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Technology budgets: From value preservation to value creation

By: Khalid Kark, Anjali Shaikh, and Caroline Brown

**T**ECHNOLOGY investments represent a growing percentage of corporate spending, and many organization stakeholders expect investments to be aligned with business strategy. In addition to the traditional industry benchmarks, investment strategy increasingly depends on existing technology capabilities, business strategy, and the competitive environment. As CIOs' mandates change from value preservation to value creation,

optimizing IT investments has become a top priority for them—and their stakeholders.

This *CIO Insider* will explore how CIOs can help ensure that business strategy leverages IT assets by allocating and spending technology dollars to drive value generation and finding equilibrium between bottom-line operational efficiencies and top-line revenue growth.

## The evolution of technology spending

For the last three decades, organizations have invested in supporting and automating back-end systems and technologies; as maintenance and upkeep of that infrastructure became increasingly complex, organizations often allocated a significant percentage of the IT budget to business operations. Today, technology is commonly interwoven into every business function and has the potential to impact earnings, growth, performance, and competitive advantage—yet the technology investments vary significantly across industries and often even sectors within the same industry.

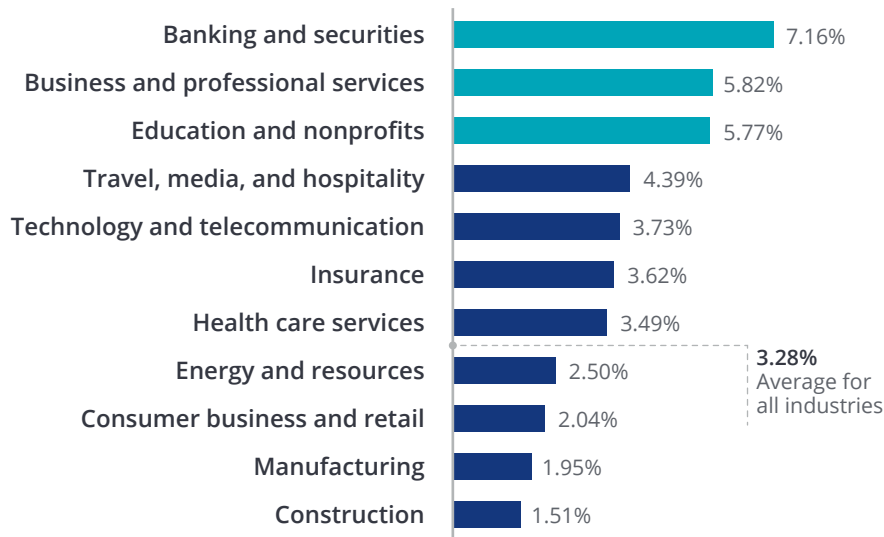
An analysis of data collected for Deloitte’s 2016–2017 Global CIO Survey shows that technology spending as a percentage of revenue ranges from more than 7 percent in banking and securities to less than 2 percent in construction and manufacturing. The overall average for all industries is 3.28 percent (figure 1).

Differences can exist even among sectors in the same industry, such as the banking and securities

and insurance sectors within the financial services industry. In banking and securities, where many CIOs are overseeing large digital transformation projects, higher levels of IT spending are typically critical for maintaining competitive advantage. On the other hand, IT spending in the insurance sector is closer to the overall average.

Certain industries and sectors are increasing IT budgets in response to market conditions. For example, the majority of the 2016–2017 Global CIO Survey participants in health care services; insurance; and travel, media, and hospitality reported their IT budgets are increasing (figure 2). Many companies in these industries are not only working to deliver digital capabilities that help them better engage their customers, but they are also dealing with decades-old back-end infrastructure that needs to be aligned with and connected to these front-end digital technologies. And given the increase in IT budgets, many CIOs in these industries have an opportunity to help their organizations drive business growth by optimizing IT spending and investments to align to business strategy.

**Figure 1. IT budget as a percentage of revenue**



Source: Deloitte 2016–2017 Global CIO Survey, N=747.

