

For: CIOs

Unleash Your Digital Business

by Nigel Fenwick and Martin Gill, March 19, 2014

KEY TAKEAWAYS

Digital Is More Than A Bolt-On Strategy

Bolt-on digital is like painting go-fast stripes on a car; it doesn't change the underlying business. To become a digital business requires enterprise transformation, which CIOs are accustomed to leading and shaping. You must extend the partnership with the CMO to create operational excellence through digital technology, augmenting customer value with digital products and services and driving rapid innovation.

Dynamic Ecosystems Of Value Drive The Ability To Win, Serve, And Retain Customers

Access to digital technology in moments of need allows customers to create dynamic ecosystems of value, which will change the business landscape. Companies must learn to support their customers by building their own ecosystems through APIs. Tech management must align tech investment to these ecosystems of value in order to win, serve, and retain customers -- what Forrester calls "business technology."

Digital Customer Experience Requires Data Integration

Without data integration across the business and data analytics in particular, digital customer experience will fail to meet rising customer expectations. Therefore, building digital as a marketing add-on to the business will slow the business down in the long run and open up opportunities for more nimble and integrated digital disruptors.

Trusted Machines Will Scale Digital Experiences

Companies will use trusted machines to scale digital customer experiences. Technology management must learn to create and harness trusted machines in order to drive future customer value at scale.

Digital Operational Excellence Requires A Shift In Technology Investment

Traditional IT requests often soak up scarce tech management resources and funds while producing very little to improve customer experience. CIOs must help CEOs and other execs apply tech investments to optimize customer experience and at the same time simplify the underlying tech portfolio in support of generic business capabilities.

Unleash Your Digital Business

The Future Of Business Is Digital

by [Nigel Fenwick](#) and [Martin Gill](#)

with [Sharyn Leaver](#), [Josh Bernoff](#), Nancy Wang, and Elizabeth Ryckewaert

WHY READ THIS REPORT

As a CIO, you are destined to play a pivotal leadership role in the transformation of your business to a digital business. In this report, written for business leaders and originally published under Forrester's CMO role, you will discover how the nature of business is changing and, in turn, how the technology investment priorities of the past must change. The report describes the dynamic ecosystems of value that drive customer behaviors and transform the linear value chain into a dynamic network supported by open APIs. CIOs must partner with CMOs to drive the transformation needed to become a digital business. To succeed, you will need to embrace digital customer experiences within ecosystems of value and digital operational excellence to drive the agility and innovation required to survive and thrive in the age of the customer.



For: CMOs

The Future Of Business Is Digital

by Nigel Fenwick and Martin Gill, March 10, 2014

KEY TAKEAWAYS

Digital Has Changed The Game Of Business

Your customers, your competitors, and your suppliers are all digital now. You can't address this change with a bolt-on strategy that adds an app here or a site there. You need a comprehensive strategy that embraces both digital markets and digital operations.

Digital Businesses Are Built On Dynamic Ecosystems Of Value

Your customers now use their devices to work effortlessly with suppliers and aggregators. Value chains are obsolete. You must embrace these new "dynamic ecosystems of value" to succeed in a digital world.

You Must Embrace Both Digital Customer Experience (DCX) And Digital Operational Excellence (DOX)

DCX requires digitizing your customers' experiences, products, and services and automating responses with analytics. DOX means an agile approach to partnerships, customer-driven innovation, and business technology.

The Future Of Business Is Digital

The Powerful Advantages Of Embracing Dynamic Ecosystems Of Value

by [Nigel Fenwick](#) and [Martin Gill](#)

with [Josh Bernoff](#), Elizabeth Ryckewaert, and Nancy Wang

WHY READ THIS REPORT

Business leaders don't think of digital as central to their business because in the past, it hasn't been. But now your customers, your products, your business operations, and your competitors are fundamentally digital. While 74% of business executives say their company has a digital strategy, only 15% believe that their company has the skills and capabilities to execute on that strategy. A piecemeal strategy of bolting on digital channels or methods is no longer sufficient. Instead, you must think of your company as part of a dynamic ecosystem of value that connects digital resources inside and outside the company as needed to compete. You must harness digital technologies, both to deliver a superior customer experience and to drive the agility and operational efficiency you need to stay competitive.

Table Of Contents

- 2 **Digital Transforms The Game Of Business**
- 4 **Executives Know Digital Is A Threat, But They Aren't Dealing With It**
- 8 **Go Beyond Digital Bolt-Ons To Create A Digital Business**
- 13 **Master Digital Customer Experience And Operational Excellence**
- 16 **Digital Business Is A Journey, Not A Destination**

WHAT IT MEANS

- 21 **Dynamic Ecosystems Of Value Will Recast The Economy**
- 22 **Supplemental Material**

Notes & Resources

Forrester interviewed three vendor and eight user companies for this report, including New England Biolabs and Shutl.

Related Research Documents

[The Chief Digital Officer: Fad Or Future?](#)
October 31, 2013

[Competitive Strategy In The Age Of The Customer](#)
October 10, 2013

[Technology Management In The Age Of The Customer](#)
October 10, 2013



DIGITAL TRANSFORMS THE GAME OF BUSINESS

As a business leader, do you get the feeling that you're no longer playing the same game that you once were? It's not you; the world has changed. The things that used to set companies apart — such as economies of scale, distribution strength, and brand — are far less potent than they used to be. Why? Because digital technology has fundamentally changed two things: the dynamics of the markets in which you operate and the speed needed to remain competitive.

Digital Has Changed Your Markets

Your customers aren't who they used to be. Digital touchpoints permeate every aspect of your customers' lives — how they watch TV on Netflix, how they research new products on Pinterest, how they check their balance on PayPal, or how they rate a hotel on TripAdvisor. Business buyers expect automated service, tap communities for insights, and want services with apps attached; they're even more digital than consumers. Digital has also transformed the market context for every business, and the pace of change is accelerating. Now:

- **Your customers are digital.** By 2017, 74% of the US adult online population will own smartphones, and 46% will own tablets.¹ Digital technology powerfully changes how customers experience products and what they value. In Weight Watchers International's fourth-quarter 2013 earnings call, it blamed reported disappointing results in part on consumers turning instead to apps like Lose It and MyFitnessPal. And when lululemon manufactured defective yoga pants and justified itself by insulting its own customers, the resulting social media outrage cost the company more than \$57 million and helped displace founder Chip Wilson.² Digital experience is displacing brand impressions; in a recent Ernst & Young study, only 25% of Americans said that brand loyalty now affects how they shop.³
- **Your channels are digital.** Digital has transformed the ways in which customers discover, explore, buy, and engage with products and services, allowing them to transcend traditional channel boundaries. By 2017, digital touchpoints like mobile devices will influence 50% of US retail sales, and 10% of all sales will be online.⁴ Seventy-two percent of US adults will use online banking, and 43% will use mobile banking services.⁵ Twenty-six percent of IT budget decision-makers globally use some type of digital channel as their primary source to research and evaluate technologies and services to purchase.⁶ With this rapid rate of adoption of digital touchpoints for shopping, banking, travel, and business services, digital is no longer an incremental revenue stream — it's fast becoming your primary route to market.
- **Your competitors are digital.** Digital disruptors challenge your business model as they engage your customers in new ways. They can quickly win market share and grow from startups to critical players in a few years. In 2012, PayPal processed \$145 billion in payments — that's equivalent to nearly two-thirds of all US online retail sales that year.⁷ Netflix now has 44 million subscribers, about twice as many as Comcast.⁸ General Electric (GE) believes that digital

business will add \$15.3 trillion to the world GDP by 2030.⁹ Unless your firm can learn to think and operate like a disruptor, you won't see the potential for disruption until it hits your business. Your choice is to evolve to become a disruptor yourself or watch your market share tumble.¹⁰

Digital Has Changed The Way You Operate

Digital has transformed more than your channels and customers. It also disrupts you from within, changing the way you do business. Digital accelerates the pace of change but also brings new opportunities for firms that can embrace the technology fast enough. To keep pace, recognize that:

- **Your products are digital.** Digital technologies create opportunities to add new services to physical products, opening doors to new experiences and revenue streams. Using real-time data from its jet engines, Rolls-Royce now leases “hours of propulsion” to its airline customers. This reduces the cost to the airline and the impact of out-of-service planes on its customers.¹¹ BMW's DriveNow mobile app gives 60,000 subscribers access to more than 1,000 vehicles across six cities, changing the way they pay for transportation. Increasingly sophisticated location- and context-aware apps and sensors are permeating the physical world, making digital services inseparable from traditional products and services.
- **Your insights are digital.** Digital technology brings the opportunity to generate deeper insight than ever before. With mobile location data, social activity, sensor data from products, and even clinical data from telemedicine devices, firms face an explosion of data to exploit. For example, New England Biolabs augments the sales of molecular biology products with a digital freezer that tracks which researchers use which genetic materials. By analyzing how individual researchers use its products, it can personalize its service to each research scientist. US retailer American Eagle Outfitters is partnering with shopkick, using Apple iBeacon to track shopper behavior in 100 stores in real time, allowing it to personalize the shoppers' experience of the stores.
- **Your employees are digital.** Employees' experiences as consumers shape their expectations in the workplace. They see access to mobile and social technology as critical to efficiency, changing how they interact with each other, with customers, and with outside suppliers.¹² Firms like American Airlines and Burberry are empowering employees with CRM and sales apps on mobile devices to help them serve customers in their moments of need. And when firms don't provide the right tools, empowered employees find their own ecosystem of tools, working smarter with tools off the corporate radar like Dropbox and Yammer. In fact, 25% of employees globally have brought in their own mobile apps to work so they can get their job done effectively.¹³
- **Your business operations are digital.** Digital technologies permeate your business operations. American Apparel achieves close to 100% stock accuracy across its stores with RFID technology.¹⁴ The Alliance Integrated Manufacturing System (AIMS) partnership leverages factory automation to allow Nissan and Renault to build 100% of their vehicles

customized to buyer specifications.¹⁵ Even intelligent bearings contribute to productivity and reliability, allowing for more-compact equipment.¹⁶

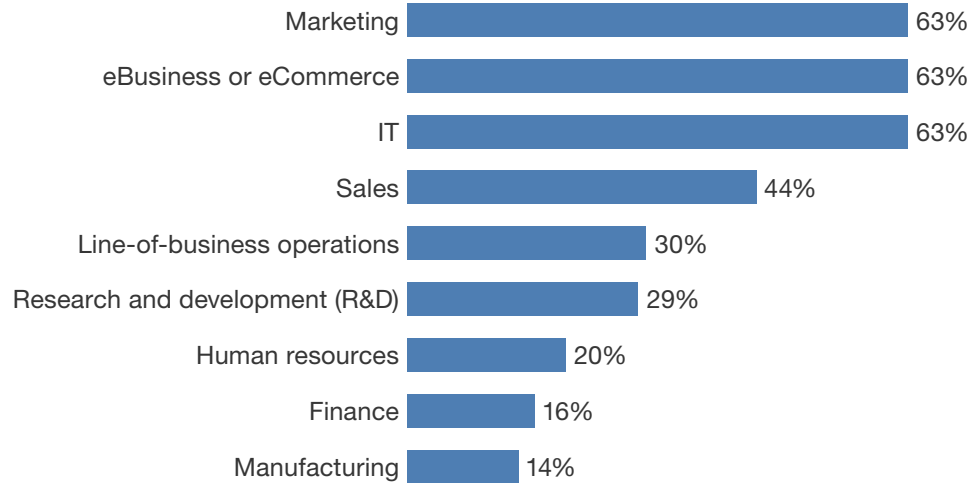
EXECUTIVES KNOW DIGITAL IS A THREAT, BUT THEY AREN'T DEALING WITH IT

To understand how decision-makers in companies treat digital change, we surveyed 1,254 global business executives. What we found was clear: These executives know digital is a threat, think it's somebody else's problem, and have little confidence in their own senior management's ability to set a course (see Figure 1). Executives believe that:¹⁷

- **No business is immune to digital disruption.** Among the executives we surveyed, 93% believe digital will disrupt their business in the next 12 months. Digital has already ridden roughshod over some industries, like media and entertainment, leaving obvious casualties like Blockbuster and Borders in its wake. Yet even in the least digitally disrupted sectors, like mining and construction, nearly two-thirds of executives still believe that digital disruption will have an impact on their industry at least somewhat in the near future (see Figure 2).
- **Their digital strategy isn't good enough.** More than half of executives believe that digital technologies are a major driver of business strategy (see Figure 3). Fortunately, 74% of companies report that they have a digital strategy. But only a third of executives believe that their approach is correct, and just 21% believe that the right people are setting the strategy in the first place. Even if that strategy is the right one, fewer than one in six executives believe their firm has the skills and competencies to execute on it (see Figure 4).
- **Their current operating model is their biggest weakness.** Employees cite organizational inertia and functional barriers as the primary obstacles to delivering on their digital strategies. Two-thirds of employees believe functional departments are too fixed in their ways, while 68% of business-unit leaders believe the functional teams in their companies act as barriers to effective coordination. The organizational structures, processes, and ways of working that have proven so successful in the past are now your firm's greatest enemies in its race to embrace digital technology.

Figure 1 Digital Disruption Will Have An Impact On Every Area Of Your Business

“What level of impact will digital have on the following functions in the next 24 months?”
(8, 9, or 10 on a scale of 1 [no impact at all] to 10 [huge impact])



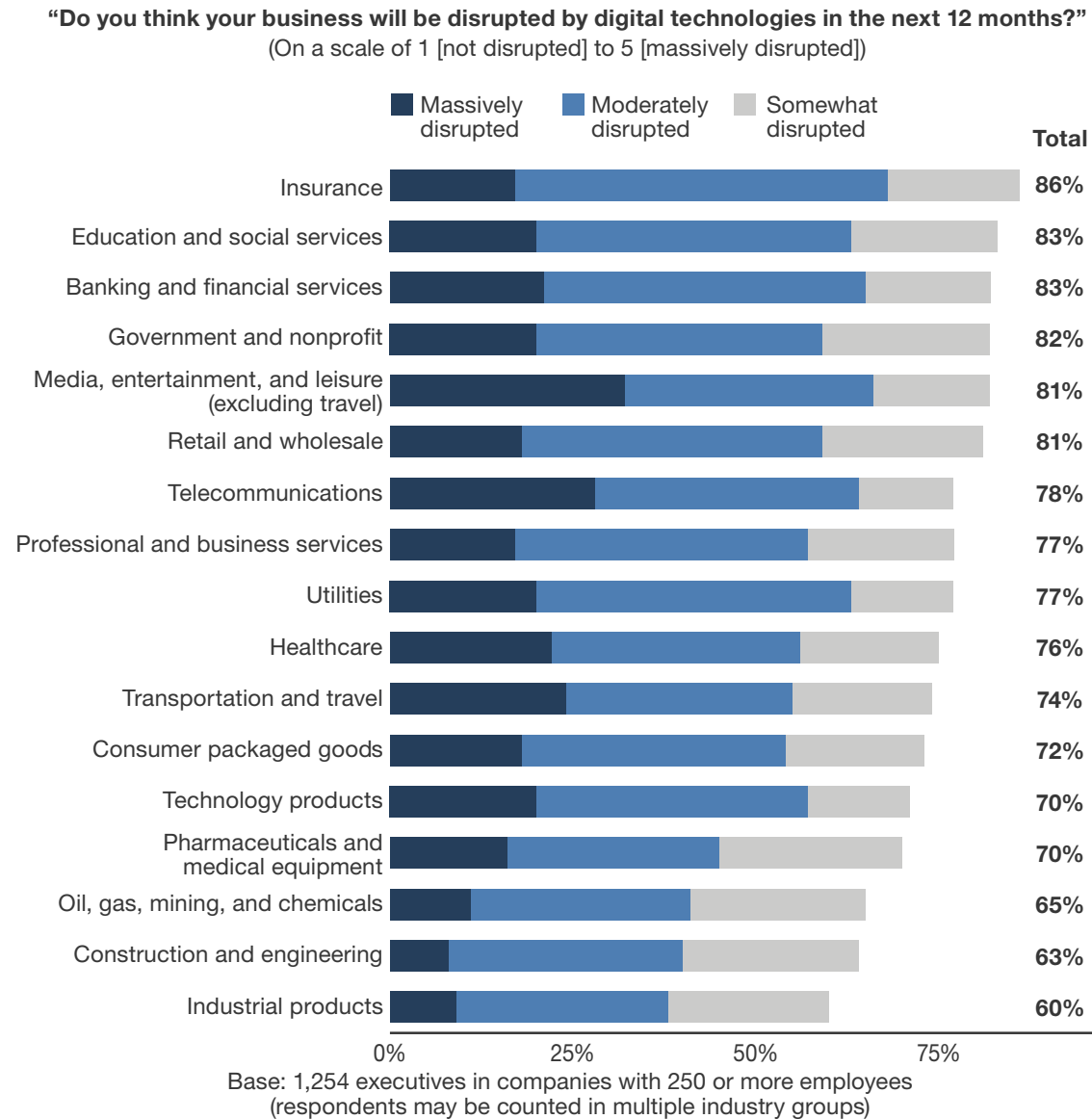
Base: 1,254 executives in companies with 250 or more employees

