Disruptor and Disrupted

Strategy in the Digital Vortex

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GLOBAL CENTER FOR DIGITAL BUSINESS TRANSFORMATION
An IMD and Cisco Initiative
**Introduction**

In our most recent paper, the Global Center for Digital Business Transformation (the DBT Center), an IMD and Cisco initiative, identified two competitive realities emerging from the upheaval of digital disruption: the “value vampire” and the “value vacancy.”

The value vampire is a dangerous form of digital disruptor that leaves all other players in the market in turmoil. A value vampire’s defining characteristic is that its competitive advantage serves to shrink the overall revenues or profits (or both) of a market. Value vampires are essentially an extreme form of digital disruption, and their ability to create three fundamental forms of value for customers—cost value, experience value, and platform value—is exceptional. They are hazardous to incumbents’ health because they provide a blueprint for how disruption occurs—one followed, to varying degrees, by a mass of digital disruptors bent on unseating market leaders.

The value vacancy is the “good news” of digital disruption, especially from the vantage of incumbent firms. This is simply a market opportunity (an adjacent market, an entirely new market, or an enhancement to an existing market) that can be profitably exploited through digital technologies and business models. This opportunity is open to both smaller disruptive players and large market incumbents—it all comes down to who outcompetes whom. The dynamics of what we refer to as the “Digital Vortex”—the competitive landscape dominated by digital disruption—show that such opportunities are short-lived and hard won.

So, let’s assume your firm has spotted a disruptive competitor, an innovative, fast-moving rival. This company is growing rapidly, its name is coming up in conversations with customers, and after some consideration, you surmise that its continued growth could fundamentally undercut a core market. The company may be an early-stage value vampire.

Next, imagine your sales team comes to you, not with a tale of woe and declining pricing power, but rather with an observation that a new opportunity is within your grasp. It requires a highly digitized offering, lots of complex transformation in your organization to make it work, and is a bit outside your company’s comfort zone in terms of how you normally make money. Some competitors are beginning to evaluate the opportunity, but first-mover advantage is there for the taking, if you can act. Your company has detected a value vacancy.
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What do you do? This is the issue that preoccupies market incumbents today as they contemplate digital disruption. At the DBT Center, the three most common questions we get from leaders are: 1) “How are digital disruptors attacking, or going to attack, my company?”; 2) “What steps should I take when I am attacked by digital disruptors?”; and 3) “What capabilities do I need, not only to respond to digital disruptors, but to go on the offensive and disrupt others?”

In this paper, we will begin to answer these questions, taking the last one — the capabilities needed— first. While our subsequent research will set forth our transformation roadmap in detail, this paper will show companies how they must evolve to win in the Digital Vortex. It defines the concept of digital business agility, and how it impacts a firm’s capacity to create new customer value. Finally, it lays out a playbook of competitive strategies for digital disruption.

Digital Business Agility

The pace of technological change, business model innovation, and the blending of industries accelerate as companies are drawn into the Digital Vortex. At the DBT Center, we are often asked which “big bets” companies should place to thrive in this uncertain and highly competitive environment. The answer, difficult though it may be, is that no single strategy will guarantee success. Why? Because individual moves tend to focus too much on tweaking the company’s existing value chain in order to compete with traditional foes (all of which have similar value chains), rather than transforming how the company delivers cost value, experience value, and platform value to customers.

Meanwhile, digital disruptors focus on precisely that: supplying the cost value, experience value, and platform value customers want. Increasingly, a company’s most formidable competitor will be a start-up or a firm from another industry that uses digital technologies and business models to create “combinatorial disruption” — where cost value, experience value, and platform value are created concurrently. In such circumstances, “big bets” look like forceful punches from slow-footed boxers that miss their opponents — lots of energy, no impact.

To win in the Digital Vortex, companies must be dynamic enough to understand the risks disruptors pose to their business, and to maximize their revenues in the face of tough competition. At the same time, the percentage of revenue from new businesses needs to increase, as margins from core businesses will frequently decline. This puts pressure on companies to improve the “hit rate” of marketable innovation, an area in which nearly all incumbents struggle. As we saw in “Digital Vortex,” incumbents are less able to innovate and adapt at speed than the start-ups that are disrupting their core businesses, putting them at a stark disadvantage.

Through the DBT Center’s research and our experience advising companies on how to transform, we have come to understand that companies need to develop a “metacapability” we call “digital business agility.” We define digital business agility simply as the capacity of an organization to use digital means to change. Companies that possess digital business agility respond quickly and effectively to emerging threats to their business, and seize new market opportunities before their rivals even notice them. They use combinatorial disruption to differentiate their core businesses,
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making it hard for value vampires or other disruptors to replicate or supersede the value they provide. When disruptors do strike, digital business agility allows companies to harvest maximum value from declining businesses. Most important, they can identify and exploit value vacancies, which all companies will need to maintain growth as some businesses hit disruptor-induced revenue stalls.

Digital business agility has three main pillars: hyperawareness, informed decision-making, and fast execution. These pillars are not technologies, but rather technology-enabled capabilities. Moreover, while they can be understood as discrete, they actually build upon one another (see Figure 1). Below, we provide a short overview of each.

Hyperawareness

Hyperawareness is a company’s ability to detect and monitor changes in its business environment. By “business environment,” we mean the internal and external factors that impact the company’s opportunities and risks (see Figure 1, above).

Thanks to ubiquitous network connectivity, mobile devices, tiny and inexpensive sensors, and the proliferation of data collection tools, companies can understand their business environment more fully than ever before. Companies can gain insight into their operations by embedding sensors in their production equipment, fleets, facilities, and products. They can understand what customers are saying about them on social networks with listening platforms, and know where they are by tapping into data about mobile device usage. Tools that “scrape” the web for data, and “clean” it for analysis, can collect massive amounts of information on nearly anything — competitors, macroeconomic trends, and weather patterns. Companies can also gain granular detail about their supply-chain partners — not only whether goods are arriving on time, but also whether they are produced ethically and sustainably, or have been maintained in a “cold chain” that prevents spoilage, for example. All of these data sources flow continually in the hyperaware company and are monitored in real time.

Hyperawareness provides the lifeblood — data — of the other two pillars of digital business agility. Informed decision-making, in which data is
analyzed and distributed to support strategic decisions and automated business rules, depends upon the quantity and quality of the data collected in the hyperawareness stage. When it comes to fast execution, these decisions guide the effort and direction of the entire company. In addition, the conclusions and lessons learned are funneled back into the organization as a “closed loop.”

