help make this happen.”*

*– Tony Affuso, Chairman, CEO and President, UGS<sup>23</sup>*

*“The aspect of innovation most exciting to me, and the one most critical to this industry, is the broad collaboration required to make an idea a reality.”*

*– Rashid Skaf, President and CEO, AMX Corporation<sup>24</sup>*

*“We have at our disposal today a lot more capability and innovation in the marketplace of competitive dynamic suppliers than if we were to try to [create innovative telecom equipment] on our own.”*

*– Maggie Wilderotter, Chairman and CEO, Citizens Communications<sup>25</sup>*



# External Collaboration is Indispensable

*“Partnering is the only way to extract maximum value and avoid reinventing the wheel.”*

*– Study participant*

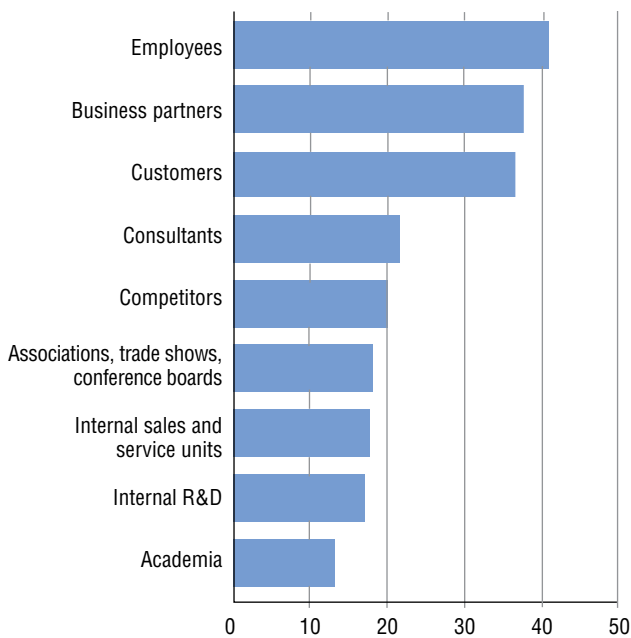
When asked which sources their companies relied on most for their innovative ideas, CEOs' responses held some surprises (see Figure 10). Business partners were right near the top of the list – just behind the general employee population. And customers were third, which means two of the top three significant sources of innovative ideas now lie outside the organization.

According to one CEO, “Some of the boldest plans under consideration within our company work by leveraging the collaborative potential of service providers in other domains.” Speaking from the perspective of one of those partners, another CEO saw his firm as “the R&D arm” of its clients.

Internal R&D, on the other hand, was conspicuously buried much further down the list. Only 17 percent of CEOs mentioned it. This middle-of-the-pack ranking is just one more indication that CEOs have expanded their innovation focus beyond products and services, and it raises a provocative question about what type of role R&D should be playing in operational and business model innovation.

**Figure 10. Most significant sources of innovative ideas.**

(Percent of respondents)



Note: Respondents could select up to three choices.

External sources were not only prevalent in the ranking of CEOs' most significant sources of ideas, they also comprised a substantial portion of the overall quantity of ideas. This trend was particularly evident among financial outperformers. Companies with higher revenue growth reported using external sources significantly more than slower growers (see Figure 11). One CEO declared bluntly: "If you think you have all the answers internally, you are wrong."

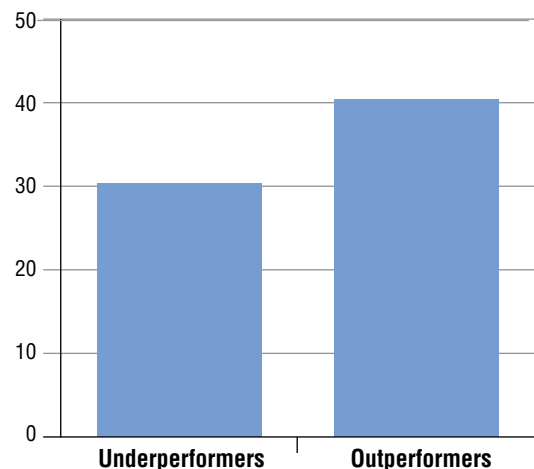
When we examined extensive collaborators' responses by industry, the split between internal and external ideas appeared fairly even – 43 percent of innovative ideas came from outside in the consumer packaged goods industry; 44 percent in government and 42 percent in industrial products. And externally generated ideas actually outnumbered internal ideas in two industries (62 percent in chemical and petroleum, and 54 percent in telecommunications).

**Collaborating – even across competitive boundaries – can be beneficial for all**

Always expected to provide the highest level of service at a reasonable cost, Xcel Energy is bringing together the innovative energies of several external partners in a proof-of-concept center it calls Utility Innovations. As part of this initiative, Xcel's strategic partners – some of which are competitors – are working together on innovations that leverage technology in new and different ways. The overall objectives are to increase customer satisfaction and reduce costs. Using this collaborative arrangement, Xcel pooled its resources with contributions from each partner to fund the innovation project. Initially, some of the partners were hesitant to work so closely with competitors, but decided that the advantages outweighed the intellectual property risks. The Utility Innovations project now gives partners access to a "real-world laboratory" (which happens to be one of their key clients), helps each partner make better product development decisions and encourages teamwork that transcends competitive boundaries.<sup>26</sup>

**Figure 11. Percent of external ideas used by underperformers versus overperformers.**

(Percent of ideas)



Note: Based on revenue compound annual growth rate over 5 years.

Our findings on sources of ideas coincide closely with CEOs' overall opinions about collaboration and partnering. Regardless of the type of innovation undertaken, over 75 percent of CEOs indicated that collaboration and partnering is very important to innovation. One CEO described its importance on a scale of one to five as "enormous. I'd give this a six if I could."

But CEOs have a problem – and it is not a small one. Although collaborative aspirations were high, actual implementation was dramatically lower (see Figure 12). Only half of the CEOs we spoke with believed their organizations were collaborating beyond a moderate level.

As many CEOs explained, collaboration and partnering is "theoretically easy," but "practically hard to do." Whether it involves crossing internal or corporate boundaries, collaboration requires serious intent. As one CEO put it, "having a few beers together is not collaboration. Collaboration is a discipline."

When reflecting on the collaboration gap, CEOs spoke about lacking the skills and expertise needed to collaborate and partner externally. For one CEO, the market

demands for collaboration had crept up on the organization, forcing it to be "reactive" rather than "strategic" in its partnering arrangements. In his own words, "it has been like Relationship 101 – we're terrible and we need to improve."

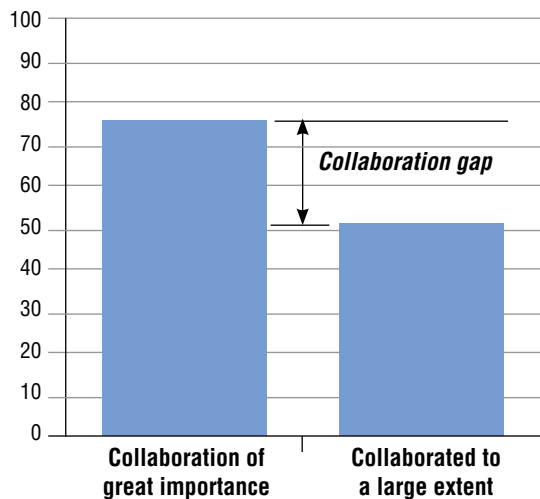
### Encouraging collaboration inside and out

Novartis, the Swiss pharmaceutical company, is intent on bringing together internal and external expertise to create new market opportunities. Its organizational structure was specifically designed with "permeable boundaries" that make it easy for teams to work across disciplines, functions, geographies and corporate boundaries. To further its research and development efforts, the company routinely establishes strategic alliances with other industry players and academic institutions. Leaders are encouraged to cultivate external connections throughout the industry. A sterling example of the output from this type of collaborative approach is its leading cancer medication, Gleevec.<sup>27</sup>

Traditionally, cancer treatments attack both cancerous and healthy cells, leaving patients extremely weak. Counter to prevailing opinion at the time, a Novartis researcher believed it was possible to develop a drug that would target only unhealthy cells, thereby easing the burden on cancer patients. His external contacts at the Dana Farber Cancer Institute in Boston provided the pivotal clue he needed in his research, suggesting that such a treatment would most likely be effective against a specific type of cancer known as Chronic Myeloid Leukemia. Later in the process, other external contacts helped identify hospitals for patient trials. And in the end, Gleevec enjoyed the fastest approval ever awarded by the U.S. Food and Drug Administration for a cancer drug. In 2005, Gleevec was the number-one selling drug in its therapeutic category, with worldwide sales of US\$2.2 billion. Through extensive collaboration, both internally and externally, Novartis has been able to build one of the strongest pipelines in the industry, with 76 drugs in some stage of clinical development.<sup>28</sup>

**Figure 12. Importance versus extent of collaboration and partnering.**

(Percent of respondents)



Despite all the potential challenges encountered when collaborating externally, some CEOs argued that *internal* collaboration sometimes proves even more difficult. In fact, the inability to collaborate internally can foil companies' attempts to deliver innovative value propositions for their clients.

