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# CEO and Senior Executive Survey 2013: As Uncertainty Recedes, the Digital Future Emerges

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Major political and economic uncertainties obstructed business investment last year. However, the fog is clearing, and digital will play a prominent role in CEOs' 2013 plans.

## Key Findings

- **78% of CEOs are able to plan investment and growth,** as macro uncertainties abate. However, their increased certainty includes 74% seeing recession in the advanced economies.
- **This will be a turning-point year** as business leaders defiantly rank growth further ahead of cost in their strategic priorities than last year.
- **By over 4-to-1, IT investment increasers outnumber cutters,** among business leaders in all industries. However, CEOs still believe that 14% of IT investment is wasted.
- **52% of CEOs say they have a digital strategy.** Analytics, e-commerce and customer experience are key investments, with new customer segmentations in play.
- **CEOs look outside their firms for IT inspiration.** They research via publications and personal networks, but they struggle to see admirable examples in their own industries.
- **19% of business leaders expect to see a chief digital officer by 2014,** and 17% expect to see a chief data officer. Information and technology leadership is changing.
- **65% of CEOs believe science and technology innovation is accelerating.** Most also believe in climate change, talent crisis, euro survival and long-term Chinese growth.
- **CEOs take IT-related business risks seriously,** but few see "cyberwar" as a threat.

## Recommendations

- CEOs and leadership teams must crystallize what they mean by "digital strategy."

- CEOs and CIOs should discuss how investment and growth plans are being reframed, and wake up their boards to the reality of cyberwar scenarios.
- CIOs should exploit outside-in communication a lot more, as well as their security credibility. CIOs should also own new digital, data and innovation leadership challenges.

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## Introduction

Reading through the responses to the many questions in this year's Gartner CEO and senior executive survey left us with one overriding thought: This is *the* year when business leadership teams must commit to investing bravely and deeply to redevelop the technology and information capability of their firms.

After more than a decade of modest investment and sorting out the basics, IT isn't innovating anymore. We know because our survey shows business leaders struggle to find admirable examples of IT use within their own industries. Everyone is in the same position. After two decades of plenty — the packaged IT capability installation era is over. ERP, CRM, employee portals, supply chain management and others will keep on yielding, of course, but more of the same will provide only diminishing returns. It's time to think ahead.

Business leaders tell us they recognize the need to invest in e-commerce, mobile, cloud, social and other major technology categories, and the capabilities they enable. That can't be done from within existing IT budgets alone. Continuing IT operations have been cost-cut to the bone in many organizations — they can't give back anything material anymore.

Gartner's CEO and senior executive survey shows that many business leaders think they have a digital strategy — that needs strengthening and enacting, quickly and with full commitment. Moreover, business leaders intend to change the mix of leadership talent needed to make that change — with chief data officers, chief digital officers and new heads of innovation on the way. Those leaders need fresh capital and talent development resources — because many organizations must invent their way forward from here. The IT industry has no new easy-win packaged innovations for sale.

Why is now the moment to act? Responses to this year's survey indicate that the beginning of the true turning point out of the aftershocks of the Great Recession could be here at last, and the base of an economic or business cycle trough is the time to commit capital. The cost of capital is currently very low, and the cash on hand is high for most large firms. If you are going to make a major structural capability investment, now would be the best time to do it.

The cost-cutting cycle is mostly finished in the majority of industries. Top-line growth and profitability improvement are needed. Product innovations are likely to be digital, and workforce capability improvements are most likely to be knowledge-based. Technology and information advances are necessary for both.

While we can't be certain of these things, this research and the results of our larger CIO survey are both pointing in the same direction, and smart companies will not wait for absolute certainty. A few of Gartner's leading clients are already making new, very big bets in information and technology innovation that run to hundreds of millions of dollars of fresh investment.

The greater risk now is assuming that your lackluster technology capability can remain a "back burner" issue for another couple of years. We advise you to mitigate it — fast.

## Analysis

Gartner's annual survey of CEOs and other senior business leaders for 2013 was conducted during the final quarter of 2012. It captured responses from 391 executives at midsize, large and very large enterprises worldwide. This year, 38% were CEOs, 38% CFOs, 13% COOs and 11% other.

This survey focuses on for-profit business leaders. It does not cover government. It also deliberately excludes CIOs and CTOs as respondents, and excludes companies that are primarily in computer hardware, software, telecommunications and IT service providers. Our aim is to understand how non-IT executives are thinking. We have organized our results and this report into eight major findings. For more details on the survey demographics, see the Appendix. For those who seek a quick summary of findings and recommended actions, see Table 1.

## Executive Quick-Read

Table 1 summarizes the report's findings and recommended actions.

Table 1. Summary Table of Findings and Actions

| Finding | Action |
|---|---|
| **Seventy-eight percent of CEOs are able to plan investment and growth, as macro uncertainties abate.** | **CEOs and CIOs should discuss how investment and growth plans are being reframed.**<br>Set aside quality time (for example, over dinner) to discuss how increasing clarity about the shape of the postrecession world will impact the information and technology agenda. The conversation should encompass changes at the whole industry level, not just the enterprise. The implications for strategy, innovation, organization, processes and business models should all be included. |
| **This will be a turning-point year as business leaders defiantly rank growth further ahead of cost than last year.** | **CIOs should resist a return to risk-averse, IT cost reduction thinking, based on current news flow about the general business environment.**<br>Shift portfolios and messaging in that direction only if your own company has clear and specific problems. Instead, direct your information and technology discretionary investment primarily to support revenue growth business initiatives. Explore also how information and technology can aid the search for better profitability. This rising focal point is likely to persist for two or three years. Look for ways to structurally improve gross profitability by using better information and technology to attack factors such as cost of sale and other business costs that do not contribute to competitive advantage.<br>Anticipate the need to support changes to business operations (for example, relocation) as CFOs try to maintain net profitability, as international government deficit reduction and tax-raising strategies bite. |
| **By over 4-to-1, IT investment increasers outnumber cutters.** | **CIOs should exploit the financial bargaining position they have earned.**<br>CEOs do not have an open checkbook, but they do have an open mind when it comes to increasing IT-related investment. CIOs with strong technology-enabled ideas, convincing arguments and solid logic about the connection to business results, are pushing on a half-open door.<br>Consider becoming an entrepreneurial CIO. Those in situations where new funds cannot yet be allocated can make an argument to reclaim investment opportunity from the average 14% wastage in IT, through stronger governance powers. |
| **Fifty-one percent of CEOs say they have a digital strategy.** | **CEOs and leadership teams must crystallize what they mean by "digital strategy."**<br>Work with a small subgroup from the executive team to define what "digital" means and how it manifests in the broader business strategy. Do not accept loose, external boilerplate descriptions of the term "digital strategy" without adaptation. Ensure all elements of the digital strategy link clearly to the core business strategy and that they do not form an independent, possibly distracting, program of change.<br>Allocate time in your operating committee meetings to establish clear governance. If digital is a substantial part of the business strategy, make it an agenda item for board meetings at least twice a year. The standing question should be, "How will digital change the rules of competition in our industry?" |

| Finding | Action |
|---|---|
| **CEOs look outside their firms for IT inspiration.** | **CIOs should use outside-in communication a lot more.**<br>It is in a company's self-interest to publicize its IT-related business success stories. Exposing *what* you have done is not always a competitive risk. CEOs and other senior business executives who read stories about their own firm's successes and close competitors' successes in mainstream media are likely to notice and enable more progressive action.<br>Collectively, if more CIOs actively told IT-related business success stories outside their firms, CEOs and others would have many more cases to learn from and react to. |
| **Nineteen percent of business leaders expect to see a chief digital officer by 2014, and 17% expect to see a chief data officer.** | **CIOs should embrace growing digital, data and innovation needs, not stand back from them.**<br>CIOs who intend to stay with their firms for longer than two years should be developing digital business, business information governance and innovation leadership capabilities in themselves and in their teams. In some cases (particularly in very large companies), CIOs should extend their job descriptions — for example, by hiring chief digital officers and chief data officers as direct reports.<br>CIOs who intend to retire or step back into other roles should help their organizations by incubating next-generation talent in the areas of digital media, information exploitation, and digitally enabled product and service innovation. This can be done inside as well as outside the IT department. |
| **CEOs, CFOs and COOs are the top contributors to technology-related business change.** | **CEOs and their teams should reconsider technology-related change leadership.**<br>If today's CMOs and sales leaders don't have the skills, aptitude or insight to lead technology-related change in their fields, they may need to be replaced (over the midterm) or supplemented in the shorter term. The appointment of chief digital officers to help drive revenue and service interaction, or chief data officers to discover revenue-winning insights, may be warranted. |
| **Sixty-five percent of CEOs believe science and technology innovation is accelerating. Most also believe in climate change, talent crisis, euro survival and long-term Chinese growth.** | **IT leaders should debate these macro issues in the office, not treat them as "off-limits."**<br>Information and technology planners, enterprise architects, and business strategists need to maintain an open mind on some of these factors to help in scenario planning. As the importance of technology continues to grow, the issues it can address and the opportunities it can help exploit become bigger and, sometimes, quite controversial. The white-lab-coated technologist who professes to have no view on these tough issues cannot expect a seat at important decision-making tables where collective responsibility matters. |
| **CEOs take IT-related business risks seriously, but only a few see cyberwar as a direct threat.** | **CIOs should exploit their security credibility.**<br>Business leaders do appreciate conventional IT risks and don't think you, the technology providers or the press exaggerates them. So if you think more needs to be done, they will be willing to listen.<br>CEOs and CIOs should wake up their boards to the reality of cyberwar scenarios. Powerful attacks on our way of life could be aimed at many of the |

| Finding | Action |
| --- | --- |
| | nonmilitary processes that commercial firms operate every day, via the IT systems they depend on. |

Source: Gartner (March 2013)

## Seventy-Eight Percent of CEOs Are Able to Plan Investment and Growth, as Macro Uncertainties Abate

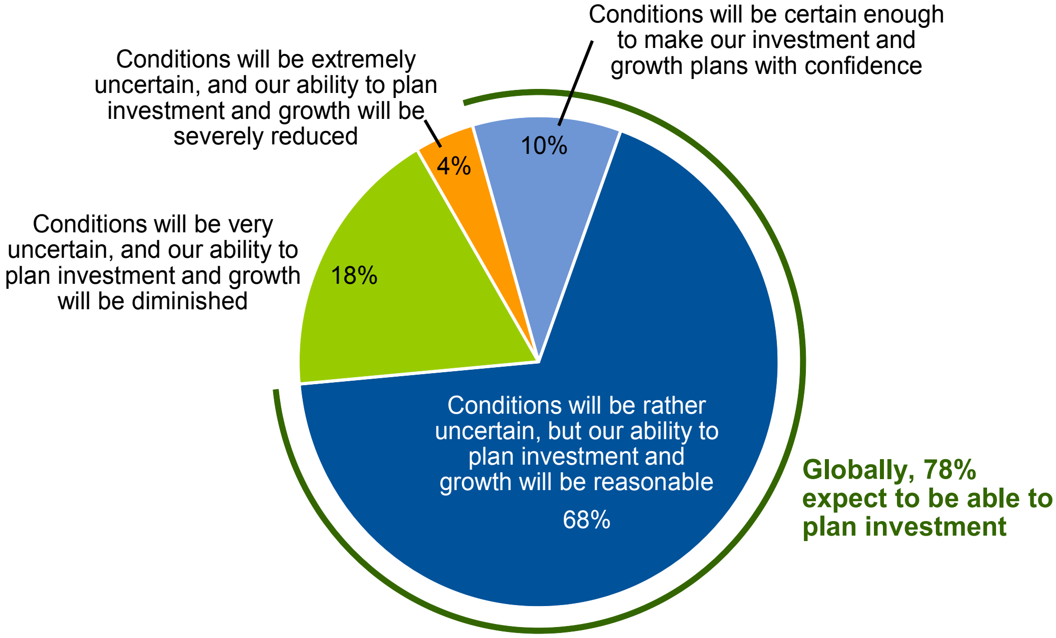
Doug Oberhelman of Caterpillar summed up last year's CEO mood well in a Financial Times interview in August 2012:

> "There's never been a more unpredictable set of tea leaves than right now. Even in 2008 and 2009, U.S. housing was already dying and had been for two years. We saw that."

He was referring to a toxic combination of factors that made it very difficult for business leaders to commit new investment or growth plans in any region. CEOs commonly cited the U.S. presidential election, the U.S. government spending "fiscal cliff," the continuing euro crisis, and China's slowdown and political transition. These concerns became so common that the resulting investment and hiring hesitancy had a hand in causing weak 4Q12 GDP figures around the world — with slow growth in many countries, and contraction in some. However, our 2013 research, conducted in 4Q12, shows that we may be past the worst.

Seventy-eight percent of CEOs and senior business executives (CFOs, COOs and board chairs) say they can now plan their 2013 *and* 2014 investments and growth, as macro uncertainties abate (see Figure 1 and Note 1).