Companies must understand the insights they want to generate, and then determine what they will monitor and the IT infrastructure and human resources they will need. Robust cybersecurity is essential at this stage; connecting the enterprise systems more fully to the virtual and physical worlds requires rigorous threat assessment and mitigation. Well-defined customer privacy policies and data-sharing agreements with partners are also essential, since data collection and sharing can involve sensitive information and intellectual property.

To detect value vampires before they become obvious (and more dangerous), companies need to be attuned to customer dissatisfaction, the emergence of new needs, and the technologies and business models that could deliver customer value more effectively (including those outside the company’s current industry). To identify value vacancies, the first steps include determining a customer need that could be fulfilled, the means of fulfilling it, and looking for examples of successful business models in other industries. A strong sensing function can help companies develop sophisticated hyperawareness, with technology as the enabler in support of broader corporate aims.

Hyperaware companies are less likely to be taken by surprise, and they do not suffer from a lack of imagination. Hyperaware companies are hard to disrupt because they can sense their vulnerabilities and adjust their business.

### Hyperawareness in Action: Nestlé

Digital media has rapidly become a critical component of marketing strategy for consumer goods firms. Nestlé, the world’s largest food company in terms of revenue, has an impressive social media presence—there are more than 200 million fans of Nestlé brands on Facebook, and the company publishes more than 1500 pieces of social media content each day. Seeking to develop a more responsive and open approach to digital consumer engagement, in 2011 Nestlé established sophisticated social media monitoring capabilities through a hyperawareness program called the Digital Acceleration Team (DAT).

DAT brings together dozens of workers from around the world on eight-month assignments to work in digital listening centers. The first DAT Center was established at Nestlé’s headquarters in Vevey, Switzerland, and since then 12 local centers have been set up around the globe. (Incidentally, the DAT Center in Switzerland is located one floor above the executive suites, an indication of the importance the company attaches to this listening function.)

The DAT Center at Nestlé headquarters, which in some ways resembles a NASA control room, is equipped with rows of flat-panel displays streaming real-time information about social media activities related to Nestlé’s brands. Data flows in from all the major social media platforms, including Facebook, LinkedIn, Google+, Twitter, Pinterest, Instagram, and YouTube.

Data visualization applications contextualize the incoming data so that the team can efficiently identify salient developments and trends. Staff have access to millions of posts, as well as metrics such as conversation volume, sentiment level, best performing content, and many others. The team members can track online sentiment about Nestlé’s top brands, and how their brands are being discussed online compared to those of competitors. The DAT Center in Switzerland has also deployed a tool called “Pulse”, which integrates data on customer service inquiries, effectively pulling in perspectives from beyond the social media realm. By integrating these many sources of listening, the teams working in the DAT centers maintain a holistic understanding of their brands’ digital and social engagement.

The capabilities of the DAT Center are not limited to listening. Workers can also engage directly with consumers and communities online if they receive an alert about unusual activity. For example, they can answer consumer questions via social networks, and can publish new content based on algorithms that pinpoint ideal posting times to maximize readership. Automated alerts also identify unusual patterns, such as an unexpected spike in post volume on a particular topic. This allows the team to take rapid action in the event of a brand crisis, which is critical in an environment where sentiment can intensify (or reverse course) in a matter of minutes.

The program also helps spread a culture of hyperawareness across Nestlé’s worldwide operations. Many of the program’s graduates lead digital marketing in their local markets. In fact, while the hyperawareness capabilities of the DAT Center add tremendous value to the company, Nestlé primarily views the investment as leadership development. The company’s executives understand that hyperawareness must become a foundational part of the firm’s strategy and ethos to ensure future success in the Digital Vortex.
models accordingly. For example, hyperaware companies understand when their customers are dissatisfied and why. Hyperaware companies can also zero in on what customers truly value about their products, as opposed to how those products are delivered through the current value chain. Likewise, when a company is hyperaware of its competitive landscape, it understands the strength and weaknesses of traditional rivals, and the potential impact of new lines of business or acquisitions. Hyperaware companies also anticipate which nontraditional competitors (start-ups, incumbents from other industries) could threaten their market position, and the technology-enabled business models they could use to disrupt.

**Informed Decision-making**

Informed decision-making is a company’s ability to make the best decision possible in a given situation. To do this, data collected as part of company hyperawareness processes must be analyzed, scaled, packaged, and distributed throughout the organization. Once analyzed, data is converted into metrics and business insights that can be widely referenced. To excel in informed decision-making, companies must develop mature data analytics capabilities that augment human judgment. Predictive analytics can show how the future may unfold, given past events. Data visualization helps decision-makers understand complex information intuitively. Video and text analytics are transforming knowledge management, making it faster and easier to find the right information. In addition, rapid advances in artificial intelligence with Apple’s Siri and Amazon Echo are harbingers of the future of enterprise data access. Machine learning can automate problem solving and uncover opportunities.

As with hyperawareness, technology that converts data into insight is a prerequisite for informed decision-making. However, many companies fail despite having the information they needed to make the right moves. Often, this is because strategic assumptions held by top management were not tested or questioned. In fact, 70 percent of revenue stalls experienced by companies are due to strategic errors rooted in untested assumptions. Too often, companies make vital strategic decisions by acquiescing to the uninformed opinion of a senior executive, sometimes with disastrous results. In the Digital Vortex, decisions based purely upon “gut feel” or past experience have little chance of success. The business environment shifts so quickly that what was true yesterday is no longer true today, and the opposite may be true tomorrow.

Instead, companies must make decisions based on insights gleaned from data analysis, and ensure that experts from within and outside of the organization have access to these insights. Experts must be brought into the decision-making process at appropriate stages, regardless of their location, role, or rank. This requires an inclusive business environment in which experts have the opportunity to participate, can provide contrary evidence, and give frank recommendations, even when they contradict the opinions of senior leaders. Diversity of perspective (from contributors of different genders, races, and creeds) contributes to informed decision-making but is only one element of a larger imperative of corporate inclusion.

In addition to maximizing knowledge within the organization, companies can obtain fresh perspectives and challenge received wisdom by collaborating with customers and partners, and by launching crowdsourcing initiatives. Increasingly, companies are turning to crowdsourcing to find
answers to difficult questions, and to present alternatives when in-house capabilities are insufficient, or decisions need corroboration.

