

CIOs should raise companies to their full digital potential

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Today, customers embrace digital features in their daily life, to work, shop, book flights and holidays, socialise and connect, etc. All generations now actively use smartphones, tablets and apps. Wearable devices such as glasses and watches are emerging to allow users to interact with services and goods through augmented reality, thereby increasing opportunities to stay permanently online.



Digital technologies have moved the goalposts considerably. The question for businesses is no longer whether or not to go digital. It is how business and IT should be transformed to support the digital migration. To what extent, and how quickly, should processes and channels be digitised so as not to adversely affect market shares.

Digitisation should not just be seen as an additional customer interaction channel enabled by IT technologies, but also as an essential feature of modern business. Indeed, to offer the best customer experience and benefit the most from digital technologies, leaders must pursue a full digital transformation. They should not only flick the digital switch to increase revenues by acquiring and retaining clients attracted by new digital offerings, but also reduce their cost base line through automation and digitisation of core processes.

As the digital disruption fundamentally changes market dynamics, the speed and effort required to maintain a competitive edge call for a review of operating models and IT infrastructure. Only leaders achieving digital transformation will be in a position to innovate and turn digital spending into sustainable competitive advantages. This is true whatever the industry or sector.



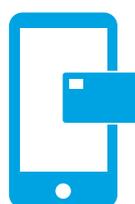
Speed of mobile adoption

Mobile adoption is happening 8 times faster than Web adoption in the 1990s



Mobile ownership

By the end of 2013, there will be more mobile phones than people on Earth



Mobile commerce

80% of consumers are planning to conduct mobile commerce in the next 12 months



For private banks and life insurance companies, offering automated portfolio advice using internet applications is becoming a basic feature. To keep pace with the market, retail banks now need to offer mobile access to personal assets and propose new ways of using digital payment platforms, like Digicash in Luxembourg. Most advanced banks are also entering the 'gamification' era by presenting information and interacting with clients in a more playful way.

In the retail industry, shops are beginning to equip themselves with digital touch points to increase sales. They are also increasing their visibility on digital channels by using shop locators, which allow stock and promotions to be consulted online.

At home, we are becoming both active watchers and actors of the programmes we view, while VOD (Video On Demand) and TOD (TV On Demand) are popular on all devices and take-up of interactive TV is rising. We have become our own travel agents, scouting out the cheapest flights, hotel vacancies and restaurants in the area. We are also willing to rate the service we have consumed. The number of digital travel platforms is booming and new aggregator platforms are emerging. Traditional travel agencies must consider how they could transform their business in order to stay afloat.

Car makers have devised new digital dashboards for interactive cars using technologies such as *BMWConnect*. Audi is experimenting in London and Berlin with Audi City, a new concept store to sell cars.

BMW and SIXT have created a joint venture to rent cars across Germany without a rental agency, and only using smartphones.

The public sector is also impacted by the digital disruption and sees it as an opportunity. Even if the service to citizen is currently quite limited in Luxembourg when compared with cities like Dubai, the 'Digital Luxembourg' group has been created as an initiative to develop more and more digitised services.

All these new possibilities are supported by the telecom sector, which is offering increased 4G cover complemented by hot spot access in many places, thereby allowing us to connect anytime, anywhere and at a reasonable price.

All of these examples illustrate that the pace of change is quickening: competition grows more fierce, time to market shrinks and consumers become more educated and self-directed. Companies wanting to stay ahead of the game must not only innovate and offer new digital services but also transform their processes and IT end to end. Those who do not consider digitising their operations and IT will likely fail.

The real challenge of a digital transformation is not about being able to develop mobile and tablet applications to complement existing channels. It is about delivering a specific customer experience using the most suitable digitised operating model within an existing legacy environment.

