The New IT Organization and the Changing Role of the CIO

Results of the 2011 Role of the CIO Beyond the Crossroads Survey

Introduction

How will the CIO role evolve in the digital business world? New business realities and the need for proven, quantifiable business value are changing nearly everything for IT organizations and their leaders. But this is not just evolutionary change, it's revolutionary.

IT is in a state of transformation as businesses seek to redefine CIOs' and other IT professionals' responsibilities and roles, according to a new research study of 641 IT executives conducted by SearchCIO.com and the MIT Sloan CIO Symposium.

"The survey illuminates some key trends we have been following on SearchCIO.com this year regarding innovation and business strategy, which reflect the changing business needs for technology. IT is evolving from a 'departmental' function to a service provider within the business, and CIOs and other IT professionals are changing their functions along with that. You are going to see more 'brokers,' 'specialists' and 'enablers.'"

Scot Petersen
Editorial Director
SearchCIO.com & TechTarget's CIO/IT Strategy Media Group

"Organizations must adapt quickly to the rapid changes in today's digital business world to maintain a competitive advantage. CIO leadership can make the difference between challenges and opportunities. That brings us to the 2011 MIT Sloan CIO Symposium theme: 'Beyond the Crossroads – How will the CIO Role Evolve in the Digital Business World?' It helps CIOs catch the next wave and prepare for its future impact."

Graham G. Rong, PhD, MBA
Chair of the MIT Sloan CIO Symposium
Director of MIT Sloan Alumni Club of Boston

Among the Key Findings of the Survey:

- **IT leaders are spending more time on innovation and business strategy.**
  Innovation has always been a tacit function of IT professionals, but businesses are asking for more.
  As a result, IT roles are changing dramatically from overseers of day-to-day IT operations to business
  partners.

- **IT pros are increasing focus on transformative technology.** Both senior IT executives
  and IT managers are paying more attention to technologies that help improve their organizations'
  agility, cost-efficiency and ability to achieve well-defined business goals. These include cloud computing,
  business intelligence, virtualization and mobile computing.

- **IT organizations' top business initiatives center on risk mitigation and cost
  management.** Across all tiers of IT management, the focus is on reducing organizational risk and
  operating costs by using automation to reduce infrastructure-related capital expenses. Another key
  goal for IT organizations: Do more to promote alignment between business goals and IT programs and
  priorities.

- **Further development of both technical and "soft" skills is a key requirement for
  IT organizations.** Security is the top area where IT leaders need to advance their skills. Also high
  on the list is developing people skills – an area that must be honed in order to properly ensure the
  delivery of critical IT services to business stakeholders.

