The CIO’s Role in “Operationalizing” Innovation

Today more than ever, technology-driven innovation is contributing to growth. The leading innovators “operationalize” their innovation programs to create lasting success.
Chief information officers (CIOs) understand the importance of IT innovation. Ninety percent of CIOs in our latest study on IT innovation say that technology-driven business innovation is crucial for achieving competitive advantage. They understand that the rewards of IT innovation can be impressive—from the retailer that uses big data to reduce its inventory by $1 billion to the bank startup that employs advanced analytics to succeed in the low-income mortgage market.

Leading CIOs understand the importance of technology-driven innovation. They know the potential rewards are impressive.

Yet on average, just 12 percent of IT budgets are earmarked for innovation (see figure 1). Additionally, only 23 percent of organizations in our study report very positive results from their IT innovation efforts. Why the disconnect? Why do CIOs understand the importance of IT innovation but fail to capitalize on it?

Good CIOs have added strategic value and insight to their roles for some time, and they long ago shifted away from being traditional back-office operations officers. They have unique access and visibility into the front office and unparalleled views about how to drive success across the organization. These insights can clear a path for innovative ideas that bring transformative change and capitalize on the promise of the digital disruption underway (see sidebar: Innovation Sparks Transformative Change on page 3).

Figure 1

IT innovation grows in importance, but investment is dropping

Source: 2013 A.T. Kearney IT Innovation and Effectiveness Study

1 To read the most recent IT Innovation Study and past studies, go to http://www.atkearney.com/research-studies/it-innovation-study.
Separating the Innovators from the Imitators

When good ideas are everywhere, turning them into viable, usable concepts requires a disciplined approach—one that joins ideas with business strategy. There are two main elements for such an approach: providing fertile ground for ideas to spark, and creating processes to turn ideas into marketable products and services. Both elements make up the four cornerstones of A.T. Kearney’s innovation framework: strategy, culture, organization and process, and technology (see figure 2). The first two provide the spark, and the latter two the processes for commercialization.

Figure 2
The four cornerstones of A.T. Kearney’s innovation framework

Source: A.T. Kearney analysis

Innovation Sparks Transformative Change

IT innovation plays a pivotal role in service industries such as retail, healthcare, and financial services. Let’s look at some innovations that sparked transformative change in each industry.

Retail. IT innovation is transforming the shopping experience. For example, Xsilva’s LightSpeed Mobile, recently named the most innovative payment or point-of-sale system by U.S. Retail Technology and Retail Innovations, allows retailers to conduct transactions on the sales floor, thereby eliminating checkout lines, reducing customers’ wait times, and streamlining inventory management. Another example is Cisco’s SocialMiner program, which allows retailers to monitor blogs and social media sites and route customer service issues to the proper channel for follow-up. As the vice president of IT innovation for a leading specialty retailer recently told us, “We are under assault from online players, so digital innovation is critical to our growth.”

Healthcare. IT innovations such as predictive analytics are shaping the healthcare industry’s future. For example, global biopharmaceutical firm AstraZeneca has partnered with HealthCore, the data and analytics subsidiary of managed-healthcare giant WellPoint, to determine the most effective and economical treatments for some chronic illnesses and common diseases. AstraZeneca will use HealthCore data together with its own clinical-trial data to guide R&D-investment decisions.

Financial services. Financial institutions are at the forefront of using data and analytics to create revenue from improved risk decisions. Accurate risk models are a competitive advantage for banks and insurers as they develop product portfolios and underwriting business. Increasingly, financial institutions are looking to external sources for risk models that can help increase the Gini coefficient, a metric that highlights the difference between good and bad risks. Innovation in big data and analytics is transforming the product landscape for financial institutions.
Several qualities help harness IT innovation’s potential helping to promote or sustain it (see figure 3). The top IT innovators share five traits.