Companies committed to informed decision-making critique their current strengths and weaknesses, both of which are essential to making the right strategic decisions in the Digital Vortex. Companies can ask themselves whether they are vulnerable to disruption, and how they can improve their position by enhancing the cost value, experience value, and platform value they provide to customers. If they have been disrupted, companies can make informed decisions about whether they can succeed by taking the fight to the disruptor, or whether they are better off putting their efforts into exploiting a different value vacancy. They can also determine whether they have the right skills and business processes to succeed, or if changes are needed.

Informed decision-making is not only applicable for a company’s big strategic decisions; large enterprises can make millions of better decisions each day by providing business insights broadly throughout an organization, embedding decision-support tools into business processes, and automating decision-making through business rules. Thus, digitizing business processes is vital to the “informed” enterprise.

**Fast Execution**

Fast execution is a company’s ability to carry out its plans quickly and effectively. Unfortunately, it is a rare capability, especially in large companies where execution is slowed by cultural inertia, second-guessing, turf wars, and a reluctance to invest in resources needed to get the job done. Hence, the ability to execute effectively is consistently near the top of CEO concerns.¹²

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**Informed Decision-making in Action: DHL**

Deutsche Post DHL (DHL) illustrates how informed decision-making can permeate the individual contributor level of the organization. DHL recognizes tremendous value can be realized by embedding informed decision-making directly into the business processes and workflows of every worker, whether they are in an office, on a factory floor, or in the field.

DHL is the world’s largest courier company with more than 467,000 employees working across more than 220 countries. The company offers a variety of services, including supply-chain services, freight services, and courier services under the DHL brand.³ The majority of the company’s employees work in warehouses, in vehicles, and in other logistics-related facilities. In one of DHL’s three global hubs alone, 46 million international shipments are processed each year.¹⁰ With operations of this scale, DHL’s employees make an astounding number of individual decisions each day across the company’s highly distributed footprint.

Seeking to empower its employees to benefit directly from informed decision-making, DHL has begun to pilot innovative digital capabilities. In 2015, the company announced that it had partnered with DHL customer Ricoh and wearable computing firm Ubimax to trial so-called “vision picking” in a warehouse in the Netherlands.¹¹ (“Picking” is the process by which workers collect warehouse inventory items to fill customer orders.)

For three weeks, DHL provided warehouse staff with head-mounted displays, such as Google Glass. Task information about the warehouse picking process was projected onto the displays in a graphical format (i.e., augmented reality). In their field of vision, workers had direct access to accurate and optimized information about the location and quantity of products to be picked. During the trial, the 10 workers picked more than 20,000 items to fulfill 9,000 customer orders.

The solution enabled workers to perform their tasks without having to look up information manually and make thousands of small, individual decisions about how best to pick items. Rather, they could obtain easy-to-understand guidance based on data and analytics that had already been used to make informed decisions about optimal picking patterns and processes. This freed up workers to focus on more important decisions and other aspects of their jobs. It also resulted in a 25 percent productivity increase during the picking process.

The DHL pilot is a fascinating example of how analytics, embedded directly in employee workflows, can be transformative. This case does not require individual workers in the warehouse to be data scientists. On the contrary, analytics enable existing employees to do the work in which they specialize, only better and faster. Based on the success of the pilot, DHL is considering rolling out this capability more widely. At the DBT Center, we predict that more companies will look for innovative ways to embed informed decision-making directly into business processes and the workflows of their employees.
As it grows, complexity becomes the bane of the incumbent. As we saw in “Digital Vortex,” start-ups out-execute incumbents in areas such as time to market, experimentation, and risk-taking that are essential to success in the Digital Vortex, where disruptors appear suddenly and value vacancies are occupied nearly as soon as they emerge. To cut through complexity and accelerate execution, incumbents can emulate the strategies of start-ups. While most large firms struggle to launch innovative new products and services at speed, GE is using lean start-up principles in its FastWorks program. FastWorks accelerates the time from concept to “minimum viable product,” which customers can test. Based on customer feedback, GE then refines, redirects, or abandons the idea.13

Another area where disruptors excel is in capitalizing on “on-demand” resources to collapse decision-to-execution cycles. The ability to acquire “burstable” expertise using third-party resources that scale rapidly when needed (and quickly contract when the need subsides) is therefore a trademark of fast execution. Incumbents can use an array of applications and cloud services to create more dynamic resource allocation capabilities. This can be useful when a specific skillset is in short supply internally, or is needed intensely during a specific phase of a project. Burstable expertise models also help companies avoid the time-consuming ramp-up normally seen in hiring processes and even in conventional outsourcing. Eden McCallum, for example, provides on-demand consulting services without the high costs and contractual obligations that can come with big professional services firms. Instead of hiring writers, creative designers, and programmers, incumbents can access thousands of freelancers through Upwork and Guru on an as-needed basis, or accelerate software design by tapping into the developer platform of GitHub.

Fast Execution in Action: Starbucks

Starbucks provides a great example of fast execution. In 2014, the company recognized that “line anxiety” represented a major deterrent to sales: busy consumers tend to forgo purchases when they fear they will have to stand in line waiting for their order. Starbucks, therefore, aggressively pursued new experience value (in particular, what we call “Right Here, Right Now,” a model for eliminating customer frustrations associated with waiting) through its Mobile Order & Pay (MOP) initiative. With MOP, consumers can order their preferred food or beverage (with the personalized temperatures, levels of foam, and add-ons they have come to expect from Starbucks) directly from the company’s mobile app. The customer’s payment account is automatically debited, and he or she can pick up the order in the store without waiting in line. By integrating the app with in-store analytics and Google Maps, Starbucks also allows consumers to view estimated wait times at nearby stores remotely.14 MOP also helps speech- and hearing-impaired consumers place customized orders.

MOP allows Starbucks to deepen its return on earlier digital investments, particularly its wildly successful mobile payments scheme (the company has reported more than one-third of its customers use the app for mobile purchasing, and 21 percent of total purchases occur in the app).15 Starbucks also makes more money per transaction on app-based purchases, both because they contribute to cross-selling and impulse buys (the company recently reported a “significant increase in incrementality and transactions” attributable to MOP16), and because they cut out credit card company fees.