Figure 1. CEOs' and Senior Business Executives' Attitudes to Business Planning and Uncertainty

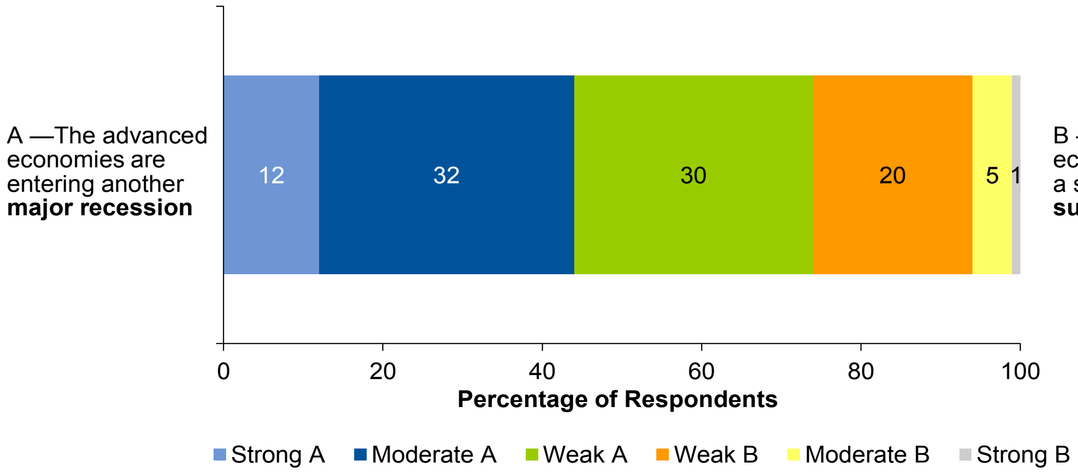



N = 391 CEOs and senior business executives

Source: Gartner (March 2013)

This is not to say that the picture in the first half of 2013 is rosy! As Figure 1 shows, nearly a quarter of business leaders see uncertainties that diminish or severely reduce their ability to plan and invest. Furthermore, Figure 2 shows that 74% see recession in the advanced economies.

Figure 2. CEOs' and Senior Business Executives' Beliefs About the Situation of the Advanced Economies




N = 391 CEOs and senior business executives

Source: Gartner (March 2013)

Despite current acknowledgment of a recession, the reduction of uncertainty is an important positive *leading* indicator, and it dovetails with some other positive signals in our survey. The removal of uncertainty permits CEOs to lay their bets, and sometimes, that is in a new or different direction from the past.

For example, Cisco has changed its approach to investing and where in the world it will be making acquisitions. CEO John Chambers said at the World Economic Forum's annual meeting in Davos, Switzerland, in January 2013:

> "That's something I've been working on for four years. We actually reversed that now."

Chambers was referring to ending lobbying and persuasion efforts to get the U.S. government to change a tax rule that requires foreign subsidiary profits to be taxed if they are repatriated by a U.S. company. His newfound certainty is that the rule is now unlikely to change, so Cisco is investing elsewhere.

## Actions

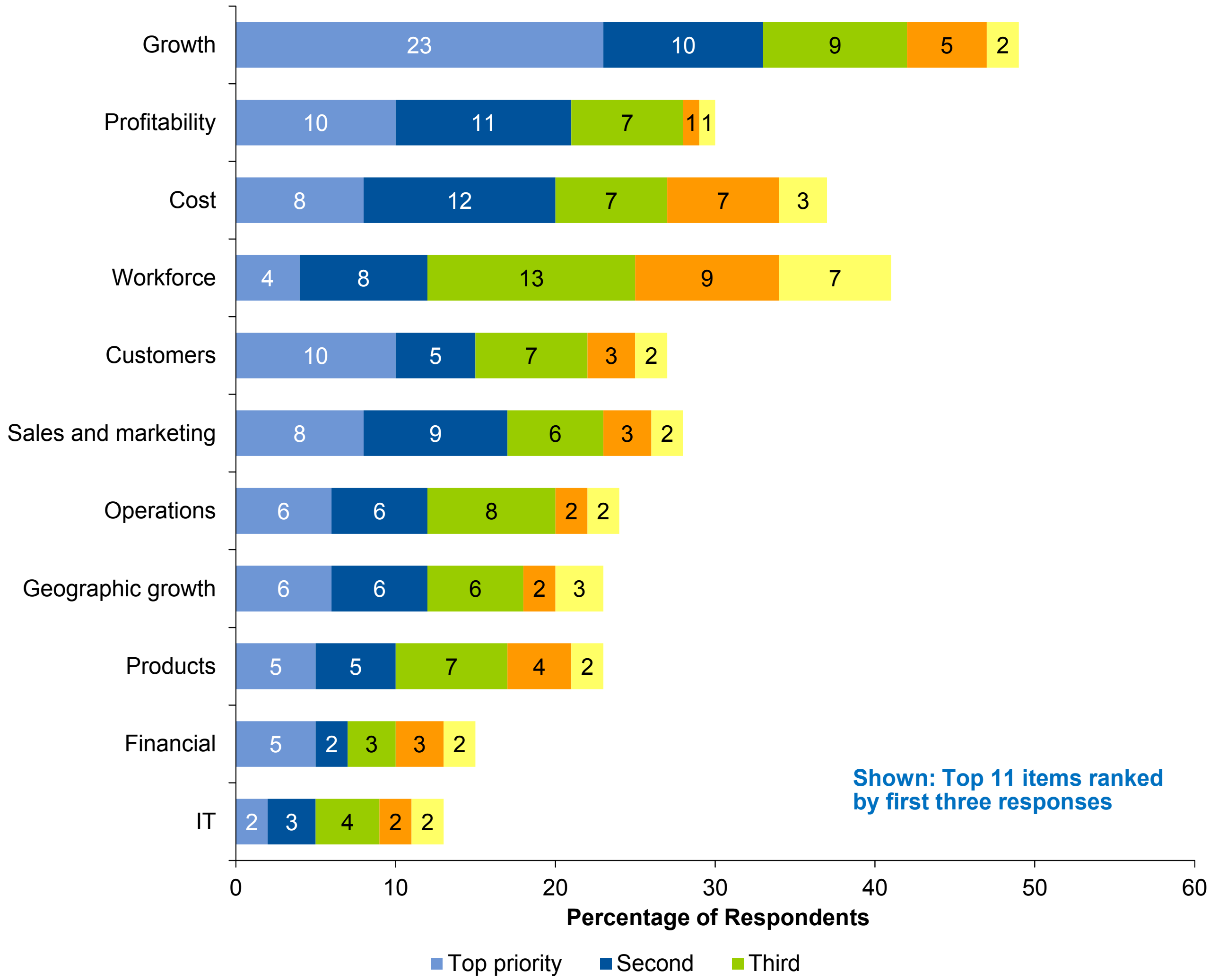
### CEOs and CIOs should discuss how investment and growth plans are being reframed.

Set aside quality time (for example, over dinner) to discuss how increasing clarity about the shape of the postrecession world will impact the information and technology agenda. The conversation should encompass changes at the whole industry level, not just at the enterprise level. The implications for strategy, innovation, organization, processes and business models should all be included.

## This Will Be a Turning-Point Year as Business Leaders Defiantly Rank Growth Ahead of Cost

Another signal that business leaders are seeing things more positively in 2013 may be in the way they articulated their top priorities for the year. Our survey asked for verbatim responses, which we then categorized (see Note 2). Figure 3 shows that, in the first three responses that business leaders gave, growth was considerably higher than cost as an issue — last year, growth and cost were very close. In addition, profitability was mentioned a lot more, and it, too, exceeded cost as an issue. Workforce factors showed high when we totaled the top five responses.

Figure 3. CEOs' and Senior Business Executives' Top Strategic Business Priorities for 2013



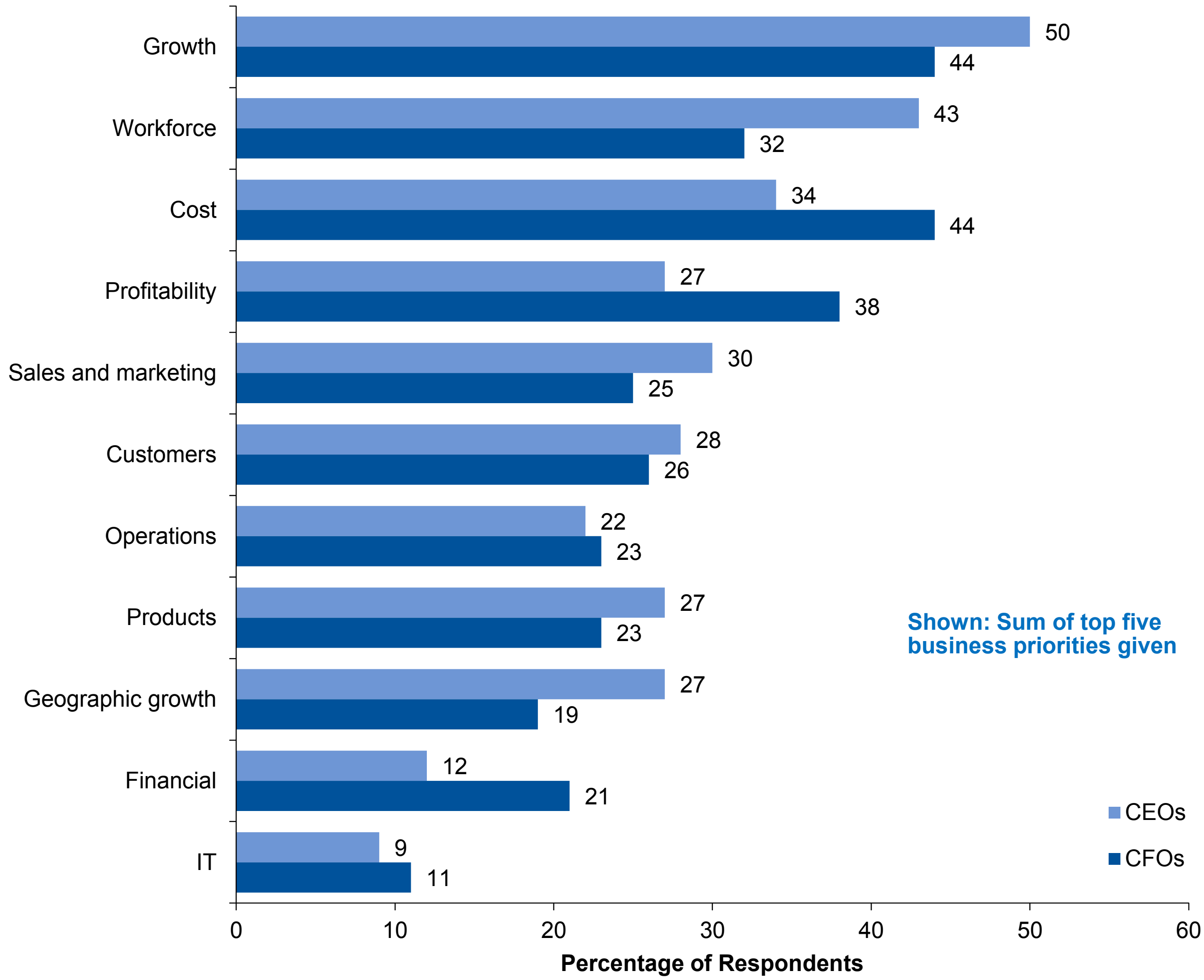

N = 391 CEOs and senior business executives

Source: Gartner (March 2013)

In response to the Great Recession starting in 2008, many large companies did deep and sudden cost cutting in 2009 and 2010, coming out leaner and fitter. As reasonable demand and revenue returned, profits grew. However, most business leaders will quickly acknowledge the maxim, "You can't just cost-cut your way to success." Business leaders know that, eventually, they must invest in innovation and productivity to retain customers and grow revenue. Inevitably, the growth they seek will also require more people; "jobless recovery" is a temporary stage, not an indefinite condition.

The business priorities question provides evidence of some important differences between CEOs and CFOs. Figure 4 shows that CEOs see workforce issues and geographic growth as higher-priority than CFOs do.

Figure 4. CEO and CFO Differences on Top Strategic Business Priorities for 2013




n = 147 CEOs and 149 CFOs

Source: Gartner (March 2013)

CEOs focus strongly on talent, and elsewhere in our study, we can see this is a serious area of concern (see Figure 17). CEOs are also responsible for finding growth strategies and geographic reach (particularly into the emerging markets). CFOs remain more concerned about costs, profitability and other financial issues, such as funding sources. These are all core to their role and to be expected. It serves as a reminder that CIOs' homogeneous communication to these roles may not always yield the desired results.