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## Shifting budget allocations

In their quest to make the best use of IT budgets in support of business strategy, CIOs need to rethink budget allocations across all categories. Today, adopting cloud and embracing Agile and DevOps is not a choice—it’s a requirement. This demands a fundamental shift in the IT operating model and cost structures and entails looking beyond the traditional distinction between operational and capital expenses to track and report investments across **business operations, incremental business change, and business innovation.**

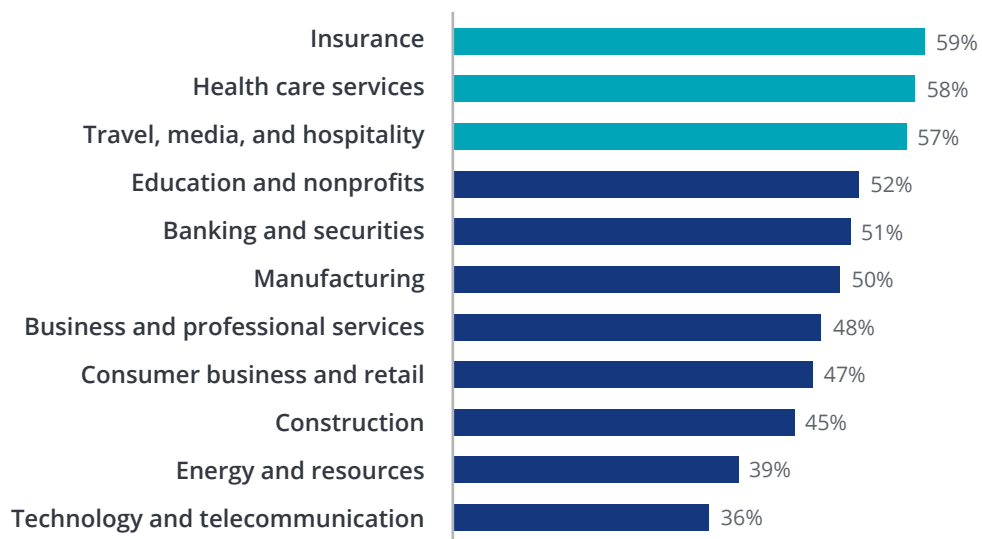
According to Clark Golestani, president of emerging business technologies and global CIO at Merck, the company’s technology investment strategy aligns with three time frames.<sup>1</sup> Short-term investments are primarily operational, and are focused on driving service levels up and lowering costs over the next 18 months. A second portfolio of investments aims to drive revenue from customer activities between 18 months and three years out. Finally, longer-term investments—those that enable disruptive capabilities—are intended to drive revenue within three to four years. “Looking at investments in this way is how we went from nothing

to having an engineered-from-the-ground-up data lake with advanced machine learning for intake of medically based information, very advanced search capabilities, and machine learning for looking at unstructured data,” says Golestani.

**Business operations.** In the last decade, the shift of applications and infrastructure to the cloud has had an outsized impact on operational expense reduction. Streamlining business operations can free up budget dollars for investment in change and innovation initiatives, enabling CIOs to impact top-line growth. The CIO of one consumer goods company reduced IT operational costs by more than \$150 million over the course of three years.<sup>2</sup> His bold cost-cutting moves helped burnish his credibility among organization leadership, and he was able to negotiate with them to apply half of the amount toward modernization and innovation initiatives.

In another example, Cisco Systems leveraged the cloud to develop a complex architectural and operational everything-as-a-service (XaaS) initiative that allowed it to break down silos, deploy and leverage technology more effectively, and align IT services with both customers and the business. Cisco views XaaS as an opportunity to control costs, create efficiencies, and rethink the way it engages custom-

**Figure 2. CIOs reporting increase in IT budget over the last year**



Source: Deloitte 2016–2017 Global CIO Survey, N=1,133.

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ers and partners. “We realized that we needed to rethink the way we were working, how we thought about value streams, and the way we organized ourselves,” says Will Tan, Cisco’s senior director of operations. “Likewise, we began reviewing the relevance of our architecture to determine what kind of connectivity we need to meet our [XaaS] goals.”<sup>3</sup>

Cisco’s XaaS efforts are ongoing, but they are already bringing down operating costs and streamlining processes, says Tan, and IT has transformed the ERP system into a global platform that consolidates core financials and the supply chain. “As we have expanded into China and India, we have leveraged this platform not just for cost containment but to accelerate our time to market and to offer business services more effectively,” says Tan.