**The right leadership with a differentiating focus.** Innovative leaders view IT as a strategic differentiator and have a finger on the pulse of the market—able to select and nurture those innovations that are most likely to create advantage. Strong, charismatic leaders who “evangelize” can have a powerful effect on a company’s performance. CEO Mark Benioff of Salesforce.com, for example, constantly challenges his staff to push the IT innovation envelope. And the innovations have not only disrupted the market but also, importantly, differentiated Salesforce from other players. Benioff was among the first to see the value of the cloud, and by pushing his teams to build an advantage he was able to revolutionize the enterprise software industry. The company ranked first on Forbes’s 2012 list of most innovative companies.

In contrast, a lack of involvement from top executives or a failure to seek innovations that produce meaningful differentiation can destroy innovation. Consider the Fortune 100 media conglomerate that rolled out a cross-platform mobile marketing strategy that ultimately failed. Without proper input from internal stakeholders and customers, the platform never got off the ground.

**Engaged organizations.** People who work for innovative companies all march to the same beat, with a clear understanding of objectives, goals, and appetite for change. And one trait of all IT innovators is that they take the time to answer the big questions: How do the company’s strategic goals direct the type of innovation being sought? What are the critical drivers of organizational performance? How are these drivers used in our innovation efforts?

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**Figure 3**

**Success is determined by effective implementation of factors needed to promote and sustain IT innovation**

**Promote innovation**
- Communication: Do solid tools enable communication?
- Disruptive innovation: Does the organization encourage disruptive ideation?
- Leadership: Does leadership promote and foster innovation?
- Training: Is there a training process for managing innovation?
- Evangelists: Does the organization have innovation evangelists?
- Innovation networks: Is there an all-inclusive innovation network linking value-chain stakeholders?

**Promote and sustain innovation**
- Funding: Are there clear processes to manage investments?
- Rapid failure: Does the organization use rapid failure testing?
- Innovation portfolio: Are innovation ideas managed as a portfolio?
- Vision: Does leadership set the strategic vision?
- Idea generation: Does the organization reward idea generation?
- Idea evaluation: Is there a formal process for evaluating ideas?
- Prototyping: Is a well-defined innovation prototyping process being deployed?
- Measurement: Are key innovation metrics being measured?
- Analytics and big data: Is there an articulated analytics and big data strategy?

**Sustain innovation**
- Risk management: Does culture promote pragmatic and balanced risk-taking?
- Performance management: Are incentives aligned with outcomes?
- Innovation panel: Is there a dedicated panel overseeing innovation efforts?
- Capacity and bench strength: Are capacity needs aligned with innovation strategy?
- Governance model: Is there a governance model to support innovation processes?
- Mobility: Does mobile strategy foster communication and collaboration?
- Change management: Are there robust change management processes to support disruptive innovation?
- Social networks: Are collaboration tools used to support innovation?

Source: A.T. Kearney analysis
Collaboration is right up there with engagement. All business processes are open and accessible; they do not exist in isolation with limited opportunity for alliances. In fact, strategic innovations are typically developed in-house with less reliance on third-party partners (see figure 4). We can use Procter & Gamble to illustrate this. P&G’s “Connect and Develop” online innovation platform, now more than a decade old, continues to produce game-changing innovations. P&G’s recently unveiled Tide Pods detergent capsules were the result of collaboration between P&G and MonoSol, an external R&D firm that until recently had been working in isolation on this initiative. In their first year, Tide Pods rang up roughly $500 million in sales.

**Process rigor, performance mindset.** Successful innovations are borne of well-defined processes, the kind that can filter the good ideas and manage them from concept to execution. From our study, we know that top innovators are twice as likely to have enabling innovation management processes and operating structures. They spend more time (three times more, in fact) on the upfront steps, including idea generation and screening, which allows time later to assign resources to ideas with the best chance for breakthrough success. Metrics are also in place early to track innovation program performance from idea generation to implementation and post-mortem; this way, corrective actions are taken when and where warranted.

**Pay to play.** The most successful innovators invest in all of the resources needed to unlock innovation. In-house knowledge experts are cultivated and able to work at all levels of the innovation process, and designated innovation teams are in place to move the technology innovation agenda forward (see figure 5). In situations that demand freedom for exploration,
separate value-creating innovation and advanced technology organizations are established to free innovators from organizational inertia. Take, for example, the specialty retailer that created a vice president of IT innovation position reporting to the chief information officer and responsible for developing innovative solutions to connect with customers. The new executive’s team developed a customer interaction system that increased same-store sales by 30 percent.