### Actions

**CIOs should resist a return to risk-averse, IT cost reduction thinking, based on current news flow about the general business environment.**

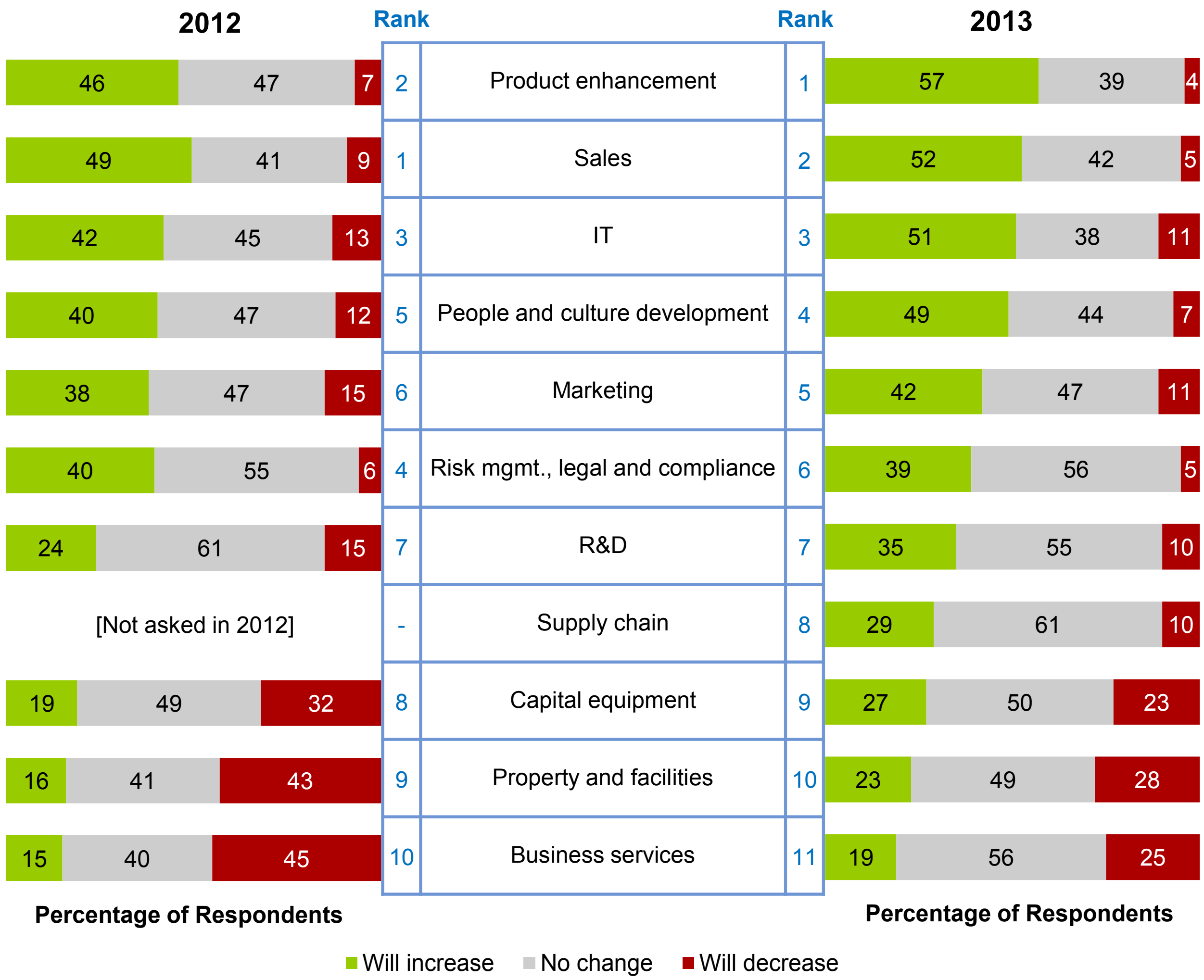
Shift portfolios and messaging in that direction only if your own company has clear and specific problems. Instead, direct your information and technology discretionary investment primarily to support business initiatives for revenue growth. Explore also how information and technology can aid the search for better profitability. This rising focal point is likely to persist for two or three years. Look for ways to structurally improve gross profitability by using better information and technology to attack factors such as cost of sale and other business costs that do not contribute to competitive advantage. Anticipate the need to support changes to business operations (for example, relocation) as CFOs try to maintain net profitability, as international government deficit reduction and tax-raising strategies bite.

## By Over 4-to-1, IT Investment Increasers Outnumber Cutters

Each year, we ask survey respondents if they intend to cut, grow or hold steady investment in a number of business areas. Overall, the results show stronger investment intent in 2013 compared with 2012 in all areas, measured by the ratio of those who would cut vs. those who would increase. This is another positive sign that perhaps business leader certainty will yield investment-led growth strategies.

In 2013, business leaders who would increase IT spend outnumber those who would cut it by a ratio of 4.6-to-1. That's an improvement over last year's 3.2-to-1. At the same time, IT has retained its position in our rank ordering (see Figure 5).

Figure 5. Ranked Investment Intention by Business Area, 2013 vs. 2012



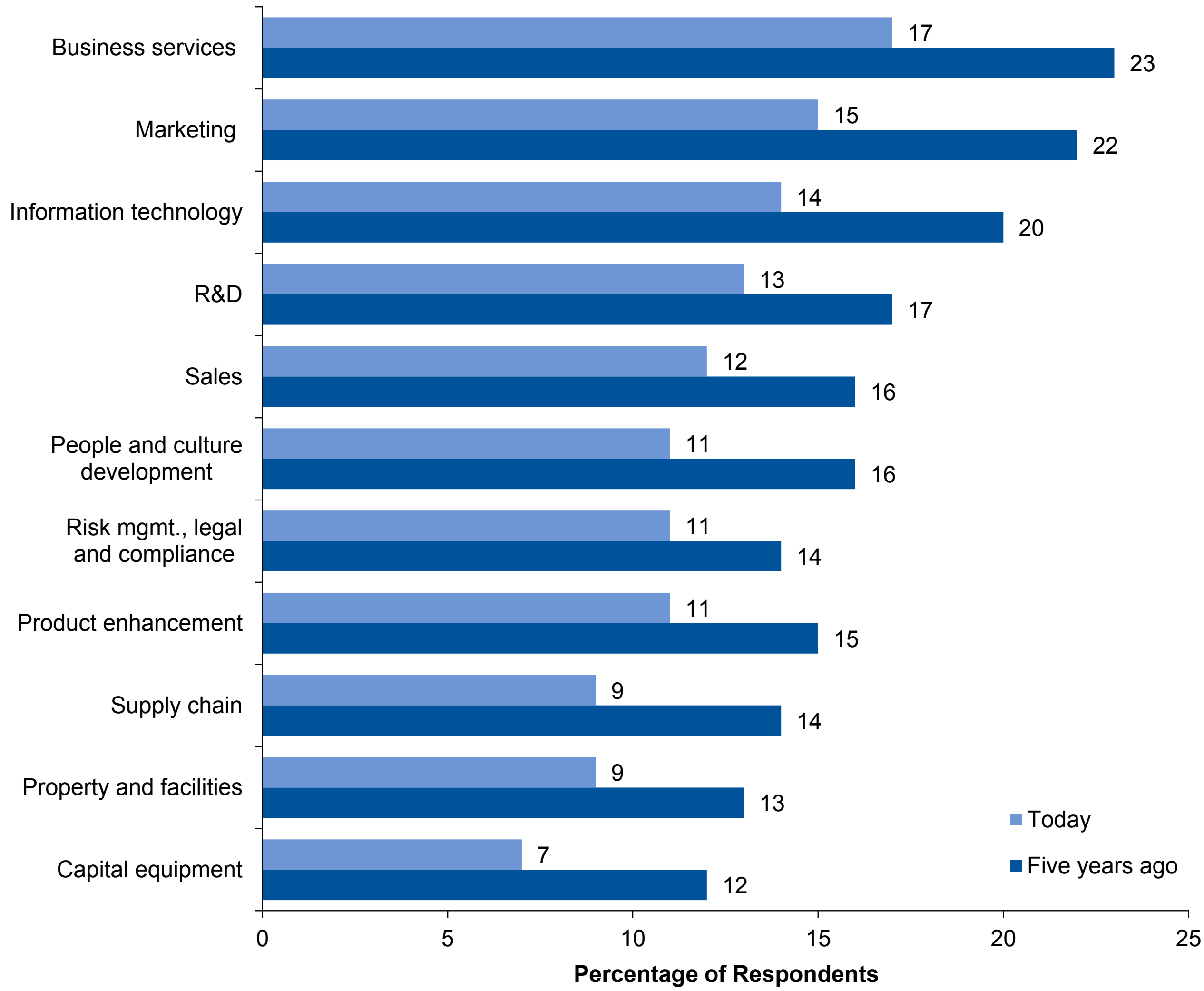

N = 391 CEOs and senior business executives

Source: Gartner (March 2013)

However, what do business leaders mean when they say they would increase "IT" investment? In the eyes of CEOs, IT very likely includes some things like websites, mobile apps, social media or business operational technologies that are outside the IT department budget. Product enhancement now equals or slightly exceeds sales in this year's ranking. We believe business leaders understand they must improve the product offer to maintain or grow revenues at this point in the business cycle. It's another signal that they intend to drive out of the latest recession trough soon. Savvy CIOs will look for ways to engage more with product development leaders to find ways that technology can add value to the customer proposition.

While CEOs view further investment positively, they believe 14% of current IT spend is unproductive and "wasted." Figure 6 demonstrates well how cost cutting and control have led to greater efficiency of spend across all categories in the five years since the start of the Great Recession and why, perhaps, business leaders realize that cost cutting alone does not have much more to give.

Figure 6. Investment That Is Perceived "Wasted," by Business Area, in 2013




n = 246 CEOs and senior business executives

Source: Gartner (March 2013)

Clearly, there must always be some residual level of waste — no investment management method can be perfect, particularly in the large enterprises we survey in this research. IT is perceived to have done slightly better than most categories in reducing waste. However, the 14% wastage perception for IT remains double that of capital equipment and significantly higher than property, supply chain, product enhancement or risk management. Overall, we might summarize the report card as B+ rather than A. It should be noted, however, that IT as an investment category (not just the IT department) is being rated. The waste that remains may be because business units are requiring systems to be built that are then not fully used or exploited.

### Actions

**CIOs should exploit the financial bargaining position they have earned.**

CEOs have long memories and often deal in business thinking over decade-long business cycles. Five to 10 years ago, IT investment, in general, still had a reputation for scattershot results and high wastage. That time has passed. IT leaders must now exploit the credibility they have built. CEOs do not have an open checkbook, but they do have an open mind when it comes to increasing IT-related investment. CIOs with strong technology-enabled ideas, convincing arguments and solid logic about the connection to business results, are pushing on a half-open door. Consider becoming an entrepreneurial CIO (see "Unleashing the Entrepreneurial CIO"). CIOs in companies where new funds cannot yet be allocated can still make an argument to reclaim investment opportunity from the average 14% wastage, through stronger governance powers.

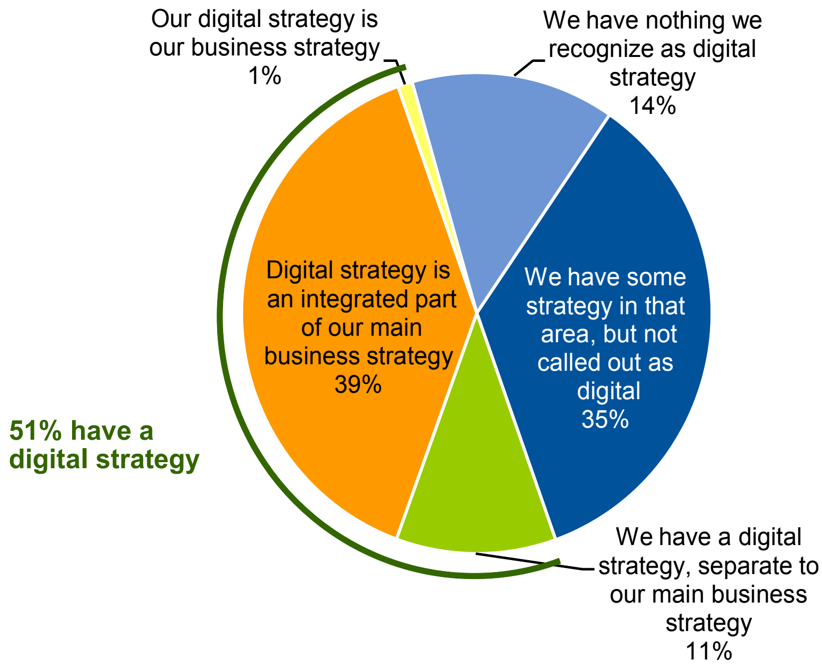
## Fifty-One Percent of CEOs Say They Have a Digital Strategy

Half of business leaders say they have a digital strategy, and the vast majority of those say it is integrated with their main business strategies (see Figure 7). Our question did not define the term "digital strategy" in any way — it was left to respondents to decide what it means to them.

Not surprisingly, the proportion of leaders who say they have a digital strategy varies a lot by industry. It's over 90% in communications and media, and over 60% for financial services and insurance. However, only a third of manufacturing and natural resources business leaders claimed a digital strategy.