- **The survey trends apply to IT organizations of differently sized companies.**
  Results from respondents in organizations with fewer than 1,000 employees mirrored those from
  organizations with more than 1,000 employees for such issues as 1) roles in which workers are
  devoting more time to innovation than in the past, 2) areas of technology focus and 3) new skills that
  require development.
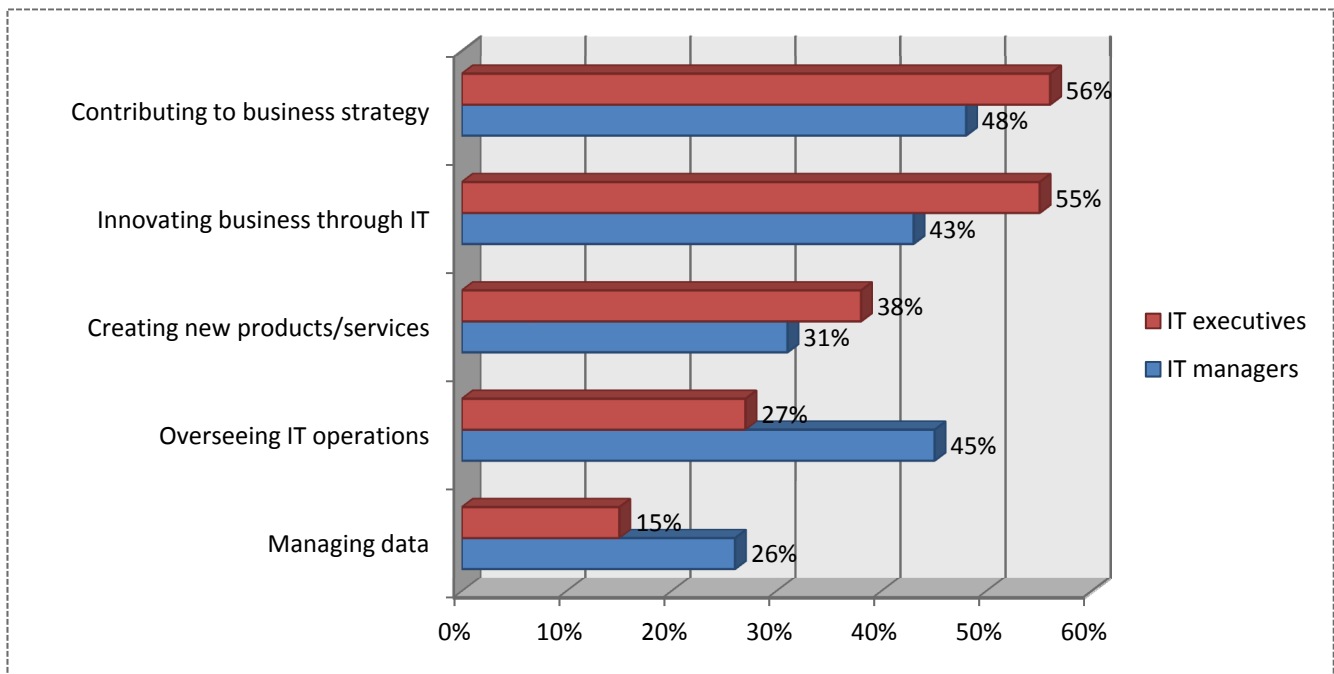
Areas of Focus and Roles

Most of the CIOs and senior IT executives surveyed, denoted as IT executives in the charts below, indicated that they are spending more time than last year contributing to business strategy and innovating business through IT. Conversely, few said they are spending more time managing data (15%) or overseeing IT operations (27%).

IT managers, while also contributing to strategy and innovation, are spending more hours than senior IT executives managing data and overseeing IT operations. Yet overall, respondents said they are spending less time on operations (45%) and data management (46%).

> "[The mining industry is] changing today," said Marco Antonio Orellana Silva, CIO of Codelco-Chile, and winner of the 2011 MIT Sloan CIO Symposium Award for Innovation Leadership.
>
> "The change is related to new conditions for operation of the mines. We are transitioning from ... physical labor, and today our business is more related to knowledge and technology. We have introduced new innovations, new ways to relate with the people inside the mines. And the role of the CIO is to drive the change. The CIO is the person who works with the executive committee of the company to include this change in the strategic planning of the company."

Q: *Which of the following are you doing more of since last year?*

	IT executives	IT managers
Contributing to business strategy	56%	48%
Innovating business through IT	55%	43%
Creating new products/services	38%	31%
Overseeing IT operations	27%	45%
Managing data	15%	26%

Areas of Focus and Roles

Q: **Are you being pushed to present new business ideas?**

"More and more companies are realizing they don't need to look at IT as a support capability, but as part of the business strategy."

-- Rajiv K. Arora, senior manager,

Advisory Services at Ernst & Young LLP

Overall, 52% of those surveyed said they need to demonstrate the business value of all IT. CIOs and senior IT executives are far more likely than IT managers to say that their individual goals are explicitly tied to business outcomes – 33% for senior executives compared with just 19% of managers.

From a functional standpoint, this translates into 60% of senior IT executives and IT managers who are expected to act as business strategists; 78% are tasked with technology innovation, and 70% as strategy coordinators.