For example, a large media conglomerate envisioned a new offering for its clients. With large-scale operations in network TV, cable TV, radio and the Internet, it hoped to capitalize on its scope by offering complex, integrated advertising deals that bundled together spots across multiple media formats, or "platforms." While advertisers were attracted by the simultaneous access to target audiences across all of these different formats, the executives responsible for the strategy had immense difficulty creating, selling and managing unified advertising deals because the operations of the individual platforms could not collaborate effectively. They had trouble gathering ratings data for audiences across platforms, creating common financial and contractual definitions and gaining agreement on pricing decisions from multiple sales managers. The disappointing result: slow response times, high error rates, senior managers burdened by administrative tasks – all culminating in little market success.

*On a scale of one to five, collaboration's importance is "enormous. I'd give this a six if I could."*  
– Study participant

### **Public sector leaders are more confident in operational collaboration capabilities than the private sector**

Public sector leaders were key contributors to our 2006 CEO Study, comprising 14 percent of our sample. Similar to their private sector counterparts, these leaders agree that collaboration is critical for all types of innovation. And both groups report a significant gap in their ability to collaborate and partner for both business model and products/services/markets innovation.

But in the area of operational innovation, public and private sector views diverged. Among the public sector leaders focused on operational innovation, over 40 percent considered themselves extensive collaborators – while only 18 percent of the private sector operations innovators reported the same collaborative capabilities. Growing budget deficits, a greater focus on citizens as customers and government's adoption of leading commercial practices may be contributors to this higher degree of operational collaboration.

Overall, public sector leaders exhibited a general sense of accomplishment in the operations arena, with the majority now giving highest priority to products/services/markets innovation (ranking it even higher than the private sector did). One leader explained it this way: "We are at the point in the agency development where we have achieved savings by doing things better; now we want to do better things."

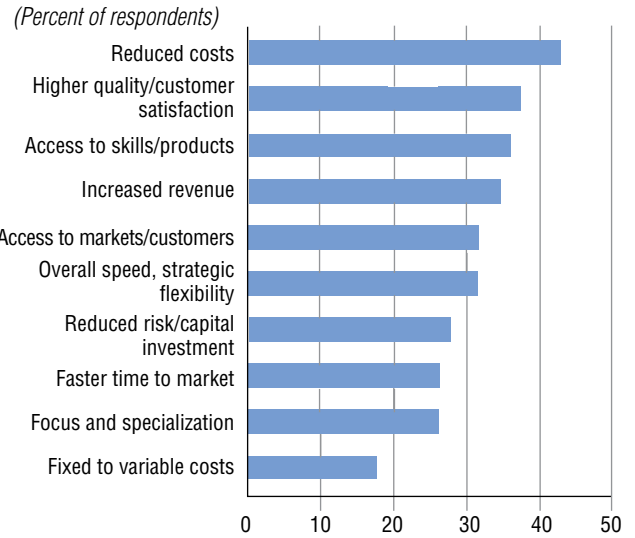
## CEOs report unexpected benefits from collaboration and partnering

CEOs described a broad spectrum of benefits from collaboration and partnering – both predictable and unexpected (see Figure 13). Cost reduction was clearly top of mind. But, this was just a start. Moving down the list, the majority of benefits were actually drivers of top-line growth.

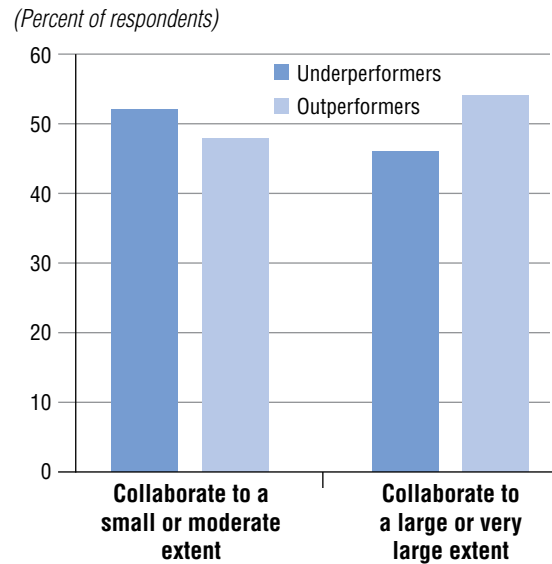
One CEO, for example, indicated that the higher customer satisfaction generated through collaboration ultimately resulted in more revenue: “In this commoditized market, we are able to command greater customer loyalty because of collaborative innovations. This implies both higher revenues and lower risks.”

The upside of collaboration is underscored not only by qualitative CEO feedback, but also by the financial performance of companies with extensive collaboration capabilities. Extensive collaborators outperformed the competition in terms of both revenue growth and average operating margin. When we analyzed operating margin results, for example, over half of the extensive collaborators outperformed their closest competitors (see Figure 14).

**Figure 13. Collaboration and partnering benefits cited by CEOs.**



**Figure 14. Use of collaboration among underperformers and outperformers.**



Note: Based on historical operating margin over 5 years.

## CEO TO CEO

### COLLABORATIVE INNOVATION IS MORE CRUCIAL THAN YOU THINK

*The huge gap between the need for collaboration and the ability to do so is clearly a significant roadblock to innovation that CEOs need to address. And since so many ideas come from outside, leaders need to pay particular attention to strengthening collaborative capabilities at the perimeters of their organizations.*

*One of the many elevated pedestrian walkways in central Hong Kong. Businesspeople move among the city's financial and commercial centers without ever touching the ground.*

SECTION FOUR





*“All I’ve done since I got here is focus on one word: innovation.”*

*– Ed Zander, Chairman and CEO, Motorola<sup>29</sup>*

*“Everyone should be dissatisfied with the present situation...*

*That’s what needs to be recognized by every individual.*

*When you’re growing, you’re satisfied with the status quo, and that’s no good.”*

*– Katsuaki Watanabe, President, Toyota<sup>30</sup>*

*“Most CEOs say, ‘Follow me.’ I say, ‘Let’s go.’”*

*– Suh Doo Chil, CEO, Eastel Systems<sup>31</sup>*



# Innovation Requires Orchestration from the Top

*“Leadership in innovation must start with the CEO.”*  
– Study participant

In case there was any doubt about whose responsibility it is to foster innovation, CEOs cleared that up quickly. Their most frequent response was, “I am.”

CEOs' second most frequent answer, “no specific individual,” essentially reflected the same sentiment. The responsibility was simply too massive to rest on one person's shoulders – unless it was their own. “Leading, setting direction, laying the cultural groundwork that stimulates innovation – it's essential work for a CEO,” acknowledged one executive. (Noticeably absent was any sizable mention of R&D, with less than 3 percent suggesting that the General Manager of R&D was responsible for innovation.)

However, leading their organizations to be more innovative is becoming more difficult. As massive change bears down on CEOs' organizations, their employees, stockholders and Boards are growing increasingly impatient for results. And when those results are not forthcoming, consequences can be severe. Nearly half of Fortune 1000 CEOs have been replaced since 2000 (with record-breaking turnover of 129 CEOs in 2005).<sup>32</sup>

Ideally, innovation leadership is supposed to work as one CEO described using a golf analogy: “I am responsible for showing the team where the green is, establishing a broad fairway and supplying them with a good range of clubs. I then give them the freedom to decide how best to play the hole.” But in reality, many CEOs experience difficulty in getting employees to act. “Employees behave as if it is inappropriate to rock the boat.” And some employees simply abdicate responsibility to whoever is in charge. “Innovation czar equals innovation ghetto,” according to one CEO.