"Digital" is now a mainstream-recognized term for business leaders, perhaps the way "e-business" became a decade before it. Digital represents the current "new wave" of information-and-technology-related opportunities.

Figure 7. CEOs' Views on the Status of "Digital Strategies" in 2013

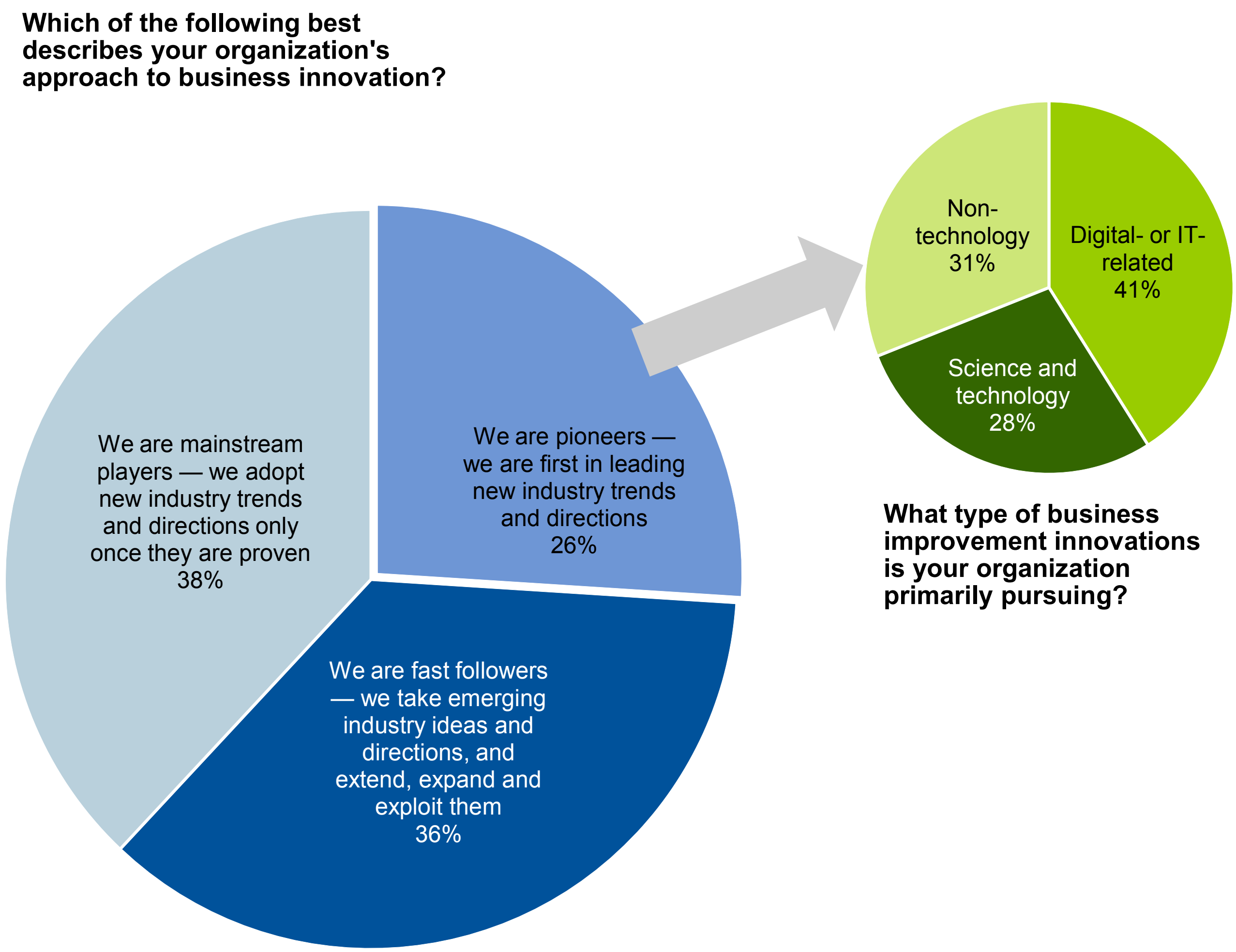



n = 147 CEOs

Source: Gartner (March 2013)

However, only a few companies use digital- or IT-enabled innovation to truly *lead* their industries (see "Alpha Organizations: Learning From Leaders"). We asked all the business leader respondents to tell us if their company is striving to be a pioneer in its industry. Figure 8 shows that about a quarter (26%) said they were. Among those, less than half said that digital or information technologies were their primary means of pursuing that goal. So, overall, only one in 10 companies is trying to lead its industry by applying digital- and IT-related innovation within its business. It should be noted that technology firms themselves (hardware, software, telecom and IT services) were excluded from the survey.

Figure 8. Views on the Innovation Posture of Their Firms



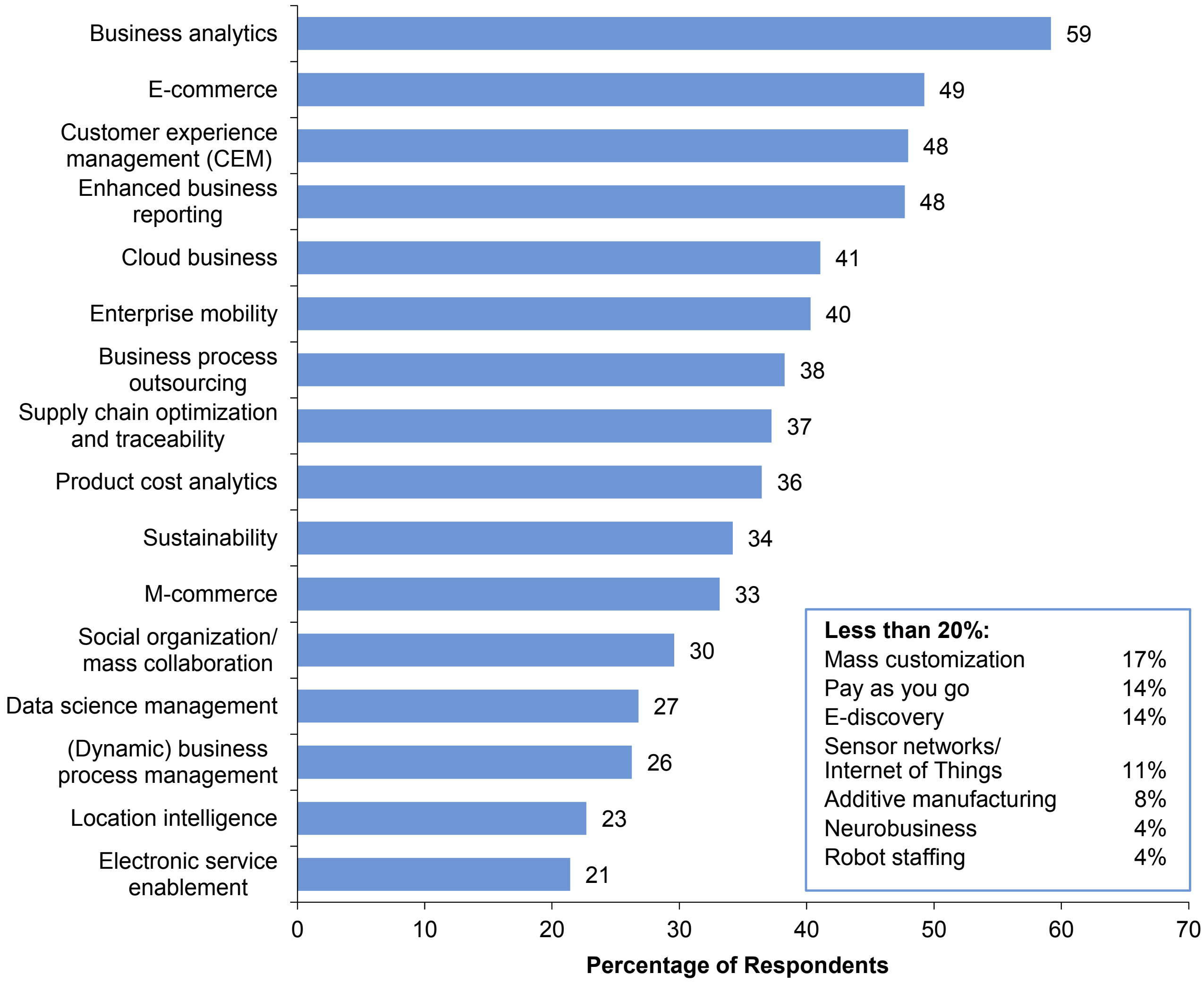

N = 391 CEOs and senior business executives

Source: Gartner (March 2013)

The themes typically associated with the term "digital" are evident in the high-level investments business leaders intend to make over the next few years. However, there is an overlap between things that are quite mature and part of the old e-business wave, such as e-commerce, and things that are really core to the newer digital era, such as social media.

Figure 9 shows how some of the main digital areas, such as mobile and cloud, are high in business leader visibility and investment intent for the next five years. Other newer concepts within the still unfolding digital business story, such as "data science" management and mobile commerce (m-commerce), are lower on the list.

Figure 9. Important Five-Year, Technology-Enabled Business Investment Areas




n = 246 CEOs and senior business executives

Source: Gartner (March 2013)

When we ask this question, we always offer a one-line explanation of each term to the survey respondents (see Note 3). Because market terms change as concepts evolve and mature, we do not keep the list the same year over year. This year, we dropped some mature mainstream capability areas (over 20 years old), such as CRM and ERP, to make space for newer things.

The biggest year-over-year changes in the things that did remain on the list are shown in Figure 10.

Figure 10. Biggest Year-Over-Year Changes in Important Five-Year, Technology-Enabled Business Investment Areas

| | 2013 | 2012 |
|---|---|---|
| Enhanced business reporting | 48% | 31% |
| Cloud business | 41% | 32% |
| Enterprise mobility | 40% | 30% |
| Business process outsourcing | 38% | 29% |
| Location intelligence | 23% | 12% |
| Pay as you go | 14% | 5% |
| Additive manufacturing | 8% | 4% |

n > 200 CEOs and senior business executives

Source: Gartner (March 2013)

Right at the bottom of the list (items in the light blue box in Figure 9) are the technology-enabled capabilities that might form part of the next wave beyond "digital." This includes the Internet of Things, additive manufacturing (3D printing) and robot staffing. Though these ideas appear quite frequently in business and news magazines (such as The Economist and Businessweek), they still attract only a minority of business leaders thinking about investment at the five-year range. These opportunities are for alpha organizations that lead their industries via new technology innovation.

Overall, the results for this year's question on key five-year investment areas showed a strong trend to investing in customer-facing and revenue-winning technology-enabled capabilities. Not only do items like e-commerce and CEM see high interest, but also business analytics, and we believe customer- and marketing-related analytics are important embedded elements within that.

The management consulting firm Bain has had customer segmentation on its top 10 list of CEO tools for over a decade. We believe customer segmentation is likely to see a resurgence, as far more data and new analytics become available. In this year's survey results, we can already see the effect. When survey respondents were asked for *new* segmentation factors in the next three years, the results showed social media, mobile penetration, urbanization rate, data management, sophistication level, project life cycle and others (see Figure 11).

Figure 11. New Customer Segmentation Factors

| Consumer-related | 37% |
|---|---|
| Customer requirement/usage | 15% |
| Age/age profile | 11% |
| Socioeconomic | 4% |
| Demographic profile | 4% |
| Race segmentation | 2% |
| Gender | 2% |
| Personality-based | 2% |
| Lifestyle | 2% |
| Education | 1% |
| Singles vs. families | 1% |
| Other consumer-related | 4% |

| Industry-related | 32% |
|---|---|
| Industry (unspecified) | 10% |
| Product-related | 8% |
| Enterprise size | 7% |
| Distribution channel | 4% |
| Health/healthcare | 2% |
| Project life cycle | 1% |
| Skill-based | 1% |
| Service-related | 1% |
| Infrastructure | 1% |
| Other industry-related | 5% |

| Economic | 31% |
|---|---|
| Affordability/ability to pay | 5% |
| Buying/consumption profile | 4% |
| Capital requirement | 4% |
| Growth opportunities | 3% |
| Spendable income | 2% |
| New market needs | 2% |
| Profitability | 2% |
| Cost to serve | 2% |
| Rental/rental vs. default | 1% |
| Sustainability | 1% |
| Other economic factors | 10% |

| Technological | 15% |
|---|---|
| Technology-related/adaptability | 7% |
| Innovation | 3% |
| Specialization | 2% |
| Develop new solutions | 1% |
| Mobile penetration | 1% |
| Other technological factors | 3% |

| Geographic | 25% |
|---|---|
| Geography (unspecified) | 16% |
| International/global | 2% |
| Global vs. local | 2% |
| Local markets | 2% |
| Other geographic factors | 4% |

| Miscellaneous | 29% |
|---|---|
| Regulatory environment | 3% |
| Social media | 2% |
| Value | 2% |
| Partnership/partnership potential | 2% |
| Environment | 2% |
| Mobility | 2% |
| Sophistication | 2% |
| Political environment | 1% |
| Urbanization rate | 1% |
| Data management | 1% |
| Other miscellaneous | 13% |

n = 167 CEOs and senior business executives

Source: Gartner (March 2013)

## Actions

**CEOs and leadership teams must crystallize digital strategy.**

Like "e-business" in the late 1990s, the use of "digital" risks being nebulous. When a vague umbrella term becomes widespread, it can be a recipe for poorly directed strategy, budget bloat and weak results. Moreover, digital concepts often originate in consumer-related markets that may not always be relevant. The IT industry's very powerful sales and marketing capability will exploit any lack of directional clarity that a large enterprise displays. Work with a small subgroup from the executive team to define what "digital" means and how it manifests in the broader business strategy. This should be in the context of your firm and as specifically directed as possible — for example, GE has an "industrial Internet" strategy, and Ford has a "connected car" strategy.