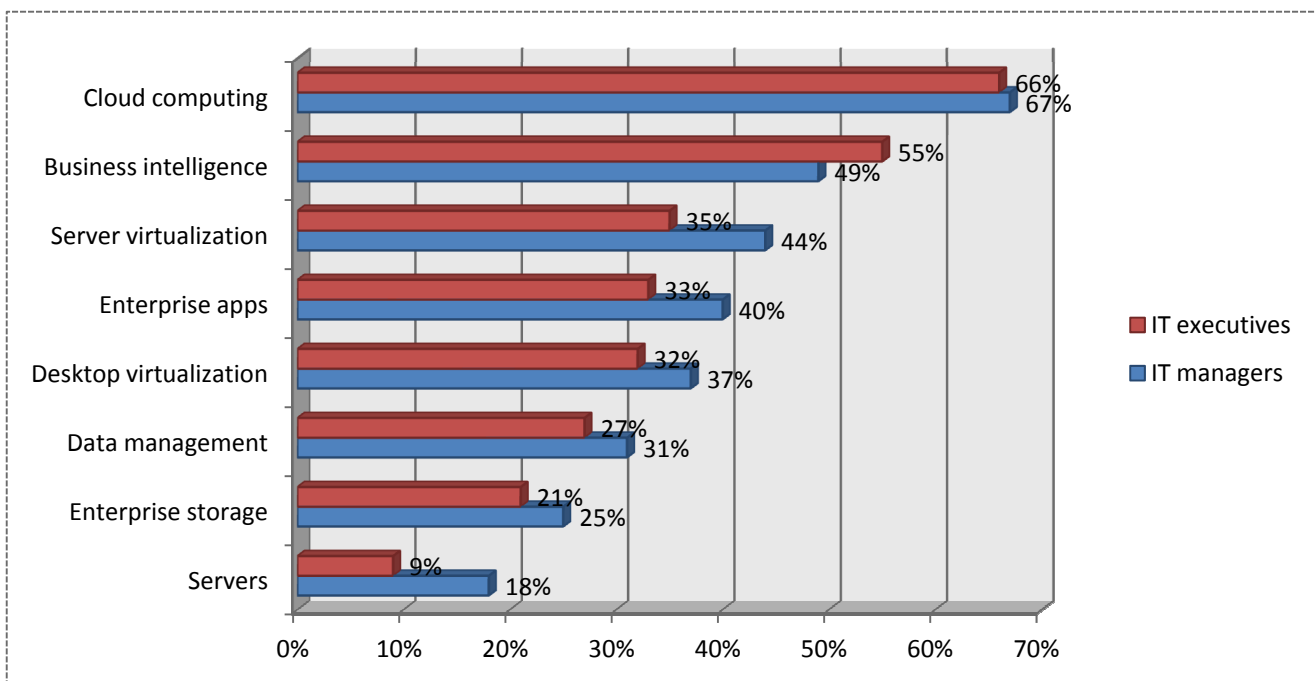|	Senior IT executives	IT managers
Need to demonstrate value of IT projects	51%	54%
Goals tied explicitly to business	33%	19%
Business team dictates IT priorities	11%	13%
Focus solely on making IT more efficient	5%	15%

Technology Initiatives

Heading the list of technologies enabling IT transformation are cloud computing and business intelligence. Approximately 66% of senior IT executives and 67% of IT managers said they need to know more about cloud computing than they do now.

When asked about technologies that had the potential to change the role of the CIO, respondents reiterated the importance of cloud as a transformative technology. Cloud topped the list, named by 63% of responding senior IT executives and IT managers, followed by mobile computing (56%).

Q: **What technology areas do you need to know more about?**

Technology Area	IT executives	IT managers
Cloud computing	66%	67%
Business intelligence	55%	49%
Server virtualization	35%	44%
Enterprise apps	33%	40%
Desktop virtualization	32%	37%
Data management	27%	31%
Enterprise storage	21%	25%
Servers	9%	18%

