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Why digital strategies fail

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Most digital strategies don't reflect how digital is changing economic fundamentals, industry dynamics, or what it means to compete. Companies should watch out for five pitfalls.

The processing power of today's smartphones are several thousand times greater than that of the computers that landed a man on the moon in 1969. These devices connect the majority of the human population, and they're only ten years old.[1]

In that short period, smartphones have become intertwined with our lives in countless ways. Few of us get around without the help of ridesharing and navigation apps such as Lyft and Waze. On vacation, novel marine-transport apps enable us to hitch a ride from local boat owners to reach an island. While we're away, we can also read our email, connect with friends back home, check to make sure we turned the heat down, make some changes to our investment portfolio, and buy travel insurance for the return trip. Maybe we'll browse the Internet for personalized movie recommendations or for help choosing a birthday gift that we forgot to buy before leaving. We also can create and continually update a vacation

photo gallery—and even make a few old-fashioned phone calls.

Then we go back to work—where the recognition and embrace of digital is far less complete. Our work involves advising the leaders of large organizations. And as we look at this small device and all the digital change and revolutionary potential within it, we feel the urge to send every CEO we know a wake-up call. Many think that having a few digital initiatives in the air constitutes a digital strategy—it does not. Going forward, digital strategy needs to be a heck of a lot different from what they have today, or they're not going to make it.

We find that a surprisingly large number underestimate the increasing momentum of digitization, the behavioral changes and technology driving it, and, perhaps most of all, the scale of the disruption bearing down on them. Many companies are still locked into strategy-development processes that churn along on annual cycles. Only 8 percent of companies we surveyed recently said their current business model would remain economically viable if their industry keeps digitizing at its current course and speed.

How can this be, at a moment when virtually every company in the world is worried about its digital future? In other words, *why* are so many digital strategies failing? The answer has to do with the magnitude of the disruptive economic force digital has become and its incompatibility with traditional economic, strategic, and operating models. This article unpacks five issues that, in our experience, are particularly problematic. We hope they will awaken a sense of urgency and point toward how to do better. (For more on how companies are redefining their digital strategies, see "Responding to digital threats.")

Pitfall 1: Fuzzy definitions

When we talk with leaders about what they mean by digital, some view it as the upgraded term for what their IT function does. Others focus on digital marketing or sales. But very few have a broad, holistic view of what digital really means. We view digital as the nearly instant, free, and flawless ability to connect people, devices, and physical objects anywhere. By 2025, some 20 billion devices will be connected,

nearly three times the world population. Over the past two years, such devices have churned out 90 percent of the data ever produced. Mining this data greatly enhances the power of analytics, which leads directly to dramatically higher levels of automation—both of processes and, ultimately, of decisions. All this gives birth to brand-new business models.[2] Think about the opportunities that telematics have created for the insurance industry. Connected cars collect real-time information about a customer's driving behavior. The data allow insurers to price the risk associated with a driver automatically and more accurately, creating an opportunity to offer direct, pay-as-you-go coverage and bypassing today's agents.

Lacking a clear definition of digital, companies struggle to connect digital strategy to their business, leaving them adrift in the fast-churning waters of digital adoption and change. What's happened with the smartphone over the past ten years should haunt you—and no industry will be immune.

Pitfall 2: Misunderstanding the economics of digital

Many of us learned a set of core economic principles years ago and saw the power of their application early and often in our careers. (For more on the changing economics of digital competition, see the infographic below.) This built intuition —which often clashes with the new economic realities of digital competition. Consider these three:

Infographic

Digital is destroying economic rent

One of the first concepts we learned in microeconomics was economic rent—profit earned in excess of a company's cost of capital. Digital is confounding the best-laid plans to capture surplus by creating—on average—more value for customers than for firms. This is big and scary news for companies and industries hoping to convert digital forces into economic advantage. Instead, they find digital unbundling profitable product and service offerings, freeing customers to buy only what they need. Digital also renders distribution intermediaries obsolete (how healthy is your nearest big-box store?), with limitless choice and price transparency. And digital offerings can be reproduced almost freely, instantly, and perfectly, shifting value to

hyperscale players while driving marginal costs to zero and compressing prices.