CEOs instinctively understand the need to play a prominent role in establishing an innovative culture. But they are not always certain how to go about it. Our findings suggest two major factors can help CEOs orchestrate greater innovative achievements:

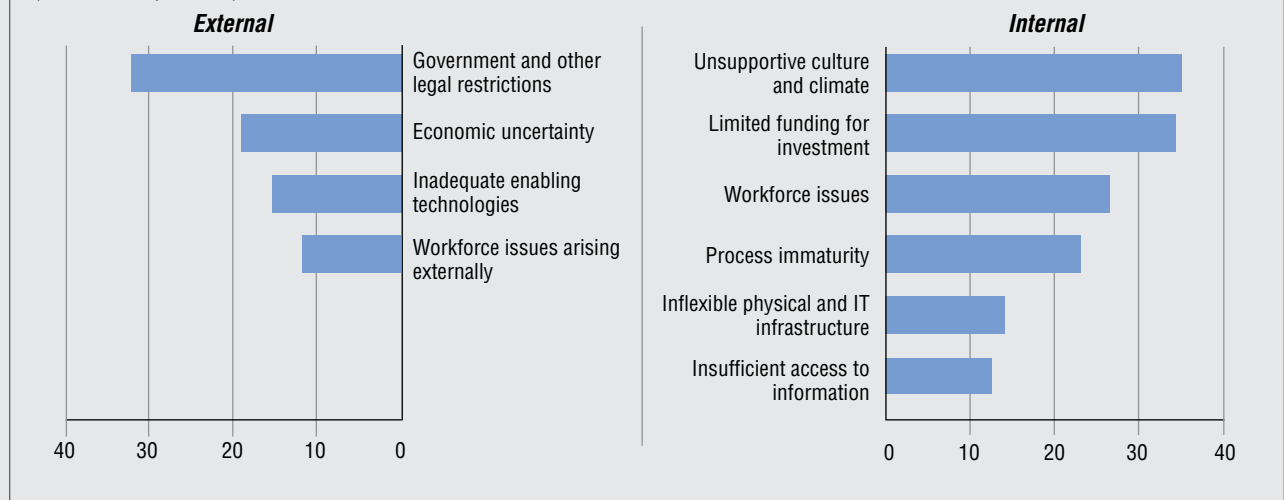
- A culture that is collegial and team-oriented, but still rewards individual contributions
- More consistent integration of business and technology.

### Many of CEOs’ top obstacles are within their own control

Looking through CEOs’ top ten innovation obstacles, it is apparent that the majority of issues reside somewhere inside their own organizations. Culture, budget, people and process were cited as some of the most significant hurdles. For CEOs, this is a classic case of “good news, bad news.” Because the issues are internal, CEOs have more control over them. However, these hurdles compound the challenge CEOs face.

**Figure 15. Most significant obstacles to innovation.**

(Percent of respondents)



## Building an innovative organization: A collegial culture with individual rewards

The majority of CEOs described their creativity cultures as highly collaborative, collegial and team-oriented – as opposed to being focused on individuals or predominantly confined to specific subgroups. It is also worth noting that companies in which the CEO orchestrates a more team-oriented culture were decidedly more profitable than organizations with segregated pockets of innovators (see Figure 16).

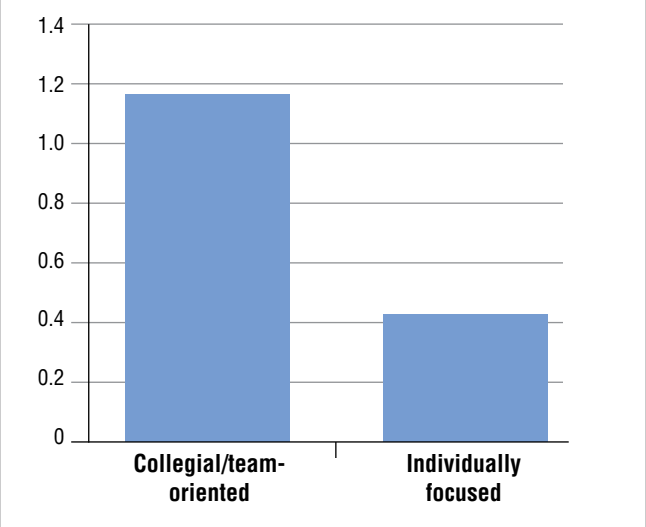
Although a team-oriented environment is critical, 77 percent of the CEOs we interviewed agreed that it was also important to recognize significant contributions made by individuals. Our analysis also noted a financial correlation associated with this choice. While many factors can contribute to financial performance, companies that reward individual contributions achieved 2 percent higher operating margins on average and grew revenue nearly 3 percent faster than those that did not.

### Inspiring great ideas through friendly debate

Google is well known for creating search capabilities that have changed the way individuals and organizations use the Internet. But behind the tools many take for granted every day are 5000 collaborators working on more great ideas. In Google's "networked" model, ideas and data are king. Employees are encouraged to initiate dialogue and debate new concepts, whether it be via e-mail "ideas mailing lists," the company Intranet or face-to-face. Google favors a flatter organizational structure with a relatively high ratio of line employees to managers (20:1 compared to industry average of 7:1), giving employees access to more information and, consequently, more power. A sense of community and collective pride permeate its California office. With the exception of a few dozen executives, all employees share cubicles. Tasks are typically tackled by small teams. Two guiding principles help Google "foster useful conflict and make fast decisions": All suggestions must be backed up by data, and no concept can be deemed "stupid."<sup>33</sup>

**Figure 16. Margin performance associated with alternate cultural approaches.**

*(Percent of historical five-year average operating margin in excess of peers)*



*“Leading, setting direction, laying the cultural groundwork that stimulates innovation – it’s essential work for a CEO.”*

*– Study participant*

## Building an innovative organization: Consistent business and technology integration

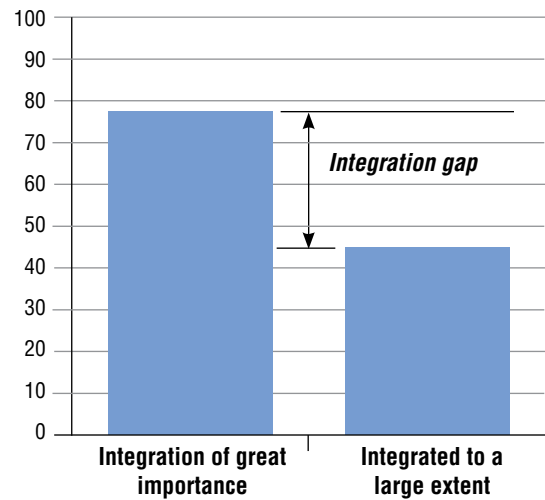
CEOs view business and technology integration as integral to innovation – or as one CEO put it, “as important as water is for sea traffic.” Because of the unprecedented pace and breadth of technological change, CEOs realized its strategic impact on all areas of the business.

Most saw these advances as opportunity. They spoke of technology enabling “daring ideas” – a way to consolidate physical offices into virtual ones, to discover customer insights that drive product and brand extensions, to spot emerging trends that competitors miss. One CEO described how his organization avoids being blind-sided: “We get involved early on, in infancy, in primordial, across a range of technologies relevant to our capabilities and the needs of our customers. We maintain a portfolio of technologies, never knowing for certain which technology will take off next, but always having a hand in as many relevant areas as we can identify.”

Nearly 80 percent of the CEOs we interviewed rated business and technology integration of great importance. But, as was the case with collaboration, CEOs have a major “integration gap” (see Figure 17). The lack of integration frustrated many CEOs. They wanted to improve, but “didn’t know how to do it” or found the task “too complicated.” For others, the gap loomed large because of latent potential. One CEO expressed the chase this way: “Even more is still possible...and feasible. We cannot do enough!”