**Incremental business change.** When CIOs take on a transformational technology initiative such as an ERP or CRM overhaul, they typically focus on the timely and efficient execution of an initiative that will create dramatic, necessary change and ultimately drive top-line revenue growth. Typically, the business case is obvious and minimizing expense takes a back seat to delivering increased business value. The 2016–2017 Global CIO Survey found that managing large complex transformations is a strength of CIOs in high-performing companies—57 percent of them identify it as a strength compared to only 37 percent in other global companies.<sup>4</sup>

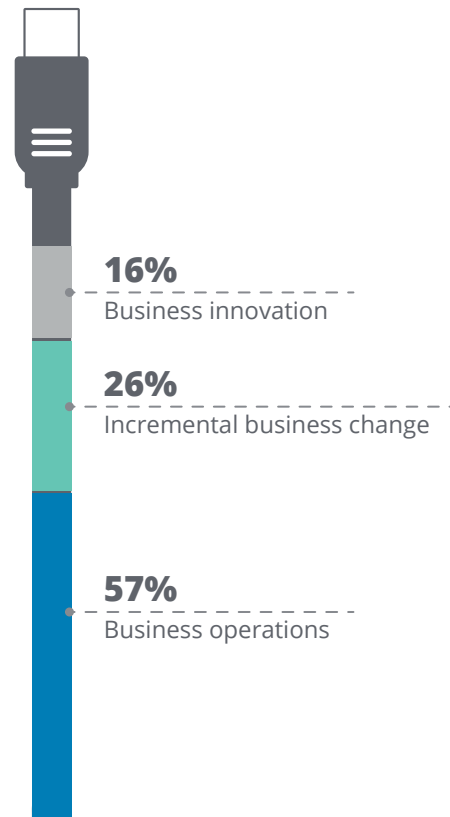
Complex transformations can be difficult to manage. Obstacles that can derail them or prevent them from delivering expected value include unnecessary customizations and unplanned delays that could lead to cost overruns; IT or business cultures that are resistant to change; and lack of support or buy-in from key stakeholders. The new CIO of a major retailer discovered his team was responsible for more than 200 business transformation projects; he soon realized that most of them did not have a defined business owner. He froze these projects and instructed his team to find a business sponsor to spearhead each project. Finally, projects lacking a business sponsor were terminated.<sup>5</sup>

In some cases, CIOs may underestimate the complexity of the project and overpromise and

under-deliver on the results. One CIO was hired after a global implementation went awry. After an initial project assessment, he realized that many of the project’s fundamental assumptions and premises were flawed. The best course of action was to abandon the existing investment—tens of millions of dollars—and begin anew. Delivering the news to the board was difficult and the expectation that he deliver a successful business transformation increased exponentially.<sup>6</sup>

**Innovation.** Innovation investments can allow CIOs to contribute directly to top-line growth. But because today’s innovation investment can become tomorrow’s operational expense, it’s critical to understand the long-term total cost of ownership of innovation investments. To get the most mileage from their innovation budgets, many CIOs are looking outside their IT organizations for additional innovation resources, engaging with innovation labs, tech-

**Figure 3. Allocation of technology budgets**



Source: 2016–2017 Global CIO Survey, N=1,081.

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nology hubs, business incubators and accelerators, venture capitalist and private equity firms, and other organizations that encourage rapid innovation.

For example, one company acquired a technology start-up that enabled it to connect its trove of supply chain data with insights into retail customer behavior and demand. The acquisition contributed to the company’s top-line value creation and allowed it to take advantage of the start-up’s innovation mentality.<sup>7</sup> One financial services organization established an innovation center and business accelerator, where it fostered fintech start-ups, tested pilot projects, and recruited IT talent with necessary digital skills.<sup>8</sup>

CIOs report that the majority of their technology budgets are allocated to support business operations (57 percent), compared to only 26 percent to fund incremental business change and 16 percent to bolster innovation (figure 3).<sup>9</sup>

