# The CIO's role in innovation

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As technological and scientific disruption drive business growth, the CIO is expected to be able to translate that innovation into new business capabilities. It is common to have this challenge sanctioned by the Executive Board, but with no clearly defined and measurable goals or results.

According to recent research from the MIT[1], the CIOs from the "digital leaders" spend 52% of their time in innovation. On the other hand, according to the latest Deloitte[2], CIO Survey, 58% of CIOs consider that "assisting in business innovation" is a core expectation the business places on them. Despite this data, innovation is still a blurred concept in many organisations and many CIOs struggle to understand their role and incumbency.

In fact, there are several ways in which CIOs can contribute and drive innovation within their organisation.

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[1] *MITCISR. Weill, Peter, Woerner, Stephanie L., González, Francisco. Is Your Company a Digital Leader or Laggard. 2017*

[2] *Deloitte Global CIO Survey 2016*

## Innovation drivers: why innovate?

If innovation can be defined as the transformation of something creating value, in the business world, the concept can be expanded and understood as the creation of new products and services that satisfy new needs or clients by using different or more effective processes, services, technologies, ideas or products that alter the status quo.

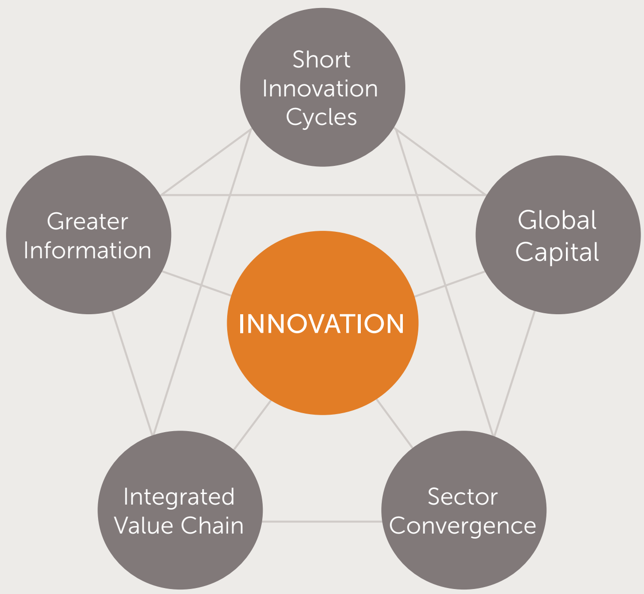
Innovation is not a one-off action, but a process. The process of turning an idea into a product or service that creates value. This added value will benefit the organisation and its clients.

Comparing to already established products and services, innovative products and services have the potential to create competitive advantages in the market where the company will be positioned with that product (which can be a different one from the company's original market). The competitive advantages will enable higher margins or selling more than competitors and function as a barrier to market entry, protecting the company's privileged position.

However, a new innovation cycle may result in a new dominant player with the natural displacement of the previous leader. This is innovation as a competitive risk.

The technological boom from the last years has accelerated innovation in most economic sectors which, ultimately, has transversally changed society. This new context is characterised by:

- **Short innovation cycles.** New products and differentiated services that disrupt competition emerge continuously. The time a product remains exclusive in the market has been drastically reduced, with cycles shorter than one year being observed in some sectors.
- **Global capital.** The decrease in transaction and asymmetric information costs allow for easier financial flows in the capital markets, which are driven by high short term returns. These returns are hard to achieve without innovating and breaking products and services cycles.
- **Sector convergence.** In recent years, major players from several sectors have been pursuing strategies to access new sectors. Particularly important is the case of technology companies which, with their huge financial resources, have the potential to overcome any sector's barriers to entry.




1. INNOVATION DRIVERS

- **Integrated value chain.** The traditional production, distribution and service delivery chains are becoming more and more fragmented. As a result, competition to attract clients becomes even higher. Competitive capacity is focused on collaborative communities that create more transparent value chains: reducing the barriers that separate clients, suppliers, ancillary industries, competitors, business partners, etc.

- **Greater information.** Clients have access to more information and have greater decision power than ever before and demand solutions that are more and more customized to their specific needs. This results in lower loyalty levels for products and services and, consequently, increases opportunities for substitutes.

## How to integrate innovation in the organisation?

No matter the industry, organisations know they need to invest in innovation in order to thrive or, at least, survive. However, for innovation to be effective, management must question whether the measures required to maximize the impact of the investment in innovation have been taken or not. Organisations should consider the possibility of an integrated approach to innovation that combines the opportunity to drive disruptive developments with the need to optimize the business core. Exploring new ways of thinking about emerging trends is a critical part of this approach. The context, the purpose and the end goals are also important parts.

What do organisations that are successful at innovating have in common? An innovation system built on four key blocks: approach, organisation, resources and competencies, and metrics and incentives.