After launching MOP as a pilot in Portland, Oregon, in December 2014, the company scaled the app to 7400 Starbucks stores by September 2015.17 It also expanded availability from just Apple iOS mobile devices to Android devices. In announcing the nationwide availability of MOP, Starbucks Chief Digital Officer Adam Brotman noted, “Bringing Mobile Order & Pay to our customers is about meeting their needs of convenience and customization…. The fact that it also represents the fastest technology application rollout we have ever done is indicative of the strength of our digital ecosystem, how well it has been received by both our customers and store partners, and the impact we think it can have on the future of retail.”18 The next month, the company began a rollout to 150 stores in the United Kingdom and 300 in Canada.19

How many incumbents have an operational clock speed like this? How many large enterprises could scale an equivalent innovation that has such far-reaching payoffs for the business at such a rate? This is not just an IT issue, and has huge operational impacts in terms of training, staffing, marketing, how workspaces are physically configured, and more. Brotman has said as much, pointing out that, “This is the equivalent of punching a virtual channel into the stores. It’s the most cross-functional thing we’ve ever done.”20
Platforms play a big role because, as noted in our paper “New Paths to Customer Value: Disruptive Business Models in the Digital Vortex,” they introduce an element of exponentiality — network effects — in how activities are performed. Platforms provide for new modalities of work that are more virtual, more social, and include peer-to-peer interactions that can transform execution. Organizations are becoming more physically distributed, with more employees around the globe, and with customers, partnering structures, and sourcing processes that span multiple countries. Work activities demand more collaboration than ever before — not just with colleagues, but also with far-flung customers, partners, and third-party contributors. As renowned computer scientist Bill Joy is said to have remarked, “Most smart people don’t work here” (that is, at any given firm or location). The ability to connect workers with smart people who do not work proximate to them — or at the same company, for that matter — is one of the most important network effects firms can cultivate to speed execution.

Fast execution depends enormously on change management to ensure quality and alignment to corporate strategy. However, fast execution can also include the automation of workflows. In many circumstances, a machine can execute faster and with more precision than a human being — the reason automation on manufacturing plant floors has been expanding for decades. In Amazon’s fulfillment centers, the activities of employees and machines are so tightly integrated, their model has been termed “human-robot symbiosis.” 21 Fast execution is also on display in the real-time offers that retailers provide to shoppers based on their location and context, bringing decision-making as close as possible to customer-facing execution, and where immediate processing of information occurs at the “edge” of the business, rather than in post-hoc analytics in a company data center. 22

**Competitive Strategies**

Through the DBT Center’s work with both smaller disruptive players and large market incumbents, we have developed a multistep playbook for managing amid digital disruption. This playbook sits at the intersection of competitive strategies and the foundational metacapability of digital business agility (see Figure 2). In the course of executing these various strategies, companies rely heavily upon the

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**Figure 2: Digital Disruption Playbook**

Source: Global Center for Digital Business Transformation, 2015
capabilities of hyperawareness, informed decision-making, and fast execution — they are, in other words, the critical success factors in pulling them off successfully.

The four competitive strategies described below encompass defensive strategies, shown in Figure 2 in red, and offensive strategies, shown in green. They dictate how a firm creates new customer value through digital means (recall from our earlier work, “New Paths to Customer Value,” that this is the essential trait of all digital disruptors) and how it maximizes revenues and profits from pre-disruption operating models, which can be substantial for many incumbents. Defensive strategies are used to fend off value vampires, as well as more modest disruptive threats, and to maximize the useful lifespan of businesses under attack. Offensive strategies are those associated with the pursuit of a value vacancy. Importantly, companies can pivot from defensive to offensive strategies, an idea that we explore on the following pages.

**Harvest: Maximizing Value from Disrupted Businesses**

When disruptive competitors menace a business, the appropriate strategy for incumbents can be Harvest. This is a defensive strategy premised on maximizing gains from the declining business. Harvest strategies frequently begin with what are aptly considered blocking tactics, drawing on the benefits of incumbent status with customers, partners, regulators, opinion-makers, and providers of capital. These are essentially countermeasures intended to slow a disruptive player, or to buy time for an incumbent to muster a fuller response. These tactics may include legal action to halt the disruptors’ operations, marketing activities to challenge disruptors’ claims, or the use of financial resources to undercut the pricing offered by a disruptor (although this gambit can backfire, hastening margin decline). Rarely do such blocking tactics thwart the disruption entirely.

A Harvest strategy attempts to make the best of a bad situation, optimizing the margin that can be extracted during the period of decline. It involves significant organizational reconfiguration to adapt the business to this new reality. This can include consolidation of operations; cost optimization and streamlining of processes; stepping down production; locking in loyal or dependent customer segments; emphasizing quality and brand equity in marketing; and pruning portfolio elements that no longer contribute sufficiently to value creation. This occurs in a series of moves that yield competitive ground intelligently, meaning where the business passes inflection points at which the costs of maintaining a given component outweigh the financial or strategic benefits. “Digital” therefore plays an important role in Harvest — not just in sparking disruption, but in mounting a strong defense (such as driving the increased efficiencies required in Harvest).

Most incumbents tend to be bad at Harvest strategies. One of the biggest reasons for this is that Harvest requires an acknowledgement that a given business is in decline. As a rule, companies are reluctant to admit this because it conjures up images of organizational demise. No executive relishes the idea of presiding over a company's "sunset" phase; for many, doing so suggests a breakdown in leadership or vision, the very things they are expected to provide. Wall Street may also punish incumbents perceived as entering a Harvest period because investors often interpret such moves as signposts of coming hardship. This in turn hardens companies’ resistance.
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Harvest shouldn’t be equated with failure, however. It is a natural progression of a mature business confronting commoditization, customer attrition, margin compression, or other unpleasantness arising from digital disruption. Leaders clear-sighted enough to accept this are best-positioned to steer their organizations through this environment.

Digital disruption is painful and frequently irreversible. The disruption we see in the Digital Vortex typically does not allow an incumbent to “weather the storm,” as it might with a recession, a botched product launch, or negative press coverage. This is especially so in the case of value vampires, the most extreme and ruinous form of disruptor. Value vampires introduce so much value for customers that buyer expectations for this value become hard-wired, eliminating the possibility of returning to the competitive hierarchy of yesteryear (it is hard to “put the vampire back in the coffin,” as we noted in our earlier paper). Incumbents can prevail, but not by battening down the hatches and then doing what they were doing before.