Do not accept loose, external boilerplate descriptions of the term "digital strategy" without adaptation. Ensure all elements of the digital strategy link clearly to the core business strategy, and that they do not form an independent, possibly distracting, program of change.

Allocate time in your operating committee meetings to establish clear governance. If digital is a substantial part of the business strategy, make it an agenda item for board meetings at least twice a year. The standing question should be, "How will digital change the rules of competition in our industry?"

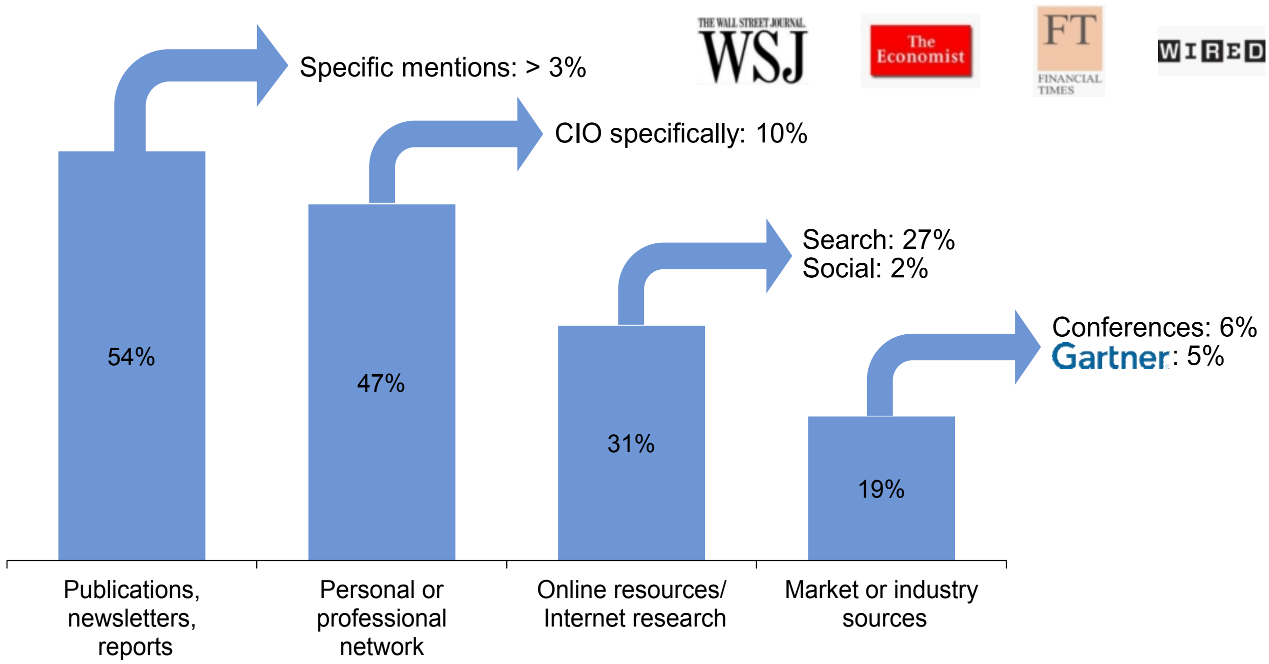
## CEOs Look Outside Their Firms for IT Inspiration

Clients often ask us how CEOs and other business leaders are influenced and how they personally learn about information and technology business ideas and innovations. This year, we surveyed that issue directly.

The top source category is reading, and within that, many general business news sources and more specific industry report sources were mentioned. Top business news brands have a lot of credibility. The next category is personal and professional networks. Family members were visible as a source but only very minor — this dispels a popular comic myth that CEOs listen most to their kids when it comes to technology. On the other hand, only 10% of all respondents mentioned their CIO as a source. Some might be surprised by this low level. Responses were verbatim (not from a pick list), and we categorized the results. So, the business executives were not being "reminded" with a prompter to mention CIOs.

The third-place category is online resources, with 27% mentioning search, but only 2% mentioning social media. The implication is that senior business leaders do not pick up their technology ideas directly from following bloggers (though, of course, those ideas might well be relayed via the business press and other means). The final category was various other market and industry sources, in which conferences and events featured highly (see Figure 12).

Figure 12. Sources for Digital- and IT-Related Business Ideas




n = 259 CEOs and senior business executives

Source: Gartner (March 2013)

In among those many sources, we might expect that business leaders hear and internalize case examples of companies doing great things with technology. If they do, it doesn't seem to leave a lasting impression. This year, we again asked the respondents to name the companies they admired for their use of IT for completive advantage. The question was carefully worded, seeking examples "within your own industry or related industries" of the application of technology-related business capabilities.

The results were quite fragmented. Even when the results were analyzed in broad industry categories, clustering around great "standout" names was not strong. Most companies named by more than one respondent were American, and European respondents named U.S. companies more than half the time. However, U.S. CIOs cannot bask in national glory; 43% of U.S. business leaders didn't name any company.

These results are not great for corporate IT practitioners. CEOs struggled to name admirable examples of strategic, differentiating technology use in their own industries. This suggests that the visibility of information and technology contributions to business success stories is fairly low (see Figure 13).

Figure 13. Companies That CEOs and Senior Business Executives Admire for Their Use of IT

| | Manufacturing and Natural Resources | Financial Services/ Insurance | Services | Communication/ Media | Retail | Wholesale/ Transportation | Utilities |
|---|---|---|---|---|---|---|---|
| N = 357 | 149 | 72 | 63 | 27 | 20 | 22 | 4 |
| Apple | 4% | 7% | 3% | 7% | 10% | - | - |
| IBM | 1% | 7% | 5% | 4% | - | 9% | - |
| Google | 1% | 1% | - | 19% | - | 5% | - |
| GE/General Electric | 3% | 1% | - | - | - | - | - |
| Goldman Sachs | - | 8% | - | - | - | - | - |
| JPMorgan Chase | - | 8% | - | - | - | - | - |
| Amazon | - | 1% | 2% | - | 5% | 5% | - |
| Accenture | - | - | 3% | - | - | - | - |
| Cleveland Clinic | - | - | - | - | - | - | - |
| HCA | - | - | - | - | - | - | - |
| Mayo Clinic | - | - | - | - | - | - | - |
| Nestle | 1% | - | - | - | - | - | - |
| Schlumberger | 1% | - | - | - | - | - | - |
| Target | - | - | - | - | 10% | - | - |
| Intermountain Healthcare | 1% | - | - | - | - | - | - |
| Kaiser Permanante | - | - | - | - | - | - | - |
| Microsoft | - | - | - | 4% | - | - | - |
| Progressive Insurance | - | 3% | - | - | - | - | - |
| P&G | 1% | - | - | - | - | - | - |
| Toyota | 1% | 1% | - | - | - | - | - |
| Wells Fargo | - | 1% | 2% | - | - | - | - |
| | | | | | | | |
| Other single mentions | 26% | 26% | 25% | 19% | 35% | 45% | 50% |

Source: Gartner (March 2013)

The survey base in each column is small, so results are only directional, and rank-ordering the firms is not appropriate.

### Actions

**CIOs should use outside-in communication a lot more.**

It is in a company's self-interest to publicize its IT-related business success stories. In our consumer electronics age, "tech" prowess is generally good for most brands. It shows a company is modern and forward-thinking in its capabilities. Exposing *what* you have done is not always a competitive risk. You do not have to say *how* you have done it (in detail). Moreover, it is remarkably hard to quickly copy the best modern, technology-enabled business capabilities, because they require organization and culture shifts led by scarce talent — not just packaged software.

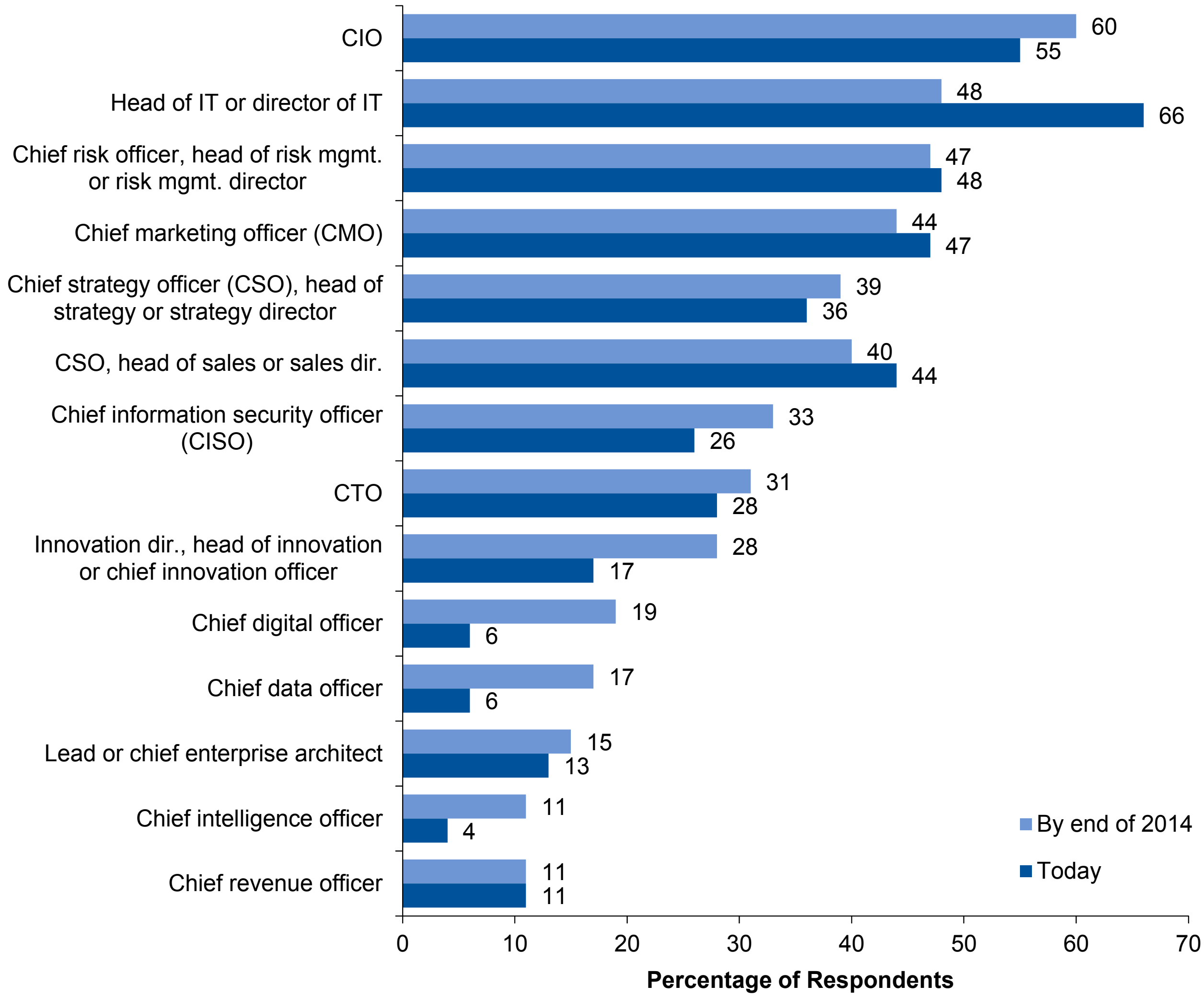
In large companies, sometimes, stories move more effectively via external channels. The newspaper article you read about your own company does two things: It short-circuits internally controlled communications channels, and it editorially "validates" the message. CEOs and other senior business executives who read stories about their own firm's successes and close competitors' successes in mainstream media are likely to notice and enable more progressive action. Conversely, if IT is out of sight, it is out of mind.

Collectively, if more CIOs actively told IT-related business success stories outside their firms, CEOs and others would have many more cases to learn from and react to.

## Nineteen Percent of Business Leaders Expect to See a Chief Digital Officer by 2014

The rise of digital strategy is starting to change the leadership landscape (see Figure 7). In this year's survey, we asked about a number of job titles that are becoming more associated with IT-related strategy and direction (see Figure 14).