### Approach

The approach is the method an organisation uses to clearly define the work required to create innovation: phases, actions, results and next steps. Contrary to traditional operational improvements that value predictability, disruptive innovation requires an iterative and experimental approach. Innovative organisations already know to expect some ideas to be unsuccessful and even tolerate some failures as these are learning opportunities. The teams responsible for implementing an innovation strategy should follow a non-linear path. However, this path may still be followed in a structured manner with precise protocols, clearly defined phases, methods and tools.

The three levers that influence the approach are:

- **Innovation Strategy.** Clearly articulate what the organisation aims to achieve. An organisation's innovation strategy often comprises establishing priorities based in strategic imperatives aligned with market opportunities and competitors' activity.

- **Portfolio management and prioritisation.** This lever relates to the management and prioritisation of the innovation initiatives in an organisation portfolio. The integration of the innovation strategy in the workflows and the investment decisions and their expected return can be the basis of an organisation's portfolio and prioritisation criteria that support the organisation in achieving its strategic goals.

- **Innovation process**. The way innovation goes from hypothesis or abstract idea to a viable business. Organisations should consider creating a process to incubate, qualify and test ideas before launching the most promising ones as a product or business. This process should also consider the learning opportunity that comes from failures as this is an essential part of innovation.

### Organisation

This component describes the structures that incorporate the innovation competencies: teams, divisions, leaders, as well as the relations between those responsible for driving innovation within and outside the company. Disruptive innovation involves a balancing act between separation from and collaboration with existing business units: usually, it occupies a specific area free from operational behaviours and existing limitations, but still sufficiently close to benefit from the company's structural scale. The three main levers that influence the organisation are experienced leadership, governance and collaboration.

- **Experienced leadership.** The way top management is involved in innovation. The CEO's vision and leadership is key to: ensure adequate funding, sponsor the initiative, justify it before all stakeholders (including the board), motivate, define the effort involved in the initiative and inform the board of directors about the need to allocate the necessary resources to support innovation.

- **Governance.** The way innovation related decisions are made and by whom. Innovation can be structured in a manner that fits an organisation's specific needs. However, no matter what the approach is (CEO, board, innovation leaders) it is essential to define who will be responsible and the process for the decision-making regarding direction and priorities, portfolio development, talent, resources and implementation.

- **Collaboration.** The mechanisms to identify and take advantage of external capabilities, associations and solutions to deliver innovation, as well as the mechanisms to achieve innovation that require collaboration between business units. Many organisations still view all innovation related initiatives as something that should be solely driven internally without considering the benefits of involving external innovation specialists, innovation centres and their own clients and suppliers. For example, startups – created to offer innovative products or services – often benefit from the support of venture capital companies and other partners.

## Resources and competencies

Disruptive innovation requires several resources: the people who will do the job, skills, tools and training to perform the job adequately, as well as funding and time. The three levers of this component are funding, talent management and innovation tools.

- **Funding.** The amount of financial resources allocated to innovation and the mechanisms to access that funding. Without an appropriate allocation of financial resources, it is unlikely for innovation to be achieved.

- **Talent management.** Attract and develop through specific training people with the required skills and at the right moment to accomplish the innovation. During the development cycle, innovation teams may require the skills and knowledge from other employees that have an operational, technological and financial perspective. The involvement of these people in innovation initiatives may be a rewarding experience as well as a development and growth opportunity.

- **Innovation tools.** Specialized protocols, software, procedures, etc. for different innovation aspects that enable experimentation. Technology solutions like software may be innovative on their own or may contribute to the implementation of an innovative product, service line or business. Other tools such as "hackathons" bring together people with different backgrounds to work on a specific problem for a limited time period.

## Metrics and incentives

These components comprise the goals that guide performance, the metrics to evaluate progress and the incentives (cash and others) to encourage behaviours that support innovation amongst employees. In order to foster innovation, it is important to define a set of leading indicators (inputs and activities) and lagging indicators (products and results), linked to individual and collective incentives. The three levers for the metrics and incentives component are financial and non-financial accounts, innovation metrics and external attractiveness.

- **Financial and non-financial accounts.** Cash incentives, formal and informal recognition of contributions to innovation. The involvement in innovation initiatives can be a reward in itself as it allows for personal growth. On top of this, organisations can create financial incentives, opportunities (through temporary releases and teamwork) and prizes, so as to increase the appeal of working in innovation projects.

- **Innovation metrics.** Goals and indicators to guide innovation decisions and measure the process progress. The achievement measures or the ways success is recognized are an important part of innovation.

- **External attractiveness.** Develop and promote the involvement of other organisations or groups in platform innovation, openness to external know-how. Create an open innovation ecosystem. Other organisations, including clients and suppliers, may be important to test new products or ideas, but may need incentives to get involved. Several collaboration formats may be required in order to access potential users for testing and evaluating products.