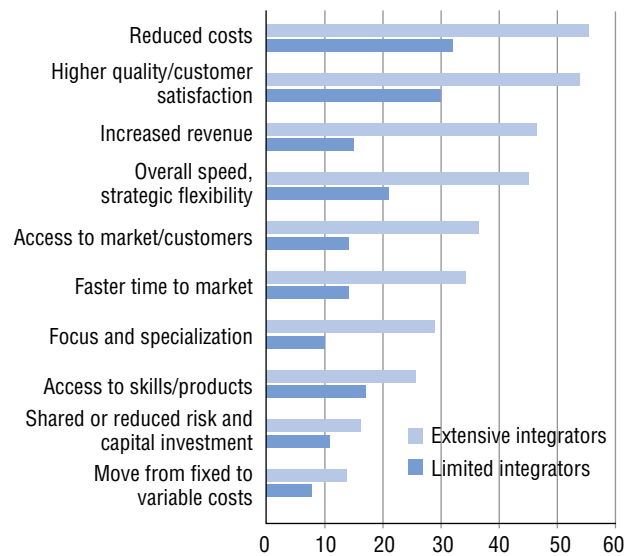
**Figure 17. Importance versus extent of business and technology integration.**

(Percent of respondents)



**Figure 18. Benefits cited by extensive integrators versus limited integrators.**

(Percent of respondents)



For the subset of CEOs that have gone further, integrating business and technology beyond moderate levels, it has paid off. Extensive integrators were much more enthusiastic about the benefits they were receiving than those who were less integrated (see Figure 18). Though cost reduction topped the list, the bulk of the benefits actually relates to driving top-line revenue. CEOs that had implemented more extensive business and technology integration reported greater customer satisfaction, speed and flexibility than their less integrated peers.

In fact, extensive integrators reported revenue increases three times as often as companies that were less integrated. These views correspond to our own financial comparisons: we found that extensive integrators were growing revenue 5 percent faster than their competitors.

*“We maintain a portfolio of technologies, never knowing for certain which technology will take off next, but always having a hand in as many relevant areas as we can identify.”*

– Study participant

### **Market need paired with existing technology equals irresistible customer value proposition**

Expensive long-distance phone charges spelled opportunity for Skype. Matching this market need with Voice over Internet Protocol (VoIP) technology, the company was able to offer communication capabilities at a fraction of the price most customers were paying.

Rather than using phone lines to connect callers (or a centralized computer server to track calls, like previous VoIP providers), Skype relies on Internet connections to carry voice, messages and, most recently, live footage of the person at the other end of the line. By using preexisting Internet connections, Skype can offer these services for a low fee.

Introduced in 2003 with no advertising, Skype’s popularity grew by word of mouth, with customers eager to take advantage of low-cost phone services. Registered users numbered 74 million as of early 2006, and the company was purchased by eBay in 2005 for approximately US\$2.6 billion in cash and stock.<sup>34</sup>

## CEO TO CEO

### ORCHESTRATE CHANGE TO BECOME A BETTER INNOVATOR

*CEOs must drive the changes required to create an innovative culture. Leading innovation requires an unwavering commitment to a team-oriented environment that also recognizes outstanding individual contributions, and business and technology integration that is implemented across the organization.*

*Crops planted by global positioning system technology in the Imperial Irrigation District northwest of Yuma, Arizona. The district delivers water to nearly 500,000 acres of agricultural lands in Imperial Valley – acres that would otherwise be nonarable desert. In the winter months, the Imperial Valley provides the great majority of the produce consumed in the United States.*

SECTION FIVE





*“To turn really interesting ideas and fledgling technologies into a company that can continue to innovate for years, it requires a lot of disciplines.”*

*– Steve Jobs, CEO of Apple Computer, Inc. and CEO of Pixar Animation Studios<sup>35</sup>*

*“The nature of innovation – the inherent definition of innovation – has changed today from what it was in the past. It’s no longer individuals toiling in a laboratory, coming up with some great invention. It’s not an individual. It’s individuals. It’s multidisciplinary. It’s global. It’s collaborative.”*

*– Sam Palmisano, Chairman, President and CEO, IBM*

*“You have to go down blind alleys. But every once in a while you go down an alley and it opens up into this huge, broad avenue. That makes all the blind alleys worthwhile.”*

*– Jeffrey P. Bezos, Chairman, President and CEO, Amazon.com Inc.<sup>36</sup>*



# Expanding Your Own Innovation Horizon

*“Innovation starts when we break with and deny the status quo.”*

*– Study participant*

Our conversations with CEOs leave no doubt: Globalization and technology advances are lifting competition to new heights, while creating unprecedented opportunities to differentiate. Financial markets are demanding ever-faster growth. Growth – and perhaps even survival – depends on innovation.

Unlike invention, which comes from effort, experimentation and, at times, an element of luck, innovation relies more on skill and leadership – choosing the best places to focus innovative attention and creating the ideal environment where innovation can flourish. Yes, the creative spark will always play a role, but CEOs must also find ways to make innovation happen more systematically. Similar to implementing a corporate strategy, becoming more innovative means making deliberate choices – filtering the plethora of options you have as a CEO and concentrating on those few actions that can truly make a difference. As is so often the case in business, the key differentiator is execution.

Distilling the collective thinking of 765 corporate and public sector leaders, what emerges is a much clearer picture of what innovation requires and which leadership actions really matter. Based on these insights, we offer several actions you can take to expand your own innovation agenda.

## Think broadly, act personally, manage the mix of innovation

- Has your innovation agenda expanded beyond products/services/markets innovation and operational improvement to encompass your business model – the emerging basis for competition?
- Do you know which innovations you are investing in – and which you are not?
- How much of your innovation is bold versus routine?

When it comes to innovation, many CEOs still fall back on their traditional comfort zone: products/services/markets. But business model innovation is becoming more critical to compete and grow.

To orchestrate greater levels of innovation, you will need to develop and manage a bold innovation strategy that spans all three types of innovation – products/services/markets, operations and, most importantly, business model innovation. Make sure the combination of efforts helps you create a truly differentiated business model that delivers superior value to customers and distinguishes you from competitors. Set the scope and the pace of innovation, and then make sure the organization accepts the responsibility to drive its success.

*Becoming more innovative means making deliberate choices – filtering the plethora of options you have as a CEO and concentrating on those few actions that can truly make a difference.*

## Make your business model deeply different

- How vulnerable is your business model? Are you playing in the right place in your networked industry value chain?
- How would your business model be different if you started with a clean sheet of paper? What would you do if you were getting into your current business as a start-up located in Malaysia?
- What capabilities do you have that might fundamentally change the value chain in another industry?

Given the potential impact of business model innovation, it is critical to take a close look at your business to identify the few essential elements or components that set you apart – and find innovative ways to obtain the rest. Consider options far beyond basic shared services centers, outsourcing or insourcing – for instance, partnering with a competitor to gain a mutual advantage over the rest of the industry, or participating in a common, industrywide utility that lowers everyone's costs. Consider new approaches to defining and evaluating the components of your business, their strategic value and how best to implement them.

Look for ways to transform your core value proposition. Pay particular attention to ignored areas of the value chain where no one is actively innovating. Search out third parties that could add value or technology that could introduce entirely new ways of doing business.

Do not focus on business model innovation simply because you believe there is a threat to your business. Concentrate instead on the opportunities – they typically outweigh the threats. Besides, the business model innovation you pursue does not need to be in your own *core* business, it could be a new business opportunity in *another* industry. Regardless of your motivation and where you look for opportunities, choose business model innovations that make you deeply different.

## Ignite innovation through business and technology integration

- Do you continuously explore new technologies that could change your business? Is technological change an input to your strategy development process?
- What are you doing to maintain or recreate an entrepreneurial atmosphere in which business and technology integration occur naturally?
- Are you shaping the technology agenda in your industry or following it?

Technology can be a catalyst – both to drive innovation and to enable it. It can play a vital part in new products, services, channels, market-entry strategies, operational transformation and industry-altering business models. Technology can even enable other innovation enablers such as collaboration.

But capitalizing on all this potential requires combining business and market insights with technological know-how.<sup>37</sup> This happens inherently in a startup endeavor because the entrepreneur is the embodiment of integration. But if you are past those early stages, you have to drive it differently. Business and market needs and opportunities should be evaluated in concert with technological possibilities – and this needs to happen early, when strategies are first being developed.

