

The Innovation vs. Technical Debt Tug of War

Technology leaders are exploring new ways to drive innovation and maximize the value of IT in a changing world driven by disruption and a need for acceleration.

GLOBAL TECHNOLOGY EXECUTIVE SURVEY

Technical Debt and Innovation – the CFO’s Perspective

Organisations today spend an average of 30% of their IT budgets and invest a fifth of their IT human resources on technical debt management. This research, based on a global survey of more than 1,000 CIOs, CTOs and other technology leaders, underscores the burden created by technical debt and likely is an eye-opener for the CFO.¹

As organisations strive to increase their focus, and time and resources, on innovation, technical debt becomes a significant concern and burden that can lead to decreased productivity as well as increased costs and risk. On average, according to the survey, nearly 70% of organisations view technical debt as having a high level of impact on their ability to innovate.

At the same time, innovation is a major area of focus for organisations. This research reveals that 79% of organisations have clearly defined innovation goals and 54% have a clear innovation strategy. Yet, as innovation and transformation continue to accelerate, companies confront a pressing question: *Does the balance we strike between innovation and control align with our strategy?*

Innovation and technical debt must be key areas of focus for CFOs and finance leaders, as we detail below.

Innovation – balancing speed and control

CFOs are key stakeholders in determining how the enterprise should balance its innovation initiatives with the need to assess and manage the impacts to internal controls that arise from business and digital transformation activities. In fact, CFOs are increasingly assuming stewardship in determining the appropriate balance.

Several innovation and transformation activities and approaches throughout an organisation tend to have a substantial effect on internal controls. These include, but certainly are not limited to:

¹ *The Innovation vs Technical Debt Tug of War* (a report on the results of a global survey of technology leaders), Protiviti, March 2023, www.protiviti.com/us-en/global-technology-executive-survey.

- **Citizen developers:** An increasing number of organisations are using citizen developers, decentralised software development approaches and other forms of shadow IT to accelerate the creation and deployment of new digital tools, products and services. This speed can come at a cost, considering that it introduces new risks and control issues.
- **The Internet of Things (IoT):** Organisations continue to increase their use of IoT sensors, devices, applications and data. In doing so, along with the operating and logistical advances attendant to their use, information security risks multiply. Along with questions about security controls, IoT advances raise strategic questions concerning data ownership, privacy and security.
- **“Reactionary” transformation:** Much of the digital transformation work that has taken place in recent years has been more reactionary than strategic, whether in response to the global pandemic, competitor moves or other factors. These advances are often beneficial in solving emergent problems, but they are not necessarily part of a long-term plan – nor were they implemented with internal controls top of mind. Many innovation activities likely need to be re-evaluated from a control and risk perspective.

Often, these and other digital transformation accelerants neglect, or conflict with, segregation of duties controls. More IT-specific controls related to change management, data security and privacy, data availability, and other application development practices also tend to receive insufficient attention as more software development and technology deployments are conducted outside of the IT function.

The governance of speed-versus-control balance is not only a fit for the CFO, but also a responsibility.

The governance of speed-versus-control balance is not only a fit for the CFO, but also a responsibility, for these reasons:

- CFOs play a key role in leading the development and execution of the organisation's strategy. While that does not make them the sole leader accountable for governing speed-versus-control, they are a critical stakeholder in the process. In addition, they certainly are accountable at the point where speed-versus-control intersects with the production of data that is ultimately included in financial reporting.
- CFOs are responsible for allocating the company's capital, whether that means investing in people, products or technologies. They also assess the talent and skills investments most likely to enable the enterprise to operate at the right size, and in the right manner, to best address current and future disruptions and opportunities. Finance leaders assume this same role with regard to technology and digital investments. Part of ensuring those investments enable the enterprise to operate in the right manner requires striking the right speed-versus-control balance.
- CFOs are uniquely positioned to determine how the speed-versus-control balance in innovation and transformation aligns with another, related balance that must be struck between the front office and the back office. In recent years, the front office has acted with increasing independence to develop and implement digital advances. Doing so helps the organisation outpace (or catch up to) competitors in ways that would not be possible if they waited for their back-office partners to develop and deliver similar capabilities. But moving quickly without the proper controls in place – or even a recognition of which controls should be in place but are not – can result in significant breakdowns.

CFOs' risk and control mindset, combined with their involvement in the development and execution of organisational strategy, makes them ideally suited to oversee this speed-versus-control balance, ensuring their organisations can evolve quickly and wisely.

Technical debt – managing costs and change

Technical debt – the accumulation of legacy systems and applications that are an ongoing challenge to maintain and support – takes a meaningful bite out of IT budgets and resources. Technical debt is the antithesis of innovation. Efforts to inculcate an innovative culture can be frustrated when technical debt has “accrued” to such a level that it slows organisational response to emerging market opportunities and stifles the ability to compete in a digital world.

As most CFOs are well aware, organisations that fail to account for technical debt increase their level of risk significantly and are inhibiting the ability for the business to grow and become agile. Resolving these issues starts with understanding how technical debt impacts an organisation. In many cases, this debt results from the need to support legacy systems. Over time, businesses run the risk that technical debt becomes so extreme that they can no longer viably innovate or migrate to newer solutions.

CFOs should lead the charge in addressing the enterprise’s accumulated technical debt.

In our view, the rush to build new services and solutions can create more technical debt, which can then result in a bad investment of time and resources. CFOs should lead the charge in addressing the enterprise’s accumulated technical debt to drive efficiency in business and IT systems, reduce infrastructure costs by streamlining services and moving core applications to the cloud, and improve capacity to innovate to enrich customer experiences, digitise products and services, inform decision-making, and compete with “born digital” players.

The bottom line: Technical debt is an expense that should be minimised over time. Achieving that requires planning and budgeting, along with determining the feasibility, complexity and value of replacing legacy systems. That comes down to identifying what a replacement system or process can offer.

In closing

Innovation is the name of the game in today’s global market. Recognising this new reality, technology executives and leaders are exploring new ways to fuel innovation throughout their organisations. However, there are many roadblocks on this path, including the spectre of technical debt, which is hampering the organisation’s ability to innovate and grow.

Finance leaders play a key role in partnering with their technology counterparts to ensure the enterprise is innovating in a responsible way, with a proper focus on internal controls. In addition, the CFO should be a leader in technical debt management and spearheading efforts to reduce its long-term burden on the organisation.

About the Global Technology Executives Survey

Protiviti surveyed more than 1,000 CIOs, CTOs, CISOs and other technology executives and leaders (n = 1,050) to ascertain the status of several concepts around innovation and technical debt across numerous regions, business types, revenue classes and management roles.

The respondents answered 18 survey questions which were collated and then transferred into reportable elements with totals, averages, and divisions based upon the size of the organisation, the location of the organisation, the industry, and the role the respondent played within the organisation.

Read our report. *The Innovation vs. Technical Debt Tug of War*, [here](#).

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