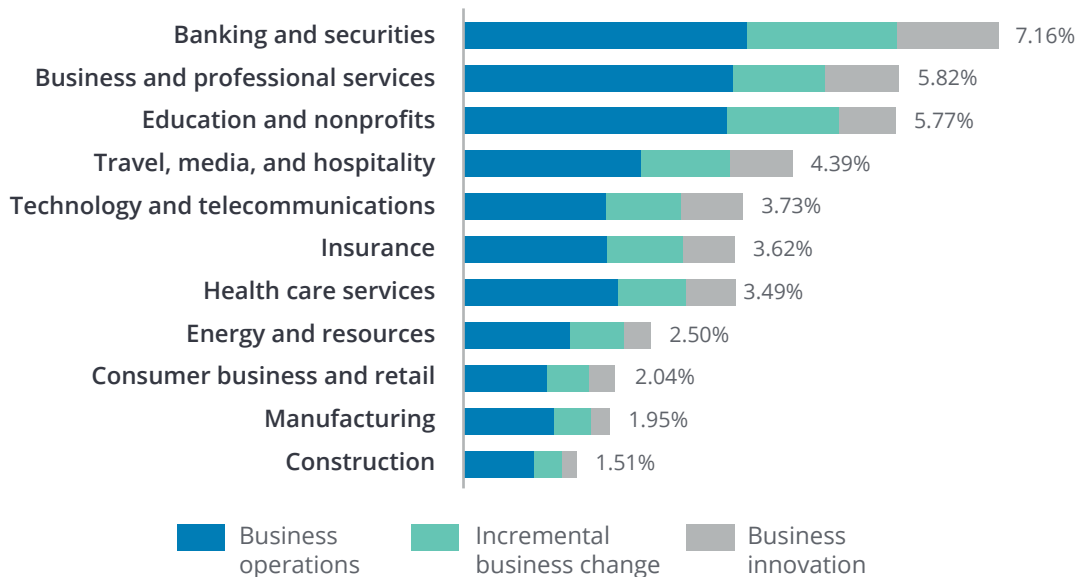
The allocation of IT budget among these three categories is impacted both by industry and market environment and business strategy and priorities. Depending on risk appetite and priorities, for example, it may make sense for a government agency to delay procurement of a costly unproven emerging

technology, while a retail bank may benefit from an ongoing technology-enabled innovation program to gain or sustain competitive advantage.

Technology and telecommunications companies commit far more of their IT budgets (22 percent) than the overall average of 16 percent to innovation; on the other hand, construction sector organizations spend less (13 percent). Likewise, technology and telecom companies spend a smaller percentage of their budgets (51 percent) on business operations than those in any other sector, while their counterparts in business and professional services dedicate a whopping 62 percent of their budgets to day-to-day upkeep. Most industries spend close to the average percentage on incremental business change, falling primarily between 25 and 28 percent (figure 4).

These are not target percentages or benchmarks for measurement—industry and market context play a role in IT budget allocation, but so do the organization’s appetite for change and disruption, as well as individual business priorities. Intentional and informed business decisions and difficult choices are likely necessary, and ultimately, the CIO’s technology investment strategy will reflect his or her business mandate.

**Figure 4. Allocation of technology budgets by industry**



Source: 2016–2017 Global CIO Survey, N=1,081.

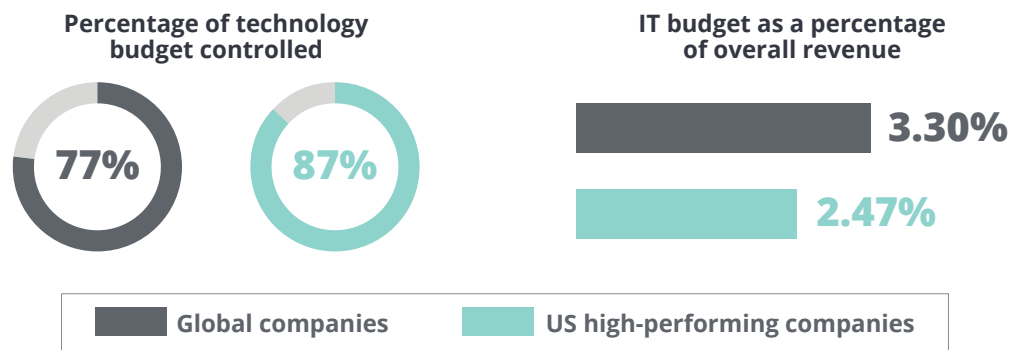
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**LESSONS FROM HIGH PERFORMERS**

To better understand technology investments from CIOs in high-performing companies (HPCs), the 2016–2017 Global CIO Survey engaged 1,271 CIOs through online surveys and in-depth interviews. Based on the aggregated data, we looked for public companies listed in US stock exchanges whose stocks outperformed the S&P 500 by 10 percent over a three-year period. Of the 235 US public companies surveyed, the 42 respondents whose organizations fit this criteria were designated CIOs of HPCs. We then compared their responses to those of all global respondents to identify differences. The data showed:

- IT budgets in HPCs account for a lower percentage of overall revenue, which could mean that CIOs in these companies make more efficient use of their technology dollars (figure 5).
- CIOs in HPCs are more likely to have annual budget increases and less likely to have a budget decrease.
- CIOs in HPCs control more technology budget than their colleagues in all global companies, suggesting that while they do engage with their peers to strategically align IT with the business, the technology budget is more centralized in these companies.

