

Part 1 of 2

Cultivating Leadership in a Post-Digital Era

A Forrester Consulting 'Thought Leadership' Article Commissioned by Huawei

Business leaders recognize that the only way to keep pace with change is to modify their organizational culture, break down silos, and encourage a customer-centric approach. >>

Success in commerce once meant building better products and services. In the post-digital age, however, products and services cannot succeed alone — you must design new digital experiences as part of your business model. And your business must be engineered to constantly innovate and evolve with emerging technologies. In other words, your existing business isn't designed for a post-digital world, and, without significant change, your survival is uncertain.

Emerging technologies continue to reshape market dynamics, and you must be agile to compete. New market differentiators set future digital competitors apart across all markets. Customer-obsessed firms exhibit greater business agility in customer service, use emerging technologies to create new sources of value for their customers, and reshape their operations around customer journeys.

To succeed, you must become customer-obsessed and fundamentally digital. Most businesses focus on bolting shiny new technologies, such as mobile Apps or impressive websites, onto their existing business or implementing technology solutions to gain operational insights and improve efficiency; however, this transformation — and creating the business agility needed to win, serve, and retain customers — requires changes in process and culture. You must rethink the way your products, services, and digital experiences combine to create value for your customers.

Because revenue growth now comes from the continuous application of technology innovation, in-

vestment criteria are shifting away from continuously minimizing technology expenditures. Instead, these investments are increasing, which raises a few pertinent questions: How should you develop an approach to business technology? How can you best unleash growth potential? What should be your key priorities?

Forrester Study: Trends, Growth Inhibitors, and Solutions

In June 2016, Huawei commissioned Forrester Consulting to evaluate some of the key global challenges, drivers, and trends facing businesses as they adapt to continuous change. To explore this trend, Forrester conducted a custom study to identify key business trends, growth inhibitors, and innovative solutions being adopted across industries. The study included in-depth surveys of 212 senior business and technology executives in the U.S., the U.K., Germany, Australia, India, Mexico, and South Africa. Participants are business and IT decision makers and leaders within their organizations.



This study yielded a number of key findings:

- **Every company will become a technology company.** In the near future, every company must learn to use technology to drive revenue. This will turn each one into a technology company, moving technology from the back office to the front and significantly increasing the risks and rewards associated with making the right investments.

- **Cloud services will become as common as electric lighting.** Without cloud connected technologies, little of today's agility and innovation would be possible. Cloud services will quickly become the default for technology teams globally, with increasing use of public cloud services in support of core business capabilities.

- **The level of change coming will dwarf everything that has come before.** Over the past 30 years, we've witnessed significant technology changes in business. But that's nothing compared to the changes coming in the next decade. As companies up and down the supply chain harness the power of Internet-connected technologies, the transformation will be seismic.

- **New technology architectures are needed to support the coming changes.** Old architectures are slow and difficult to change; therefore, companies must quickly learn to adapt their architecture. New architectures — designed for continuous change — will give leading companies a competitive edge. Digital sensors, Big Data analytics, Machine Learning (ML), Artificial Intelligence (AI), and emerging technologies, such as augmented reality, must be incorporated into the fabric of the business.

- **New business models will drive revenue and growth.** Technology-enabled services will replace the sale of widgets. We are rapidly moving into a business phase in which customers pay for outcomes enabled

by the product, without the need to own it. Companies must learn to build new revenue models around the delivery of outcomes most valued by their customers. These new business models are enabled by such converged technologies as the cloud, the Internet of Things (IoT), mobile, AI, and Big Data analytics.

- **Companies must simplify most of their technology.** The days of customizing all of a company's technology are gone. Instead, executives must jointly agree to standardize and simplify the vast majority of an organization's technology to focus scarce resources on creating unique capabilities around the parts of the business that are truly differentiating for customers. To accelerate this innovation and change, and drive revenue, executives are turning to technology vendors.

Ready for a Post-Digital World?