Source: Forrester/Russell Reynolds 2014 Digital Business Online Survey

115520

Source: Forrester Research

Figure 2 No Industry Is Immune To Digital Disruption



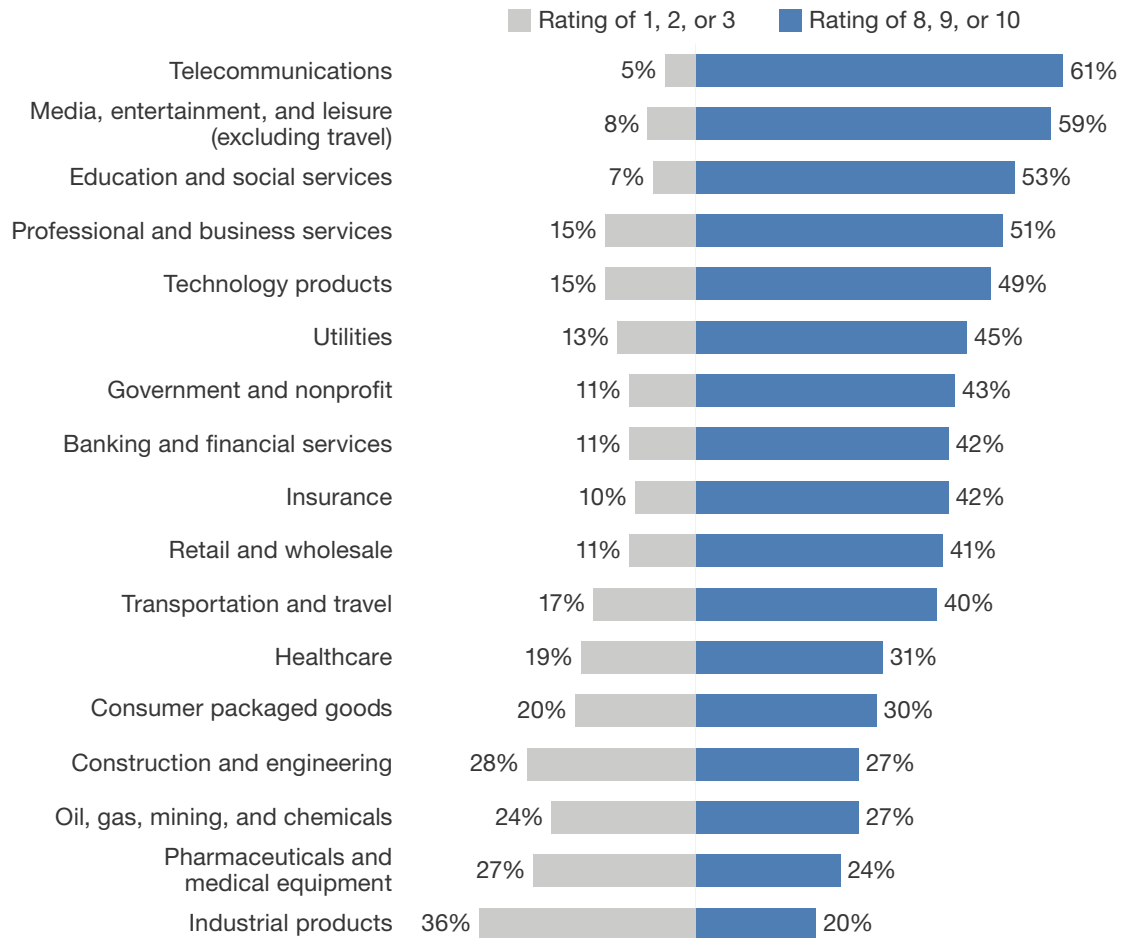
Source: Forrester/Russell Reynolds 2014 Digital Business Online Survey

115520

Source: Forrester Research, Inc.

Figure 3 Digital Technology Is A Critical Driver Of Business Strategy

“Is the use of digital technology a major driver of business strategy for your company?”
(On a scale of 1 [not at all a driver] to 10 [the most important driver])



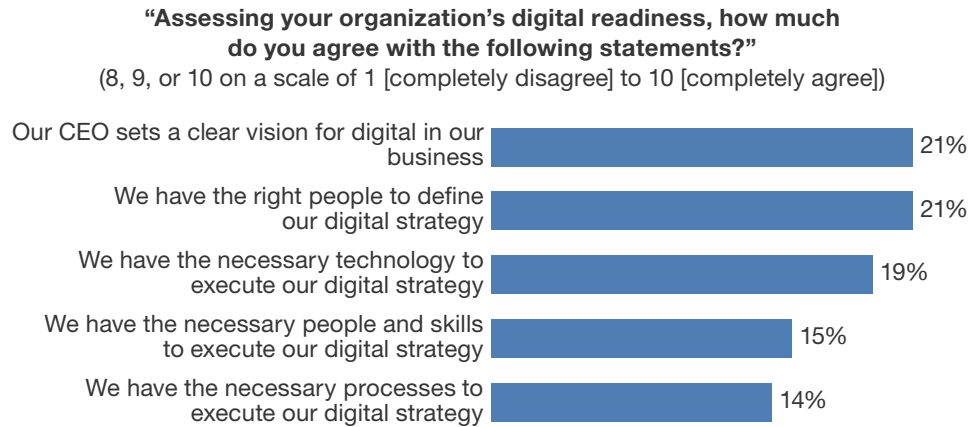
Base: 1,254 executives in companies with 250 or more employees
(respondents may be counted in multiple industry groups)

Source: Forrester/Russell Reynolds 2014 Digital Business Online Survey

115520

Source: Forrester Research, Inc.

Figure 4 Executives Doubt That Their Companies Are Ready For Digital Transformation



Base: 1,254 executives in companies with 250 or more employees

Source: Forrester/Russell Reynolds 2014 Digital Business Survey

115520

Source: Forrester Research, Inc.

GO BEYOND DIGITAL BOLT-ONS TO CREATE A DIGITAL BUSINESS

If digital is so pervasive a force and companies so ill-equipped to deal with it, how can they change? Companies started by launching departmental efforts in marketing, eBusiness, or technology management, bolting them onto the existing business. But eventually, treating every new digital channel as another project generates organizational and technical chaos. This chaos intensifies the operational challenge: that your organization’s structures, technology, and metrics are siloed into functional building blocks, each striving for internal efficiency and fighting for scarce resources (see Figure 5). The “digital bolt-on” way of thinking makes it much harder to respond to change in agile ways. Your technology management teams, spread thin chasing projects to maximize the prospects of one department or another, are in a downward spiral.

Your business needs a reset. You need to look at digital holistically. You need to transform your business by applying digital thinking across everything you do — how you win, serve, and retain customers; how you operate your internal processes; and how you source business services. In short, you must become a digital business.

Digital businesses continuously exploit digital technologies to both create new sources of value for customers and increase operational agility in service of customers.

Figure 5 Traditional Business Thinking Hinders Digital Transformation

	Traditional business	Digital business
Digital touchpoints	Bolt-on	Digitally integrated products and services
Organizational alignment	Functional efficiency	Cross-functional agility
Technology attitude	Safety and cost reduction	Speed and innovation

115520

Source: Forrester Research, Inc.

Digital Businesses Succeed By Embracing Dynamic Ecosystems Of Value

To become a digital business, you must learn to think as your customers do. Right now, your customers are assembling the solutions to their problems with a collection of instantly available digital products and services from your suppliers, partners, digital disruptors, other customers, and competitors. They can do this because every company, every digital aggregator, every supplier, and every retailer is building apps and sites, making it effortless for customers to pick from a menu of everything they need. We call this new world a “dynamic ecosystem of value” (see Figure 6 and see Figure 7).