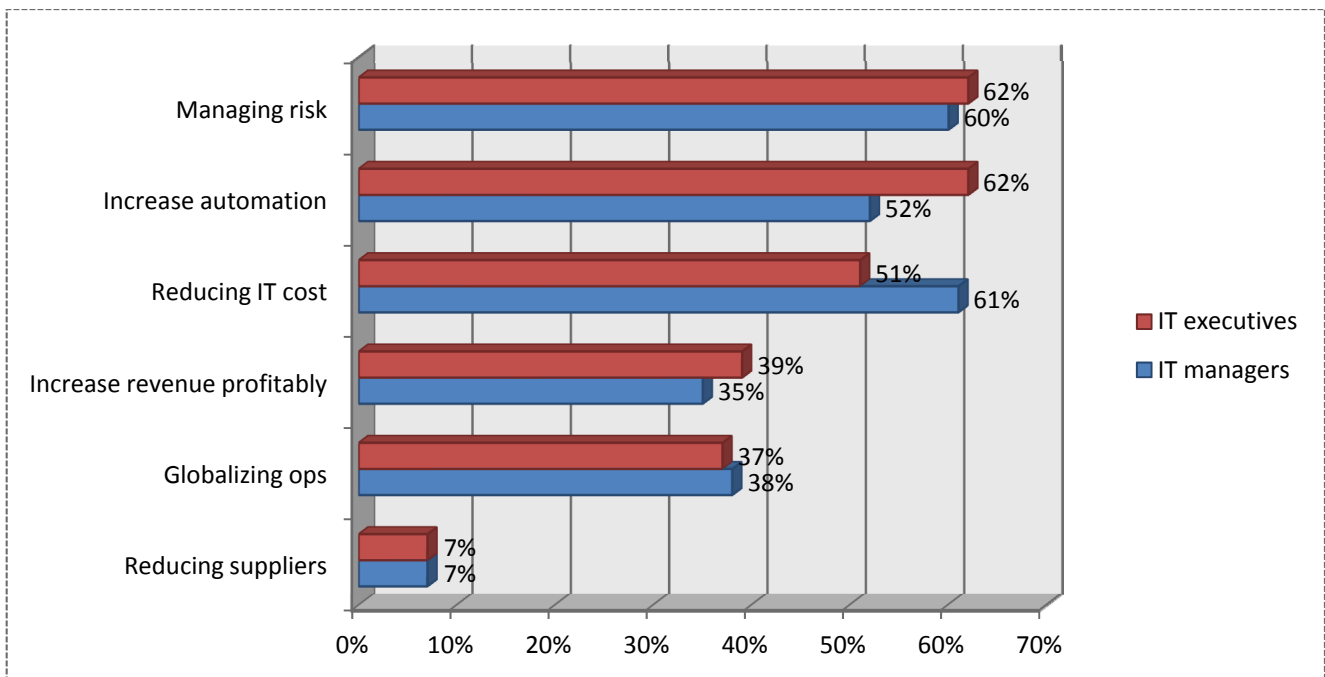"*You don't need technology,*" Malcolm Jackson, CIO of the Environmental Protection Agency, told SearchCIO.com.

"*You look at the business as a whole and understand what the gaps are. Then you look at the technology that exists and how you may be able to leverage that to move the business forward.*"

Business Initiatives

Risk management, technology automation and cost containment are the key business drivers for IT organizations. More than 60% of both CIOs and IT managers surveyed indicated that managing risk is a critical business initiative; 59% cited automation and 55% mentioned reducing costs.

While all respondents agreed with the primacy of risk management as a key business imperative, CIOs are more likely than IT managers (62%-52%) to see increased automation as a potential game-changer. While increasing automation can be viewed as a way to keep IT headcounts under control, CIOs are more inclined to see automation as a way to improve risk profiles by reducing the potential for human error and speeding up critical business processes in the decision-making cycle.

Q: ***What business imperatives are changing the role of the CIO?***

Chart — "What business imperatives are changing the role of the CIO?"

Initiative	IT executives	IT managers
Managing risk	62%	60%
Increase automation	62%	52%
Reducing IT cost	51%	61%
Increase revenue profitably	39%	35%
Globalizing ops	37%	38%
Reducing suppliers	7%	7%

Business Initiatives

Another business issue all IT leaders must contend with is the "A" word – alignment. For more than a decade, senior IT executives have been tasked with ensuring that their organizations' priorities are in lockstep with overall business goals. That quest is continuing for CIOs and other senior IT executives. Promoting a tighter alignment between IT and business groups still requires a mix of technical, business and organizational skills, both in planning and implementing IT programs.

Survey respondents indicated they have embarked upon a path to embrace numerous changes to further facilitate alignment, including:

- Adopted corporate standards for IT   60%

- Became more involved in business objectives development   55%

- Adopted an IT management framework   47%

- Became more involved in budgeting process   45%

- Created a project management office   36%

- Installed an "innovation team" (IT and business managers)   32%

- Assigned an enterprise architecture to facilitate business goals   22%

- Implemented business objectives training for IT   18%

IT within the Corporate Organization

CIOs have sought to position themselves in close proximity – physically and logically – to corner-office executives, ideally the CEO. However, despite that lofty goal of having a direct line of reporting to the CEO or perhaps the president or chief operating officer (COO), the reality is that most respondents report to some other executive function. Fewer respondents overall (23%) report to the CEO than they did three years ago (28%), while more (17%) report to the COO or president than they did three years ago (13%).