Incentives are always important to innovative companies. Google allows its employees to devote 20 percent of their work time to projects they are passionate about; Gmail, Google News, and Google Sky are all the results of enthusiastic software engineers who had a cause and worked toward it. And dedicating money and people to innovation is becoming table stakes. As the CIO of a multi-billion-dollar apparel retailer told us recently, “Having an organization, processes, and people who support innovation is critical for our industry.”

**Culture of innovation.** Everyone likes to say that innovation is important, but few firms make the structural changes necessary to reinforce it. Apple is the exception. Steve Jobs considered culture the most important ingredient to success, and molded the company’s core set of values accordingly. Jobs understood that employees need the time and support to work on forward-looking initiatives, along with formal and informal training opportunities that can help build a culture of innovation.

### Operationalizing IT Innovation

The advantages of IT innovation are well known, but operationalizing it—embedding it into the workings of the organization—can be a struggle. It requires identifying and fixing deficiencies in the existing innovation process and then refocusing goals on creating and sustaining an IT innovation program. This is part of the CIO’s role on a path that begins with three steps:

1. **Assess and structure the current state of innovation.** The first step is to evaluate your current capabilities against the innovation framework’s four basic elements: strategy, culture, organization and process, and technology capabilities. Isolate gaps and focus on the largest first, then identify ways to close each one.

2. **Create a process for identifying and commercializing innovative ideas.** The next step starts with defining and communicating the process for generating and submitting ideas. An innovation portfolio is useful in capturing submissions and tracking their progress through the innovation life cycle, the intranet is good for soliciting ideas from employees, and an “innovation funnel” filters the good ideas from the bad. Ideas are typically evaluated during the incubation and prototyping processes by members of special technology and business committees that are often established for this purpose.

3. **Sustain the momentum.** Innovation champions are often a company’s best bet in building excitement throughout the organization and in identifying and removing barriers to success. Ideally, an innovation committee or panel that includes top management is on hand to review projects quarterly. Once an innovation project is complete, debriefing sessions are a good time to talk about what went right and what went wrong and use the information to improve the process for the next big idea.
Advanced Analytics and Big Data Deliver

Whether it’s a disruptive, game-changing idea or the evolution of a current product or service, CIOs can set in motion the building blocks necessary to capture innovation. Following are two examples of innovative ideas that fall well within the CIO realm:

♦ As one Fortune 500 CIO in the consumer goods industry said to us, “Big data technologies will revolutionize the way we understand consumer behavior.” This CIO used big data supply chain techniques to shift from a generic distribution strategy to a tailored one that uses real-time data. Armed with seven terabytes of inventory data, the distribution of thousands of SKUs was tailored to each of the company’s 5,000 stores, eliminating its old static distribution model that led to overstocks and shortages. Inventory levels fell by $1 billion, or 10 percent of total.

♦ ZestFinance, a credit underwriting startup, uses customer and market data to help lenders find a way to serve lower-income borrowers, a segment that most major creditors avoid. Rather than assemble conventional credit data such as FICO scores to assess risk levels, ZestFinance compiles external data from numerous nontraditional sources such as mobile phone carriers and Internet browsers. The result: The company has not only opened up a new market and increased its margin potential, but also managed to reduce default rates by 60 percent compared to the industry average.²

Owning the Game

The requirements of the CIO role are evolving, and the challenges of today present an important opportunity. While it is still important to have operations “chops,” new products and revenue growth are emerging areas where CIOs can stand out. The time is now for CIOs to take advantage of their technology expertise and help their organizations grow by harnessing the full power of IT innovation.

Authors

Marcus Eul, partner, Düsseldorf
Christian Hagen, partner, Chicago
jason.miller@atkearney.com

The authors wish to thank their colleagues Carolyn Liou, Anand Seshadri, and Manik Aryapadi for their valuable contributions to this paper.

² Michael Carney, “Flush with $20M from Peter Thiel, ZestFinance is measuring credit risk through non-traditional big data,” PandoDaily, 31 July 2013
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