**Figure 5. IT budgets in high-performing companies**



**IT budget change since the last financial year**

**Global companies**



**US high-performing companies**



Source: Deloitte 2016–2017 Global CIO Survey, N=1,081, 747, 1,133.

## FINE-TUNE INVESTMENT STRATEGIES: KEY TAKEAWAYS

Regardless of the size of IT budget, industry, or business priorities, these key takeaways can help CIOs fine-tune their strategies for allocating and spending IT budgets as they help their organizations drive business growth while maintaining operational efficiencies.

**Take a page from the high performers' playbook.** Larger budgets may not always be optimized budgets, as demonstrated by CIOs in HPCs, where IT budgets account for a lower percentage of overall revenue. CIOs with smaller budgets may find that necessity is the mother of not only invention, but also innovation. By aiming for more efficient use of budget dollars, CIOs may be able to burnish their reputations as effective technology investors who can be trusted with larger budgets and more responsibility for funding.

**Let business lead IT.** Industry and budget benchmarks are useful for understanding the impact of market conditions on spending trends, but they are often not a reliable tool for making strategy choices. Ultimately, the business mandate is likely a better driver of technology investment and budget allocation strategies. It's fine to be an outlier if it's the result of an intentional business decision. Align IT capabilities and priorities with strategic and operational business priorities, and let business strategy determine how best to leverage technology investments and assets to deliver value. In addition to creating buy-in and support for IT strategy, this also spreads accountability for investments across the business. When technology investments are structured to provide current value and maximize future options, IT investments will likely be measured by business outcomes and the value they create, not just by IT performance.

**Develop a finance capability with IT.** Allocate resources to oversee the financial strategy of IT operations and initiatives and support the delivery of IT services from a financial management perspective. In addition to financial planning, this can include the measurement, management, and communication of return on IT investment. Not only does this optimize the budget, but it also helps increase transparency and build trust that IT investments are generating value. Adding this capability also helps CIOs demonstrate value and impact over time, and reinforces business accountability for technology investments.

**Centralize tech spending.** Call it shadow IT, stealth IT, or rogue IT—either way, many CIOs are painfully aware that IT spending and technology spending are not the same. CIOs can work to centralize the allocation and prioritization of technology spending and collaborate with other organization leaders to create joint accountability for investment and outcomes. This encourages innovation outside of the IT function within provided “guardrails” that help prevent costly rebuilds and integrations down the road.

**Adopt a portfolio approach.** As the roles of IT and the CIO change, traditional approaches for managing technology investments may no longer be effective. A portfolio approach to managing technology investments may help CIOs optimize their value. Like a mutual fund or a stock portfolio, some investments will deliver outstanding results, while others will be mediocre or lag behind. CIOs can communicate performance of technology investments that other leaders can easily understand, for example, in terms of value, risk, and reward. Having a venture capital mind-set is likely essential for driving value and delivering impact for the organization.

## ENDNOTES

1. All information from Clark Golestani and Merck taken from Clark Golestani interview, September 28, 2017.
2. Personal confidential communication.
3. George Collins et al., *Everything-as-a-service: Modernizing the core through a services lens*, Deloitte University Press, February 7, 2017.
4. Khalid Kark and Caroline Brown, *How CIOs lead in high-performing companies*, Deloitte, March 10, 2017.
5. Personal confidential communication.
6. Ibid.
7. Ibid.
8. Khalid Kark, Anthony Abbatiello, Anjali Shaikh, and Caroline Brown, *Stepping up: The CIO as digital leader*, Deloitte Insights, October 20, 2017.
9. Khalid Kark, Mark White, Bill Briggs, and Anjali Shaikh, *Navigating legacy: Charting the course to business value*, Deloitte University Press, November 10, 2016, p. 54.



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