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Top-performing CIOs In the Digital Era

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Given that virtually every company is reworking its business model for a digital era, we thought it is time to understand what CIOs believe is important to succeed in a digital economy and what separates CIOs of top-performing firms from their bottom-performing competitors.

In late 2015, MIT CISR surveyed over four hundred CIOs globally to understand the opportunities and challenges they face in a digital economy.[1] Although we found much agreement among the CIOs on the opportunities and challenges, we also found strong divergence in the focus and key practices of CIOs in top-performing versus bottom-performing firms. CIOs from virtually all the firms recognize the threat from digital disruption. The CIOs of top-performing firms—firms with net margins in the top quartile relative to their industry average—operate differently in four areas. Top performers:

> While CIOs of bottom-performing firms estimated only 19% of company revenues were threatened by digital disruption, top performers said 49% were at risk—and recognizing the threat is key to survival.

1. Spend more time with external customers
2. Obsessively focus on innovation
3. Are deeply engaged with their executive committees
4. Open up their systems for internal and external use

Recognize the Threat; Take the Lead on Digital

In response to the question "What percentage of your company's revenues are under threat from digital disruption in the next five years?" the CIOs of the top-performing firms estimated that 49% of company revenues were threatened, while CIOs of bottom-performing firms—firms with margins in the bottom quartile in their industry—said only 19%. As Andy Grove, formerly the CEO of Intel, was fond of saying, "Only the paranoid survive" (and he wrote a book with that title). Recognizing the threat is key to survival, as top-performing firms are often the biggest targets for startups and other digital disrupters.

Interestingly, there was little difference among top and bottom performers in who is primarily responsible for managing digitally enabled threats to the business model. The CIOs were asked to choose from a list of senior roles and committees in the firm, including the board and executive committee. 48% of the CIOs felt that it is their responsibility to take leadership on digital. This finding generated a great deal of discussion in our workshops, and reflects conflicting schools of thought. One is that CIOs should definitely take the lead in bringing these issues to the executive team and driving the conversation toward action: "If the CIO doesn't do this, who else will?" This was supported by 48% of the CIOs in our survey. The other is, "… Hold on a minute … this is a business issue and it should be driven by the leaders of the business units, particularly the CEO"—aligning with the other 52% of CIOs in our survey. These two schools of thought nicely summarize the fork in the road for digital in 2016: that either the CIO or the business takes the lead.

We are advocates for the CIO taking the lead; otherwise, firms might do something else like appoint a Chief Digital Officer (or similar) to do the job.[2] This is a critical time for the CIO to show leadership around digital and the 48% of CIOs who see digital as their leadership responsibility is about what we would expect in terms of CIOs who are willing and able to take that leadership position.

[1] 2015 MIT CISR CIO Digitization Survey, N=412. Top (Bottom) Performers are top (bottom) 25% on Net Margin, self-reported and adjusted for industry by subtracting the industry average.

[2] For a discussion on why we think appointing a CDO is a cop-out, see P. Weill, J.W. Ross, and S.L. Woerner, "Thriving with Digital Disruption: Five Propositions," MIT Sloan CISR Research Briefing, Vol. XV, No. 7, July 2015.

Here is what we found differentiates CIOs from top-performing firms.

Spending More Time with External Customers

In 2008, we began asking CIOs to estimate how they spend their time. There has been a significant shift in the allocation recently. Back then, the average CIO spent only 10% of his or her time engaging with external customers, focused on selling, sharing best practices, and working with the customer to integrate the two companies' systems.[3] By 2015, CIOs had doubled the time spent with customers to 20%, often reducing the time spent running the IT unit and delegating more of that role to others.[4] This change reflects the increasing digitization of business and that the CIO is much more embedded in the customer experience and sales process, more so CIOs in top-performing firms (22%) than their bottom-performing peers (17%).

Chris Perretta, chief information and operations officer for the Americas for MUFG Americas Holdings Corporation, reflected on this trend:

> *Financial services are increasingly digital services, with a relentless expansion of the scope and sophistication of both human and automated customer interactions. CIOs naturally need to "walk in their customers shoes" to design solutions that deliver value as defined by their customers across a broad customer base without introducing extraordinary levels of complexity and cost. To do that, we need to spend time with customers.*
>
> *—Chris Perretta*

Focusing Obsessively on Innovation

The executive committees of top-performing firms spend about half their time—51%—focused on digitally enabled threats and opportunities, while bottom performers spend just 18%.