Signals

- The cloud services market is expanding five times faster than traditional IT spending
- Companies spent more than US\$30 billion globally on big data technology and services in 2013
- Leading CIOs describe their roles using terms such as 'imagination', 'chief innovation officer', and 'revenue-generator CIO'
- Half of CIOs feel unable to cope with the pace of change brought by digital technologies

The dual roles of the CIO in the digital age

The rapid adoption of digital technologies is putting new pressure on IT organisations. As spending on cloud, mobile, analytics and social technology soars, CIOs have the opportunity to help drive strategy, innovation and revenue growth. At the same time, these technologies present major new challenges in the traditional domain of IT: building and integrating information systems while cost effectively operating a reliable and secure infrastructure. The role of today's CIO is twofold: builder of technology and builder of the business.

IT organisations are changing. Whereas they previously focused primarily on building and operating IT infrastructure and automating business processes, CIOs are now looking for new ways to bring value to their businesses. Today's IT organisations are increasingly focused on revenue growth, customer experience and data-based insight.

This shift is due to the acknowledgement by leaders of the power of 'digitisation': the use of digital technologies to enhance productivity and responsiveness, uncover insights about customers, innovate and create new business models.

The digitisation trend is supported by the ongoing decline in the prices of connectivity and computing

The rapid adoption of digital technologies is putting new pressure on IT organisations

power, and the growing consumer adoption of digital technologies such as social and mobile media. From 2011 to 2013, for instance, the number of smartphone wireless subscriptions in the United States surged 70 percent to 200 million; average monthly mobile data usage per person increased 80 percent during the same period.

The thriving markets for digital technologies such as cloud, mobile, analytics and social media are a measure of their growing impact on companies:

- The cloud services market is expanding almost five times faster than traditional IT spending
- The number of mobile devices and wireless connections in 2013 grew to 7 billion globally, an increase of 500 million in one year
- Companies spent more than US\$30 billion globally on big data hardware, software and services in 2013, 25% more than in 2011
- Advertisers increased spending on social media advertising by 60% between 2011 and 2013 to US\$6 billion

It is important to keep the impact of digitisation in perspective. Cloud services, for instance, still account for less than 10 percent of the IT services market. Legacy applications and infrastructure are not going to disappear overnight. CIOs will have to manage, maintain and integrate them for years to come while guiding decisions about what to move to the cloud and what to keep on premises, for example.

The power of digital technology is leading CIOs to take a more expansive view of their roles. Their job is no longer merely to build and operate the technology their business needs to function. Increasingly, they will have to see their role as helping to increase revenue, improve customer experience, coax insight out of the growing amount of data generated by companies' digital operations and shape strategy.

A look at what the CIOs of some of the leading organisations in the United States are saying and doing illustrates the changing mindset and priorities of CIOs.

The CIO of the Coca-Cola Company aspires to be, what he calls, a 'revenue-generator CIO'. Coke is spending hundreds of millions of dollars each year on digital marketing, almost all of which is related to IT. The CIO says the marketing organisation often turns to the IT organisation for ideas about better ways to reach their customers.

At Dell, the IT and marketing organisations share a team that reports to both the CMO and the CIO.

The CIO of Walgreens holds two additional CIO titles: chief innovation officer and chief improvement officer.

Increasingly then, CIOs should play dual roles: builder of technology and builder of the business. Not all CIOs are able to or interested in playing the latter role, however. Some organisations are exploring the possibility of creating a separate position, Chief Digital Officer

(CDO), for an individual who would define and execute a growth-oriented digital strategy. CDOs may become more common in the coming years. But as all business becomes digital business, firms may ultimately merge their separate CIO and CDO positions.

While digital technologies are creating new expectations of CIOs, these technologies also create new problems. The traditional IT concerns of application integration, performance, cost management and security now require new approaches. Digitisation creates political and organisational challenges as well—a few of which are presented below.

Expanded role and relationships: increasingly, digital technologies are shaping and enabling corporate strategy. This thrusts CIOs into a strategic role, even as chief marketing officers, and in some cases chief digital officers, are playing in the same arena. Digital is also leading some firms to redesign core processes and operations, creating change management challenges. CIOs should forge ever-closer and more productive relationships with C-level stakeholders while navigating potential conflicts and competition.