Most would not consider Netflix an incumbent—in fact, it is often viewed as the quintessential digital disruptor—but the company does have a mature, declining business that has been disrupted: DVD-by-mail subscriptions. The disruption Netflix has in part made so pervasive—streaming—is growing impressively; in November 2015, members stood at 69 million, spanning more than 60 countries. The company’s DVD-by-mail offering, however, continues to serve more than 5 million members in the United States, and generated $80 million in profit, or 23 percent of the U.S. total, in Netflix’s latest fiscal quarter.

To maximize the margin it can garner (DVD subscriptions peaked at 20 million in 2010, and declined 11 percent in the latest fiscal quarter), Netflix undertook a Harvest strategy by introducing all kinds of efficiencies in how it manages its legacy business, including streamlining and automating warehouse operations. Some of these steps were detailed in a recent article in The New York Times about the company’s Fremont, California, distribution center: “About 3400 discs zip through the rental return machine each hour, five times as many as when teams of Netflix employees used to process the discs by hand. Called the Amazing Arm by engineers here, the machine symbolizes the way Netflix has

Harvest: Questions for Leaders

- Which blocking tactics can help us slow down disruptors?
- Which elements of the disrupted business represent sustainable profit pools?
- Which steps should be taken to reconfigure the organization so that we can adapt to the new competitive reality?
- Should we pivot from Harvest to Disrupt and go on the offensive?
- When and how fast should we consider Retreat?
managed to maintain a profitable physical DVD operation even as it transforms itself into a global streaming service.\(^{24}\)

It is vital to understand, however, that Harvest is not the only response available to incumbents when confronting a threat in the Digital Vortex. Incumbents can go on the offensive, in effect using disruption to fight disruption (see “Disrupt” strategies below). “Harvesting” and “disrupting” in tandem is a delicate maneuver. Research from Cisco on the manufacturing sector reveals that the complexity associated with a “two-front war” is the single greatest inhibitor for manufacturers attempting to transition from mature product-centric lines of business to higher-growth service-oriented revenues. This is common in organizations that seek to protect legacy revenue streams while launching disruptive new businesses. Cannibalizing existing business is sometimes a risk. Beyond this complexity, organizations must carefully weigh competing investments in Harvest and Disrupt strategies, and assess where resources can be most profitably deployed.

**Retreat: Strategic Withdrawal**

When the opportunity costs of maintaining the declining business clearly outstrip the benefits, companies should focus on Retreat. This strategy emphasizes withdrawing into a market niche to serve a small subset of existing customers with unique needs who can be profitably served without substantial incremental investment. Here, keeping a tight lid on costs is both essential and relatively straightforward. Usually, this niche is a market the incumbent has dominated in the past and, in most cases, is expert in managing for profitability. Retreat strategies also encompass market exit, where no further value can be created in excess of cost, or where continued allocation of capital is obviously unattractive.

As with Harvest, Retreat strategies are not a marker of failure. If a company possesses the requisite level of digital business agility, it should be moving (or already have moved) into new value vacancies that will replace the revenue streams coming to an end, and where returns on capital are stronger. Retreat strategies are different from Harvest because they mostly denote “wrapping up” the business, rather than expending the firm’s energies and resources on “wringing out” remaining value. With Retreat, the market opportunity, for all intents and purposes, has been exhausted, and only a niche profit pool (representing a small share of overall revenues, but still offering an appealing operating margin) remains.

**Retreat: Questions for Leaders**

- What are the opportunity costs (strategic and financial) of continuing Harvest-oriented investments?
- Does a viable legacy business remain?
- Should we divest of the legacy business?
- How should we divest (consolidate, sell, or shutter)?
- What learnings can be gleaned to drive new business (i.e., additional value vacancies)?
Disrupt: Creating New Customer Value Through Digital Means

When a value vacancy is detected, companies should pursue a Disrupt strategy. (As discussed, Disrupt strategies can also be employed in response to threats—a strategic “pivot”—where the incumbent joins the fray with disruptors that are targeting a given market opportunity.) Disrupt strategies focus on creating cost value, experience value, and platform value for customers ideally all three) using digital technologies and business models. This involves a thorough analysis of evolving customer needs; consideration of competitor capabilities and moves; and a critical examination of organizational readiness to transform (see “Digital Business Transformation: A Conceptual Framework” for a discussion of our construct of the “digitization piano,” a diagnostic for assessing transformation priorities).

Disrupt is fundamentally about finding new ways to create these three forms of value in order to alter competitive dynamics. In “New Paths to Customer Value,” we outlined 15 disruptive business models that give rise to cost value, experience value, and platform value. These business models provide a guide to the customer value creation necessary for Disrupt.

Disrupt strategies, however, depend hugely on digital business agility. Firms must have a rich sense of the business environment in order to understand:

- Where costs (prices) are headed
- The current state of customer experiences and options for improvement (increasing personalization, convenience, control, speed, and so forth)
- How stakeholders in and around the market—customers, partners, employees, third-party contributors—are currently connected (or not), and how platforms could bring about new or more value-adding connections

As we noted in “Digital Vortex,” digital disruption is about “the value, not the value chain.” Companies pursuing Disrupt strategies must step outside their role of provider and consider their market through the eyes of the customer, focusing on outcomes rather than inputs.

As bad as companies are at Harvest, most incumbents are even worse at Disrupt. This is a well-documented challenge, studied by Clayton Christensen and others who have examined the roadblocks facing incumbents in becoming disruptors. The problem, in essence, is that the strategic advantages that made incumbents successful serve them poorly in creating and capitalizing on disruptive innovations. In fact, for these reasons, many incumbents do little to pursue value vacancies without prodding. In “Digital Vortex,” the DBT Center demonstrated that just one in four companies is attempting to be a disruptor themselves. Therefore, reactive implementation of Disrupt strategies, in which the incumbent seeks to mimic or outmaneuver the disruptor as a defensive measure, actually tends to be the norm, and proactive attempts at disruption by incumbents targeting value vacancies are less prevalent. This tendency, however, may not serve incumbents well in the Digital Vortex.

