BCG

THE BOSTON CONSULTING GROUP

IT TAKES MORE THAN TECHNOLOGY TO BE LIKE A TECH COMPANY

By Hans-Paul Bürkner, Saurabh Tripathi, Edwin Utama, and Yvonne Zhou

THE BIG TECHNOLOGY COMPANIES seem to be reigning supreme. Apple and Amazon have broken through the $1 trillion valuation barrier, and Wall Street investors, with their fondness for acronyms, have put them in a select group dubbed FAANG: Facebook, Apple, Amazon, Netflix, and Google. Similarly, in China, three great technology companies have been categorized as BAT: Baidu, Alibaba, and Tencent. Together, these eight companies are calculated to be worth more than all listed companies in the Eurozone, emerging markets, and Japan.

As they have evolved, these businesses have migrated into new and once-unfamiliar sectors, chasing customers and growth wherever they can find them. Thus they are morphing into companies that are no longer, strictly speaking, technology companies. This much is now acknowledged: the S&P 500 has placed Alphabet (Google's owner) and Facebook in a new industrial sector called "communications services." At the same time, the technology companies are attracting the top talent—people who want to be part of an exciting future—from universities and established companies. In other words, the tech giants present a very real threat to all companies in all industries.

This begs the question: Shouldn't *all* companies become technology companies? Of course, the business media has been telling us for years that many—maybe all—traditional companies are now tech businesses, thanks to the pervasiveness of digital tools. But it's not that simple. There's a big difference between adopting advanced technologies and operating the way the digital natives do—that is, using technology does not automatically turn you into a tech company.

In our view, all companies should indeed become tech companies. But let's consider what we mean by that.

We're not suggesting that nontech companies go toe-to-toe with the tech giants—although some companies are doing just that. In China, for example, Ma Mingzhe, the chairman of Ping An, is aiming to transform the world's largest insurer into a technology company. Espousing the concept that "driven by technology, finance can serve life better," the conglomerate has started to offer cloud computing services. Similarly, China Communications Construction, which builds ports, roads, and bridges, and has set itself the mission of "building a connected world," has established a subsidiary named China Communication Technology, which aims to create the "smart city" by not only making electronic components but also offering big data processing and cloud computing services.

For most companies, however, the hope of competing in data analytics and cloud computing, as well as e-commerce, search, and social media, is a forlorn one. Amazon—one of the world's largest providers of cloud computing—handles around half of all e-commerce in the US, Google commands more than 90% of the worldwide search engine market, and Facebook dominates mobile social media, with more than 2 billion monthly active users. Likewise, in China, Tencent with its WeChat mobile app—dubbed the "app for everything"—dominates not only online communications but also online payments. And with the network effect, whereby these companies' algorithms are perfected as more people use them, they are unlikely to lose their leadership position anytime soon.

For nontech companies, becoming a technology company should not be so much about unseating the leaders or even protecting turf. Instead, it should be about acquiring the crucial tools for pursuing opportunities in the digital age. Yes, technology is one of those tools—it's new technology platforms that give rise to entirely new offerings. But just as important is the mindset that enables companies to exploit the opportunities that technology presents. We think of it as a "restless change" mindset, a mix of intellectual attributes such as ambition, optimism, imagination, a questioning spirit, a tireless pursuit of new ideas, and a defiant persistence in the face of daunting odds. It is also this mindset that enables companies to attract good—even the best—people.

The tech companies that are now the world's most valuable businesses grew from tiny startups with this winning combination of technology and a distinctive mindset. It's what has helped them be what every company aspires to be: customer centric. They have used insights from data and an agile approach to change, to twist and turn with every shift in customer behavior. This, in turn, has made them magnets for the best people, lured by the opportunity to flourish without the stifling effects of hierarchy, bureaucracy, and tradition.

Let's take a closer look at the two critical factors—the technology and the mindset—to understand how nontech companies can combine them to find new avenues for growth.

The Technology

It goes without saying that the big tech companies are pioneers of leading-edge technology. Over the years, this has given them an advantage over conventional, nontech companies. By controlling the flow of information, they have inserted themselves between companies and their stakeholders—in particular, between suppliers and customers. In the process, they have captured a lucrative business in a wide range of sectors, including marketing, sales, and distribution.