Legacy IT infrastructures: companies implementing digital technologies often face requirements for scalability, high performance and flexibility, for which they are unprepared. Often this is because legacy IT infrastructures and applications are saddled with 'technical debt' that undermines agility and scalability.

Architecture and integration: companies adopting cloud computing face new questions about IT architecture: which systems should be based in the cloud, and which should be operated on premises? When is a public cloud appropriate, and when is a private cloud preferable?

Performance management: cloud providers offer service-level agreements with performance guarantees. But many IT organisations are unaccustomed to monitoring and verifying the performance of resources outside their firewalls. IT organisations may need to augment the services offered by a cloud provider to meet the service levels required by the business.



Shortage of new skills: as with any new technology, the use of digital technologies requires a whole host of skills and knowledge that are in short supply. These include managing cloud vendors; architecting mobile and cloud security; and developing cloud applications, which require new tools and increasingly use DevOps, an emerging software development methodology that stresses collaboration between software development and IT operations.

Security: companies face major challenges when balancing security requirements with users' demands for an easy, attractive mobile experience. This is especially true when mobile devices are becoming diverse and may run software of unknown origin alongside authorised company applications. Cloud computing presents its own security challenges. Organisations should allow their networks to connect with multiple cloud service providers' networks, which opens new vectors and increases the risk of cyber-attacks.

Think big, start small, fail quickly, scale fast: because digital technologies are disruptive and digital capabilities need to be inserted into existing operational environments, digital transformation cannot take a big bang approach but should rather be a step-by-step journey. CIOs should provide separate dedicated and agile environments to prototype digital development. Provision should be made for them alongside legacy IT infrastructure so as not to disrupt or destabilise it. Once they are mastered and validated by the business and IT organisation, digital developments can be integrated within the core business platform. CIOs also need to expand their role, take new bets on risky investments or decisions and give themselves permission to fail in order to succeed. Organisations are missing a trick if CIOs feel the need to wait for permission from business leaders to innovate.

So how do you get started with the digital transformation as a business leader? Don't wait until you have all pieces of the puzzle before you start. Be agile, start small—depending on your company's digital maturity—by looking to reposition your company's offering in the digital ecosystem using pilots and proof of concepts. Refine the strategy step by step.

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Use the CMO to lead the digital transformation programme and encourage a digital culture within the organisation itself. Use digital champions to educate and encourage others to think of digital as a core component of the business.

Trust and confidence established with customers must be maintained with the introduction of the new digital operating model and through the creation of the digital user experience. Continue to ensure that your new digital operating model is robust and secure.

Digital transformation does not come without cost and involves significant investment. The success comes from converting costs into revenue and efficiency.

How to measure the benefits of the Digital Transformation

Reporting to senior business leaders and peers on the net position of the digital portfolio will provide clarity on the overall contribution of investments to business value. The digital strategy, the roadmap and the investment plan combined with Key Performance Indicators (KPI) and metrics are essential in the digital transformation. Those KPIs can report on many dimensions. They do not only consider the company's P&L, they report on revenue creation, customer satisfaction, customer retention, cost reduction, productivity and efficiency, and measure customer experience differentiation with others competitors. This will give executives the means to monitor the realisation of the digital business case.

Adopting a 'test and learn' approach to deploy the digital operating model is a proven method. Working with proof of concepts and pilots in a flexible way reduces the time-to-market of the new digital product or service and will give early indicators of the return on investments such as increases in sales, increases in visibility and the project's pitfalls. This will allow leaders to refine the roadmap and the operating model quickly if metrics show that objectives have not been reached.

Every digital business case is different depending on the company governance and culture and the type of business. However, there are some best practices to improve chances of funding the business case:

- Measure costs and benefits at brand and customer level
- Do not expect an in-year return
- Reassess investment decisions on a quarterly and yearly basis
- Work by pilots and proof of concept to assess pitfalls and success in order to refine the strategy and realign spending and investment strategy to support the digital transformation

Typic dimensions to consider in a business case



Trust and confidence established with customers must be maintained with the introduction of the new digital operating model and through the creation of the digital user experience