A dynamic ecosystem of value is made up of digitally connected products and services that combine to meet customer needs, delivering more value than the sum of their parts.

As our customer experience research clearly shows, delivering a great experience happens only in the context of a company’s ecosystem of partners.¹⁸ With digital tools in the hands of customers, that ecosystem is dynamic — and often out of a company’s control. But your success demands that you embrace this new ecosystem and become a part of it. What exactly does this look like? Let’s examine some examples. In most of these cases, disruptors were already helping customers assemble their own solutions; companies responded by embracing that ecosystem. If your business ran like these, you could serve and retain customers better and leverage, rather than compete with, digital disruptors.

- Frequent travelers freely use sites and apps from Expedia, Hipmunk, TripAdvisor, Uber, and individual airlines and hotel operators to assemble their travel. As a result, airlines, hotels, and rental car companies now source leads from each other and from digital aggregators like Orbitz.

- Fidelity Investments creates a dynamic ecosystem for its customers, working with Yodlee to create its “full view” service. This allows customers to track all their financial accounts as well as airline miles and loyalty accounts in one place. Customers build out their ecosystem by adding feeds from other services like Bloomberg, CNBC, or Yahoo.
- Amazon.com connects multiple sellers to buyers. These digital connections allow retailers and even individuals to use Amazon as a digital storefront, increasing Amazon’s value to its customers.
- Pacific Gas and Electric (PG&E) opens up its smart meter data so startups like Leaffully, UnPlug Stuff, and WattzOn can create customer-facing apps to help consumers manage their power consumption.¹⁹
- Turkey’s Garanti Bank’s app, iGaranti, integrates with third-party applications like mobile payments, mobile money management, and merchant-based offers.²⁰
- Argos, a UK retailer, now works with Shutl, a network of UK couriers, to offer 90-minute deliveries of eCommerce purchases at an attractive price.

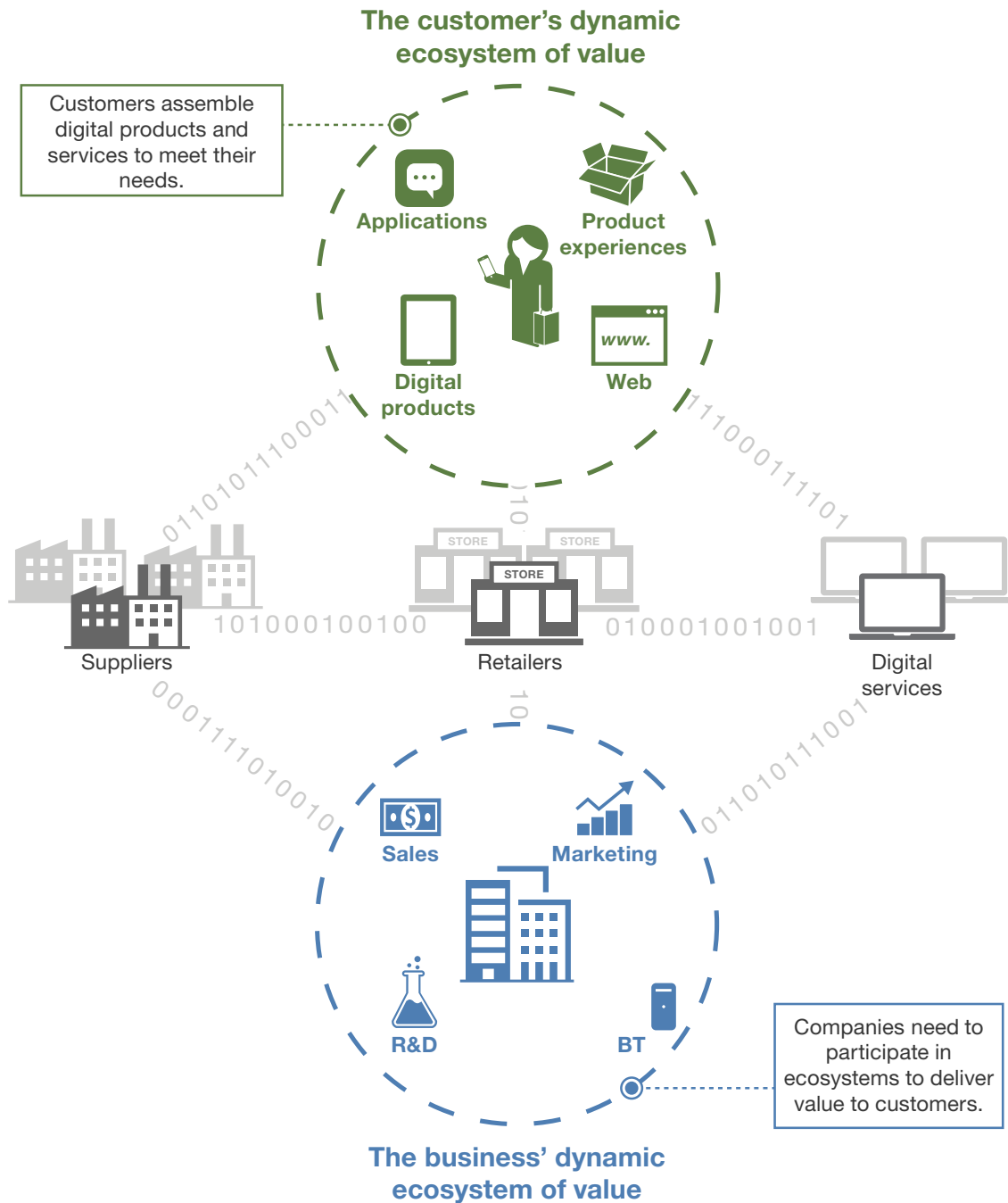
Figure 6 A Traditional Linear Value Chain



115520

Source: Forrester Research, Inc.

Figure 7 Dynamic Ecosystems Of Value



How Dynamic Ecosystems Help You Thrive On Digital Change

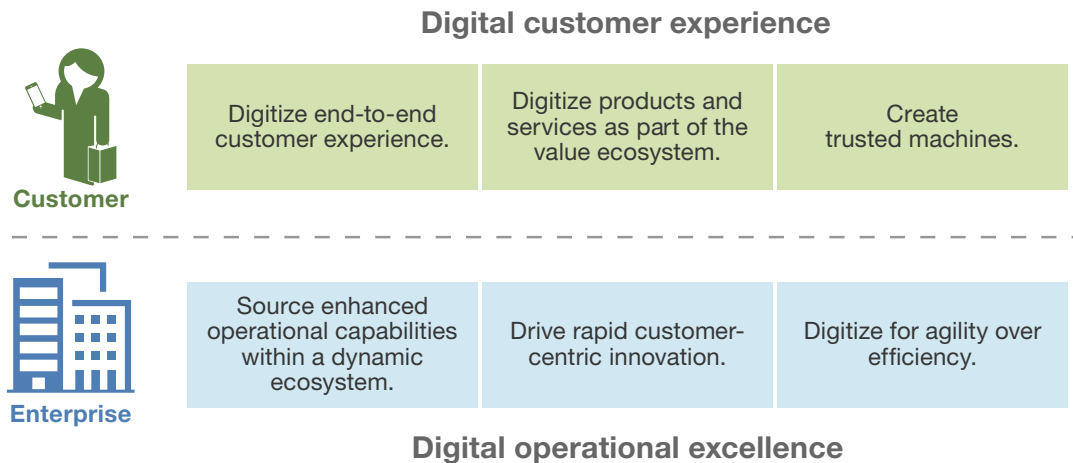
The biggest transition that digital forces upon you is the shift from a linear value chain to the creation of ecosystems of value. It means re-envisioning your business not as a standalone entity, but as part of an ecosystem of suppliers that customers assemble according to their needs and an ecosystem of collaborating businesses sharing data and services. This challenges the nature of your firm's relationships with both your customers and suppliers, but it enables you to:

- **Increase the value you provide to your customers in new ways.** By positioning your products and services in the context of the customer's value ecosystem, you can open up new revenue streams. For example, Walgreens opened up its photo-printing capabilities via a digital interface, allowing developers of many smartphone camera apps to let their users print directly at Walgreens.²¹ Walgreens now generates 15% of its photo-printing business from mobile devices.²² In Germany, Commerz Finanz's APIs opened up its consumer credit agreement process, enabling electronics retailers like Media-Saturn Group to offer loans right at the point of sale.
- **Drive enhanced customer value through agility and smart sourcing.** Digital isn't just about new external connections; it's about having the operational efficiency to act on them. This goes beyond lean management outsourcing. Once you're wired into ecosystems of value, you can quickly pivot to add new capabilities. For example, the retailer Tesco has built a dynamic network of drop-shipping suppliers using delivery management vendor MetaPack. As a result, Tesco added more than 50 new suppliers and a quarter million new items shipping directly to consumers under the Tesco brand — without increasing costs significantly.