Among senior IT executives, almost one-third (31%) said they still report to their CEO, but the percentage now reporting to their COO went from 16% to 21% over three years.

Q: *With which business unit do you work most closely?*

- Operations — 55%
- Finance — 18%
- Sales — 15%
- Marketing — 9%
- Legal — 3%
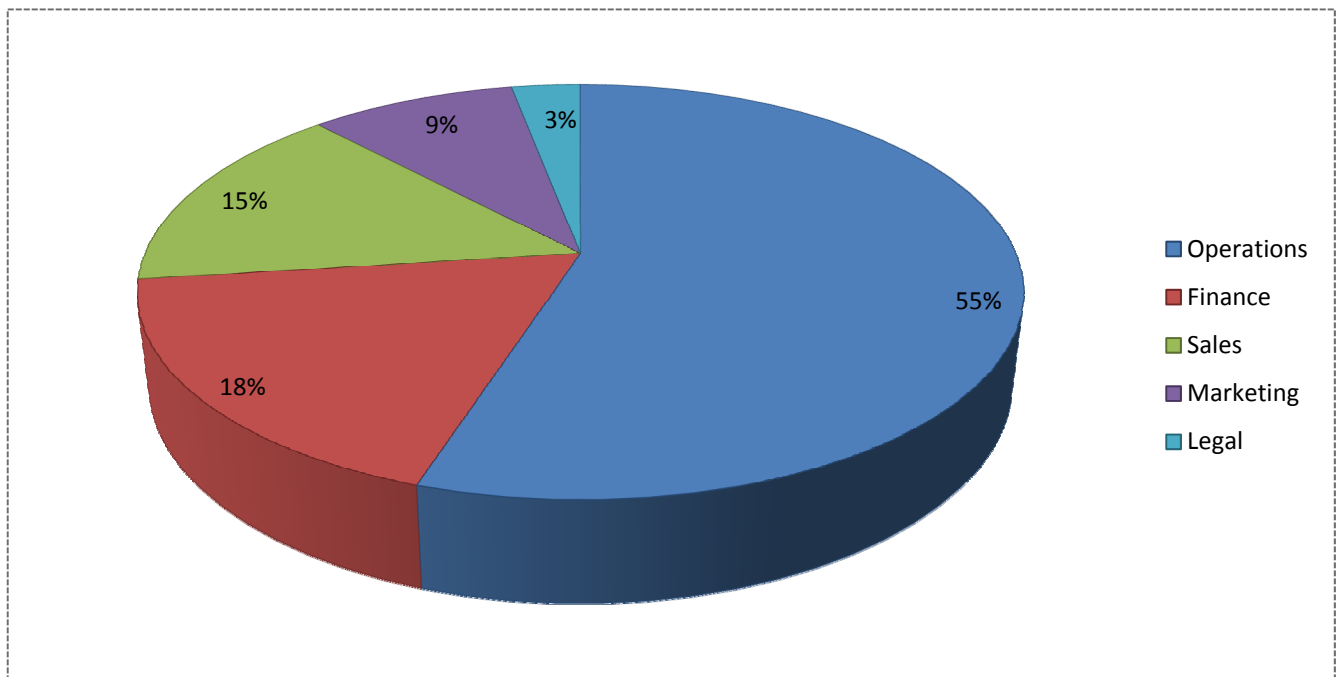
IT within the Corporate Organization – *With which business unit do you work most closely?*

There are some important differences in how CIOs and other senior IT executives responded to this question, compared with mid-level IT managers. For instance, senior IT executives are over 50% more likely than IT managers to work closest with sales and marketing departments (31% compared with 20%), while IT managers are even more likely than CIOs to work closest with operations business units.

When it comes to ownership of an organization's technology strategy, CIOs are highly likely to act in an overseer capacity, typically directing a team of strategists with different areas of expertise and ultimately guiding the overall technology direction.