Disrupt strategies also notoriously flounder due to ill-advised acquisitions as incumbents attempt to reposition themselves, often with great fanfare, as innovators in a new market space. These acquisitions may actually accelerate competitive decline if they are strategically flawed or poorly
Disruptor and Disrupted

Disrupt strategies undertaken as long-shot curatives for mismanaged or moribund lines of business are usually doomed from the outset. Even prudent acquisition moves, however, often fail due to inadequate levels of underlying digital business agility. This is because the incumbent lacks the pre-established business processes, systems, and skills necessary to adapt to changing commercial priorities. Poor digital business agility can also impede incumbents’ capacity to bounce back from misbegotten attempts at market disruption (also known as “failing fast”).

Combinatorial disruption — creating cost value, experience value, and platform value simultaneously — heightens the challenge and requires yet more digital business agility. Cost value and experience value, for example, have generally been conceived as competing alternatives. As we have shown, digital disruptors smash this paradigm. But most incumbents grew up in a world where you primarily do one or the other, and trying to do both is a recipe for dilettantism and decline. Platform formation also is mysterious to many incumbents — they wonder why customers flock to disruptive providers that offer platforms; they have no experience in (or process for) building platforms that connect customers or partners in new ways; and they have built-in incentives to perpetuate traditional, non-platform modes of interaction and commerce.

There is no one-size-fits-all model for Disrupt. Some incumbents find success in acquisitions, some in joint ventures, some in a “newco” spin-off or spin-in. Others act as venture capitalists themselves and create a portfolio of investments that can incubate innovations for their advantage. Build, buy, and partner approaches are all tenable (see “Disrupt Case Study: A Tale of Three Incumbents,” page 15). Most will benefit from a partner ecosystem made up of complementary capabilities and innovations that together increase the likelihood of new customer value creation. Perhaps predictably, managing a partner ecosystem in a manner that produces competitive advantage itself requires a lot of digital business agility. Being able to detect minute competitive vibrations in the ecosystem (hyperawareness), using the “crowd” represented by the ecosystem to source solutions to customer problems in new ways (informed

Disrupt: Questions for Leaders

• How can we create new forms of cost value, experience value, and platform value for customers?
• Can we create combinatorial disruption that is even more compelling?
• Do we possess the requisite digital business agility to succeed in this new market space?
• Should we build, buy, or partner to create disruption?
• What is the return on investment (including the risk of cannibalizing existing businesses) of the disruption, and does it outweigh competing Harvest-oriented moves?
Disruptor and Disrupted

decision-making), and being able to harness a network of contributors to scale an idea or offering (fast execution) all illustrate why Disrupt demands digital business agility at every turn.

**Occupy: Prolonging Time in a Value Vacancy**

Where Disrupt represents catalytic activities that introduce market disruption, Occupy strategies focus on sustaining the competitive gains associated with that disruption. Occupy rejects the Silicon Valley trope of “build it and they will come,” recognizing that value vacancies are fiercely contested market opportunities, often comingle with increasing customer choice. Maximizing upside from these opportunities requires a deliberate strategy to extend the disruption and prolong the longevity of the company’s standing in the value vacancy. It is, therefore, the key component of growth in the Digital Vortex.

Incumbents also struggle with Occupy strategies. When people speak about the challenges incumbents face in “becoming disruptors,” it often has to do with their inability to succeed in Occupy strategies. Here, the problem is that the incumbent is frequently on unfamiliar terrain. As noted earlier, value vacancies can be born of market adjacencies, new market creation, or digital enhancements to existing markets. In all three, the incumbent is operating outside its normal arena, where managers and individual contributors have built up rules of the road, tried-and-true approaches, go-to mental models, coping mechanisms, and other organizational behaviors that led to success historically. Because Occupy involves managing the “new” part of the business, it is often afflicted by the complexity challenges described above when companies attempt to manage declining (Harvest, Retreat) and growing (Disrupt, Occupy) businesses at the same time.

Because value vacancies in the Digital Vortex have a shelf life, their occupiers find the market opportunity sooner or later assailed by insurgents that introduce competitive forms of cost value, experience value, or platform value. As the value vacancy matures or is itself disrupted, companies must shift from Occupy to Harvest to maximize the revenue and profit obtainable.

A company’s defensive or offensive strategies amount to the application of digital business agility capabilities in service of company vision. Having visionary leadership does matter. But in a twist on Edison’s famous statement about genius, competitive success in the Digital Vortex is 1 percent inspiration and 99 percent perspiration. That is, vision is rendered valuable by a deep understanding of the business environment (hyperawareness), making good choices (informed decision-making), and being able to put those choices into action (fast execution). The three component capabilities help to furnish business leaders with intelligence-spawning connections they need to inform this vision. It is, therefore, essential that management transfer this information and organizational learning through agile processes at each step in the digital disruption playbook. This enhances hyperawareness, informed decision-making, and fast execution, and ensures the firm fully capitalizes on insights.

Perhaps the most critical point is that the creation of digital business agility must be systematic and highly comprehensive in terms of organizational design and behavior, and cannot be undertaken after a disruptive threat or opportunity has materialized. By then, any potential for strategic advantage will have vanished. It must, therefore, precede the other steps in the playbook. Also,
the strategies outlined in this playbook are intended to be recursive — a company will not end up permanently occupying one value vacancy, and if it is successful, will not be consigned to living out its remaining days in a niche status as a result of Retreat. Instead, digital business agility enables the company to progress through this playbook repeatedly, extracting revenue and profit at each step along the way. There is plenty of growth to be had in the Digital Vortex. The question for business leaders is how much of that growth their firm will capture.

Disrupt Case Study: A Tale of Three Incumbents

Let’s take a closer look at Disrupt, a strategy that should be top of mind for executives in the Digital Vortex, from both defensive and offensive stances. In particular, let’s drill down on three approaches to Disrupt — build, buy, and partner — and how they are playing out in the financial services industry, a sector we rated in “Digital Vortex” as among those most likely to see substantial disruption in the next five years.

Investment management is one of the key pillars of both growth and profitability for incumbent financial institutions. Globally, professionally managed assets have reached more than $74 trillion in value, with institutions’ profits cresting the $100 billion mark. Accordingly, banks, insurers, securities firms, and financial advisors covet investment clients — especially high-net-worth and so-called “mass affluent” customers — and the fees that go along with providing advice. To the chagrin of most market incumbents, the phenomenon of the “robo-advisor” — digital disruptors that use algorithms to manage money automatically based on a client’s age, investment goals, and risk profile, and without the intervention of human advisors — has emerged as a real alternative for hundreds of thousands of investors, jeopardizing a crucial source of revenue and profitability.