Figure 14. Anticipated Changes to Information- and Technology-Related Leader Roles




n = 246 CEOs and senior business executives

Source: Gartner (March 2013)

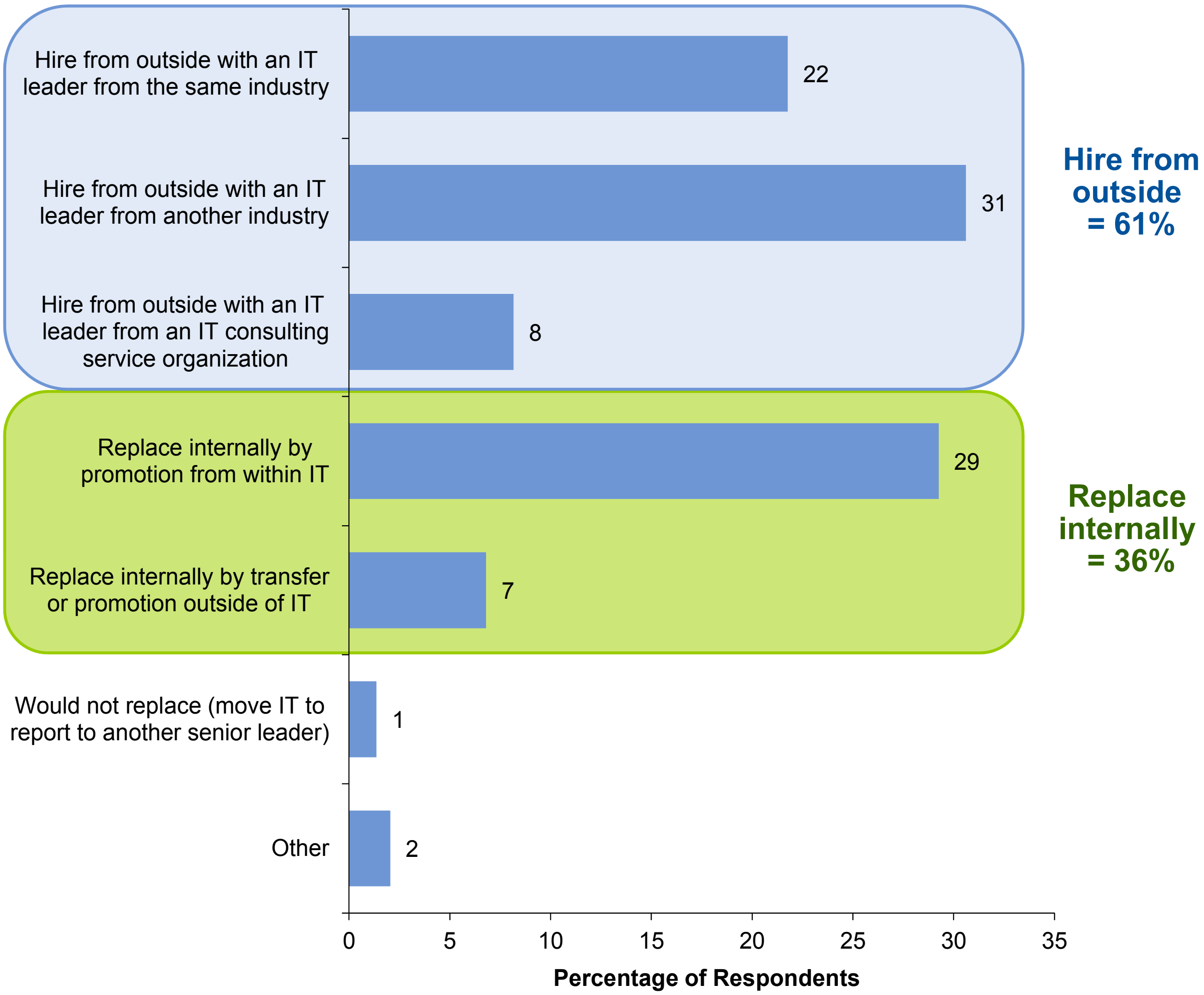
The most significant developments over the next two years are:

- No material change in the intent to have a CIO
- A significant decrease in the intent to have a head of IT, or IT director
- A significant increase in the intent to have a leader of innovation
- A significant increase in the intent to have a chief data officer
- A significant increase in the intent to have a chief digital officer

The desire by companies to hire a chief digital officer most often stems from a need to be more proactive and strategically engaged in the use of interactivity with consumers, citizens or others. The hiring of chief data officers is happening because some companies are realizing that information should be treated like an asset, and that information assets are substantially ungoverned. The intent to create more heads of innovation is yet another signal that business leaders intend to drive out of the long recession by improving the customer offer. Few innovation leaders will be able to ignore digital technologies in their work.

Overall, we can see CEOs and other senior business executives wanting to reduce leadership in technology operation and delivery management, and increase leadership in more-creative information and technology exploitation. At the same time, if the organization lost its current CIO, only 36% of CEOs would replace their CIOs with an internal hire (see Figure 15).

Figure 15. How CEOs Would Replace Their Current CIOs




n = 147 CEOs

Source: Gartner (March 2013)

In Gartner's CIO conference events, if we ask a room full of CIOs whether they have a succession plan — the vast majority will raise their hands. So, what's going on? Presumably, CEOs don't really agree with the internal selections CIOs would make to replace themselves. Perhaps CEOs don't believe enough has been done to develop next-generation talent, or perhaps they just don't understand the job well enough to make the right call. Either way, CIOs appear not to be doing a great job of developing the next IT leaders that companies need.

Moreover, Gartner's CEO surveys over the past three years showed that today's CIOs are not perceived as business-savvy enough. So perhaps, nobody in the current IT organization could be adapted and developed to fit the future need that CEOs and other business executives are starting to see. After all, for the past decade, CEOs have held IT investment fairly flat, asked CIOs for cost-efficiencies, and tasked the IT department with being an excellent provider to orders that the business creates — not being a business agenda *setter.*

## Actions

**CIOs should embrace the digital, data and innovation needs, not stand back from them.**

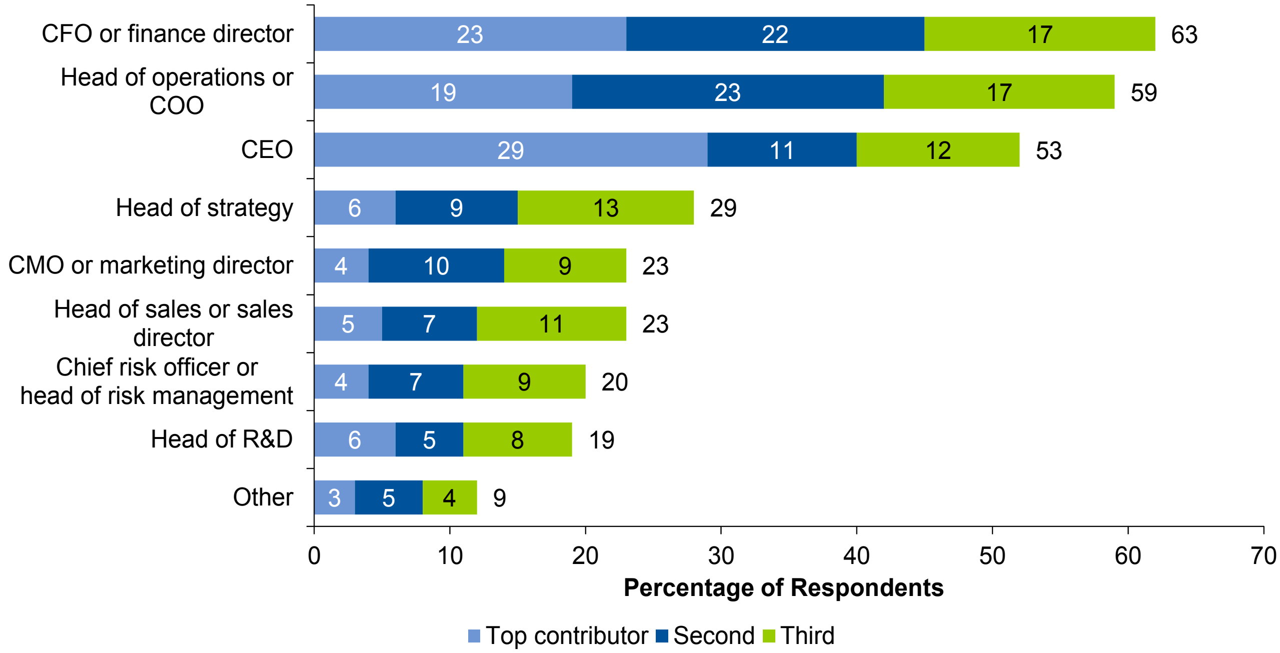
CIOs who intend to stay with their firms for longer than two years should be developing digital business, business information governance and innovation leadership capabilities in themselves and in their teams. In some cases (particularly in very large companies), CIOs should extend their job descriptions — for example, by hiring chief digital officers and chief data officers as direct reports.

CIOs who intend to retire or step back into other roles should help their organizations by incubating next-generation talent in the areas of digital media, information exploitation, and digitally enabled product and service innovation. This can be done inside, as well as outside, the IT department.

**CEOs, CFOs and COOs are the top contributors to technology-related business change.**

IT departments and the CIOs who lead them are asked to deliver, construct or commission, deliver, and then maintain highly complex business information systems. That always requires change — to process, organization and the way people work — if it is to create significant value. CIOs themselves cannot command or coerce that change, so they must collaborate with other leaders to get the whole job done. This year, we set out to discover which leaders are most involved in supporting that work. Figure 16 shows the top three contributors that respondents expect to be active in IT-related business change over the next two years.

Figure 16. Leaders Other Than CIO Contributing Most to Technology-Related Business Change




N = 391 CEOs and senior business executives

Source: Gartner (March 2013)

Respondents' top first selection was the CEO, followed by CFO and COO. If all first, second and third selections are combined — overall, CFOs come at the top of the list. This is to be expected. CEOs are regarded as the innovation and strategy leaders of their firms, and technology is an important tool for them. CFOs deal in financial information, the lifeblood of any firm. Their need for more-advanced management information and their control over how money is spent on technology put them in an important position.

What surprised us in these results was the relative weak showing of heads of marketing and sales. As we have established elsewhere in this research, growth is the top business priority. Customer themes like e-commerce and CEM are high in the technology-related investment intentions. Digital strategy is live in more than half the firms responding. So, how can the heads of sales and marketing be so relatively uninvolved?

We surmise that this points to a growing gap that needs to be closed. Sales and marketing leaders will have to become more engaged. To some extent, the trends we see toward the appointment of more innovation officers, data officers (particularly those specializing in customer data) and digital officers all point to the same gap. Right now, CEOs and CFOs are personally heavily committed in the technology-related changes ahead — but they will need to step back over the next couple of years, and they will require others to step up to help.

## Actions

**CEOs and their teams should reconsider technology-related change leadership.**

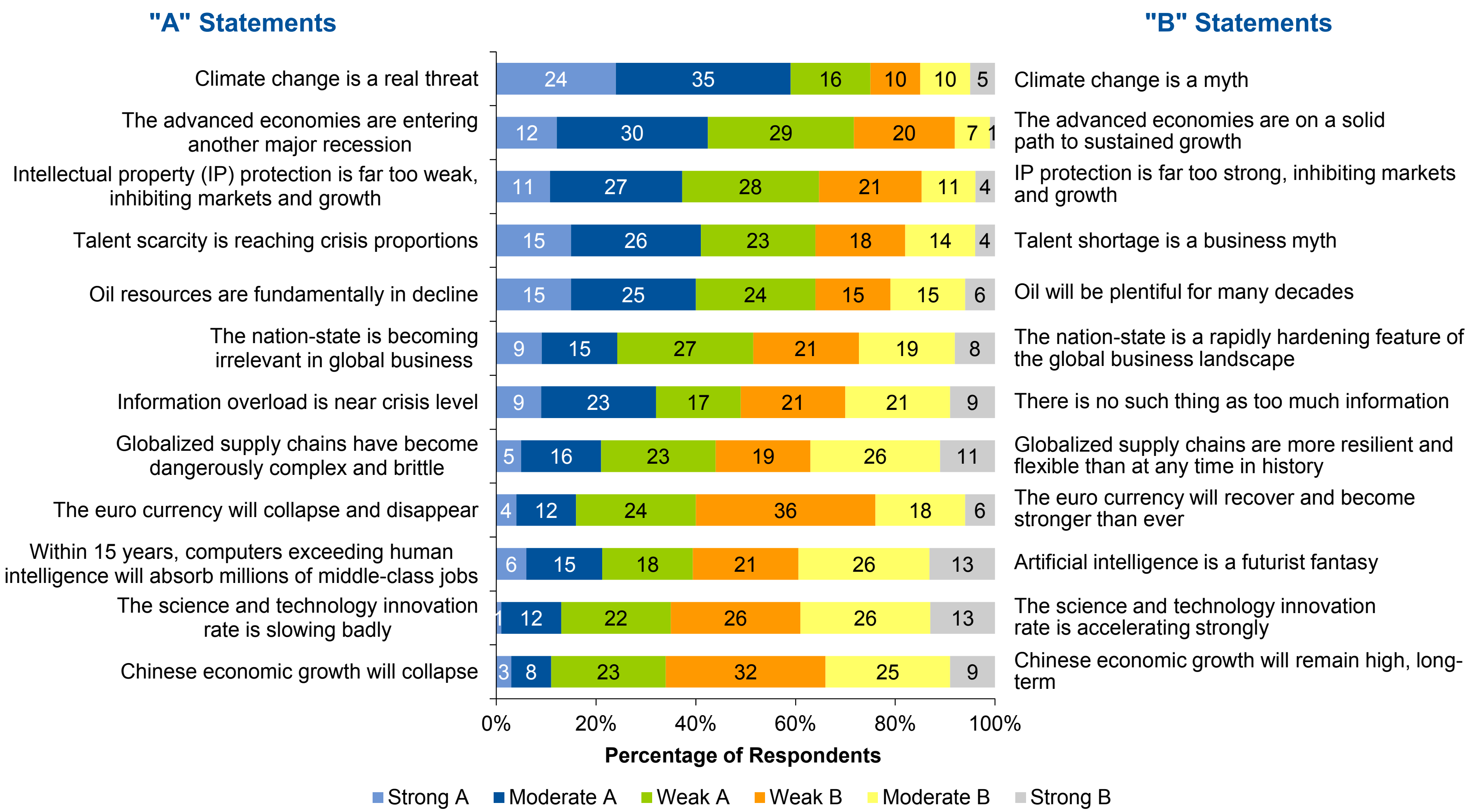
If we look backward 10 years, COOs and CFOs needed to be heavily involved, because some of the big "back-office" agendas around IT, like ERP and supply chain, primarily needed their capabilities. However, if we look forward 10 years, much of the new big changes will be around customer interaction and the front office.