Over time, technologies can become so ingrained in day-to-day operations that continued use and investment happens by default rather than by explicit choice. Before you can evaluate the impact that new technologies or changes in technology investment might have on profitability, you may need to take a step back and ascertain which existing technology investments are aligned with which business operations and which products/services. Understanding the alignment can help you make better decisions about future investments.

## Defy collaboration limits

- How effectively do different product, geography and functional teams really collaborate in your organization? What results have you realized from this?
- How have you used collaboration to promote the sharing of best practices and ultimately to create specialized capabilities in your organization?
- What could you accomplish if you learned radical lessons from other sectors?

We now have tools to work together to shape, develop and move ideas forward faster than ever before. Work can be reconfigured in totally new ways with less regard for when and where it is done, and who does it. Skill and scale can finally come together. As scattered specialists link up and collaborate, you may uncover a new, differentiated capability that you never would have imagined if those experts continued to work in isolation.

Collaboration on a massive, geography-defying scale literally opens a world of possibilities for how products, services, processes and business models are (re)designed and implemented. Distance, scale, language, company walls – limits that once seemed immutable are now broken on a regular basis.

Often, the only remaining barrier is fear. And that is where you may need to start. Be clear about which ostensible barriers are impeding collaboration. Question their legitimacy. The limits may be in our minds.

### Beyond collaboration boundaries

Collaboration does not have to be limited by sheer numbers, company payroll or physical proximity. InnoCentive, for example, brings together 85,000 scientists located in more than 175 countries to work on seemingly intractable scientific challenges, multiplying the brainpower of participating companies such as Boeing, Dow Chemical, Eli Lilly and Procter & Gamble.<sup>38</sup>

Goldcorp, Inc. used a contest to attract external collaborators. It posted geological data for one of its high-grade gold mines on the Web, challenging the world's geologists to find gold. Some 1400 prospectors from 51 countries responded, and the company drilled the first four of the winners' top five targets and struck gold on each one. The winning geologists never even visited the mine.<sup>39</sup>

Even physical collaboration no longer depends on being in the same location. In 2005, Australian scientists performed microsurgery on cells located on the other side of the world in California.<sup>40</sup>

Collaborating on a massive scale can also involve computing power, not just brainpower. The World Community Grid is using aggregated capacity from over 270,000 devices volunteered by individuals and organizations to study human proteome folding and design new anti-HIV drugs.<sup>41</sup>

### Force an outside look...every time

- How often do you turn outside for innovation? To whom?
- Are your partnering agreements designed to encourage innovative contributions – or are they just focused on cutting costs?
- Have you designed your customer-facing processes to solicit ideas and act on insights that come from direct customer interaction?

Left alone, most teams will attempt to solve problems internally. It is familiar territory; it is where they are most comfortable. As a leader, your role is to *force* the outside look, pushing the organization to work with outsiders more than insiders. As you examine new product or service concepts, plans for new markets, operational and business model adjustments, ask where the external contribution is (or why it is missing). And don't ease up too soon. Even companies that have had tremendously successful external collaboration and partnering initiatives often retreat back to old insular habits.

Consider inviting CxOs from other industries to look at your business from a fresh angle. You might even offer to return the favor, and in doing so, double your learning opportunities.

### Conclusion

Two out of every three CEOs we interviewed said they need to drive fundamental change within their organizations over the next two years. To no one's surprise, CEOs indicated the profound need to innovate in order to achieve this change. But this study gives us a richer view of how leaders are driving that innovation. We see that the innovation mix matters – and that business models should be prime targets for innovation. We understand how collaboration, partnering and technology integration are inexorably linked to innovation – and which areas of weakness need to be addressed quickly. And we are confronted with the truth that CEOs must personally orchestrate innovation, establishing conditions that ignite innovative ideas and driving their execution.

The CEOs who participated in our study are eyeing a much wider innovation horizon. They are poised to seize opportunities. And we are hopeful that the innovative momentum rising in these 765 organizations and their peers around the globe will spill over into solutions for our world – innovations that help us feed, care for and fuel a planet that may well have over 8 billion people by 2030.<sup>42</sup> In titling our report "Expanding the innovation horizon," we are hoping that you will take it literally. Think big and bold.

Our future depends on it.

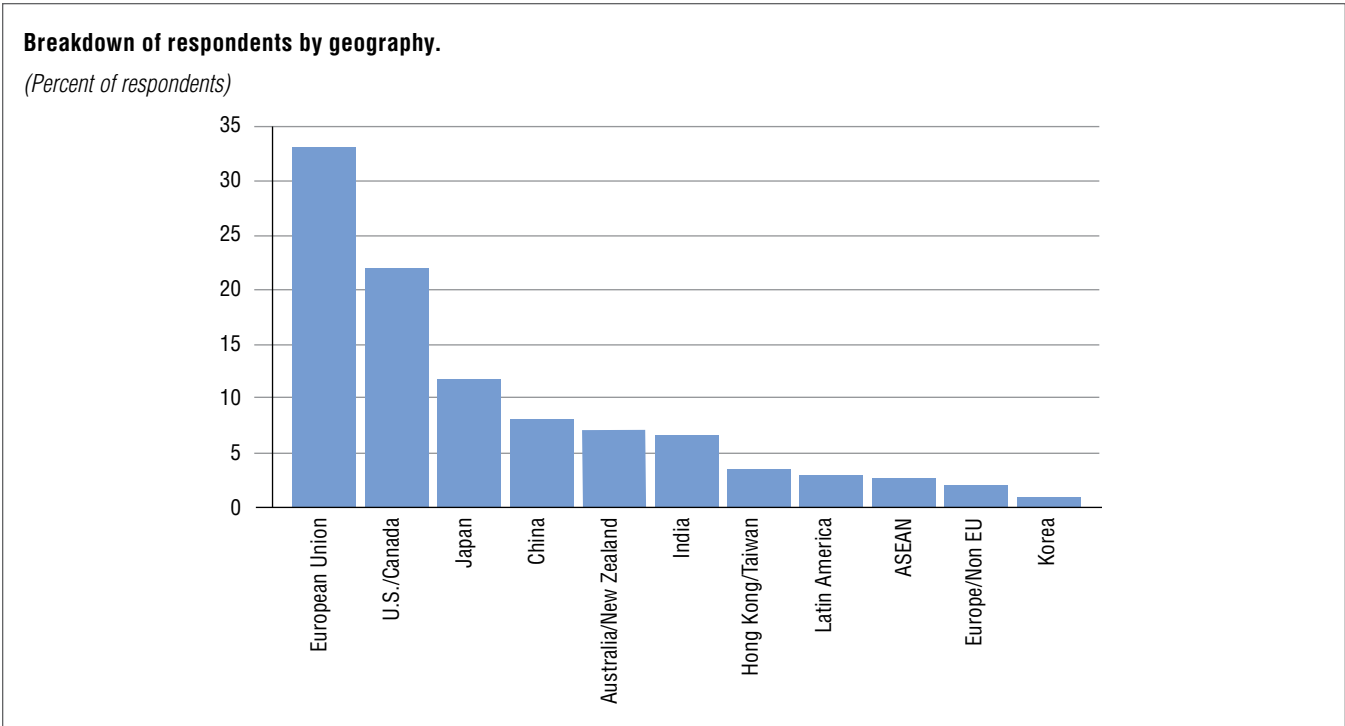
*The newly opened wing of the National Aquarium in Baltimore, Maryland drew on the expertise of dozens of scientists and architects to create a habitat reminiscent of Australia's Umbrawarra Gorge – replete with crocodiles and cockatoos. This striking addition to the city's skyline also includes a 30,000-gallon Maryland Fishes exhibit.*

