



Introduction

In a recent episode of the HBO television comedy Silicon Valley, a wealthy entrepreneur claimed that his new digital nanny was disrupting fatherhood by letting him be the nice guy and friend to his son while the "nanny" was the bad guy responsible for disciplining him. Outside of fictional television fatherhood is probably safe from disruption but the reality for most businesses is much different, few are safe from digital disruption.

For many organizations the question has become to what degree will digital disruption impact their business and more importantly what can be done about it? In a recent survey of IT executives conducted by Harvey Nash in association with KPMG, 62% of respondents said that their business was already being disrupted or would be within two years yet only 27% indicated that they had an enterprise-wide digital strategy¹. The fact is that unless a company is a greenfield startup, responding to digital disruption presents CIOs with a number of significant challenges to overcome.

Part of the problem is that digital disruption is about much more than understanding and deploying new technology.

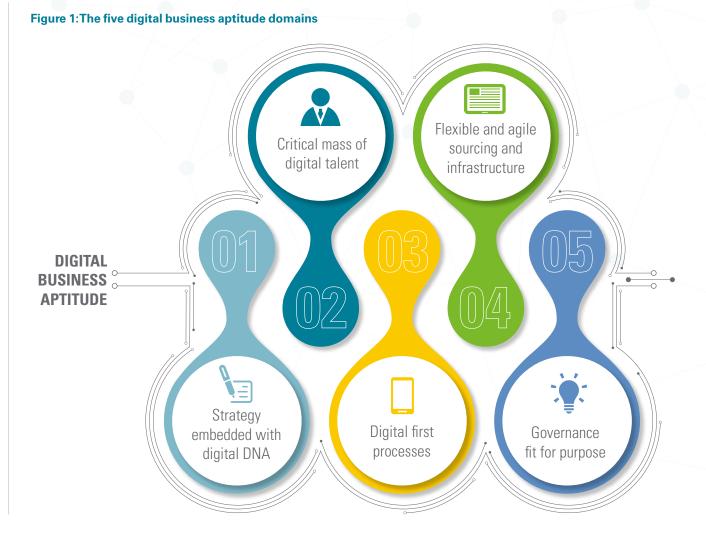
It is driving a wave of innovation in business models, products, services, and internal business processes that can threaten an organization's survival. And responding to digital disruption involves the entire enterprise, not just IT. In addition to harnessing new technology it requires new ways of thinking and doing business, new roles and skills, new organization structures and operating models, and adapting to a much faster rate of change.

Our research and experience with early adopters has provided insight into the practices and capabilities required to successfully undergo a transformation to digital business. KPMG has labeled this collection of practices and capabilities an organization's digital business aptitude or DBA. By assessing its DBA, an organization can obtain a diagnosis of how well positioned it is to successfully navigate digital transformation and identify gaps that need to be closed. This KPMG point of view introduces the Digital Business Aptitude and its accompanying Self-Assessment Diagnostic.



Five domains define your digital business aptitude

As organizations confront the reality of digital disruption they find themselves in uncharted territory. In some cases they find their competitive advantage has evaporated seemingly overnight while others find that their entire business model is no longer relevant and their very survival is at stake. Fortunately, there are examples of firms across a number of industries that have successfully responded to digital disruption. We have identified five domains that describe the key practices and capabilities that correlate with an organization's ability to successfully undertake a digital business transformation (see figure 1). First, they have a clear vision of what digital means to their business and they have embedded their strategy with digital DNA. Second, they have assembled a critical mass of digital talent through a combination of internal and external resources and they leverage that talent across the enterprise. Third, the have digitized their core internal processes to create operational efficiencies by eliminating some processes and automating others. Fourth, they have established a flexible and agile infrastructure and sourcing model to increase flexibility and reduce time to value. Lastly, they have re-designed their governance to encourage and support innovation while enhancing their management of risk. These five domains and their attributes are described in more detail in the following sections.





Organizations with a strong aptitude for digital business have a holistic vision for how digital disruption will impact their business including threats, opportunities and the role digital will play. They also take a top-down, enterprise-wide approach to strategy. Individual business units with entrepreneurial leaders acting on their own can obtain positive outcomes from leveraging digital technologies. However, maximum and sustainable benefits occur when digital strategies are formulated at an enterprise level. These companies do not have a separate digital strategy; digital DNA is embedded within the business strategy.

By virtue of their cross enterprise perspective, visibility into core business processes, and a deep understanding of the technology, CIOs can work with the C-suite and business leaders to help them understand and take advantage of synergies across the enterprise, spread leading practices, eliminate duplication of effort, ensure compliance with internal and external policies and regulations, and align resources and priorities that maximize benefits enterprise-wide. At the same time, they have a realistic perspective and understand that the rate of change is fast and strategies that make sense today may be obsolete in a year or two so they also remain flexible and ready to adapt if necessary.