If today's CMOs and sales leaders don't have the skills, aptitude or insight to lead technology-related change in their fields, they may need to be replaced over the midterm, or supplemented in the shorter term. The appointment of chief digital officers to help drive revenue and service interaction, or chief data officers to discover revenue-winning insights, may be warranted.

## Sixty-Five Percent of CEOs Believe Science and Technology Innovation Is Accelerating

This year, we tested a number of macro issues that might impact the way CEOs and other senior business executives perceive business strategy opportunities. Our technique was to force them to choose between two polar-opposite statements on a six-point scale (permitting no fence-sitting). Among the issues, many are contentious and semipolitical. While a business leader with a management-scientific stance simply wants to know which way to go — it's not always obvious, and on many of these topics, experts are conflicted. Yet, one way might lie riches, and the other, ruin (see Figure 17).

Figure 17. CEOs' Beliefs in Various Macro Issues Relevant to Business Strategy




n = 147 CEOs

Source: Gartner (March 2013)

Among these issues, you may find some surprises. We looked for three patterns: first, "majority-agreed-on" situations where business leader belief today has clear agreement (at least a 60/40 split in one direction); second, balanced situations where leader opinions are evenly split; and third, polarized situations where there are higher numbers at the extreme ends of the ranges.

Here are majority-agreed-on issues:

- Climate change is a threat. This issue was more agreed-on than we expected. Europeans are more inclined to believe it is a threat, but most U.S. leaders did, too. IT leaders cannot ignore the associated sustainability process and information demands, as it is not a fading agenda.
- Recession is upon us. Most leaders were responding in November before 4Q12 GDP data revealed what was happening. However, as we have argued in this research, many other signals suggest CEOs see light at the end of the tunnel.
- IP protection is too weak. Our survey respondents are from large enterprises perhaps with empires to protect. They are not startups trying to weave around patent law. Strategists should expect lobbying, IP law and protection technology to remain important.
- Talent scarcity is a crisis. CEOs have been consistently reporting this to us for years. Yet, we hardly ever see an IT project portfolio category dedicated to help tackling it.
- Oil resources are fundamentally in decline. This was the belief of U.S. respondents as well as Europeans. The fracking and horizontal drilling story has not yet reversed "peak oil" thinking. Strategists should watch this one carefully. Energy cost assumptions are at the root of many complex business strategy decisions and secondary demand factors for IT (for example, in travel substitution or logistics optimization).
- Global supply chains are resilient and flexible. Episodes like Japan's 2011 tsunami and Iceland's 2010 volcanic eruption have not changed the majority opinion.
- The euro will survive. U.S. respondents were more skeptical, and Europeans more committed to it — but both agreed. Disaster recovery planning for eurozone collapse can be more relaxed.
- Mass artificial intelligence (AI) job loss is a futurist fantasy. This disruptive idea, from highly regarded sources like MIT, has not been circulating in C-suite coffee break discussions for very long. CIOs should make it more visible to their business leaders and get it discussed in 2013.
- Technology is still accelerating. Tyler Cowen and other thinkers have not yet convinced business leaders that the innovation pipeline is fundamentally slowing. IT leaders should not curtail their passion for explaining what might be possible next.
- Chinese economic growth will remain strong, long-term. Those who see political and market structure instability risks are in the minority. So business strategies that depend on expansion in China are likely to continue at full throttle, and so must the IT support.

Here are balanced views:

- On the nation-state, business leaders do not agree whether it is in decline (globalization reducing its relevance) or resurgence (Great Recession leading to secessionism and localism).

- About information, business leaders were collectively undecided whether they are drowning in it, or can't get enough of a good thing.

There were no strongly polarized patterns. Climate change threat had the largest "strong agreement" score at 24% — but the opposite pole was small.

### Actions

**IT leaders should debate these subjects in the office, not treat them as "off-limits."**

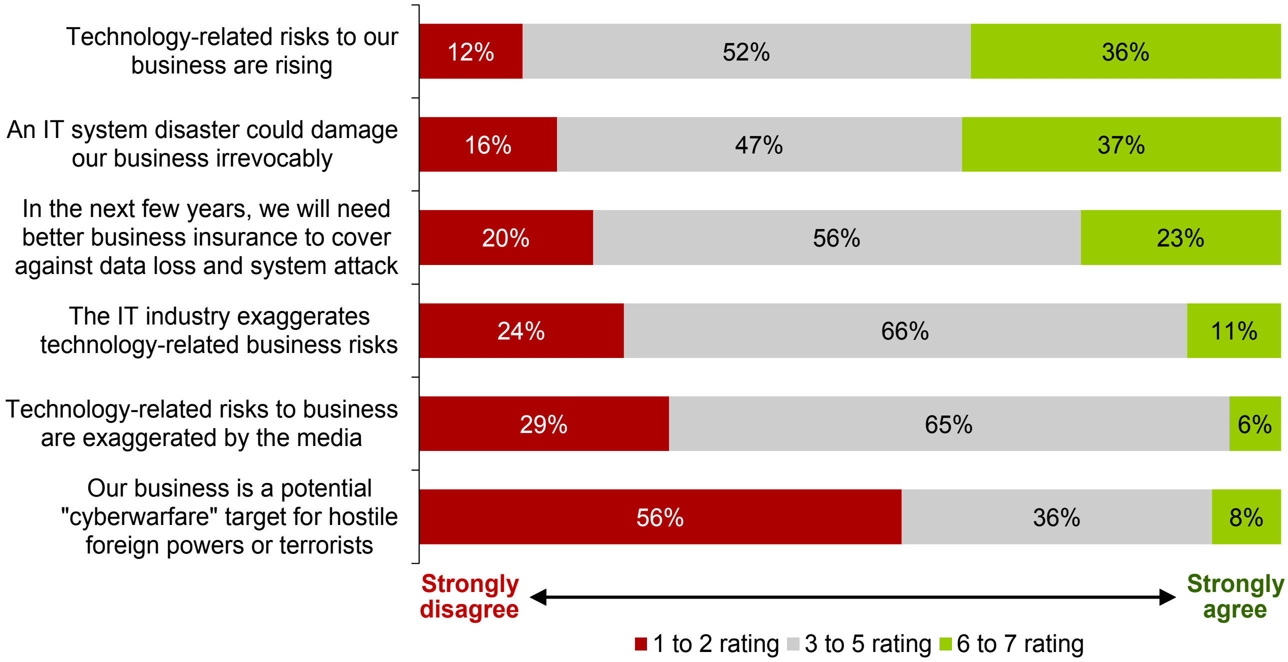
Information and technology planners, enterprise architects, and business strategists need to maintain an open mind on some of these factors to help in scenario planning. As the importance of technology continues to grow, the issues it can address and the opportunities it can help exploit become bigger and, sometimes, quite controversial. The white-lab-coated technologist who professes to have no view on these tough issues cannot expect a seat at important decision-making tables where collective responsibility matters.

## CEOs Take IT-Related Business Risks Seriously, but Only a Few See Cyberwar as a Direct Threat

Over the past 15 years, business leaders have seen a number of major IT security and risk episodes to color their experiences. After Y2K, there was a period of significant and regularly disruptive desktop virus outbreaks that had to be controlled. In the past few years, major data thefts have exposed brands like Sony and T.J.Maxx to negative press and board-level questioning. So this year, we asked CEOs where they think things now stand overall.

We set out to discover how much they recognize IT-related risks and threats at a high level, whether they perceive those matters to be exaggerated and how they react to the cyberwarfare issue. The results of our simple questions are in Figure 18.

Figure 18. CEOs' Perception of IT-Related Business Threats and Their Portrayal




n =147 CEOs

Source: Gartner (March 2013)

Though in a minority, one-third of business leaders strongly agree that technology risks to their business are rising. Those who agree outnumber those who disagree by 3-to-1. The split is similar on the question of whether an IT system disaster could irrevocably damage their business, or interpreted another way, over 60% don't really agree that irrevocable damage is possible.

No IT professional could fail to have noticed the "big data" trend in play in the IT industry today. The idea that excites people is that data is a big and growing asset that businesses can exploit for new value. If data is an asset — shouldn't it be insured against loss, like other property? When we asked the business leaders about insuring against data loss and system attack, a quarter of them agreed they would need to do more over the next few years, but most don't see that need.

The IT industry was probably the first to formalize "fear, uncertainty and doubt" (FUD) as a marketing strategy in acronym form. We wondered how CEOs and other senior business executives perceive the level of FUD marketing and press attention that goes on. In fact, very few agree strongly that IT-related risks are being exaggerated by the IT industry or the media. A quarter strongly disagree with that idea.

Cyberwarfare stories of Chinese military espionage and Iranian uranium-processing sabotage are very visible in the mainstream business press that we know business leaders use to keep up with

IT-related matters. However, only 8% of respondents strongly agreed that their own company could be a target. More than half disagreed or strongly disagreed.

## Actions

**CIOs should exploit their security credibility.**

We can boil the main findings down to this: Business leaders do appreciate conventional IT risks and don't think you, technology providers or the press exaggerate these risks. So if you think more needs to be done, they will be willing to listen.

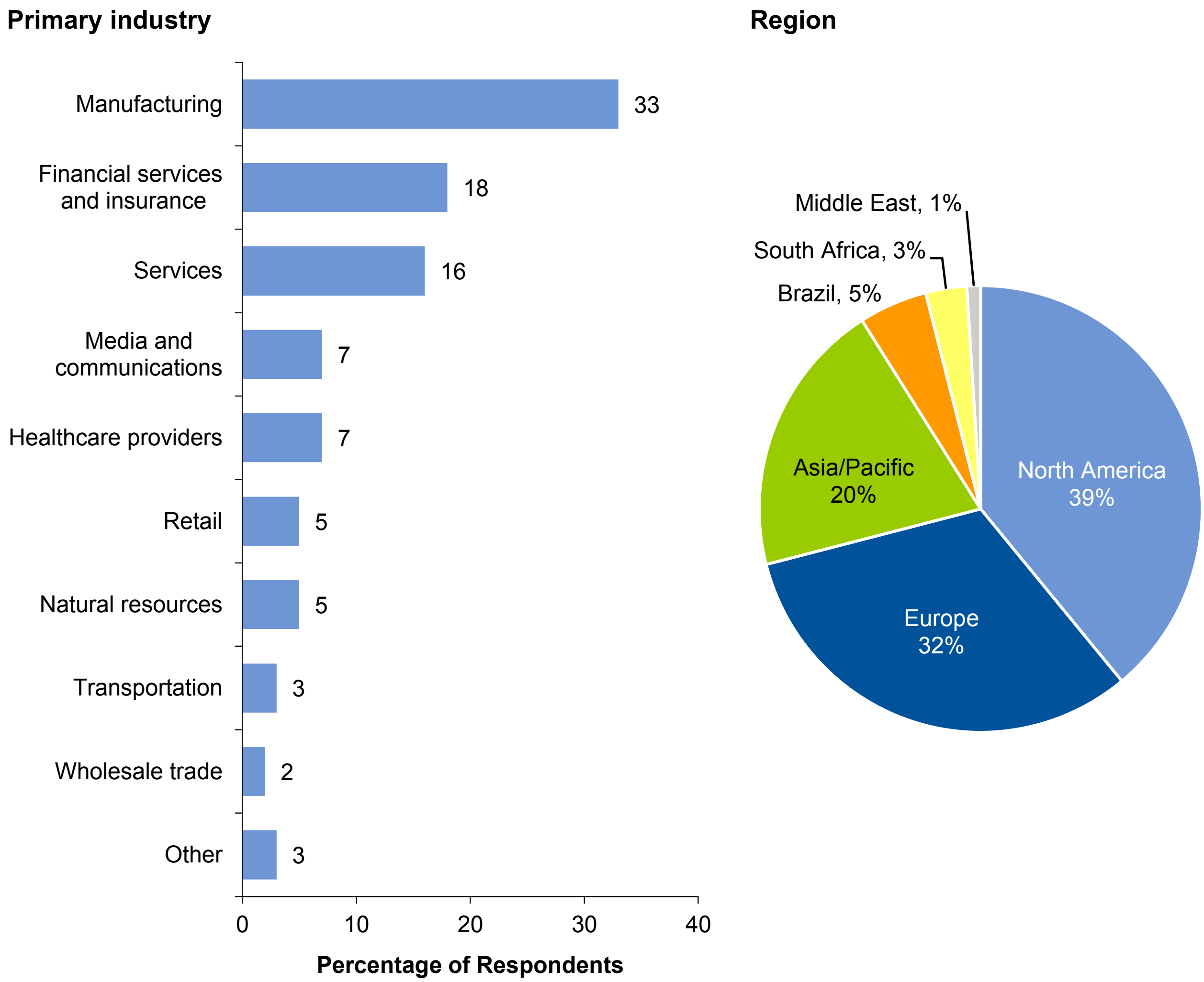
**CEOs and CIOs should wake up their boards to the reality of cyberwar scenarios.**

