



Creating a future-ready IT function - today

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Being a digital leader is a “do or die” proposition

For every company, digital solutions are becoming the oxygen which allows a business to breathe and run at market speed. Digital is now mainstream in every business and across every sector - it isn't just about those tech giants or unicorn start-ups that we all recognize. IDC predicts that by 2022 fully 80% of revenue growth will depend on digital offerings and operations¹. For the IT function of the future, this means your organization can live or die by the way it delivers technology services, responds to issues and manages expectations.

It seems the world has now moved on from arguing about what digital means to actually using it to deliver some value. Our recent study of IT leadership found that 61% of companies that are effective at using digital technologies see higher revenue growth than their competition². In fact in manufacturing, a sector not known for digital innovation, the figure goes up to nearly 70%². According to Steve Bates, Principal and global leader of KPMG's CIO Center of Excellence, “We are seeing businesses which have existed for tens / hundreds of years starting to successfully digitally transform their business, integrating their front, middle, and back offices into what KPMG calls the connected enterprise, all laser focused on the customer.” Companies demonstrating a greater ability to execute on a customer-centric strategy spanning the organization are eight times as likely as their less-successful peers to deliver experiences that consistently exceed customer expectations³. Customer-centric organizations are also 38% more likely to report greater profitability than ones that are not². “If you're like many organizations, you may

struggle to deliver value to customers while delivering a meaningful return to the company. This is often due to a focus only on customer-facing operations,” continues Bates. CEOs are taking notice and taking action, with over half (54%) saying they are actively disrupting the sector in which they operate, rather than waiting to be disrupted by competitors⁴. Whether it is called disruption or digital transformation, the future of IT will be inexorably intertwined with this concept of the connected enterprise.

“The companies that are winning in the market are not asking IT to keep the lights on. The importance of technology in driving growth and reducing risk is fully recognized in the boardroom,” Bates notes.



There's simply no longer business strategy and technology strategy. There's just strategy, and technology is driving it. The opportunity here for IT is to make it accessible to everyone, enable it without friction and empower teams to harness technology to unleash creativity - without the burden of it.”

Steve Bates, Global Lead - CIO Center of Excellence, KPMG International

While there is a great deal of investment and senior leadership interest in keeping pace with tomorrow's customer, more than 80% of the leaders polled are concerned about their organization's ability to both design and implement the operating model of the future⁵. And unfortunately, 78% of CIOs believe their digital strategy is only moderately effective, or worse².

¹ IDC Press Release, IDC Launches New Framework to Accelerate Digital Transformation and Help Enterprises Become Digital Natives (IDC, Oct 2017)

² Harvey Nash / KPMG CIO Survey 2018 (Harvey Nash and KPMG International, 2018)

³ A commissioned study conducted by Forrester Consulting on behalf of KPMG International, Sept 2018, of 1,299 global professionals involved with customer-centric strategy decisions at their organizations.

⁴ KPMG CEO Outlook 2018 (KPMG International, 2018)

⁵ KPMG Global transformation Study 2016 (KPMG International, 2016)

Six ingredients are needed to deliver business value

The IT function runs a real risk of being left behind as their business partners work to innovate at market speed. Digital leaders that are outpacing their rivals are getting six key ingredients in the right mix to deliver value for the business.

1. Rewriting a market speed operating model

Moving to the future of IT means fundamentally changing the IT operating model - the way the IT estate works to bring value forward to the business - in ways that will enable connected enterprise benefits. Bates explains, "It's important to note that 'IT operating model' does not mean the 'IT function'. For many companies this means embracing an ecosystem of federated IT and business-led capabilities and external partners. Instead of a single monolithic structure, the operating model of the future is a blend of different structures and speeds tailored to meet product or service objectives."

The rewrite of the traditional to modern delivery operating models realigns capabilities and people from siloed projects and run activities to full stack customer experience teams that enable the delivery of new products and services at speed and scale. Agility is key - being able to flex delivery based on market demands and understanding that not all products have to be delivered at the same speed to maximize value.

Bates sums it up by saying, "The future of the IT operating model is really a recognition that the DNA of the enterprise needs to change, that the era of supply and demand IT is over, and that monolithic organizational structures don't effectively support the customer experience. The challenge for each organization is to understand how much of any one element is needed to deliver value. Getting the mix right is where most companies will be investing over the next five years. "How many products do we need? How much cloud delivered by how many providers, where do we scale agile delivery, what portions of the value chain need ML/AI, what intellectual property do we retain versus buy? In short, an inflexible operating model will be the technical debt of the future."