MASTER DIGITAL CUSTOMER EXPERIENCE AND OPERATIONAL EXCELLENCE

Many firms proudly point to their mobile app and proclaim "Hey, we're digital!" While they may be driving incremental revenue, all they have done is bolt on another touchpoint. Real digital businesses go much further, integrating the two sides of digital strategy: digital customer experience (DCX) and digital operational excellence (DOX) (see Figure 8).

Figure 8 Two Key Imperatives: Digital Customer Experience And Digital Operational Excellence



115520

Source: Forrester Research, Inc.

Digital Customer Experience Creates Lasting Value

Digital businesses understand that if they are to win in the age of the customer, customer experience is their only differentiator. Success means investing in customer experience as a discipline within your organization.²³ Your customers' interactions with your products, your services, and your digital touchpoints are now part of an experience ecosystem that defines customer value.²⁴ Rather than treating digital as a channel, focus on delivering digitally enhanced experiences that add value in the context of the customer's needs.²⁵ This means you must:

- **Map experiences within each customer's ecosystem of value.** Digital businesses use journey mapping to find opportunities to create helpful and enjoyable digital experiences, applying digital where it can best enhance value. For example, Nikon's app not only helps photographers get the best out of their camera but also upsells new accessories based on what camera features customers are actually using. By integrating with Google Now, Emirates gives customers automatic updates on their flight status, location-aware route maps, and weather updates for their destination.²⁶ These firms use digital to create seamless, proactive brand experiences across the customer's ecosystem.²⁷
- **Digitize products and services to enhance the ecosystem of value.** Digital businesses think like software companies, reimagining products and services as digital experiences augmented by the physical world. Working with priceline.com, Chevrolet gives OnStar users access to local hotel bookings from their car. FedEx SenseAware exposes data about a package's environment to customers via an app, allowing them to track the condition of sensitive packages in real time.²⁸ And Oakley Recon goggles not only let skiers access their own performance data on

social networks but also alert rescue teams in the event of an accident. Extending products and services with digital technologies makes it possible to take greater mindshare within a customer's ecosystem of value.

- **Create trusted machines to automate value creation.** Digital businesses trust algorithms to make choices that change customer experiences, relying on human intervention only by exception. This allows them to augment their customer experience in real time. Mercedes-Benz uses digital sensors to improve driving and potentially save its customers' lives by braking when the car detects an emergency. Netflix uses an intelligent engine to deliver automated movie recommendations. Amazon will further reduce shipping times by using machine algorithms to pre-ship products to local warehouses in anticipation of a customer's order. Building trusted machines allows digital businesses to scale high-value digital experiences.

Digital Operational Excellence Increases Agility

Digital business isn't just about customer experience — it's also a way to drive operational agility. Digital can increase speed-to-market, make employees more productive, and promote leaner processes and more effective use of assets. When British Airways gave cabin crews iPads, they expected the primary benefit to be an enhanced customer experience. But now staff with iPads also track and highlight maintenance issues with aircraft, preparing ground crews to be ready with replacement parts. Like British Airways, you can embrace digital operational excellence. Here's how:

- **Source enhanced operational capabilities within your ecosystem.** Digital businesses leverage digitally connected suppliers to deliver commodity or specialized services outside their own expertise. A great example: Mobile operators Telefónica and Telenor created a value ecosystem called BlueVia to connect ecosystem partners like Electronic Arts, Facebook, Google, Microsoft, and Samsung. BlueVia opens up the combined data of 460 million subscribers to allow developers to build new services for consumers and to use Telefónica's billing platform to take payments.
- **Drive rapid customer-centric collaboration and innovation.** Digital businesses connect customers and employees, forming dynamic, cross-functional teams that aren't bound by traditional rules. Digital virtualization allows firms like Procter & Gamble (P&G) to test product packaging and shelf layouts with real customers in a virtual store before committing to costly manufacturing. German company Fidor Bank engages its customers in the social co-creation of products and services, allowing customers to help define new app functionality and new banking product features like interest rates or cash back.²⁹
- **Digitize for agility over efficiency.** Embrace dynamic ecosystems, and you can connect your company and your suppliers together to rapidly and automatically respond to changing conditions. Bosch, for example, is leading a consortium of German manufacturers to define a standard for dynamic, automated manufacturing that it calls Industry 4.0.³⁰ Bosch aims to

create Internet-connected, self-optimizing factories that can automatically adjust to machine downtime or changes in supply of materials or order demand. This digital ecosystem creates a dynamic supply chain, all the way from raw materials providers to end consumers.

DIGITAL BUSINESS IS A JOURNEY, NOT A DESTINATION

Some firms, like Amazon, were born digital — they find embracing these digital principles far easier. Others strive for digital mastery. And some — like those in industries blindsided by digital disruption — have digital urgency thrust upon them. But regardless of your starting point, thriving in the face of disruption is possible. Kodak, once one of the world's most recognized consumer brands, saw its core consumer market devastated by digital disruption, but it restructured and refocused on its commercial business and has now begun its journey to become a new digital business. Even the most entrenched and traditional business is capable of transformation.

Be Honest About Your Starting Position

No matter what your situation, the journey to digital business requires a radical overhaul of culture, organizational structures, technology, measurement frameworks, and operating model. And it's ongoing. CEOs must approach digital business as more than a single program of activity to be wrapped up and put to bed. Digital business must become the new way of being for your firm. To get there, you must first figure out where you're starting from. Assess your digital business capabilities by asking yourself a few probing questions (see Figure 9). Then determine what part of your digital transformation needs the most attention (see Figure 10):

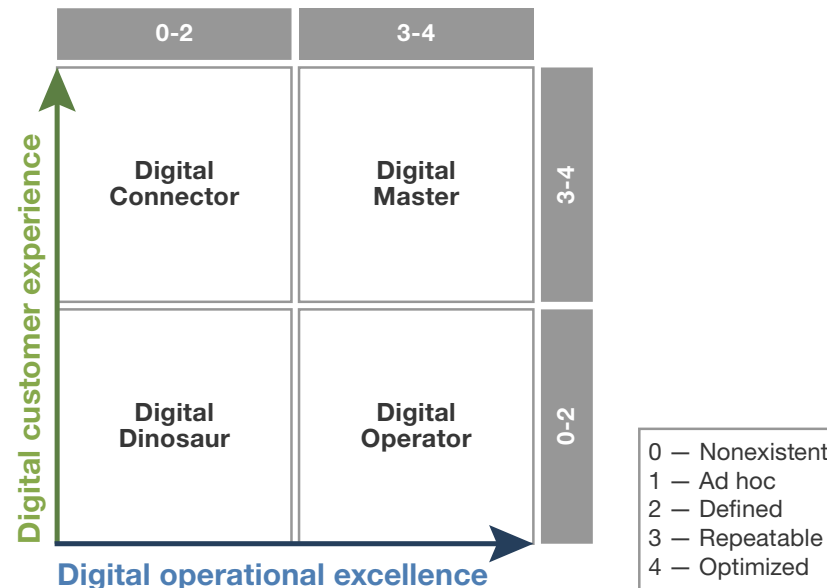
- **Digital Dinosaurs need help to begin their transformation.** If you're in this quadrant, you may be in a slower-moving industry like construction. Digital threats seem far off, so you build up and defend your existing businesses. But one day you will wake up to discover that a competitor just disrupted your market, and you have neither the time nor the skills to catch up. Your digital transformation should start with executive support and small disruptive projects focused on adding customer value within the ecosystem. Use business partners and digital agencies to help bring ideas to life, as Vail Resorts Management did with its EpicMix app.³¹
- **Digital Connectors understand digital customers but don't operate digitally.** With digital products and channels but not digital operations, you're probably bolting digital onto your business in support of marketing and online commerce. Focus on extending digital into your operations, R&D, product development, or manufacturing. Drive internal collaboration and cross-functional working by empowering your employees with mobile and social tools. Digitize key operations like supply chain to create a leaner back end and open up your business to the wider ecosystem as British Airways has done by RFID-enabling its baggage handling.