When it comes to the actual delegation of technology decisions, CIOs are most apt (44%) to turn to their IT managers, followed by some collection of cross-functional committees from different disciplines (23%). But it's interesting to point out that not all CIOs are willing to delegate technology decisions to others in their IT organization. A full 29% of CIOs and senior IT executives said they do not delegate technology decisions.

5%

17%

78%

- Oversee team of strategists
- Delegate to CTO
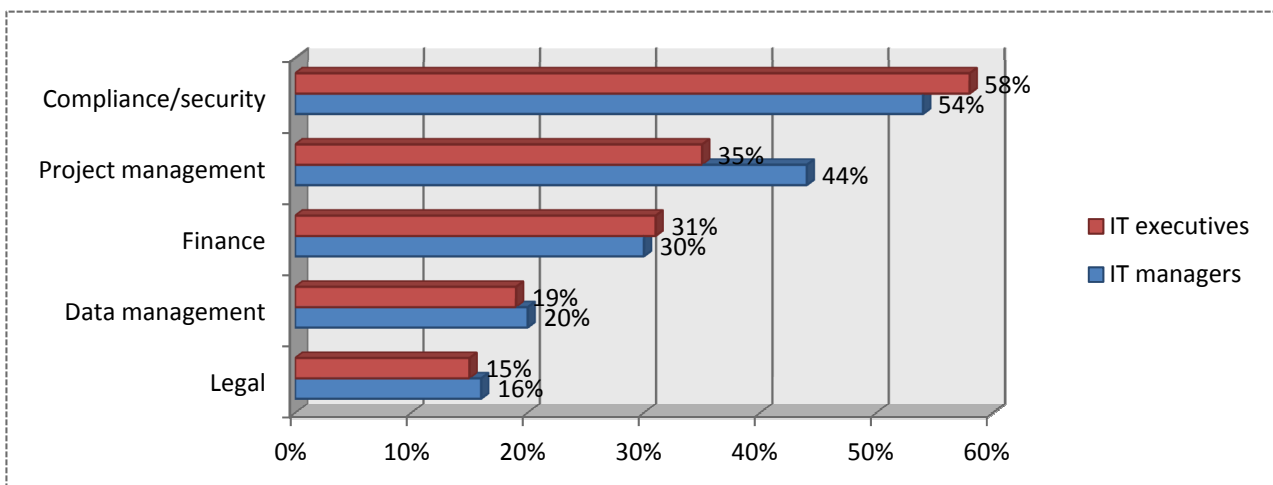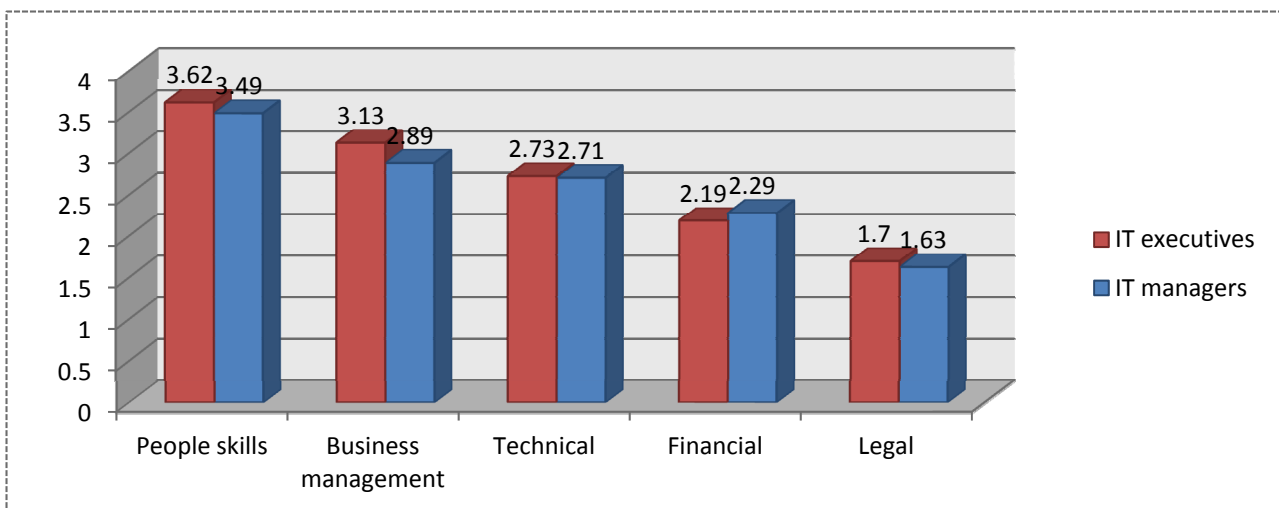- Not involved in tech strategy
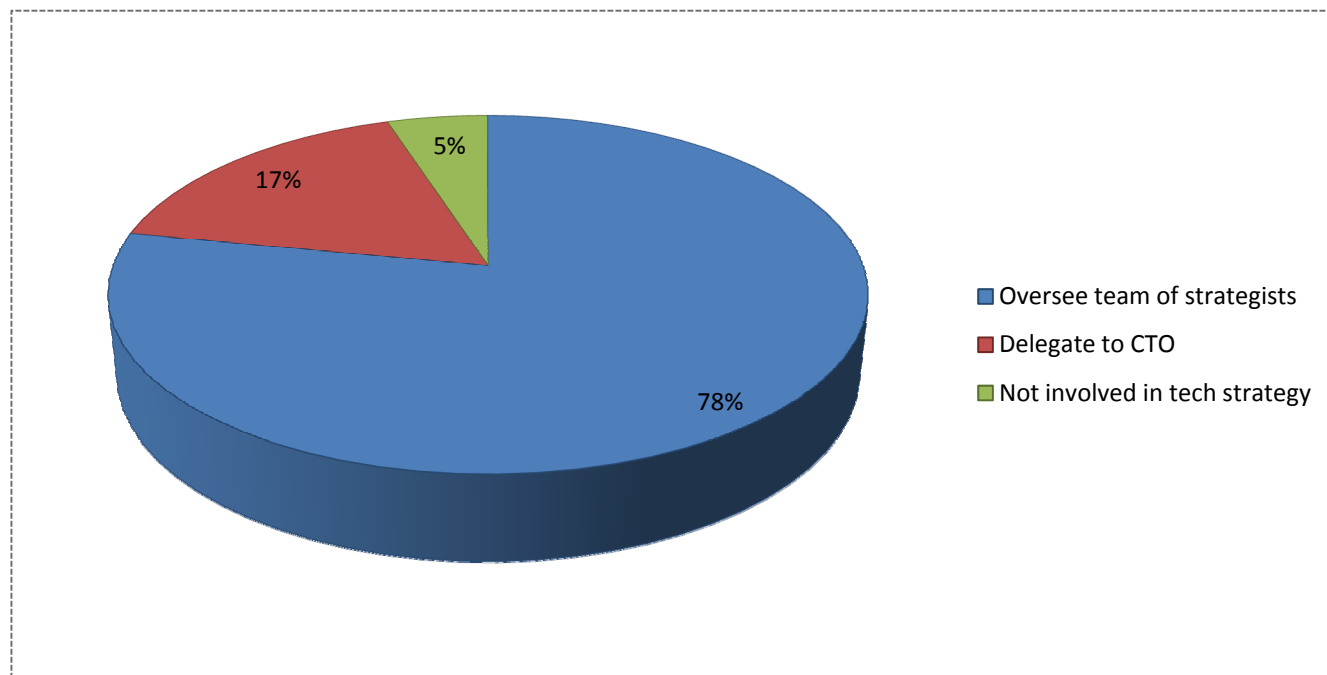
Skill Sets