Digital experiences are no longer an option; today, every business must integrate engaging digital experiences for customers (and employees) into the business model. Your customers want products and services faster, better, and cheaper, and with a better experience — and technology makes this possible. Thanks to powerful, consumer-friendly digital technologies, customers no longer have limited options and can now set expectations, define terms, dictate prices, and isolate bad supplier behaviors. You can no longer simply produce great products and services and expect to succeed. You must also collect and analyze data to design and deliver great digital experiences that create customer value.

Business leaders must create a compelling vision of a newly imagined digital business — one that the CEO and executive board can support. The old product-oriented business silos work well for efficiency, but they often work against customer centricity.



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You must see the business from the outside in and transform into a company obsessed with pleasing the customer.

Even in transformational companies, however, legacy technology needs attention. The monolithic operational applications and hardware that run at the core are often slow and expensive to maintain and difficult to secure. These complex legacy systems can present a huge barrier to business agility. Technology simultaneously acts as a catalyst for change and hampers progress.

Becoming a Customer-Obsessed Technology Company

Because every customer now expects a digital experience as part of a supplier's value proposition, revenue growth is intrinsically bound to the ability to leverage technology. Transformational leaders use emerging digital technologies to create new sources of customer value.

- **Transformation demands more than a 'bolt-on' Strategy.** Forty-eight percent of companies view digitalization as a means to extend the existing business model (adding a digital element like eCommerce or social media marketing) without fundamentally rethinking the way customers achieve the outcomes they value. This 'bolt-on' mentality works to a point, but transformational



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companies go much further, re-imagining their business model from the outside in. Twenty-five percent of respondents to this survey already have a more transformational strategy in place.

- **Digital technologies improve customer experience and operational excellence.** Business leaders recognize the value of putting the customer at the center of their business strategy while also improving operational agility. Fifty-six percent of executives place improving operational excellence and agility with this customer-centricity as their top three priorities. And 53 percent place designing new digital customer experiences in their top-three business priorities.

- **Cloud services will form the backbone of tomorrow's digital business.** Cloud services are now commonly used across all industries, with 94 percent of companies reporting that they use cloud services to support core business applications. This dependence upon cloud infrastructure, applications, and advanced intelligent services will only increase. As companies gather increasing volumes of data, cloud services support AI and ML to analyze data at the edge of the network, creating near simultaneous machine-driven experiences for customers based entirely on their specific needs. Companies like the Switzerland-based Schindler Group already use cloud services to collect and analyze elevator data and provide predictive maintenance services for their customers. Soon,

elevator companies may be paid based on how many people they can move per hour.

Tech Companies... They are not

The greatest challenge for companies today is that their business is not designed for the post-digital era. Product silos compete for scarce resources, especially from centralized technology and marketing teams. Technology is frequently tailored to the needs of functional units at the expense of simplicity. And the customer's view is almost never reflected in the company structure. These challenges also present an enormous opportunity for CIOs to help their companies change.

- **Organizational inertia across departments hinders transformation.** Twenty-seven percent of respondents pointed to organizational inertia across departments as a key barrier to digital transformation. Employees get used to doing things in a certain way. Indeed, many middle managers are rewarded for improving their specific, small part of the business, even if the overall impact is negative. For example, a requested change to a department's core technology system may improve productivity within the team; however, the true costs of such changes — increased complexity, high software upgrade costs, greater security vulnerabilities, and others — are rarely recognized. CIOs can help business units make better technology decisions for the entire enterprise and reduce technology debt over time.

- **Competing ownership challenges business executives.** As the appetite for digitalization innovation increases, multiple teams compete for leadership. Twenty-six percent of respondents see digitalization as an engine for growth and would like to own it. Without a unified approach, however, all teams vie for digital leadership and compete for resources. To solve this, some CEOs hire a Chief Digital Officer (CDO) with a mandate to champion digital transformation. But CDOs are not magicians; indeed, to succeed as a digital business, the entire organization must adopt a digital mindset and learn to collaborate in the service of customers. Digital transformation is like a team sport; by playing as a team, your organization is more likely to succeed. Every ex-

ecutive must share ownership of business outcomes, with CIOs taking a leading role in the integration of new technology assets across the enterprise.