- **Digital Operators create digital efficiency but don't focus on customer experience.** Efficient companies in this quadrant are in great shape — until markets change, that is, since their digital capabilities don't extend out to customers' ecosystems of value. Many manufacturing and logistics firms fit here. To embrace digital experiences, examine what your customers are doing with adjacent products and services. Leverage the data you have to create new revenue streams, as PG&E and Telefónica have. Engage with digital disruptors that are romancing your customers. To go beyond your immediate capabilities, partner with suppliers to co-create new digital customer experiences.
- **Digital Masters excel at digital thinking.** Having succeeded with both digital customer experience and digital operational excellence, your biggest challenge is staying ahead of your customers' rapidly changing expectations. If you are fortunate enough to work for a company in this quadrant, like Burberry or USAA, then don't let up; expand the ecosystem of partners digitally connected to your business. Open up your services and data to reach your customers in new ways, as Walgreens has with its photo business. Aggressively fund disruptive innovation and experimentation activities with customers. Look for acquisition opportunities where your digital capabilities will transform the target company.

Figure 9 Assess Where You Are In The Digital Transformation

<div>0 — Nonexistent: We don't do this at all.</div> <div>1 — Ad hoc: We do this occasionally, but it's not well defined.</div> <div>2 — Defined: Some business units/teams do this in a well-defined way.</div> <div>3 — Repeatable: The company does this consistently in all business units.</div> <div>4 — Optimized: We optimize this through continuous measurement and feedback across the business.</div>			
Digital customer experience	Digitize end-to-end customer experience.	We deliver a best-in-class digital customer experience.	Score
		The disciplines of customer experience influence everything we do.	
	Digitize products and services as part of the value ecosystem.	We design products and services as digital-first experiences.	
		We extend the value we bring to customers inside their ecosystem of digitally connected products and services.	
	Create trusted machines.	We leverage digital data sources and analytics to optimize our customer experience in real time.	
		Our customers rely upon/trust our systems to recommend their next action/take the action for them.	
Digital operational excellence	Source enhanced operational capabilities within a dynamic ecosystem.	We optimize our operations using digital connections to dynamically source services in support of customer value.	
		Our employees are empowered with digital tools in order to build their own collaboration networks, both internally and with partners.	
	Drive rapid customer-centric innovation.	We leverage digital technology to engage customers and partners in innovation and product design.	
		We use agile and iterative techniques to bring digital products and services to customers.	
	Digitize for agility over efficiency.	We prioritize investments that create agility in our operations to cope with rapid changes in market conditions.	
		We measure and reward employees based on customer-centric metrics over functional metrics.	

Figure 10 What Kind Of Digital Company Are You?



Note: placement based on average score

115520

Source: Forrester Research, Inc.

Kick-Start The Digital Business Transformation — Develop Your Ecosystem

This is nothing short of a reboot of your company's operating model. It seems daunting. How do you get started? Many companies start small, focusing on one business unit or product line — using digital to reposition it within the value ecosystem, which in turn helps with innovation and digital agility. Audi turned to an ecosystem of partners to create its digital dealership model Audi City.³² BMW and Sixt teamed up to create a new digitally powered collaboration with BMW DriveNow in Germany.³³ And Nike is experimenting with digital-first products like NikeFuel, opening up its data to create an innovation ecosystem that third-party developers can plug into.³⁴ Here's how you can do it:

- **Establish clear digital leadership.** Digital business transformation is so fundamental to a firm's future success that the CEO must inspire employees to pursue a vision of the company as a digital business. For those CEOs who feel that digital is somewhat beyond their grasp, find a trusted lieutenant. Ideally, the CMO and CIO together carry the flag for digital change and jointly drive the firm's digital strategy. CEOs must fund innovation activities like labs and hold them directly accountable for developing actionable initiatives. If you have digital skills in your executive team, then look to them as digital leaders. If not, bring in someone with the requisite vision and transformational skills.³⁵

- **Link outside-in and inside-out thinking to define your value networks.** Digital businesses must think like ecosystem players. Map your most critical customer journeys to understand the big picture — then connect this outside-in view of your customers to the business capabilities needed to support it.³⁶ Identify the teams, processes, technologies, data, and partners that underpin your customer ecosystem, linking efforts like business capability mapping to customer journey mapping. Firms like British Airways and Telenor are using this combined picture of their organizations to understand their position in the dynamic value ecosystem and to identify which parts of their business they need to change.
- **Establish a digital-first culture.** Collaboration, agility, and digital innovation are second nature to employees in digital businesses. Fuel the digital-first mindset in your firm by educating, training, and inspiring your employees with digital seminars, roadshows, education programs, and partner days. Engage your human resources team early to help define how team goals, employee performance plans, and rewards need to change. Firms like GE, L'Oréal, Nestlé, and P&G are investing heavily in the digital education of their executive communities in order to create networks of digital champions across their various regions and brands.³⁷ And firms like Fidelity Investments and The Home Depot encourage all employees to view digital as a core business strategy for future growth.
- **Create a dynamic, customer-centric organizational model.** Some firms, like United Airlines and USAA, are ripping up the org chart and reorganizing around the customer life cycle. Others, like Bupa, CVS Caremark, and Westpac, are empowering customer journey owners to create an enhanced customer experience. They are forming temporary, cross-functional teams that can drive change using customer-focused metrics like Net Promoter Score to help guide their actions.
- **Empower technology management to focus on systems of engagement.** Technology management teams must play a pivotal role in enabling digital transformation. Digital executives have been able to bypass their technology colleagues in the past by turning to software-as-a-service vendors or agencies. That approach isn't sustainable. Technology teams must step up, hire for digital skills, and help drive enterprisewide transformation. This means CIOs must champion a business technology agenda — investments in technology, systems, and processes to win, serve, and retain customers.³⁸
- **Protect your customer's trust.** When customers hear daily about government surveillance and data breaches at major retailers, only companies that treat people's data with care will earn consumers' trust.³⁹ In a world of fluid ecosystems forming and re-forming partnerships, treating data with care is crucial. The responsible company gathers only the data it needs, uses it to create context that adds value, asks permission to share data, and shares it only with partners who can add additional value. The way the iPhone makes its apps ask permission before gathering location data is a perfect example — Apple proves it is part of a trusted ecosystem but enables apps from weather forecasters, retailers, and travel suppliers to function in a more efficient and personalized way.

WHAT IT MEANS

DYNAMIC ECOSYSTEMS OF VALUE WILL RECAST THE ECONOMY

Tomorrow's winners will be those who control the ecosystem and can tap its power. They'll leach profit away from the losers, changing the power dynamics of global business.

- **Data will become a crucial economic input.** Traditional value chains are based on the idea that land, labor, and capital are the main inputs to the creation of value. But in dynamic ecosystems, data is the key factor that lubricates the ecosystem. Companies that stockpile data — like Amazon and Google — will gain advantage in the economic model of the future. Companies that generate data — like PG&E and Telefónica — have the opportunity to reframe their role in the ecosystem. Companies that can see only small pieces — like producers of commodity physical products — will find their profits and their autonomy circumscribed by the new data barons.
- **Digital Dinosaurs will become acquisition targets for Digital Masters.** As Digital Masters learn to integrate digital customer experience and digital operational excellence, their greater agility and effectiveness will cause profits to flow in their direction. Digital Dinosaurs built on scale advantages will be disintermediated, playing in the ecosystems that the Digital Masters control. The Dinosaurs will respond by merging, but scale won't save them. Eventually, the Masters will buy them up, swallow anything valuable, solidify their data feeds, and sell the shells off to the highest bidder. It's happening already — this scenario accurately describes Google's acquisition and subsequent resale of the pieces of Motorola.
- **Digital Connectors and Digital Operators will merge.** In the old world, vertical integration meant combining suppliers and retailers. In the future, Digital Connectors, with their customer connections, will find it attractive to combine with Digital Operators, with their agile, efficient operations. Integrating the two sides of such companies will be very challenging — they'll have to reassemble as their own dynamic internal ecosystem. An example: CVS's acquisition of Caremark and MinuteClinic has enabled it to expand its offerings into B2B pharmacy services and primary healthcare, cementing its position as a healthcare ecosystem player.
- **Governments will outsource far more, thereby changing political roles.** What are governments good at? Creating huge systems and requiring people to participate in them. But they're bureaucratic and inefficient Digital Dinosaurs. They'd be far better off if they outsourced the ecosystem work — like the creation of the United States' HealthCare.gov — to more agile companies. Dynamic ecosystems have the potential to unite the political poles in countries like the US. They'll enable efficient service to more people (a liberal, Democratic priority) even as they outsource tasks to ecosystems and shrink government spending (a conservative, Republican goal).