Competition of this nature already has siphoned off 40 percent of incumbents' revenue growth and 25 percent of their growth in earnings before interest and taxes (EBIT), as they cut prices to defend what they still have or redouble their innovation investment in a scramble to catch up. "In-the-moment" metrics, meanwhile, can be a mirage: a company that tracks and maintains its performance relative to its usual competitors seems to be keeping pace, even as overall economic performance deteriorates.

There are myriad examples where these dynamics have already played out. In the travel industry, airlines and other providers once paid travel agents to source customers. That all changed with the Internet, and consumers now get the same free services that they once received from travel agents anytime, anyplace, at the swipe of a finger—not to mention recommendations for hotels and destinations that bubble up from the "crowd" rather than experts. In enterprise hardware, companies once maintained servers, storage, application services, and databases at physical data centers. Cloud service offerings from Amazon, Google, and Microsoft, among others, have made it possible to forgo those capital investments. Corporate buyers, especially smaller ones, won because the scale economies enjoyed by these giants in the cloud mean that the all-in costs of buying storage and computing power from them can be less than those incurred running a data center. Some hardware makers lost.

The lesson from these cases: Customers were the biggest winners, and the companies that captured the value that was left were often from a completely different sector than the one where the original value pool had resided. So executives need to learn quickly how to compete, create value for customers, and keep some for themselves in a world of shrinking profit pools.

Digital is driving winner-takes-all economics

Just as sobering as the shift of profit pools to customers is the fact that when scale and network effects dominate markets, economic value rises to the top. It's no longer distributed across the usual (large) number of participants. (Think about

how Amazon's market capitalization towers above that of other retailers, or how the iPhone regularly captures over 90 percent of smartphone industry profits.) This means that a company whose strategic goal is to maintain share relative to peers could be doomed—unless the company is already the market leader.

A range of McKinsey research shows how these dynamics are playing out. At the highest level, our colleagues' research on economic profit distribution highlights the existence of a power curve that has been getting steeper over the past decade or so and is characterized by big winners and losers at the top and bottom, respectively (see "Strategy to beat the odds," forthcoming on McKinsey.com). Our research on digital revenue growth, meanwhile, shows it turning sharply negative for the bottom three quartiles of companies, while increasing for the top quartile. The negative effects of digital competition on a company's growth in earnings before interest, taxes, depreciation, and amortization (EBITDA), meanwhile, are twice as large for the bottom three-quarters of companies as for those at the top.

A small number of winners—often in high tech and media—are actually doing better in the digital era than they were before. They marshal huge volumes of customer data drawn from their scale and network advantages. That triggers a virtuous cycle in which information helps identify looming threats and the best partners in defending value chains under digital pressure. In this environment, incumbents often find themselves snared in some common traps. They assume market share will remain stable, that profitable niches will remain defendable, and that it's possible to maintain leadership by outgrowing traditional rivals rather than zeroing in on the digital models that are winning share.

This phenomenon of major industry shakeouts isn't new, of course. Well before digital, we saw industry disruptions in automobiles, PC manufacturing, tires, televisions, and penicillin. The number of producers typically peaked, and then fell by 70 to 97 percent.[3] The issue now is that digital is causing such disruptions to happen faster and more frequently.

Digital rewards first movers and some superfast followers

In the past, when companies witnessed rising levels of uncertainty and volatility in

their industry, a perfectly rational strategic response was to observe for a little while, letting others incur the costs of experimentation and then moving as the dust settled. Such an approach represented a bet on the company's ability to "outexecute" competitors. In digital scrums, though, it is first movers and *very* fast followers that gain a huge advantage over their competitors. We found that the three-year revenue growth (of over 12 percent) for the fleetest was nearly twice that of companies playing it safe with average reactions to digital competition.

Why is that? First movers and the fastest followers develop a learning advantage. They relentlessly test and learn, launch early prototypes, and refine results in real time—cutting down the development time in some sectors from several months to a few days. They also scale up platforms and generate information networks powered by artificial intelligence at a pace that far outstrips the capabilities of lower-pulsed organizations. As a result, they are often pushing ahead on version 3.0 or 4.0 offerings before followers have launched their "me too" version 1.0 models. Early movers embed information across their business model, particularly in information-intensive functions such as R&D, marketing and sales, and internal operations. They benefit, too, from word of mouth from early adopters. In short, first movers gain an advantage because they can skate to where the puck is headed.