2. Dynamic investment

Moving at market speed also means that resourcing - both in terms of money and people - needs to do the same. "There is a popular saying - 'No bucks, no Buck Rodgers,'" says Jason Byrd, leader of Technology Business Management at KPMG in the U.S. "You can have the fastest agile development shop in the market and leverage the latest toolchain, but if it takes 6-9 months to release capital to fund an idea you've defeated the purpose."

Large investments are losing favor to small, more frequent investments that return value quickly. Organizations are increasingly "thinking like a VC," placing smaller bets more often and incentivizing experimentation. This is a significant shift for IT, finance and business stakeholders.

Companies that thrive in the digital era embrace the following IT investment principles:

- Fund value instead of projects: Shift to funding products linked to business or customer value which are connected to the overall business strategy.
- Adopt iterative and leaner funding: Be willing to fund products before all of the details are defined.

- Decentralize and delegate decisions: Delegate decisions down to the business and technology leaders closest to the technology project being funded.
- Catch bad ideas faster: Adopt a mindset and toolset to enable smarter and faster decisions, while discarding bad ideas more quickly.
- Communicate transparency and value: Transparency should be built across the entire lifecycle of products from ideation through support, with a way to share the results and value.

The results speak for themselves. By shifting to a dynamic investment model, one large healthcare company improved forecasting accuracy to over 95% in one-tenth of the time while reducing the cost of their application portfolio by \$100k annually⁶. “Both the finance and agile teams committed that they must move, decide and fail fast to learn and advance together, or pivot the solution, and free resources for other projects” Byrd explains.



3. Flexible IT workforce

IT workforces have gone through change after change in recent years. Outsourcing changed the way an IT workforce was provided. Globalization changed the way the IT workforce delivered. Looking into the future, the emergence of Gen Z, hyper-automation and the gig economy will revolutionize IT even more. Within the context of the market speed operating model, the IT workforce will be the lead facilitator and connective tissue throughout the enterprise. IT will establish a broad ecosystem of talent - retained, sourced, and contracted - while taking advantage of intelligent automation in areas like agentless service desk, virtual operational engineers, and machine learning to support development and testing.

In another example of strengthened collaboration, CHRO and CIO will reinvent how they acquire talent, manage employee engagement, and build better culture. With between 20-30% of the working age population in the US engaged in ‘gig’ work in some way⁷ and an estimated six billion hours of skilled labor to be automated by 2022⁸, creating a great culture is a top challenge in attracting, developing and retaining the IT skill pool of the future.

Older, more experienced workers are retiring. Millennials and Gen Z professionals are entering the workforce, and their dramatically different needs, desires, and ways of working must be accommodated. When HR and IT team together to reduce the burden on employees, it is easier and more enjoyable for them to do their job - driving job satisfaction and loyalty. Additionally, by meaningfully incorporating intelligent automation, machine learning and AI platforms into how work gets done, a cognitive shift occurs. Beyond simply automating rote activities, these technologies will enable workers to gain insights and increase productivity in ways that were previously impossible. This shift from low value activities to higher value creation directly contributes to the top and bottom line.

The successful IT workforce of the future will create an on-demand workforce of partners, providers and staff, ultimately giving employees the freedom to do the work they want to do, how they want to do it.

⁶ TBM Council Case Study - IT's role in efficient healthcare delivery (TBM Council, 2017)

⁷ Independent Work: Choice, Necessity & the Gig Economy (McKinsey Global Institute, 2017)

⁸ The Future of Jobs 2018 (World Economic Forum, 2018)

4. Modern delivery

The connected enterprise relies on aligning all parts of the IT value chain to customer outcomes. Native digital companies break down the traditional silos that limit IT agility by integrating the business, engineering, testing and operations into full-stack teams, automating large portions of the value chain, and creating a culture of collaboration focused on customer/employee outcomes at the speed the market demands.

While concepts like Agile, Scrum, Product Management, and DevOps are not new concepts, traditional companies are leveraging new frameworks like SAE and SRE to scale and sustain the product-centric engine outside the bounds of the IT function. According to Mike Wolf, leader of KPMG's Modern Delivery services in the US,

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Successful modern delivery organizations take a holistic approach, and put changing the culture in the middle, by simplifying and aligning and fully empowering business and IT teams.”

Recent Forrester research confirms that companies that undertake a combined Agile and DevOps transformation approach are 15% more likely to achieve business value, 25% more likely to gain business and IT alignment, and 35% more likely to improve technical quality⁹. Early adopters like Spotify and Capital One embrace the connected enterprise, building loosely coupled, tightly aligned squads that move fluidly while staying rigorously aligned to narrow objectives and goals.