SECTION SIX



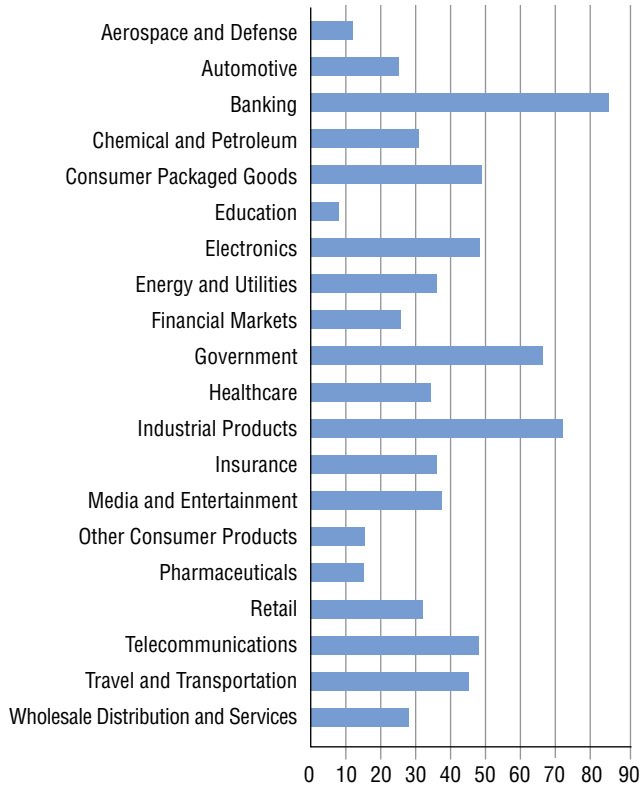


# Additional Findings



**Breakdown of respondents by industry.**

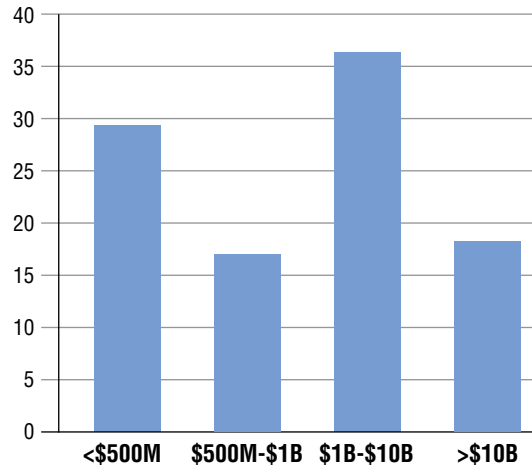
(Number of respondents)



Note: 16 respondents did not associate themselves with an industry.

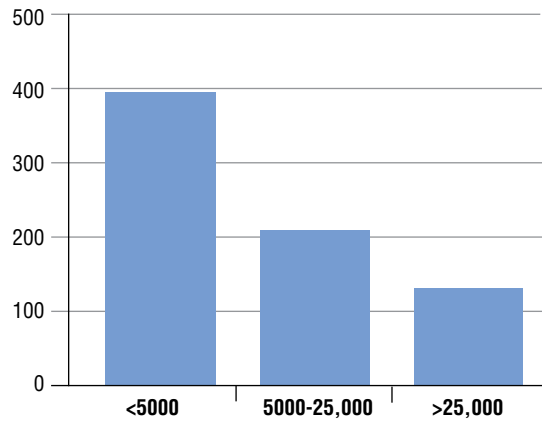
**Breakdown of respondents by annual sales/turnover (US\$).**

(Percent of respondents)



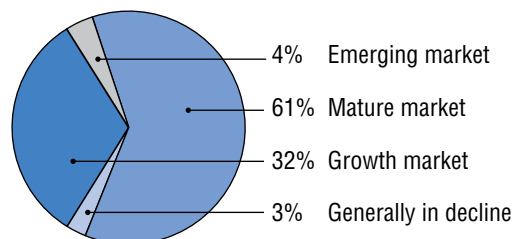
**Breakdown of respondents by number of employees.**

(Number of respondents)



**Breakdown of respondents by market maturity.**

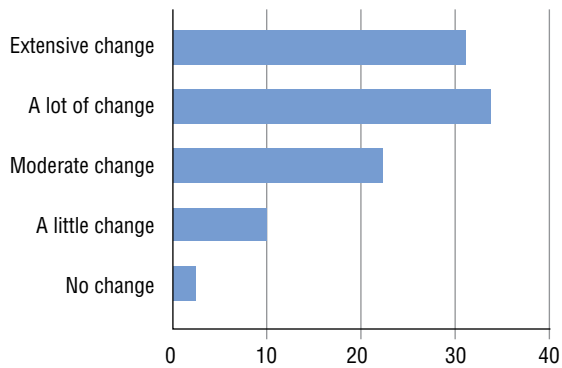
(Percent of respondents)





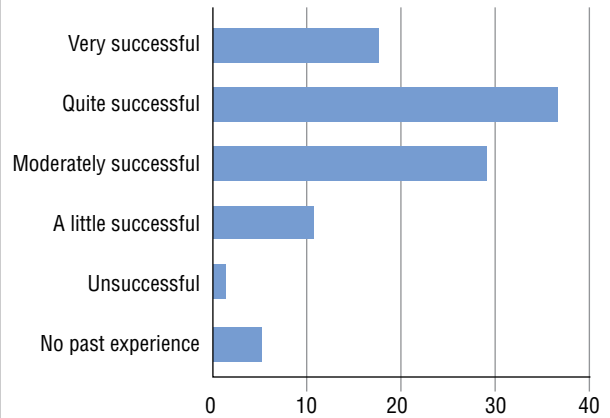
### Level of fundamental change needed to implement strategy.

(Percent of respondents)



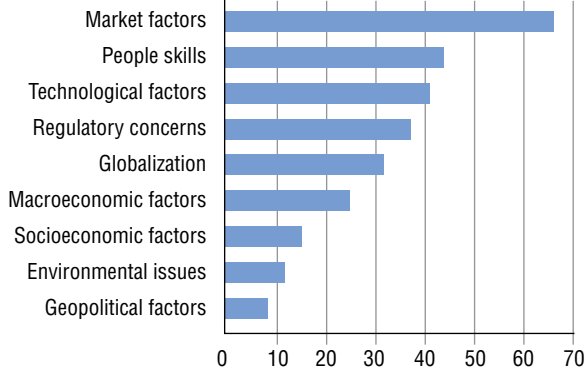
### Past success at implementing change.

(Percent of respondents)



### Most important external forces impacting organizations over next two years.

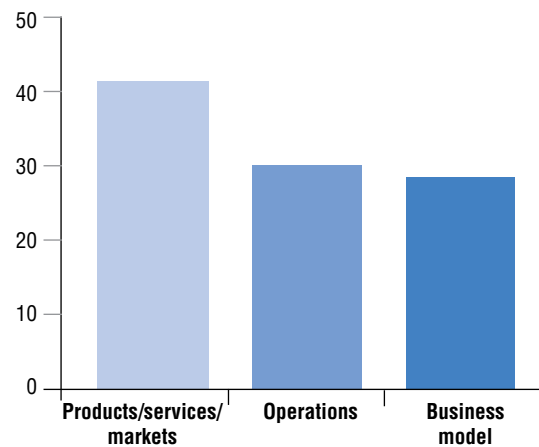
(Percent of respondents)



Note: Respondents could select up to three choices.

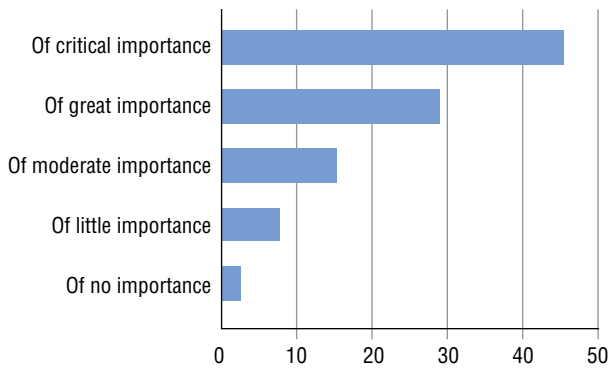
### CEOs' innovation emphasis.