Some nontech companies, seeing the threat posed by their bigger, yet nimbler, rivals, have been fighting back. This is not about having a pretty online presence with a carefully curated website. This is about becoming technology-driven enterprises with the capacity to capture and capitalize on vast lakes of customer and other data and ultimately the capability to create digitally enabled market-leading goods and services.

Consider the race to launch autonomous vehicles. Renault is on track to release a series of cars equipped with what it calls a "delegated autonomous driving" mode by 2020. Ford, which spent $1 billion on Argo AI, an artificial intelligence startup, in 2017, is planning to unveil an Uber-style network of robo-taxis by 2021. In the financial sector, Goldman Sachs, whose former chief executive Lloyd Blankfein called the bank "a technology firm," has hired so many computer engineers that they now constitute one-quarter of the bank's workforce.

Yet, it is striking to us that not all traditional nontech companies have responded in this way. For example, some leaders in the financial services industry claim that they do not need to fear competition from technology companies, because regulators will intervene to protect consumers and traditional providers amid concern over sensitive issues such as privacy. We think this view is mistaken, if not a little complacent. In many emerging markets, for instance, consumers do not cherish privacy.

But the purpose of becoming a technology company should not be primarily to defend market share—above all, it should be to benefit from the enormous opportunities that technology can unlock. New technology can help companies increase sales by enabling them to better understand and meet the needs of customers, respond faster, and produce goods and services of higher quality. It can also help companies cut costs by streamlining processes, reducing the number of mistakes and the amount of waste, and outsourcing to specialist providers.

And there is another benefit: it can help companies tap the valuable information that they possess but that, without sophisticated data-crunching capabilities, lies dormant and, in practical terms, worthless. The word "legacy" carries pejorative connotations in this digital age. When it is used to describe systems and thinking, this negative sense is justified. But if "legacy" is taken to mean "experience," then older, predigital companies may have an advantage. They possess vast quantities of information that could be used in creative ways—if only they could be recovered from corporate archives. New technology can help by prising open the past in order to propel the company into the future.

The "Restless Change" Mindset

One day, every company *will* be a technology company, in the sense of technology-driven. Those that don't adapt can't possibly survive. The internet now connects some 3.7 billion people—half the world's population. In its wake, the Internet of Things is connecting billions of "smart" devices: 200 billion by 2020, according to Intel, the microchip manufacturer.

What, then, will distinguish companies? How will they be able to secure competitive advantage? Of course, part of the answer is their technology and the extent to which it is leading edge. But the biggest distinguishing factor will be their mindset. It is an irony that the most distinctive, and therefore valuable, dimension of the big tech companies is the human one. When they are pared back to their irreducible core, they are left with a "restless change" mindset.

What does this look like? Jeff Bezos, Amazon's founder and chief executive, says that it is "always Day 1" at the company. It has to be—if it wants to stay ahead of the curve. As he explained in his 2017 Letter to Shareholders, "One thing I love about customers is that they are divinely discontent. Their expectations are never static—they go up. It's human nature. We didn't ascend from our hunter-gatherer days by being satisfied. People have a voracious appetite for a better way, and yesterday's 'wow' quickly becomes today's 'ordinary'."

Companies that can regain the enthusiasm, excitement, and energy that they possessed on their first day can expect to prosper. Those that dare to recline will start to decline in today's fast-paced business environment. Those that rest on their laurels may as well rest in peace.

The focus of a company's restless change mindset must be the customer. If technology can help companies maintain a constant dialogue with customers—and truly understand their spoken and unspoken needs—the restless change mindset can help them develop products and services that meet those needs.

The key lever is agile experimentation. For instance, Jack Ma, the chairman of Alibaba, continually creates teams of 60 to 80 people to try out new ideas, ramps them up when they offer potential, but also closes them down when they are going nowhere.

Why It's a Good Time to Become a Technology Company

In the digital age, change can never come soon enough. "Yesterday" is the correct answer to the question, "When should a company start to become a technology company?" Most of the big tech companies have a head start of 20 or more years over their nontech rivals.