As with any major shift in the delivery model, there are important areas that are often overlooked, but are essential to success. “Compliance, regulatory reporting, data protection, controls, and performance management are all critical ingredients to successfully scaling modern delivery,” says Wolf. “There is clearly a difference between doing things right and doing things fast.”

5. Customer trust

In KPMG's 2017 CEO Outlook survey, 61% of CEOs believe that building customer trust is a top priority. And 92% of C-suite executives worry about the impact to reputation due to trust in data¹⁰. Consumers are increasingly uneasy about how their data is being used, with nearly half reporting that they are more concerned than they were five years ago¹⁰.

“Consumers are anxious, with younger generations feeling it the most,” says Julio Hernandez, KPMG's head of global Customer Advisory and U.S. Customer Advisory lead. “They like new technology, but are concerned about handing over personal data and what that could mean for their privacy and security. They want to feel that they are in control at every stage of the business relationship.”

This lack of trust costs global brands \$2.5T a year¹¹. IT increasingly finds itself in the center of the trust conversation, from how data is used and protected to how products are developed and deployed. CIOs are regularly being asked by the Board about the current technical risk stance and threat landscape, and how well the enterprise is prepared.

According to Martin Sokalski, KPMG's global leader for Emerging Technology Risk, this is an excellent opportunity,

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Technology leaders have a unique perspective, relevant experience, tools and capabilities to lead both innovation and digital strategy as well as set the tone at the top from a risk governance and controls perspective.”

According to Sokalski the traditionally siloed risk and security functions must be shifted upstream and embedded into the front end of the technology lifecycle. “Mature software and engineering companies have been designing and developing products that are secure by design for quite some time. However, as more traditional companies expand into the digital business model, it is incredibly important that they both design products and handle data with a lens on customer trust.”

⁹ Percentages calculated by KPMG International based on figures included within Forrester blog: [“Agile Only? No thanks! Agile + DevOps, Please! Plus DevOps Is Slowly But Steadily Reaching Enterprise Scale”](#), by Diego Lo Giudice, December 21, 2017

¹⁰ Me, my life, my wallet (KPMG International, 2018)

¹¹ Lack of trust costs brands \$2.5 trillion per year (Social Media Week, 2018)

6. Data as an asset

For the connected enterprise, data is the most significant intangible asset, powering new technologies and an ecosystem of third-parties providing everything-as-a-service. But these approaches are only as strong as the underlying data feeding them. According to Traci Gusher-Thomas, KPMG Innovation & Enterprise Solutions Principal in the U.S., “Any given organization has 80 percent or more of its data locked up as unstructured or ‘dark’ data, making it difficult to analyze and gain insights.”

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The amount of value sitting in ‘dark’ data is tremendous. Data is the new gold and our clients are struggling with how to mine it.”

Jorge Blanco, Principal – Advisory, KPMG in the U.S.

That is especially true when considering new business models that allow any company - regardless of size or industry - to be more nimble and scale infinitely faster. By accessing services rather than growing internal functions and infrastructure, and by capitalizing on emerging technologies such as artificial intelligence, 21st century enterprises can generate insights from massive amounts of data to improve business operations and transform customer experience.

The IT function of the future will help organizations substantially reinvent data supply chains, increase the modularity and governance of data, help author and architect new semantic data taxonomies, deploy advanced API marketplaces, and foster advanced self-service analytical capabilities.



Accept the challenge

The rationale and promise of digital transformation is real. Delivering on the potential benefits of a future-ready, connected enterprise is challenging, and it requires extensive IT involvement. In many cases, the IT function must go through its own transformation in order to be an effective business partner in a digital world. That rewrite is no small task and relying on outdated ways of delivering technology-enabled business change will not work.

For many leading organizations, these six ingredients are not new concepts, and many organizations are experiencing some degree of challenge in defining and scoping their effort in these areas. But these ingredients aren't binary - an organization is not entirely "modern delivery" or not. What is new is that most organizations need to find the proper scope and scale to implement - the scope and scale that results in connected enterprise benefits - and move to this solution as if their last breath depends upon it.

Why KPMG?

KPMG member firms recognize that CIOs and IT leaders face increasingly complex demands and challenges. Today, IT must advance the business, not just support it, with boards increasingly expecting returns on digital investments and the implementation of successful digital transformation strategies that will drive up agility, responsiveness and enhance the customer experience.

KPMG professionals can help CIOs, technology leaders and business executives to harness new technology and improve the strategic value of their technology investments. If your business is seeking ways to leverage technology as a source of innovation and competitive growth, KPMG member firms can help.

Related reading

This paper is part of KPMG's Future of IT series, exploring the six most important things that market leaders will do in IT over the next five years. For more on the Future of IT and to read other papers in the series, please visit kpmg.com/Future-IT.

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