Companies like Betterment, FutureAdvisor, and Wealthfront have headed a pack of disruptors looking to attack the value chain of incumbent firms in the industry. The robo-advisor’s business model introduces value for investors in several ways, presenting a combinatorial disruption challenge for incumbents. First, it creates cost value by eliminating high fees for investment advice, charging a small fee as a percentage of assets under management, generally in line with banks’ lowest-price investment

Occupy: Questions for Leaders

• How do we differentiate our disruptive offering and extend the cost value, experience value, and platform value it delivers for customers?
• How do we create scale?
• Can we erect barriers (e.g., platform status, intellectual property protections) that can inhibit competitors?
• Is the value vacancy reaching maturity, making it necessary to transition to Harvest?
• What learnings can be gleaned to drive new business (i.e., additional value vacancies)?
Disruptor and Disrupted

vehicles, such as index funds. It delivers experience value to clients by reducing the burden of managing their portfolio — “set it and forget it.” Experience value is also delivered in the form of automatic rebalancing of portfolios (i.e., when holdings in one asset class grow or shrink to a level inconsistent with the target allocation), dividend reinvestment, and “tax loss harvesting.” Tax loss harvesting is an investing technique in which the software “switches out” a given security in the individual’s portfolio, such as an exchange-traded fund (ETF) that has declined in value, for a comparable (but different) one, declaring a loss on the sale of the original security to tax authorities. This offsets income elsewhere, but does not fundamentally change market positions or exposure.

It is unclear whether robo-advisors are, in fact, value vampires whose competitive advantage shrinks the overall market. No one yet knows whether robo-advisors will actually cause the revenue (or profit) of the investment management business as a whole to fall off. So far they have not. It is perfectly conceivable that robo-advisors are not value vampires at all, and could render the provision of financial advice to underserved markets more economical, and perhaps grow the total pie. In the short term, however, there is a very real risk that the disruption they represent will erode a bedrock business for incumbents: analysts project robo-advisor assets under management will grow to as much as $450 billion by 2020. While this remains a relatively small slice of the multi-trillion dollar global asset management business, robo-advisors’ disruptive business models have caught the attention of incumbents.

The severity of the disruption posed by robo-advisors has been a source of debate, but there is general consensus among industry observers that elements of the model — analytics and automation, for example — are likely to persist and find their way into the mainstream delivery of financial advice. The robo-advisor disruption also presents an interesting case study of Disrupt strategies for incumbents. Let’s examine how three different incumbents in investment management — Charles Schwab, BlackRock, and Fidelity — have pursued the three different versions of Disrupt strategies — build, buy, and partner, respectively — to deal with the threat posed by robo-advisors.

Charles Schwab: Build

In the 1970s, the Charles Schwab Corporation emerged as the first major discount brokerage, and in the 1990s was in the vanguard of electronic trading. Now the threat posed by robo-advisors has spurred Schwab to take action again. In October 2014, the company announced the planned launch of Schwab Intelligent Portfolios, its own version of a robo-advisor service. Unlike the models of smaller disruptive rivals, Schwab Intelligent Portfolios charges no fees. According to the company, “Schwab Intelligent Portfolios is an automated investment advisory service. This sophisticated technology builds, monitors and rebalances your portfolio — so you don’t have to. And, Schwab Intelligent Portfolios doesn’t charge advisory fees, commissions or account service fees.” After its first full quarter of marketing the Intelligent Portfolios offering, Schwab reported the service had 39,000 accounts and some $3 billion in assets.

By eliminating fees, the company is creating new cost value for customers. By offloading responsibility to monitor markets, rebalance investments, and so forth,
Schwab is removing inconveniences and adding intelligence, two components of new experience value disruptors have used to great effect. Using the Apple App Store and Google Play as channels for customers to sign up for the service makes it easy to join, for example, rather than going through frustrating paper-based sign-up processes typical with most investment managers.

Schwab has also introduced a version of the offering that it markets to the more than 7000 registered investment advisors (RIAs) in its custodial network; in six short months, more than 500 signed on. A recent article in Investment News noted the application “will be customizable for advisers, who can use it to create their own investment strategies and add their own logos to the interface.” When the disruption extends to “enablement” of a channel or customer segment in this way, we can say that the obvious cost value and experience value improvements associated with robo-advisors are now accompanied by platform value to boot, further amplifying the effects of combinatorial disruption.

As Schwab CEO Walt Bettinger remarked with the launch of Intelligent Portfolios, “Because of our scale at Schwab and our efficiency … because of the breadth of our capabilities … we’re going to be able to offer Schwab Intelligent Portfolios without charging any fees for the portfolio management advisory service; there will also be no trading commissions and no account service fees.” The example of Schwab Intelligent Portfolios illustrates one approach to Disrupt strategies: “build.” Here, Schwab is effectively using its status as an incumbent as a competitive sword, rather than as a shield—a great example of a market leader “pivoting” from defense to offense when confronted with disruption.

Schwab also is clearly looking at the implications for its existing advisory businesses. While its CEO, when launching Intelligent Portfolios, unflinchingly stated, “We’ve never been afraid to cannibalize parts of our business historically,” he also added, “That said, this is a very different solution for clients than the majority of our other relationship-intensive advisory solutions…. We believe to a great extent it will appeal to people who are less interested in a relationship-driven model than our other solutions.” Schwab will need a high level of digital business agility to manage legacy advisory businesses alongside disruptive plays like Schwab Intelligent Portfolios. It is clear, though, that Schwab’s strategy is to undercut disruptive players, in fact beating them at their own cost-value game by eliminating fees, while tying off other key profit pools so they are not infected by the disruption. By compartmentalizing in this way, Schwab can maximize value from its diversified portfolio of businesses. This also places disruptors on their heels, and they themselves must now attempt to move from Disrupt to Occupy.

BlackRock: Buy

Schwab’s “build” model for dealing with the robo-advisor disruption is one approach. Next, let’s consider another incumbent with a different take on Disrupt: “buy.”
BlackRock, Inc., a subsidiary of bank holding company PNC Financial, is the largest investment manager in the world, serving corporations, governments, pension funds, and individual investors, with more than $4.5 trillion in assets under management. In August 2015, the company announced the acquisition of robo-advisor FutureAdvisor, a venture-backed start-up managing $600 million in assets. FutureAdvisor is being integrated into BlackRock's investment and risk management division, BlackRock Solutions, which will market the service to banks, insurers, and other investment advisors that want to include robo-advice in their offerings.