- **Companies based on legacy technology systems will sell their souls to the digital devil.** Those 30-year-old COBOL systems sitting in the dark recesses of the mainframe will hold back the companies running them. Eventually car companies, oil-and-gas companies, and others dependent on these systems will tire of falling behind their agile brethren. Digital service companies will offer to rip and replace these systems for free, and the Digital Dinosaurs will accept their help. The cost will be agreeing to supply your valuable data feed to these digital disruptors in perpetuity. Having made this bargain, the Dinosaurs will find that their new partners know more about their customers than they do themselves. And their former partners — suppliers of legacy enterprise systems — will see digital disruption erode their whole customer base.
 - **Pay-as-you-go products and services will dominate ecosystems.** Because of the flexibility they provide, pay-per-use models will continue to replace ownership models of consumption. The sharing economy that drives models like Airbnb, Elance, and Zipcar is built on ecosystems of value. Companies that tap into this model will thrive; businesses models based exclusively on selling assets directly to customers will miss out.
 - **As brands become less valuable, media firms will switch to ecosystem models.** Experiences dominate ecosystems of value. Brands will need to digitally extend their brand value throughout the ecosystem. Traditional branding mechanisms like media and advertising will be worth far less. Media companies, seeing the fading value of brand advertising, will be forced to find new ways to survive. Their lifeline will be to integrate themselves into appropriate ecosystems. So news companies like The New York Times will integrate into political ecosystems, entertainment companies like Disney and Netflix will merge into the Hollywood ecosystem, and vertical media will join up with ecosystems for travel, financial services, healthcare, and the like.
-

SUPPLEMENTAL MATERIAL

Contributors To This Research

The following Forrester colleagues contributed their expertise and insights to this report: Julie A. Ask, Peter Burris, Ellen Carney, George Colony, David M. Cooperstein, Alex Cullen, Carlton A. Doty, Bill Doyle, Bert DuMars, Nate Elliott, Benjamin Ensor, Frank E. Gillett, Jeffrey S. Hammond, Khalid Kark, Carrie Johnson, David K. Johnson, Sharyn Leaver, John C. McCarthy, James L. McQuivey, Ph.D., Derek Miers, Jim Nail, Luca S. Paderni, Melissa Parrish, and Ted Schadler.

Methodology

The Forrester/Russell Reynolds 2014 Digital Business Online Survey was fielded to 1,591 Russell Reynolds Associates contacts. However, only a portion of survey results are illustrated in this document. For quality assurance, we screened respondents to ensure they met certain standards in terms of job responsibilities and the size of their organizations.

Forrester fielded the survey from November 2013 to January 2014. Respondent incentives included a summary of the survey results. Exact sample sizes are provided in this report on a question-by-question basis. This survey used a self-selected group of respondents (executives who have interacted with Russell Reynolds Associates) and is therefore not random. The survey was fielded only in English. Among the respondents, 38% work in North America, 53% work in Europe, and 9% work in the rest of the world. This data is not guaranteed to be representative of the population, and, unless otherwise noted, statistical data is intended to be used for descriptive and not inferential purposes. While nonrandom, the survey is still a valuable tool for understanding where business executives are today and where the market is headed.

ENDNOTES

- ¹ Forrester publishes an annual overview of US consumers' behaviors and technology attitudes by generation, based on Forrester's North American Technographics® surveys and our ForecastView data. Source: Forrester Research World Smartphone Adoption Forecast, 2012 To 2017 (Global) and Forrester Research World Tablet Adoption Forecast, 2012 To 2017 (Global).
- ² Source: Associated Press, "Lululemon Shares Sink; Its Chief Will Step Down," The New York Times, June 10, 2013 (http://www.nytimes.com/2013/06/11/business/lululemon-chief-to-step-down-shares-sink-in-after-hours-trading.html?_r=0).
- ³ Source: James Surowiecki, "Twilight Of The Brands," The New Yorker, February 17, 2014 (http://www.newyorker.com/talk/financial/2014/02/17/140217ta_talk_surowiecki).
- ⁴ Source: Forrester Research Online Retail Forecast, 2012 To 2017 (US) and Forrester Research Web-Influenced Retail Sales Forecast, 2012 To 2017 (US).
- ⁵ Source: Forrester Research Online Banking Forecast, 2012 To 2017 (US) and Forrester Research Mobile Banking Forecast, 2012 To 2017 (US).
- ⁶ Source: Forrsights Budgets And Priorities Survey, Q4 2013.
- ⁷ Source: PayPal (https://www.paypal-media.com/assets/pdf/fact_sheet/PayPal_Fast_Facts_Q412_Final.pdf). For information about online retail sales, see the March 13, 2013, "[US Online Retail Forecast, 2012 To 2017](#)" report.
- ⁸ Source: Netflix (<http://ir.netflix.com/>) and Comcast (<http://corporate.comcast.com/images/Comcast-Press-Kit-November-2013.pdf>).
- ⁹ Source: Peter C. Evans and Marco Annunziata, "Industrial Internet: Pushing the Boundaries of Minds and Machines," GE, November 26, 2012 (http://www.ge.com/docs/chapters/Industrial_Internet.pdf).
- ¹⁰ Source: James McQuivey, Digital Disruption: Unleashing the Next Wave of Innovation, Amazon Publishing, 2013 (<http://www.forrester.com/marketing/books/digital-disruption.html>).
- ¹¹ Source: Rolls-Royce (<http://www.rolls-royce.com/civil/services/totalcare/>).
- ¹² Forty-nine percent of North American and European information workers who leverage social networks

for work believe that tablets make them more effective and efficient compared with 46% who use a smartphone and 36% who use a desktop or laptop for the same activity. Source: Forrsights Applications And Collaboration Workforce Survey, Q4 2013.

¹³ The mobile mind shift that people are experiencing at home — to expect everything on a mobile device — drives their mobile expectations at work as well. IT is slow to respond with mobile business apps, so employees plug the “app gap” on their own. Some bring in productivity apps like Dropbox or Evernote or Quickoffice, and others focus on process apps like Smartsheet or TripIt. For more, see the November 4, 2013, “[Workforce Personas And The Mobile App Gap](#)” report.

¹⁴ Source: “American Apparel Finds The Right Fit With Motorola RFID,” Motorola Solutions (http://www.motorolasolutions.com/web/Business/Products/RFID/_Documents/Case_Studies/_StaticFiles/American_Apparel_Case%20Study.pdf).

¹⁵ Source: Simon Duval Smith, “Renault-Nissan AIMS for automation,” Automotive Manufacturing Solutions, September 1, 2010 (<http://www.automotivemanufacturingsolutions.com/focus/renault-nissan-aims-for-automation>).

¹⁶ Source: Stephen Mraz, “Bearings designed to multitask,” Machine Design, May 22, 2013 (<http://machinedesign.com/bearings/bearings-designed-multitask>).

¹⁷ Source: Forrester/Russell Reynolds 2014 Global Digital Business Online Survey.

¹⁸ Even companies that make customer experience a strategic priority struggle to implement major long-lasting improvements. That’s because they fail to connect behind-the-scenes activities to customer interactions. These firms need a new approach to customer experience management: one that considers the influence of every single employee and external partner on every single customer interaction. Forrester calls this complex set of relationships the customer experience ecosystem. For more, see the February 28, 2013, “[The Customer Experience Ecosystem](#)” report.

¹⁹ To understand the ever-changing behaviors of perpetually connected customers, firms need to become collaborative, sharing their data and insight as much as they consume those of others. This approach lets firms adapt to a fast-changing market at market speed and tap what Forrester calls adaptive intelligence. See the May 8, 2013, “[Introducing Adaptive Intelligence](#)” report.