How Tesla captured first-mover value in electric vehicles offers a lesson in the discomfiting effects of a wait-and-see posture. Four years ago, incumbent automakers could have purchased Tesla for about $4 billion. No one made the move, and Tesla sped ahead. Since then, companies have poured money into their own electric-vehicle efforts in a dash to compete with Tesla's lead in key dimensions. Over the past two years alone, competitors have spent more than $20 billion on sensor technologies and R&D.

Pitfall 3: Overlooking ecosystems

Understanding the new economic rules will move you ahead, but only so far. Digital means that strategies developed solely in the context of a company's industry are likely to face severe challenges. Traditional approaches such as tracking rivals' moves closely and using that knowledge to fine-tune overall direction or optimize

value chains are increasingly perilous.

Industries will soon be ecosystems

Platforms that allow digital players to move easily across industry and sector borders are destroying the traditional model with its familiar lines of sight. Grocery stores in the United States, for example, now need to aim their strategies toward the moves of Amazon's platform, not just the chain down the street, thanks to the Whole Foods acquisition. Apple Pay and other platform-cum-banks are entering the competitive set of financial institutions. In China, Tencent and Alibaba are expanding their ecosystems. They are now platform enterprises that link traditional and digital companies (and their suppliers) in the insurance, healthcare, real-estate, and other industries. A big benefit: they can also aggregate millions of customers across these industries.

How ecosystems enable improbable combinations of attributes

Can you imagine a competitor that offers the largest level of inventory, fastest delivery time, greatest customer experience, and lower cost, all at once? If you think back to your MBA strategy class, the answer would probably be no. In the textbook case, the choice was between costlier products with high-quality service and higher inventory levels or cheaper products with lower service levels and thinner inventories. Digital-platform and -ecosystem economics upend the fundamentals of supply and demand. In this terrain, the best companies have the scale to reach a nearly limitless customer base, use artificial intelligence and other tools to engineer exquisite levels of service, and benefit from often frictionless supply lines. Improbable business models become a reality. Facebook is now a major media player while (until recently) producing no content. Uber and Airbnb sell global mobility and lodging without owning cars or hotels.

This will all accelerate. Our research shows that an emerging set of digital ecosystems could account for more than $60 trillion in revenues by 2025, or more than 30 percent of global corporate revenues. In a world of ecosystems, as industry

boundaries blur, strategy needs a much broader frame of reference. CEOs need a wider lens when assessing would-be competitors—or partners. Indeed, in an ecosystem environment, today's competitor may turn out to be a partner or "frenemy." Failure to grasp this means that you will miss opportunities and underplay threats.

While it's true that not all businesses are able to operate in nearly frictionless digital form, platforms are fast rewiring even physical markets, thus redefining how traditional companies need to respond. Look around and you will see the new digital structures collapsing industry barriers, opening avenues for cross-functional products and services, and mashing up previously segregated markets and value pools. With vast scale from placing customers at the center of their digital activity, ecosystem leaders have captured value that was difficult to imagine a decade ago. Seven of the top 12 largest companies by market capitalization —Alibaba, Alphabet (Google), Amazon, Apple, Facebook, Microsoft, and Tencent— are ecosystem players. What's not encouraging is how far incumbents need to travel: our research shows that only 3 percent of them have adopted an offensive platform strategy.

Pitfall 4: Overindexing on the 'usual suspects'

Most companies worry about the threats posed by digital natives, whose moves get most of the attention—and the disruptive nature of their innovative business models certainly merits some anxiety. Excessive focus on the usual suspects is perilous, though, because incumbents, too, are digitizing and shaking up competitive dynamics. And the consumer orientation of many digital leaders makes it easy to overlook the growing importance of digital in business-to-business (B2B) markets.

Digitizing incumbents are very dangerous

Incumbents are quite capable of self-cannibalizing and disrupting the status quo. In many industries, especially regulated ones such as banking or insurance, once an incumbent (really) gets going, that's when the wheels come off. After all,

incumbents control the lion's share of most markets at the outset and have brand recognition across a large customer base. When they begin moving with an offensive, innovative strategy, they tip the balance. Digitization goes from being an incremental affair to a headlong rush as incumbents disrupt multiple reaches of the value chain. Digital natives generally zero in on one segment.