Both senior IT executives and mid-level IT managers cited compliance and security as the top areas to develop in order to better fulfill their roles in the new IT organization.

However, CIOs and IT managers rank strong people skills over technology skills. That is understandable, considering that CIOs and IT managers are overseeing internal staff, but it's also important in light of the move toward increased use of outsourcing companies, cloud computing partners and other external service providers. These vendor-management responsibilities require expertise that goes far beyond ensuring that service-level agreement (SLA) terms are met and enforcing those terms when problems arise.

Q: *What new skills are you being asked to develop to better fulfill your role?*

Chart data — What new skills are you being asked to develop:

Skill	IT executives	IT managers
Compliance/security	58%	54%
Project management	35%	44%
Finance	31%	30%
Data management	19%	20%
Legal	15%	16%

Q: *How important are each of these skills?* *(5-1 scale, 5= extremely important, 1= not important at all)*

Chart data — How important are each of these skills:

Skill	IT executives	IT managers
People skills	3.62	3.49
Business management	3.13	2.89
Technical	2.73	2.71
Financial	2.19	2.29
Legal	1.7	1.63

Skill Sets

Despite the fact that respondents do not consider having legal skills as important as other skills in their job, a high percentage of IT professionals feel it's a plus for the CIO to have a legal background. Nearly one-half (44%) of respondents said it's either very important or important for the CIO to have a legal background. IT managers were more likely than senior IT executives (53% to 39%) to feel a legal background was an asset to their organization's CIO.

Ernst & Young's Arora said he was not surprised that a large percentage of surveyed CIOs indicated that some modicum of legal skill was increasingly necessary to do their jobs. CIOs don't necessarily need law degrees or training, but must make sure that legal departments are "fully plugged into" IT strategy and deployments, he said, especially those involving data management and privacy.

Conclusion

Heightened demand for IT to advance business goals, combined with overall pressures on IT expenses and headcount, are stretching the imagination and capabilities of CIOs and their mid-level managers.

For CIOs and other high-ranking IT executives, their new priorities represent a double-edged sword. On one hand, they are generally getting what many of them have been asking for since they took on the top IT job – a seat at the business decision-making

About the Survey

A key element of the Role of the CIO survey's findings is the diverse makeup of the 641 respondents. Since the data reflects a broad cross-section of IT professionals along the key demographics of geography, job function, company size and vertical market, it can be said with high confidence that the results closely mirror the attitudes and opinions of the larger universe of IT decision-makers.

IT Functional Seniority and Scope of Authority

- 68% of the respondents hold senior IT titles (CIO, CTO, VP of IT), while 32% are in IT management roles.

- 72% of all respondents have IT budgets greater than $1 million; and among senior IT executives alone, more than 79% have budgets that exceed $1 million.

- 80% of the respondents have decision-making authority, while almost all of the remainder have decision-making influence.

- Just over one-half of the respondents – 52% – work in organizations with more than 1,000 employees.

table, with less focus on "keeping the lights on." But on the other hand, downsizing IT staffs and the gradual disappearance of technical specialists in most companies has meant that CIOs often have no choice but to keep one foot firmly rooted in the technology side of the house. Managing these twin responsibilities is no picnic and requires a unique blend of business, technical and "soft" skills like managing internal staffs, external vendors and project priorities and deliverables.

IT managers also are finding their jobs to be far more challenging than before because they, too, are being asked to develop expertise outside of their traditional area of technical strength. Even if they aren't necessarily moving to develop their non-technical skills for their own career paths, IT managers increasingly are being asked to think and act like the business stakeholders they support. This is particularly true as companies adopt IT strategies embracing "out-frastructure" through cloud computing, virtualization and Web services.

Geography

44% of the total respondents work in United States, while 56% work in other countries. Following the U.S. as the most-cited geographic bases of the respondents are India, Australia, Canada, United Kingdom and South Africa.

Vertical Markets

The most-cited industries represented by the respondents were:

- Manufacturing, distribution and services (non-IT): 18%

- Financial services: 16%

- IT-related manufacturing, distribution services: 16%

- Government (federal, state, local): 11%

- Energy, utilities, telecommunications: 7%

- Education: 7%

Smart CIOs and senior IT executives have begun to embrace the challenge to ensure strategic alignment between IT and business goals. Through a combination of training, continuing education, mentoring programs and simply inserting themselves into more and more business discussions among their non-technical executive peers, those decision-makers are taking a step forward. But this and other research data indicates that the most successful CIOs – and in fact, successful IT organizations in general – will need to push the boundaries of their capabilities into new territory if they are going to meet their companies' expectations of IT's value to the bottom line.

Comments or suggestions about what you've read?

Send us your thoughts; we'd love to hear your feedback: spetersen@techtarget.com

About the Author: Mike Perkowski is co-managing partner of New Reality Media, an editorial services company covering the IT industry. He has held editorial leadership roles and written about IT industry trends for such publications as PC Magazine, CIO Insight, InformationWeek and InteractiveWeek.

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