(Percent of emphasis allocated to each innovation type)



**Importance of collaboration and partnering to products/ services/markets innovators.**

*(Percent of products/services/markets innovators)*



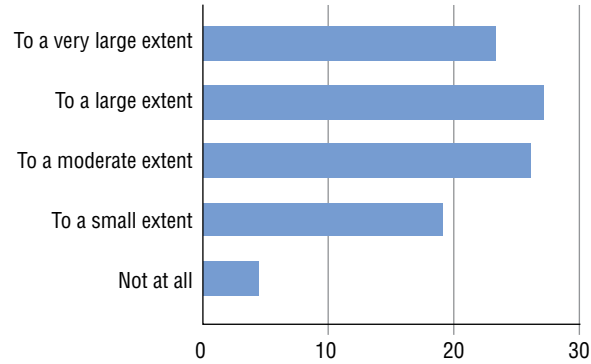
**Benefits from collaboration and partnering for products/ services/markets innovators.**

*(Percent of products/services/markets innovators)*



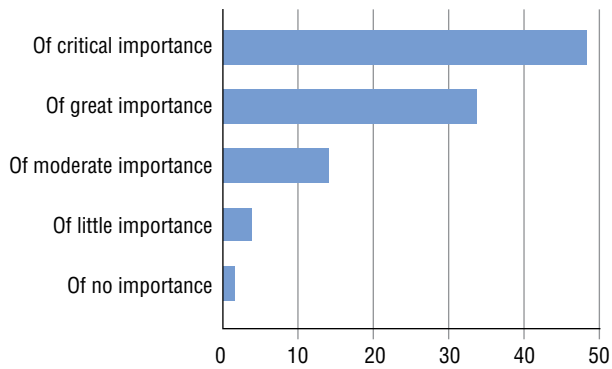
**Extent of collaboration and partnering by products/services/ markets innovators.**

*(Percent of products/services/markets innovators)*



**Importance of integration of business and technology to products/services/markets innovators.**

*(Percent of products/services/markets innovators)*



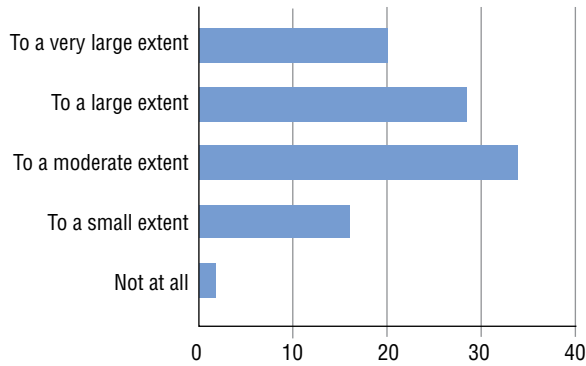
**Benefits from integration of business and technology for products/services/markets innovators.**

*(Percent of products/services/markets innovators)*



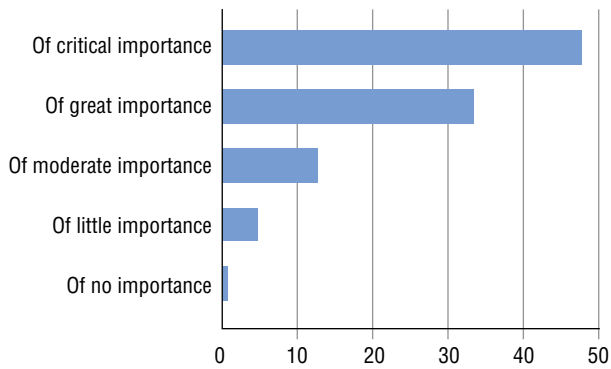
**Extent of integration of business and technology by products/services/markets innovators.**

*(Percent of products/services/markets innovators)*



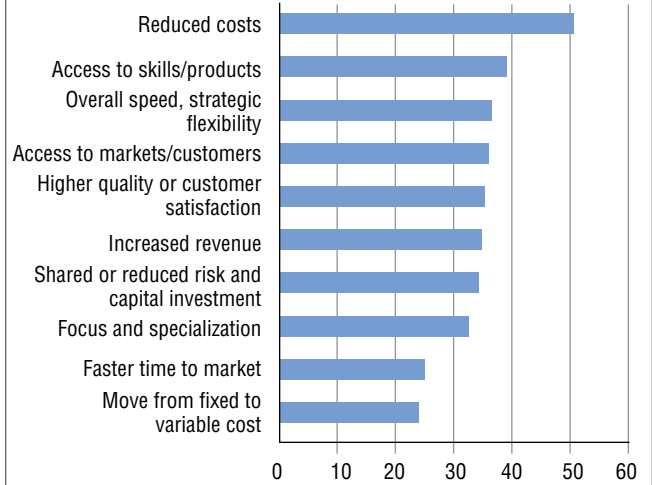
**Importance of collaboration and partnering to business model innovators.**

*(Percent of business model innovators)*



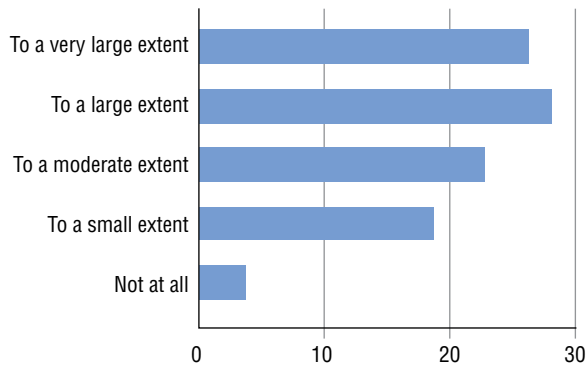
**Benefits from collaboration and partnering for business model innovators.**

*(Percent of business model innovators)*



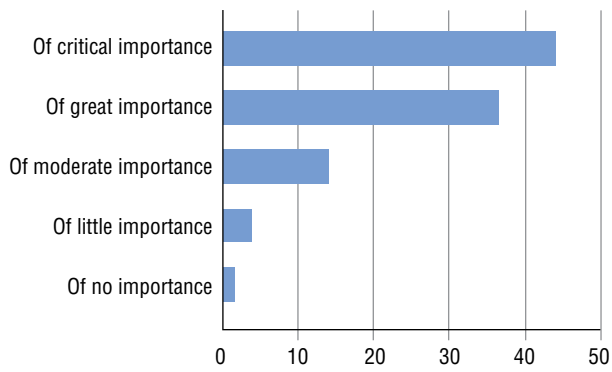
**Extent of collaboration and partnering by business model innovators.**

*(Percent of business model innovators)*



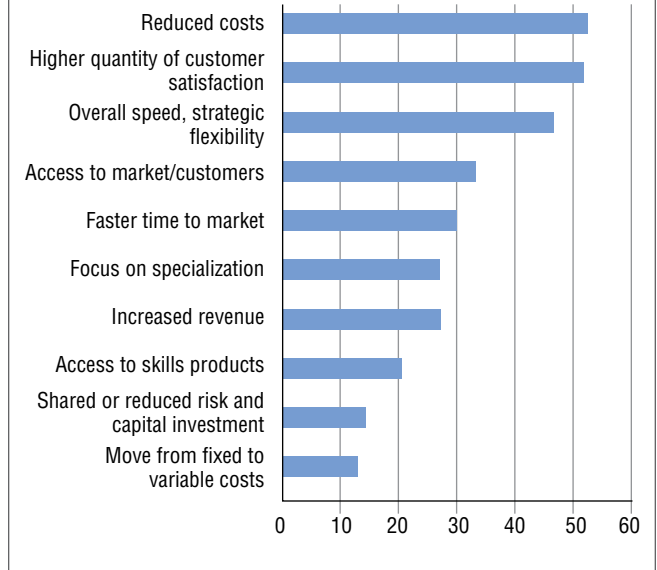
**Importance of integration of business and technology to business model innovators.**

*(Percent of business model innovators)*



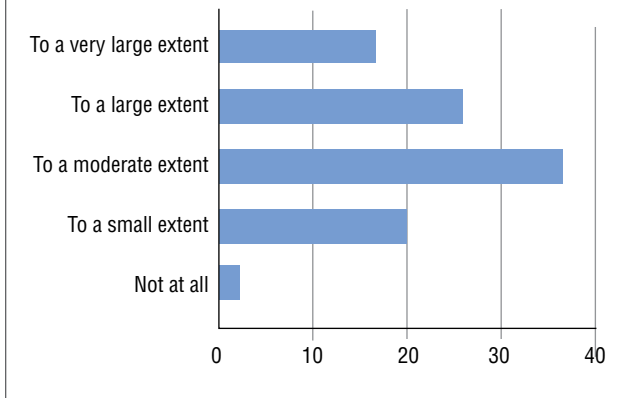
**Benefits from integration of business and technology for business models innovators.**