Our research confirms this. Incumbents moving boldly command a 20 percent share, on average, of digitizing markets. That compares with only 5 percent for digital natives on the prowl. Using another measure, we found that revved-up incumbents create as much risk to the revenues of traditional players as digital attackers do. And it's often incumbents' moves that push an industry to the tipping point. That's when the ranks of slow movers get exposed to life-threatening competition.

The B2B opportunity

The importance of B2B digitization, and its competitive implications, is easy to overlook because the digital shifts under way are less immediately obvious than those in B2C sectors and value chains. However, B2B companies can be just as disruptive. In the industries we studied, more B2B companies had digitized their core offerings and operations over the past three years than had B2C players. Digitizing B2B players are lowering costs and improving the reach and quality of their offerings. The Internet of Things, combined with advanced analytics, enables leading-edge manufacturers to predict the maintenance needs of capital goods, extending their life and creating a new runway for industrial productivity. Robotic process automation (RPA) has quietly digitized 50 to 80 percent of back-office operations in some industries. Artificial intelligence and augmented reality are beginning to raise manufacturing yields and quality. Meanwhile, blockchain's digitized verification of transactions promises to revolutionize complex and paper-intensive processes, with successful applications already cropping up in smart grids and financial trading. Should the opportunities associated with shifts like these be inspirational for incumbents? Threatening? The answer is both.

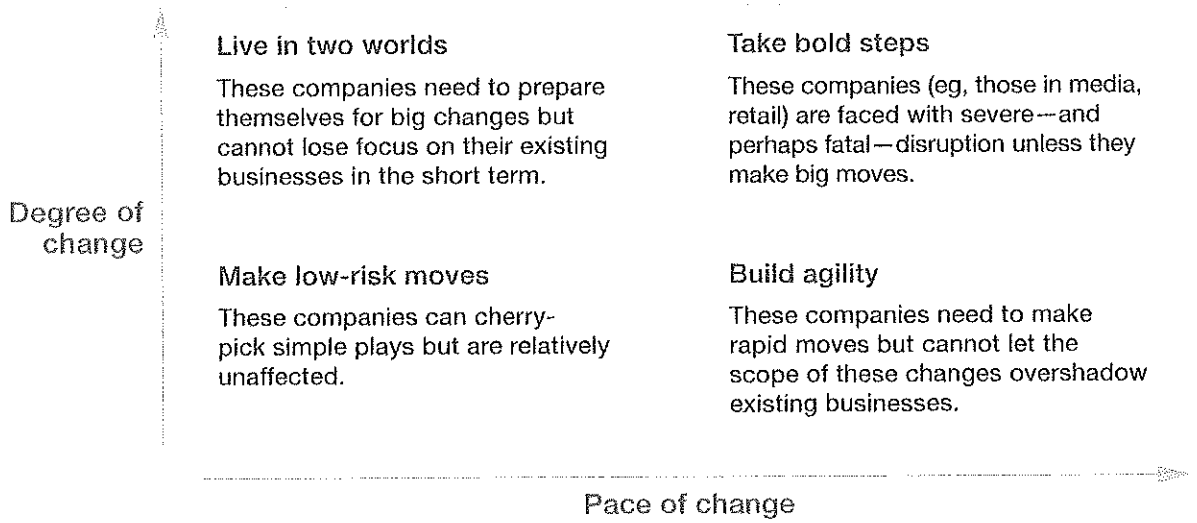
Pitfall 5: Missing the duality of digital

The most common response to digital threats we encounter is the following: "If I'm going to be disrupted, then I need to create something completely new." Understandably, that becomes the driving impetus for strategy. Yet for most companies, the pace of disruption is uneven, and they can't just walk away from existing businesses. They need to digitize their current businesses and innovate new models.

Think of a basic two-by-two matrix such as the exhibit below, which shows the magnitude and pace of digital disruption. Where incumbents fall in the matrix determines how they calibrate their dual response. For those facing massive and rapid disruption, bold moves across the board are imperative to stay alive. Retail and media industries find themselves in this quadrant. Others are experiencing variations in the speed and scale of disruption; to respond to the ebbs and flows, those companies need to develop a better field of vision for threats and a capacity for more agile action. Keep in mind that transforming the core leads to much lower costs and greater customer satisfaction for existing products and services (for example, when digitization shrinks mortgage approvals from weeks to days), thus magnifying the impact of incumbents' strategic advantages in people, brand, and existing customers and their scale over attackers.