Not to say this of the BlackRock case, but the “buy” approach can be particularly appealing for incumbents that do not possess the right DNA to incubate and launch disruptions in-house. Keeping pace with the rapid evolution of digital technology, moreover, can make acquisitions of disruptors attractive to incumbents, a point reportedly made by BlackRock's leadership at the time of the FutureAdvisor purchase.

The cost of the acquisition has been pegged in the vicinity of $150 million to $200 million (exact terms were not disclosed). In a release announcing the purchase, BlackRock referred to the financial cost of the acquisition as “not material to BlackRock’s earnings per share,” evidence that disruptive innovations can be brought into the business from outside at a price that, for a Goliath like BlackRock (even at an estimated 50-times-revenue multiple), is relatively palatable. In absorbing a “mere” $600 million in assets, the FutureAdvisor move appears to be an acquisition motivated by digital technology and speed, more so than customer accounts.

It is worth noting that the FutureAdvisor business will be embedded within BlackRock Solutions, the company's B2B arm, what BlackRock refers to as the “analytical core of the firm.” By marketing the robo-advisor service to advisors and financial institutions, BlackRock is turning the disruptive threat to advice for individual investors (B2C) on its head — “out-commoditizing the robo-advisor commoditization.” In essence, the company is making the robo-advisor platform a distribution channel that can grow one of its most strategic businesses, BlackRock iShares, the company’s family of ETFs, which is sold through the advisor channel it is enabling with the robo-advisor tool.

Fidelity Investments: Partner

Finally, let's review the third approach to Disrupt — “partner” — through the lens of another investment management incumbent. With assets under management in excess of $2 trillion, Fidelity Investments is a leader in multiservice investment management, with lines of business in mutual funds, retirement planning, wealth management, discount brokerage, securities execution and clearance, insurance, and more.
In October 2014, Fidelity entered into a strategic alliance with Betterment, which as of July 2015 stood with Wealthfront as one of the top two pure-play robo-advisors in total assets, with both in the neighborhood of $2.5 billion. The partnership sees Fidelity Institutional Wealth Services (IWS) white-labeling Betterment’s advisor-facing offering, Betterment Institutional, to the nearly 10,000 advisory firms that work with Fidelity. Fidelity and Betterment are positioning the offering as a hybrid of human advisor and technology, a way to make advisors’ practices more efficient and effective. This enables them to acquire and onboard clients (especially younger investors with lower asset levels), and allows the advisor to focus on high-touch client work like trusts or inheritances.

One month later, Fidelity again partnered with another disruptive player, LearnVest. (LearnVest was subsequently snapped up by another incumbent, Northwestern Mutual, in March 2015.) Fidelity’s tie-ups with robo-advisors and other fintechs represent the “partner” approach to incumbents’ Disrupt strategies—the idea that, as one wry observer put it, “If you can’t beat the robots, join them.” For Fidelity, the ability to create cost value, experience value, and platform value by leveraging the disruptors’ own momentum is compelling. “Partner” strategies also can serve as a kind of petri dish for Disrupt strategies, which can then be ported to a “build” model where the incumbent develops a disruptive offering with its own resources, when it feels the time is right. Michael Durbin, president of Fidelity IWS, explained the possibility of converting from “partner” to “build”: “We have a front-row seat on what the market is looking for, and we’re monitoring it very quickly to see what we could do on a proprietary basis…. The market should not be surprised if we serve up these capabilities more natively through time.”

At the DBT Center, we are not in the business of trying to pick winners and losers. As we have noted, an investment bubble may be giving rise to an unprecedented number of so-called “unicorns,” start-ups with valuations of more than $1 billion. Whether such a bubble exists or not, however, is really irrelevant: the point is that digital disruptions like automated advice are here to stay. Robert Goldstein, head of BlackRock Solutions, said it well: “Over the next several years, no matter what you think about digital advice, you would be hard-pressed to argue that it won’t be more popular versus less popular five to 10 years from now.”

It may be that incumbents can use build, buy, or partner approaches to weaken upstart rivals in the longer term. There may be more market consolidation ahead, as we have seen with BlackRock’s purchase of FutureAdvisor, but also with acquisitive moves into the space by incumbents like Northwestern Mutual and others. Or, the proliferation of robo-advisors by incumbents may actually create market acceptance and uplift for disruptors like Betterment and Wealthfront that are trying to establish themselves with mainstream investors as a viable substitute for traditional advisors. No matter how it evolves, the investment management sector is sure to be a competitive crucible of digital disruption effects.
Disruptor and Disrupted

Conclusion

It is the curse of the market incumbent always to “buy at the peak.” The inherent disadvantage of incumbency in the Digital Vortex is Moore’s Law, which (loosely stated) posits that the cost of technology as a factor of production declines exponentially. Incumbents are on the wrong end of the curve; those who come after, including the disruptive innovators, are on the right end, and enjoy a more competitive cost base.

Cost competitiveness, in short, is a lagging indicator. This is in part why we have coined the term “encumbered incumbents”—because they are saddled with cost structures and value chains that were tuned to the competitive dynamics of an earlier period in time. It is not a truism, however, that younger companies are more competitive than older companies in the Digital Vortex. And as innovators mature, and take on the encumbrances of incumbents themselves, they fall prey to the next generation of disruptive players who benefit from the relentless march of Moore’s Law.

As the costs of innovation plummet, disruptors of all stripes—and this includes incumbents—get more “kicks at the can” in creating disruptive offers and business models that deliver cost value, experience value, and platform value. As a result, incumbents can tap into exciting new paths to customer value. However, there are also many more rivals similarly vying for the winning formula. As with many things in the Digital Vortex, whether this is good or bad for an individual firm comes down to how effectively and efficiently it can create new value for customers. This in turn hinges on the level of digital business agility it possesses: the more it has, the greater its ability to “reset” its position relative to the cost curve represented by Moore’s Law.

Creating hyperawareness, informed decision-making, and fast execution capabilities is at the heart of competitive success in the Digital Vortex. How does an incumbent go about introducing these capabilities? What are the best practices in doing so? How does the incumbent emulate the disruptor’s innovation, speed, and risk-taking? Although we have begun to unpack these issues, in our next study, “People Leadership in the Digital Vortex,” the DBT Center will review the enablers of digital business agility in perhaps the most crucial part of the business: the workforce itself.
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