- **A single view of customer data remains elusive.** Designing a company to deliver great products results in a product-oriented organizational mindset. But this inside-out position fails to consider the customer's viewpoint and frequently results in multiple customer datasets spread across the enterprise. Getting to that single customer view remains one of the most difficult technology challenges. Customer-obsessed companies must easily collect broad customer data and derive insights to create unique value for each customer. More than any other leader, CIOs are positioned to help meet this challenge.

Wave to the Future

The first wave of digital transformation was website development and eCommerce (1995 to 2010); the second wave was cloud computing, social media, and mobile Apps (2005 to 2015); and the third wave will be more holistic and comprehensive. All organizations will be forced to rethink the business around the possibilities of emergent technologies.

Once again, as in the early days of computing, technology separates the winners from the losers. Post-digital technology is no longer simply a tool for improving efficiency; it is the foundation for successful business strategy and future revenue growth.

Emergent Technologies will Drive Future Revenue Growth

In the post-digital era, new revenue models will be defined by the development of intricate ecosystems that combine the cloud, IoT, analytics, ML, AI, automation, smartphones, and augmented reality to deliver outcomes, create customer value, and drive revenue.

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- **Cloud services enable rapid scaling for global audiences.** As the backbone of tomorrow's post-digital businesses, cloud-based technology services and infrastructure will dominate architectures. Emergent technologies will enable outcome-driven revenue models that can be scaled to a global customer base. Analysis of data across massively scaled cloud services will introduce a new range of intelligent services from public cloud providers. The percentage of respondents who expect over 80 percent of revenue to be generated from the cloud will grow from 1 percent in 2016 to 9 percent in 2020; those expecting 40 percent to 70 percent of revenues to be cloud-generated will grow from 18 percent in 2016 to 45 percent in 2020.

- **IoT and data meet intelligent machines.** Digital sensors enable companies to gather unprecedented volumes and varieties of data, and embedded wireless 4G (and soon 5G) technologies enable these sensors to be monitored in real time. Digitizing the physical world allows continual improvements, interactive experiences, seamless product integration, 'product-as-a-service' options, and faster design cycles. Big Data analytics and AI will enable new digital 'trusted machines' that create unique, high-value customer outcomes at the moment of need for each customer. Twenty-six percent

of companies highlight 'digitally enabled products (the IoT/robotics/remoted sensors/Internet connections)' as a top choice for new product design and development, and 23 percent of respondents believe that 'IoT-based customer experiences' will be one of the best ways to drive new digital revenues.

- **New custom manufacturing.** Automated manufacturing via sensors and data will make low-volume, highly customer-specific manufacturing viable. For instance, 3D printing will facilitate inexpensive, local manufacturing of custom parts on demand. Sensors on machines and parts will better connect the manufacturing landscape, enabling more personalized products in less time and for less money. As the manufacturing ecosystem evolves, a complex network of interconnected companies and machines will leverage cloud services and open Application Program Interfaces (APIs) to operate as a single, synchronized supplier, instantly adjusting to market changes and predicting shifts in demand patterns.

- **New digital experiences shatter human limitations to create a new digital reality.** As smartphone technology evolves faster than our capacity to adapt, intelligent agents (bots) will begin to take over and anticipate what we want to do next. Apps like the Waze navigation tool already do this by asking if we're heading home or to work, based on the time of day and current location. As the power in our pockets increases, augmented reality devices connected through smartphones will enhance our understanding of the physical world, blurring the line between digital and reality. The Pokémon Go game is a vivid demonstration of how powerful this technology can be in shaping human behavior. New revenue models are just a short step away. ▲

(In Part 2, we will discuss how to survive in the post-digital era.)

What percentage of your revenue is derived from cloud-based services today? by 2020?