Exhibit

Since the extent and speed of disruption varies, companies will need to calibrate their response.



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Beyond this dual mission, companies face another set of choices that seems binary at first. As we have indicated, the competitive cost of moving too slowly puts a high priority on setting an aggressive digital agenda. Yet senior leaders tell us that their ability to execute their strategy—amid a welter of cultural cross-currents—is what they worry about most. So they struggle over where to place their energies—placing game-changing bets or remaking the place. The fact is that strategy and execution can no longer be tackled separately or compartmentalized. The pressures of digital mean that you need to adapt both simultaneously and iteratively to succeed.

Needless to say, the organizational implications are profound. Start with people. Our colleagues estimate that half the tasks performed by today's full-time workforce may ultimately become obsolete as digital competition intensifies. New skills in analytics, design, and technology must be acquired to step up the speed and scale of change. Also needed are new roles such as a more diverse set of digital product owners and agile-implementation guides. And a central organizational

question remains: whether to separate efforts to digitize core operations from the perhaps more creative realm of digital innovation.

While the details of getting this balance right will vary by company, two broad principles apply:

- *Bold aspiration.* The first-mover and winner-takes-all dynamics we described earlier demand big investments in where to play and often major changes to business models. Our latest research shows that the boldest companies, those we call *digital reinventors*, play well beyond the margins. They invest at much higher levels in technology, are more likely to make digitally related acquisitions, and are much more aggressive at investing in business-model innovation. This inspired boldness also turns out to be a big performance differentiator.

- *Highly adaptive.* Opportunities to move boldly often arise as a result of changing circumstances and require a willingness to pivot. The watchwords are failing fast and often and innovating even faster—in other words, learning from mistakes. Together they allow a nuanced sensing of market direction, rapid reaction, and a more unified approach to implementation. Adaptive players flesh out initial ideas through pilots. Minimum viable products trump overly polished, theoretical business cases. Many companies, however, have trouble freeing themselves from the mind-sets that take root in operational silos. This hinders risk taking and makes bold action difficult. It also diminishes the vital contextual awareness needed to gauge how close a market is to a competitive break point and what the disruption will mean to core businesses.

As digital disruption accelerates, we often hear a sense of urgency among executives—but it rarely reaches the level of specificity needed to address the

disconnects we've described in the five aforementioned pitfalls. Leaders are far more likely to describe initiatives—"taking our business to the cloud" or "leveraging the Internet of Things"—than they are to face the new realities of digital competition head-on: "I need to develop a strategy to become number one, and I need to get there very quickly by creating enormous value to customers, redefining my role in an ecosystem, and offering new business-value propositions while driving significant improvement in my existing business."

Such recognition of the challenge is a first step for leaders. The next one is to develop a digital strategy that responds. While that's a topic for a separate article, we hope it's clear, from our description of the reasons many digital strategies are struggling today, that the pillars of strategy (where and how to compete) remain the cornerstones in the digital era. Clearly, though, that's just the starting point, so we will leave you with four elements that could help frame the strategy effort you will need to address the hard truths we have laid out here.

First there's the *who*. The breadth of digital means that strategy exercises today need to involve the entire management team, not just the head of strategy. The pace of change requires new, hard thinking on *when* to set direction. Annual strategy reviews need to be compressed to a quarterly time frame, with real-time refinements and sprints to respond to triggering events. Ever more complex competitive, customer, and stakeholder environments mean that the *what* of strategy needs updating to include role playing, scenario-planning exercises, and war games. Traditional frameworks such as Porter's Five Forces will no longer suffice. Finally, the importance of strategic agility means that, now more than ever, the "soft stuff" will determine the *how* of strategy. This will enable the organization to sense strategic opportunities in real time and to be prepared to pivot as it tests, learns, and adapts.

For more, see "Responding to digital threats."

1. Early versions of the smartphone date to the mid-1990s, but today's powerful, multipurpose devices originated with the iPhone's launch, in 2007.
2. See Andrew McAfee and Erik Brynjolfsson, *Machine, Platform, Crowd: Harnessing Our Digital Future*, New York, NY: W. W. Norton & Company, 2017.

3. Boyan Jovanovic and Glenn M. MacDonald, "The life cycle of a competitive industry," *The Journal of Political Economy*, 1994, Volume 102, Number 2, pp. 322–47.

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