²⁰ Turkey’s Garanti Bank integrates a number of innovations such as mobile payments, mobile money management, merchant-based offers, and voice-control into its new mobile banking app, iGaranti. See the January 8, 2014 “[Case Study: iGaranti Reimagines The Mobile Banking Experience](#)” report.

²¹ Walgreens partnered with technology suppliers like Apigee to help open up its business capabilities to third-party developers through digital APIs. Source: “Walgreens: Putting an API Around Their Stores,” Apigee (<http://apigee.com/about/customers/walgreens-putting-api-around-their-stores>).

²² Source: Chris Murphy, “Goodbye IT, Hello Digital Business,” InformationWeek, March 6, 2013 (http://www.informationweek.com/big-data/big-data-analytics/goodbye-it-hello-digital-business/d/d-id/1108963?page_number=3).

- ²³ Many firms want to differentiate on the basis of customer experience. To reach that goal, they must first define an experience that's truly differentiating and then deliver that experience consistently to every customer. This report introduces customer experience governance and provides an overview of the components of a customer experience governance system. See the July 30, 2012, "[Executive Q&A: Customer Experience Governance](#)" report.
- ²⁴ Even companies that make customer experience a strategic priority struggle to implement major long-lasting improvements. That's because they fail to connect behind-the-scenes activities to customer interactions. These firms need a new approach to customer experience management: one that considers the influence of every single employee and external partner on every single customer interaction. Forrester calls this complex set of relationships the customer experience ecosystem. For more, see the February 28, 2013, "[The Customer Experience Ecosystem](#)" report.
- ²⁵ How good is the customer experience at your company — as rated by your own customers? Forrester helps answer that question by providing benchmarks of the quality of customer experience for 175 large US brands across 14 industries including retailers, hotels, banks, credit card providers, insurance firms, airlines, wireless service providers, and investment firms. We show the highest- and lowest-scoring companies and industries as well as the ones that moved up or down since our 2013 study. See the January 21, 2014, "[The Customer Experience Index, 2014](#)" report.
- ²⁶ The act of traveling may always be immune to digital disruption, but the way in which travelers engage with the experience is ripe for digital enhancement. The Internet has revolutionized the way in which travelers research, choose, book, and discuss their business and recreational travel, but having a slick website is no longer enough. Travel eBusiness executives must up their game to create holistic digital experiences that encompass inspirational tablet content; context-rich, personalized mobile experiences; digitally enhanced business processes; and deep social engagement to drive loyalty. For more, see the January 29, 2014, "[Building A Digital Travel Business](#)" report.
- ²⁷ The rapid consumer adoption of mobile devices, new interfaces, and the changing behaviors they encourage have fundamentally changed how customers engage with companies. Gone are the days when companies could assume PC-based interactions and undivided attention. In the post-PC era, customers expect experiences to come to them — regardless of which device (or devices) they are using — and to provide services aligned with their needs and abilities, in the moment. In this report, we explore how consumer experience expectations have changed and why companies need to deliver experiences that are natural, adaptive, and anticipatory. Further, this report helps customer experience professionals discover what it takes to adopt a new mindset focused on aligning new technologies with user needs and provides a vision of how this will affect digital customer experience improvements. See the April 12, 2013, "[Customer Experience In The Post-PC Era](#)" report.
- ²⁸ Source: "FedEx Expands SenseAware® Capabilities with Cryogenic Probe," FedEx press release, October 16, 2013 (<http://news.van.fedex.com/fedex-expands-senseaware%C2%AE-capabilities-cryogenic-probe>).
- ²⁹ Improving customer experience (CX) is about to become the top priority for CIOs. CEOs are turning to CIOs and IT leaders to help transform customer experiences through digital technologies. And strategic

CX transformations will require changes in IT and deep into the technology stack. But understanding how to change IT to support CX will be critical if CIOs want to ensure that IT is not a barrier to great customer experience. For more, see the August 5, 2013, “[IT’s Role In Winning Customer Experience](#)” report.

³⁰ Source: Bosch (<http://www.bosch.com>).

³¹ Vail Resorts began the EpicMix journey by partnering with mobile app developers to create the initial mobile app, but it quickly realized it needed to develop its own digital technology competencies. Since then, Vail Resorts has significantly matured as it transforms to a digital business. Source: “Vail Resorts Announces Dramatic Increase in EpicMix Engagement and Launches Action Photography and the Mountain Remix Collage,” Vail Resorts Management press release, December 13, 2011 (<http://news.vailresorts.com/corporate/vailresorts/resort-news/vail+resorts+launches+epicmix+remix+action+ski+photography.htm>).

³² In cities such as Beijing and London, where dense real estate doesn’t allow for extensive car lots, Audi has created Audi City “virtual dealerships” that let customers visualize and personalize their model of Audi using interactive and tactile displays. When the customer leaves the dealership, he or she is given a USB drive shaped like an Audi key with the saved configuration so the customer can reference it at home or back in the dealership. See the October 17, 2013, “[There Is No Internet Of Things — Yet](#)” report.

³³ Source: Peter C. Evans and Marco Annunziata, “Industrial Internet: Pushing the Boundaries of Minds and Machines,” GE, November 26, 2012 (http://www.ge.com/docs/chapters/Industrial_Internet.pdf).

³⁴ Source: NikeFuel (http://nikeplus.nike.com/plus/what_is_fuel).

³⁵ CEOs, CMOs, and CIOs must decide who among them will lead their organization on the path to digital success, or if a dedicated role is required. Should it be the chief marketing officer, the chief information officer, the chief customer officer, or perhaps a new chief digital officer? For CMOs, the answer to this question will have a material impact on their role in coming years. See the October 31, 2013, “[The Chief Digital Officer: Fad Or Future?](#)” report.

³⁶ Forrester introduces a framework that uses business capability mapping concepts to depict how customer engagement activates business capabilities. In the age of the customer, during which knowledge of and engagement with customers is the source of sustainable competitive success, businesses must conceptually bring together the marketing methods that create crucial customer knowledge and the technology methods that model operational realities. See the October 21, 2013, “[Linking Customer Engagement To Business Capabilities In The Age Of The Customer](#)” report.

³⁷ Source: Peter C. Evans and Marco Annunziata, “Industrial Internet: Pushing the Boundaries of Minds and Machines,” GE, November 26, 2012 (http://www.ge.com/docs/chapters/Industrial_Internet.pdf).

³⁸ Empowered customers are disrupting every industry — and CIOs and their teams will be called on to support these changes, widening their agendas beyond IT (infrastructure) to include business technology (BT) — technology, systems, and processes to win, serve, and retain customers. This report serves as a clarion call to CIOs. Specifically, it explains: 1) how to achieve the right mix of IT and BT; 2) which methods will help you build a highly effective BT portfolio; and 3) how to improve collaboration with other executives in your company who are also meeting the customer challenge — in particular, chief

marketing officers (CMOs) and customer experience professionals. See the October 10, 2013, “[Technology Management In The Age Of The Customer](#)” report.

³⁹ Contextual privacy is a framework for negotiating the collection and use of personal data that ensures a fair value exchange for both the customer and the business. This report will explain what contextual privacy is, why you must adopt it, the best practices we see today, and the ones we expect to see tomorrow. See the December 19, 2013, “[The New Privacy: It’s All About Context](#)” report.

About Forrester

A global research and advisory firm, Forrester inspires leaders, informs better decisions, and helps the world's top companies turn the complexity of change into business advantage. Our research-based insight and objective advice enable IT professionals to lead more successfully within IT and extend their impact beyond the traditional IT organization. Tailored to your individual role, our resources allow you to focus on important business issues — margin, speed, growth — first, technology second.

FOR MORE INFORMATION

To find out how Forrester Research can help you be successful every day, please contact the office nearest you, or visit us at www.forrester.com. For a complete list of worldwide locations, visit www.forrester.com/about.

CLIENT SUPPORT

For information on hard-copy or electronic reprints, please contact Client Support at +1 866.367.7378, +1 617.613.5730, or clientsupport@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.

Forrester Focuses On CIOs

As a leader, you are responsible for managing today's competing demands on IT while setting strategy with business peers and transforming your organizations to drive business innovation. Forrester's subject-matter expertise and deep understanding of your role will help you create forward-thinking strategies; weigh opportunity against risk; justify decisions; and optimize your individual, team, and corporate performance.

« CAROL ITO, client persona representing CIOs