*(Percent of business model innovators)*



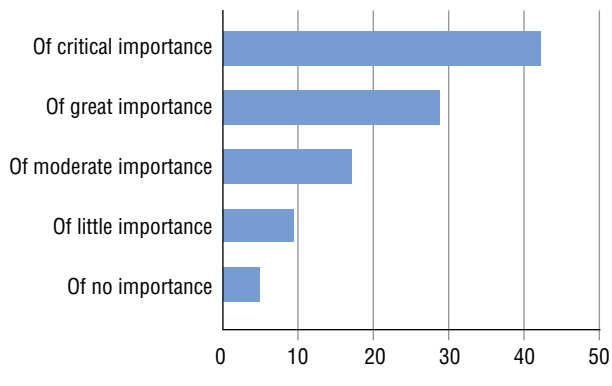
**Extent of integration of business and technology by business model innovators.**

*(Percent of business model innovators)*



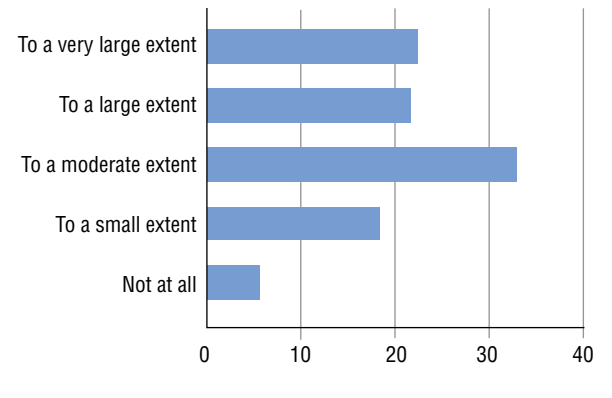
**Importance of collaboration and partnering to operations innovators.**

*(Percent of operations innovators)*



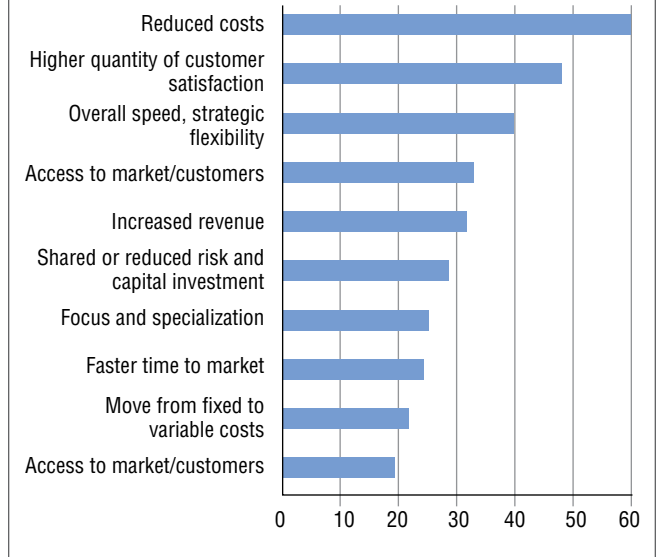
**Extent of collaboration and partnering by operations innovators.**

*(Percent of operations innovators)*



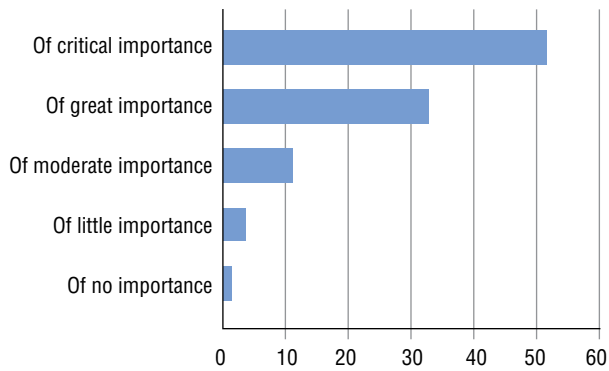
**Benefits from collaboration and partnering for operations innovators.**

*(Percent of operations innovators)*



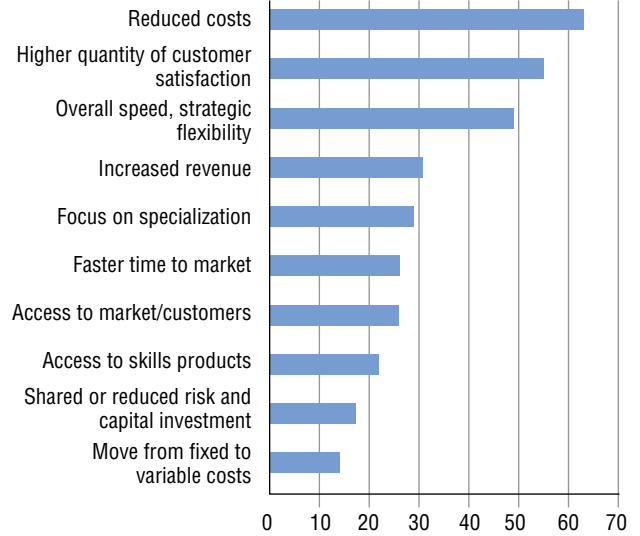
**Importance of integration of business and technology to operations innovators.**

*(Percent of operations innovators)*



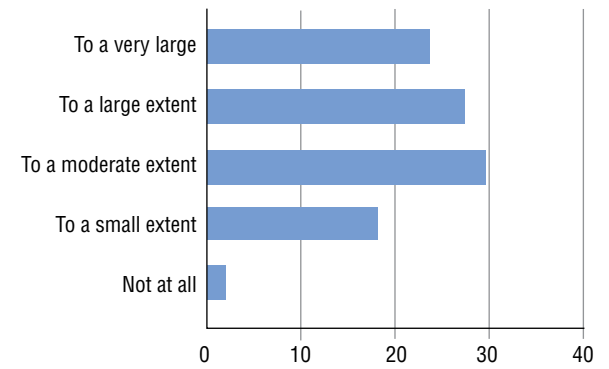
**Benefits from integration of business and technology for operations innovators.**

*(Percent of operations innovators)*



**Extent of integration of business and technology by operations innovators.**

*(Percent of operations innovators)*



## ACKNOWLEDGMENTS

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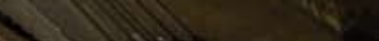
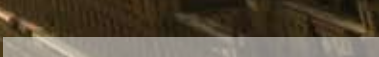
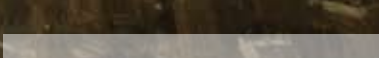
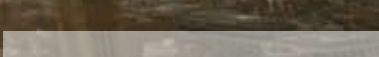
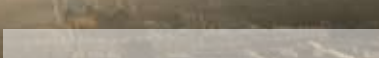
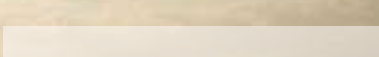
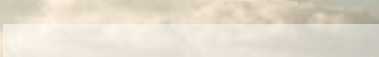
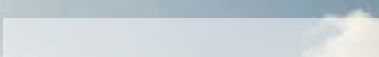
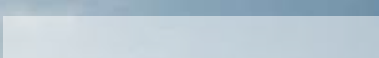
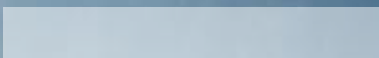
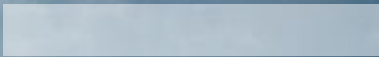
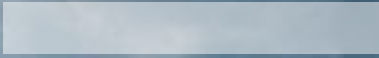
instrument design, fielding and interview management, to data management and analysis as well as overall program management and marketing and deployment. Its members include: Steve Abruzzi, Denise Arnette, Steve Ballou, Amy Blitz, Lisa Buckley, Angie Casey, Erin Crapser, Neils Feldmann, Don Gordon, Christine Maehrle, Ankit Patel, Angela Suttie and Jim Turoff.

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*The British Airways London Eye, the world's largest observation wheel, is a feat of modern design and engineering. It is 443 feet high (135 meters) and weighs 2,100 tonnes.*







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*Old and new London. Pictured is the Swiss-re tower, rising over more traditional architecture. This juxtaposition symbolizes the blend of formal, established and bold, contemporary styles that have come to typify London.*





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