Virtually every company we talk with is very focused on innovation, for good reason: typically, new revenues come from innovation. In our survey, we found that a huge 49% of the top-performing firms' revenues came from new products introduced in the last three years, compared with just 13% in the bottom-performing firms. CIOs of top-performing firms are obsessed with innovation—those surveyed spend 53% of their time on it, in stark contrast to CIOs in the bottom-performing firms, who spend 19% of their time. Robyn Elliott, chief information officer of Fairfax Media and a discussion leader at the 2015 MIT CISR International Executive Forum in Sydney, explained:

> *The future of our whole business in media depends on rapid innovation. We must innovate to survive. Our traditional revenue streams have been deeply disrupted through digital technology but new opportunities are also being created. I spend more than 50% of my time working on innovation with my colleagues and external parties.*
>
> *—Robyn Elliott*

Working with Their Executive Committees

Another distinguishing feature of CIOs of top-performing firms is how they help their executive committees deal with digital issues. The executive committees of top-performing firms spend about half of their time—51%—focused on digitally enabled threats and opportunities. This is more than double the time spent by the executive committees of bottom-performing firms (18%), which are more likely to concentrate on operational issues. CIOs of the top-performing firms in our survey present to their executive committees at 61% of meetings, compared to 46% of the bottom performers.

Beyond their general business role as a member of the executive committee, CIOs reported three techniques that are very effective in helping their executive committees deal with digital issues. First, CIOs will produce an IT or digital dashboard that at one glance identifies problems and value creation from IT and digital. The use of the dashboard provides confidence and efficiently enables executive committee oversight and action if needed. Reporting regularly on cybersecurity is the second key technique, which includes discussions both on current issues and potential weaknesses. The third technique is establishing very clear and simple IT governance, and expanding this to digital governance that covers all digital assets in the company. A good test of clear and simple governance is whether each member of the executive committee can describe the decision rights and accountabilities for key decisions. Gary Scholten, executive vice president and chief information officer at Principal Financial Group, described working on his executive committee:

> *At Principal, digital strategy is an increasing portion of our overall business strategy—confirmed by the fact that I have the dual role of CIO and leading enterprise strategy. Digital and cybersecurity are regular, ongoing topics in our executive committee strategy sessions.*
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> *—Gary Scholten*

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[3] P. Weill and S.L. Woerner, "How Other CxOs Think CIOs Should Spend Their Time," MIT Sloan CISR Research Briefing, Vol. X, No. 1, January 2010.

[4] We found that the average CIO spends only 4.6% of time mentoring direct reports—insufficient for the CIO to delegate responsibilities to them (ibid.).

Opening Up Systems While Controlling More

If we could choose one word to sum up the digital era, it would be "connectivity." Digital is a lot about connecting different products and silos in the enterprise to improve the customer experience. It's also about making the enterprise part of a digital ecosystem to provide the best options for the customer at all times. To achieve this connectivity requires taking the crown jewels of the company—the capabilities and systems that make a company great—and making them easily available. First, make them available internally for employees to use and innovate on. Then enable external use by partners. The most common approach to achieving this connectivity is deploying APIs. We saw a strong difference between the percentages of key enterprise capabilities accessible via APIs across top- and bottom-performing firms, with 51% of capabilities available internally and 44% externally among top performers, but only 27% available internally and 23% externally among bottom performers.

There is great opportunity for CIOs to lead the organization in identifying its crown jewels and making them available via APIs. Jim DuBois, corporate vice president and chief information officer for Microsoft Corporation, explained how Microsoft creates more connections:

> *Microsoft has a long tradition of creating connectivity by opening up APIs within its core products. Similarly, part of my role as CIO is to increase connectivity amongst employees, customers, partners, and suppliers, and to help continuously improve customer experience and enable faster time to market. I work with our CFO and head of corporate strategy to govern the company's digital investments—whether inside or outside the IT budget—to help meet our enterprise-wide goals.* —*Jim DuBois*

Becoming a Top-Performing CIO in the Digital Era

Time spent with customers, a focus on innovation, working with the executive committee, and opening up systems differentiated top-performing CIOs and their companies from their bottom-performing competitors. And these four areas are a great place for CIOs and IT units to make a real difference in leading the company toward a successful future in the digital era. But how to get there? From our conversations with many CIOs, we propose three courses of action:

1. First, to devote time to these four areas, the CIO has to delegate existing responsibilities like running systems and working with vendors to their teams.
2. The second course of action reintroduces the thorny question of governance. Governance is about clarifying decision rights and accountability. In a digital era, CIOs must step up to design and implement governance of all digital assets whether or not they are in the IT budget in order to ensure the connectivity needed.
3. The third course of action is to pick an area where the CIO can really make a bottom-line difference—such as monetizing data, API creation and reuse, Test and Learn, Agile, or amplifying the customer voice internally—and lead the company in that direction.

Figure 1: What Differentiates CIOs in the Digital Era

	Measure	Top 25% Margin	Bottom 25% Margin
Spending Time with Customers	% CIO's time spent with external customers	22%	17%
Focusing on Innovation	% CIO's time spent on innovation	53%	19%
Working with the Executive Committee	% of executive committee meetings where CIOs present	61%	46%
Opening Up Systems	% of core capabilities service-enabled with APIs: Internal/External users	51% / 44%	27% / 23%

Source: 2015 MIT CISR CIO Digitization Survey, N=412. Top (Bottom) Performers are top (bottom) 25% on Net Margin, self-reported and adjusted for industry by subtracting the industry average.

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