Digital transformation often requires significant change to existing ways of working. It may de-emphasize the importance and need for certain roles and skills while requiring new and different ones. Cultural and organizational change of this magnitude has a higher probability of success when the CEO takes a highly visible role in promoting it. The four statements in Table 1 below comprise the vision and strategy domain.

Table 1: Vision & strategy domain

Vision	Senior leadership has communicated a vision for the role of digital in our business, which includes realistic goals for the coming year.
Strategy	We have an enterprise-wide digital strategy for addressing opportunities to better engage with our customers, workers and business partners.
Leadership	Our most senior executives understand the threats and opportunities presented by digital disruption and are demonstrating their commitment to our digital strategy.
Culture	We are living our strategy by enabling our employees with a rich set of digital and mobile technologies.



Invested in digital talent



Executing the new digital business strategy will require new roles and skills within the IT organization and across the enterprise. Leading companies understand that talent management must be a top priority. Unfortunately, many of the most critical digital skills are in very short supply and with demand increasing will likely remain so for the foreseeable future. This will require aggressive and creative approaches to acquiring and retaining talent.

Some CIOs are going beyond traditional methods for obtaining the digital talent they need by creating strategic partnership with digital consulting firms and even acquiring small companies specifically for their digital talent. Others are making use of centers of excellence and digital acceleration teams to leverage the scarce resources they have across the enterprise. All of these approaches can be used to "buy time" to develop additional talent within the organization. The four statements in Table 2 below comprise the digital talent domain.

Table 2: Digital talent domain

Talent acquisition	We actively recruit digital talent using both traditional and innovative methods like meet-ups and coding competitions
Talent Development	Our training programs support our digital strategy and technology investments including a curriculum to build our internal digital IQ.
Skills optimization	We leverage existing digital talent to support digital initiatives across the organization, e.g., centers of excellence.
Talent pools	We accelerate digital initiatives by augmenting our internal talent with specialized external resources and collaboration tools, when needed.









Organizations must adapt their thinking to "digital first" for everything including their internal processes. The digital space is a multi-device, multi-mode, omni-channel world where quality is measured not by traditional metrics like schedules, budgets, and defects but by user experience including internal stakeholders, partners, and external customers. Through the use of analytics organizations can customize their approach down to the individual. A "one size fits all" approach is no longer an option.

Customers expect to be able to do business 24X7 wherever they happen to be with whatever device they are currently using whether it's a PC, a smartphone, game console or a kiosk outside the supermarket. Likewise, for employees, work is quickly becoming defined as something that you do, not by a place that you go. The "office" is now more likely a Starbucks, an unused bedroom, an airplane seat, or even a poolside cabana.

This anytime, anywhere, any device environment coupled with an ever increasing pace of change requires flexible and agile processes that are underpinned by analytics driven insights to constantly tune and optimize platforms and solutions. The four statements in Table 3 below comprise the digital first processes domain.

Table 3: Digital First Processes Domain

User experience design	When designing digital experiences, we use behavioral and ethnographic insights to design high quality digital interactions that drive behaviors.
Development	We employ flexible, iterative and agile development, when appropriate, to develop competitive digital products and respond to rapidly changing technology.
Optimized platforms	Our apps are optimized to support the latest design and development frameworks for browsers, Android, iOS and other mobile platforms.
Measurement & analytics	We capture relevant data to enable meaningful analysis of adoption, usage, effectiveness and business outcomes of digital apps and sites.



Agile sourcing and infrastructure

To keep the pace required by digital transformation, organizations will need to completely overhaul their approach to sourcing solutions and provisioning infrastructure. Vendor management will be another required core competency.

Legacy infrastructure tends to be complex, rigid, time consuming, and costly to provision and maintain becoming a barrier to the speed and agility required to execute a digital agenda. The rapid development and availability of public, private, and/or hybrid cloud environments represents an alternative for hosting both new solutions as well as migrating existing applications.

Furthermore, the need to significantly reduce the time to value for new solutions dictates a shift away from the practice of internally developed, highly customized solutions to one where existing solutions are sourced externally and integrated with existing systems and data facilitated by the growing supply of Everything as a Service (XaaS) offerings. At leading organizations integration capabilities displace development capabilities as a core competency and architectures are adjusted to facilitate integration. The six statements in Table 4 below comprise the sourcing and infrastructure domain.