We in the advanced economies lead complex, sophisticated lives that are utterly dependent on just-in-time logistics and real-time systems. Doctors use the Web to do their jobs every day; a few hundred fuel tankers from a handful of depots make sure whole capital cities keep moving; and large proportions of our consumer societies are only one paycheck away from homelessness. It wouldn't take long to create social breakdown in our highly urbanized societies or hold governments at ransom. Powerful attacks on our way of life could be aimed at many of the nonmilitary processes that commercial firms operate every day, via the IT systems they depend on.

# Appendix

Figure 19 depicts the primary industries and regions of survey respondents' companies.

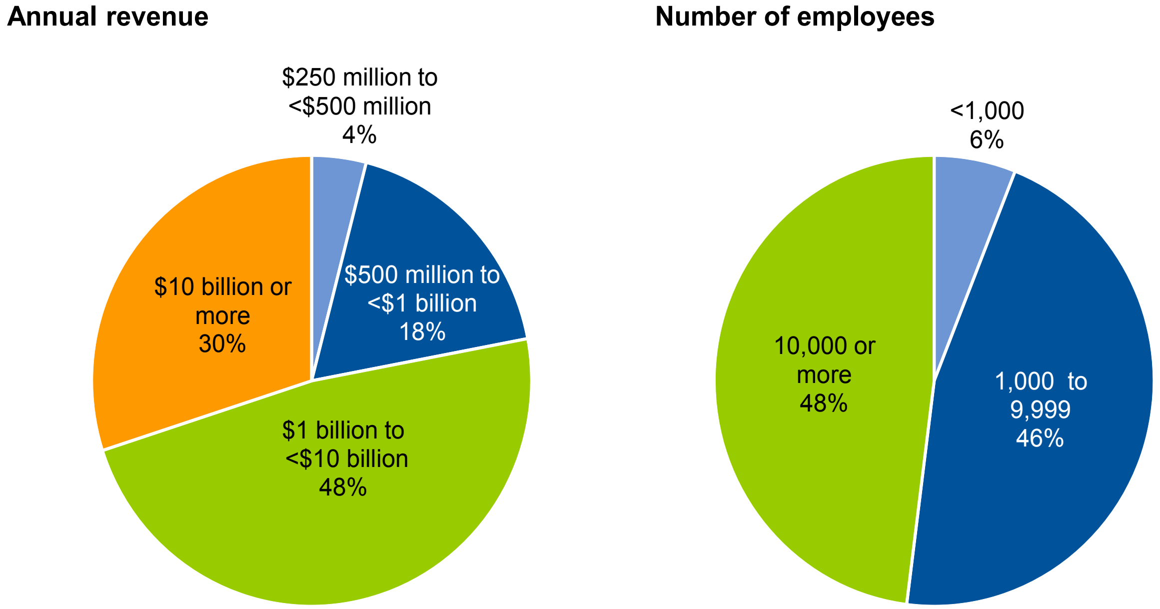
Figure 19. Primary Industries and Regions of Respondent Companies




Source: Gartner (March 2013)

Figure 20 depicts the annual revenues and numbers of employees of respondents' companies.

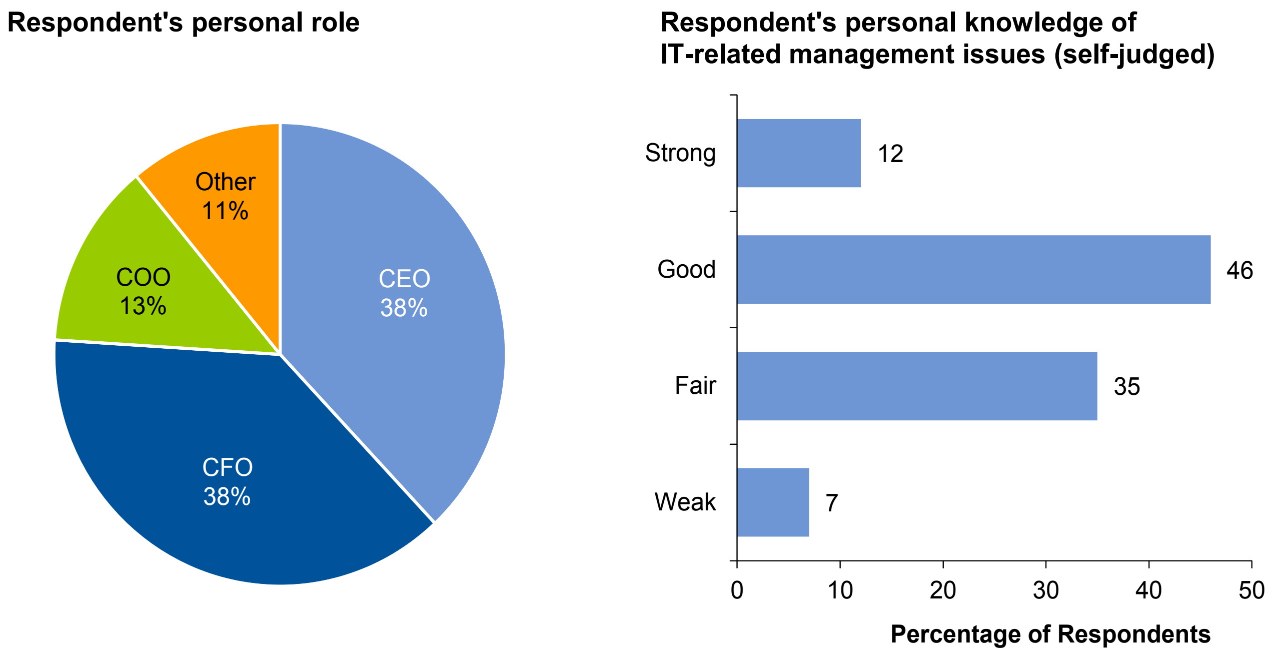
Figure 20. Annual Revenues and Numbers of Employees of Respondent Companies




Source: Gartner (March 2013)

Figure 21 depicts the personal roles and knowledge of IT-related management issues of respondents.

Figure 21. Respondents' Personal Roles and Knowledge of IT-Related Management Issues




Source: Gartner (March 2013)

## Recommended Reading

*Some documents may not be available as part of your current Gartner subscription.*

"CEO Advisory: Chief Executive Information and Technology Resolutions, 2013"

"CIO New Year's Resolutions, 2013"

"CEO Advisory: Chief Data Officers Are Foresight, Not Fad"

"Does Your Business Need a Chief Digital Officer?"

"CEO Survey 2012: The Year of Living Hesitantly"

"Alpha Organizations: Learning From Leaders"

"Unleashing the Entrepreneurial CIO"

### Survey Methodology

Gartner conducted research October 2012 to December 2012 to examine CEO and senior business executive views on current business issues as well as some areas of technology agenda impact. The bulk of the research was achieved through a Web-based survey among LinkedIn members, with 333 business leaders qualified and surveyed. An additional 58 surveys were collected through efforts administered via individual URLs, telephone interviews and paper surveys delivered in Japan. All respondents were screened for active employment in organizations with more than $250 million in annual revenue.

The sample mix is as follows:

- CEOs = 147
- CFOs = 149
- COOs = 49
- Chairman, president, board of directors or other C-level = 46

Here is the mix by region:

- North America = 152
- Europe = 124
- Asia/Pacific = 78 (20 from Japan)
- Brazil = 20
- South Africa = 12
- Middle East = 5

The survey was developed collaboratively by a team of Gartner analysts who follow the IT market and was reviewed, tested and administered by Gartner's Research Data Analytics (RDA) team — with Heather Keltz as project manager. The results of this study are representative of the respondent base and not necessarily the market as a whole.

### Note 1 How We Asked About Planning Uncertainty

The timing and wording of survey questions matter. We conducted our survey October through December 2012, so many responses were gathered before the U.S. presidential election, Chinese leadership transition and U.S. fiscal-cliff deadline. To take account of that, we worded questions specifically and clearly:

> "How do you expect conditions in the business environment to affect your organization's business planning during 2013 and 2014? When answering, please exclude any issues that will be resolved by January 2013."

### Note 2 Verbatim Response Categorization for Business Priorities

We deliberately captured the words of CEOs and other business leaders in the way they expressed them. We did not use a preformed list of options that would condition the responses through the lens of an IT-related analytic mindset. This is partly because we believe IT practitioners should adjust their language to that of business leaders. "Growth" — without elaboration — was a very common first response. Explicit mentions of focal point to achieve growth, such as being more customer-centric, often came later (and are seen further down the list). IT factors are sometimes mentioned explicitly as a top five priority (though they are, of course, implicit in others). This year, IT appeared No. 11 as an explicit item.

### Note 3 Descriptions of Possible Future Technology-Enabled Capability Investments

- **Additive manufacturing —** The use of 3D printing machines (or service providers) to fabricate objects directly from CAD models
- **Business analytics —** Applying analytical IT to optimize business performance across multiple organization levels
- **Business process outsourcing —** Wholly or partly outsourcing particular business processes — as combinations of staff functions and related computer systems
- **Cloud business —** Business operating model advancement and industry restructuring by exploiting the cloud as a business platform
- **Customer experience management —** Designing and reacting to customer interactions to meet or exceed customer expectations to increase satisfaction, loyalty and advocacy
- **Data science management —** Insight, discovery and modeling using advanced analysis of very large combined sets of data from disparate sources (sometimes called "big data")
- **(Dynamic) business process management —** Continuous business process improvement via agile directly linked electronic design, modeling and operational execution systems for process and/or workflow
- **E-commerce —** Web-based electronic commerce and electronic customer service (e-commerce and e-service)
- **E-discovery —** Using electronic information storage, search and retrieval systems to enable faster and more complete legal discovery for prosecuting or defending commercial claims
- **Electronic service enablement —** Adding revenue-enhancing electronic services to your products by Internet or wireless connectivity
- **Enhanced business reporting —** Better financial accounting for intangibles, representation of intellectual property asset value and "triple bottom line"
- **Enterprise mobility —** Workforce mobility, and remote or home teleworking
- **Location intelligence —** GPS and electronic mapping to optimize asset utilization or provide value-adding services
- **M-commerce —** Mobile phone/smartphone and media tablet "app"-based electronic commerce and service
- **Mass customization —** Making to order for customers' unique requirements or variations — while retaining economies of scale or mass production

- **Neurobusiness —** Applying neuroscience techniques and insights to improve outcomes in customer and other business decision situations
- **Pay as you go —** More finely metered usage-based revenue models per hour, minute or second
- **Product cost analytics —** More accurate and detailed data collection and analysis of your product or service costs (for example, via activity-based costing)
- **Robot staffing —** The use of free-moving robots as labor for specialist tasks, such as cleaning, carrying, gathering or patrolling
- **Sensor networks/Internet of Things —** "Smart" networks using a large number of sensors to optimize use of a large number of widely dispersed assets — for example, cars, machines, electricity supply meters and pumps — often, in real time
- **Social organization —** Use of social-media-based mass participatory or contributory working methods with staff and/or customers
- **Supply chain optimization and traceability —** Provenance, traceability and supply chain visibility via electronic methods and tools, such as RFID tags
- **Sustainability —** Sustainable ("green") business information and process optimization

This is part of a set of related research. See the following for an overview:

- CEO and Senior Executive Survey 2013: Research Overview

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