## The CIO as an innovation catalyst

The role technology plays within a company has been evolving since its introduction in organisations during the 1950's. Currently, technology infrastructure management is becoming a critical, though not strategic, process in the organisation. As a result of their commoditization and consolidation of vendors in the sector, many activities that used to be key in IT departments have lost strategic importance. On the other hand, outsourcing, cloud services and as-a-service products have been gaining relevance. However, technology is the main lever for innovation and information is an increasingly more valuable asset to the organisation. The role of the CIO evolves accordingly. Its focus is moving away from technology infrastructure management and moving towards more strategic positions within the organisation.

After all, IT is where the business activities meet the tools that enable them. Since this is where business capabilities have been developed, it has an unique knowledge regarding the business processes, their relations and strategic importance to achieve greater revenue, reduce costs or increase market share. The CIO is the foremost face of all this technical and strategic expertise which should be used to:

- Lead strategically through innovation
- Change the business alignment goal by IT leadership

The three levers that IT must develop in regard to innovation are:

### Innovation as technological improvement

The technology advances in fields such as cloud or virtualisation open up several ways for the CIO to manage and optimize processes while also enabling the evolution of complex backoffice operations to more agile and secure models.

However, since the IT strategy cannot be solely focused on improving current operations, the CIO faces the challenge of defining an IT strategy that integrates the optimization of existing business processes and technological innovation within the organisation, so as to create more business value through cost reduction, greater efficiency or the introduction of new products and services. Additionally, it is also extremely important that the CIO is up-to-date regarding emerging technologies and new data analysis tools, since monetizing data is becoming more and more crucial.

### Innovation in the organisation processes and work methods

Another challenge that the CIO faces when defining an innovation strategy is ensuring the full commitment of everyone in the organisation. In the case of open innovation, since it involves co-working, collaboration tolls are vital. For this reason, investing in mobile and social tools for employees to help them increase their productivity is the main lever in this context; or, in certain situations, investing in mechanisms that allow for fast and on-demand access to valuable and accurate data that will support decision-making.

### Business Disruptive Transformation

On top of improving daily operations and innovating to strengthen employee commitment and engagement, the CIO is also responsible for supporting the business in creating value.

The CIO must be involved in the business innovation initiatives, increasing his influence in the business strategy and leading the conversation on how innovation will support the organisation and its clients in doing things better, faster and smarter. This discussion will contribute to building the CIO's confidence and credibility before the board and the whole organisation.

## CIO vs CDO

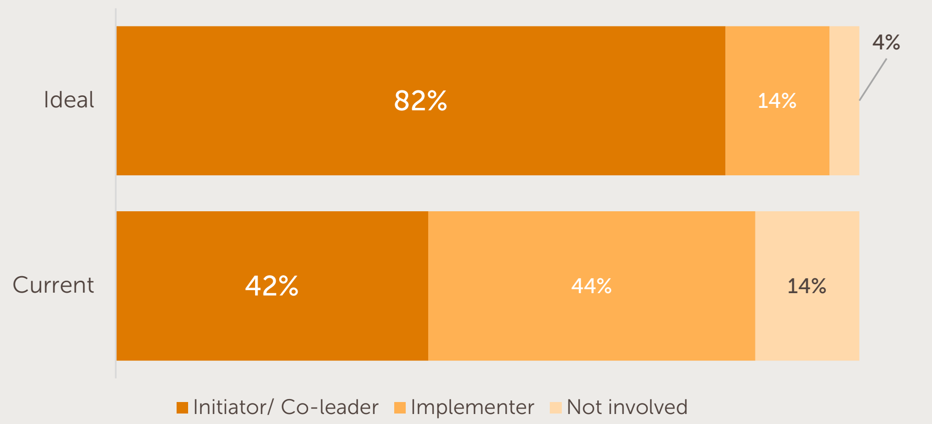
New roles have started appearing in businesses aimed at expediting the integration of emerging technologies through new businesses and several organisations hire a Chief Digital Officer, independent from the CIO and even with different functional dependencies within the organisation. Legacy functions and cost restrictions have burdened the CIO and, as a consequence, limited the resources available to accelerate digital transformation.

The experience has been suboptimal and it does not seem ideal to isolate those who work on bringing in new technologies from those who know the internal processes and technologies that support the business. Moreover, the implementation of any new project must be integrated in the existing architecture and comply with strict security standards. Thus, the CIO and CDO should be working closely in the same functional area, or else the CIO should take on those competencies and be ascribed the budget, authority and trust.

## Conclusions

Innovation is an important business function. The conversation about digital transformation is no longer focused on whether it should be done or not, but on how to achieve it. The CIO knows the available technologies and is able to use them to support and drive business. Since nowadays innovation is mostly supported by technology, the role of the CIO becomes even more strategic.

The new role of the CIO should involve leading or facilitating innovation while also being a key driver in any digital transformation process. ■




2. CIO'S ROLE IN THE BUSINESS STRATEGY [3]

[3] *Deloitte Global CIO Survey 2015*

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