Table 4: Sourcing and Infrastructure Domain

Strategic Partner relationships	Our sourcing strategy is designed to help the organization innovate and deliver digital solutions by partnering with leading digital technology firms or design agencies.
Mobile	We effectively understand and address the unique characteristics of the different major mobile platforms in our plans, apps and policies.
Mobile engagement	We effectively use mobile to engage with our customers, our workers, and our business partners.
Social Media	We understand how to effectively use social media and we measure our results using fit-for-purpose social media analytic and listening tools.
Infrastructure	We optimize our use of public, private, and hybrid cloud infrastructure for affordable scalability and availability based on real time demand
Agile architecture	Platforms for our digital solutions are architected for agility and separate function from the user experience layer.







Governance fit for purpose

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Digital disruption is driving innovation in business models, optimizing internal processes, unleashing new products and services, and radically changing how organizations engage with customers. Often IT organizations are expected to step up their game and innovate to enable the business to be competitive. But all too often, governance becomes a barrier to innovation because it is designed to minimize or even eliminate risk, whereas innovation almost always introduces risk. CIOs must work with business leadership to define a governance framework that effectively manages and mitigates risk to embrace and encourage innovation.

Leading organizations implement digital governance that actively monitors the evolving technology ecosystem and adapts accordingly approaching risk in a holistic and balanced way. They also take a disciplined approach to architecture and standards to ensure consistent and measured adoption and introduction of new digital technologies. The four statements in Table 5 below comprise the governance domain.

Table 5: Governance Domain

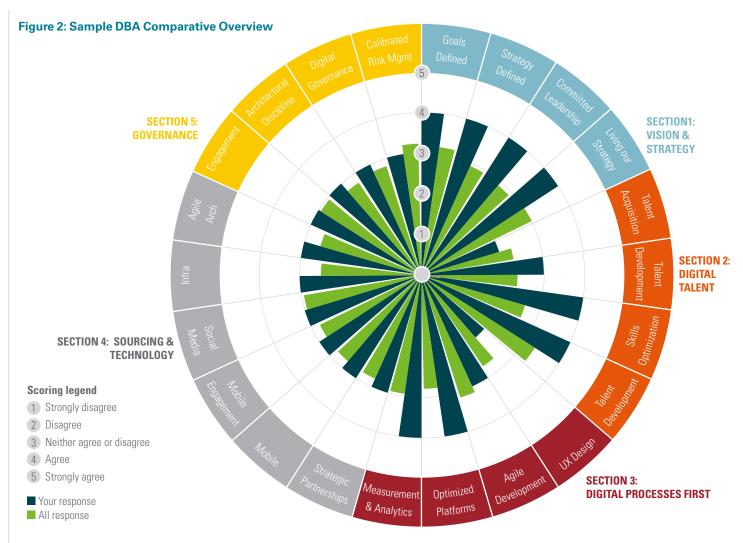
Engagement	Digital project sponsors engage business and technology leaders to make collaborative decisions on project focus, funding, resources, costs and timing.
Architectural Discipline	We have documented standards, approaches, policies, evaluation and approval processes for digital development and the introduction of new digital technologies.
Digital Governance	We have a governance body that actively monitors the changing disruptive technologies landscape and addresses the implications on our technology policies, architecture and standards.
Calibrated Risk Management	Our risk management methods take a holistic and balanced approach to identifying and assessing potential privacy and security issues associated with evolving digital technologies and provides sensible input for updating policies and standards.



Measure your DBA

Organizations can measure their DBA by completing the DBA self-assessment diagnostic tool available online at www.kpmg.com/us/dba. The first time completing the assessment will result in a baseline that identifies gaps that need to be closed. Overtime organizations can expect to compare their DBA against others including all responses in the database, by industry sector, and by company size. One of the outputs of the assessment is the comparative overview shown in Figure 2

of respondents said that their business was already being disrupted or would be within two years...





How KPMG can help

As digital disruption accelerates and drives change for IT organizations, CIOs are hearing from multiple consultants and vendors seeking to help them address portions of the challenge: implement a mobile first approach, build an enterprise app store, focus on architecture, or simplify your infrastructure. The messages are not necessarily wrong, but taken individually they do not constitute a digital business strategy. CIOs need an advisor that approaches digital holistically and in the context of the business, not just as another IT project.

KPMG recognizes that today's CIOs face an increasing number of demands and complex tasks. We can help you become the strategic technology partner that your business requires. KPMG firms offer an experienced viewpoint and independent advice, and our Management Consulting –Technology practice brings experience, lessons learned, tools, and accelerators to help enable the business of the IT organization.

KPMG has also leveraged many of the successful digital solutions we've built for our business clients into a suite of enablement-focused services, focused on helping IT organizations build out their digital capabilities, tools, methodologies, skills, people and operations.

Our professionals work closely with IT executives to provide candid assessments and recommendations as well as valuable support to help in the change process.

If your organization is seeking to innovate, take advantage of new technologies, deliver value faster, or be more agile, KPMG can help.

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