Having said this, right now is as opportune a moment as any to begin the transformation. Despite the record-setting valuations of these companies, they are vulnerable. Investors are starting to wonder what's next. Amazon, while continuing to expand its cloud services business, is moving into high-end food retail with its acquisition of Whole Foods. Google, having taken a slice of the video content market with its purchase of YouTube, is branching out into autonomous vehicles, smart glasses, and smart clothing. And Apple, which expanded its hardware offering beyond computers and iPhones by launching a sports watch range, is above all playing up its services businesses, including its App store and music subscriptions.

Simply being a technology company is no guarantee of success in new ventures, however. Almost certainly, some of the big tech companies' experiments will fail. As Bezos candidly admits, "We've had some successes over the years in our quest to meet the high expectations of customers. We've also had billions of dollars' worth of failures along the way."

As they expand, the big tech companies are entering new markets of contested space, and nontech companies cannot afford to sit idly by and let them become the masters once again.

Five Steps to Become a Technology Company

To turn a nontech company into a tech company, the chief executive should focus on installing new technology and instilling a restless change mindset.

We suggest the following five-step process.

Undertake an honest and thorough root-and-branch review of your company's activities. Identify the key points of pain and opportunity. Start with the basics. Ask yourself, what business are we actually in? Who are our customers? What do they need and expect from us? How do we interact with them? Remember, if customers are not at the center of everything you do, then there is something wrong—and, by implication, there is an opportunity to put things right.

By way of comparison, ask yourself, what do the big technology companies do in our business? What do the startups do? What do the conventional competitors do? How do they engage with their customers?

Draw up a long list of ways that your company could benefit from enhanced technology that taps a rich seam of business insights from advanced data collection, mining, and analysis.

Pick two or three pilot projects that are designed to remove the pain points or exploit new opportunities. Choose pilot projects that will have the most immediate and visible impact on customers. For example, ING, the Dutch bank, launched its digital transformation by creating a mobile banking app for customers. The early success helped to secure buy-in from key internal stakeholders. Only later did the bank go on to tackle thornier problems—such as IT bottlenecks.

For some companies, especially in process industries, the best approach may be to tackle internal processes to reduce costs, but also to improve quality and speed up delivery times. Tata Steel, for example, is rolling out an ambitious multiyear digital transformation. Already "digitalization has become a way of life," according to Sarajit Jha, who is leading the effort. The company's digital leaders talk about a "digital vortex" where disruption is "the new constant." This is driving the company to digitize everything from the deployment of factory vehicles to improving material throughput to marketing and sales.

Bring relevant people together. Break silos. Let nothing stand in the way of fast and effective transformation. Make "collaboration" your watchword and create multifunctional teams of experts who combine in new ways. These days, it is common to talk about working in an agile mode or about implementing DevOps, where development and operations specialists collaborate in a simultaneous and synchronized way. Whatever term you use, it is crucial you get people, from the inside and also from the outside, to join forces for the greater good of the company.

The key is to ensure that all the relevant people jointly see what works and what does not, to get to better results faster and ultimately to generate energy for change.

Roll out successful pilot projects across the company, using external partners whenever feasible. Not all pilot projects will succeed. Those that do should be quickly rolled out across the company so that you capitalize on early momentum.

At the same time, the program should be expanded with a new series of pilot projects from the original long list. Don't make the same mistake as those companies that implement a partial transformation because they think that businesses requiring the human touch—private banking or HR—will not benefit from digitization. Every day, the technology companies are proving the skeptics wrong.

Often, the rollout may not be successful or fast enough because of internal limitations. Joining forces with suppliers, customers, or even competitors may create the necessary critical mass, enable the necessary investments, or provide the right technology platform. So much is being said about the need to create ecosystems. And, for example, combining messaging services with e-commerce, travel and tourism, and/or entertainment should enable the individual partner to succeed when alone they could not hope to generate the necessary traffic online or footfall in stores.

Retrain your employees. Reform the working environment. Get additional talent from the outside. If your company is to become a technology company, then you will have to "enable" your employees. That means retraining them so that they can use the new technology to do a better job, faster, with higher returns, and with greater personal fulfillment.

A big challenge will be to overcome the widespread fear that technology may make people's jobs obsolete and them redundant. In fact, their knowledge of current processes—whether it is marketing and sales, production, or R&D—is invaluable. They know what works and what doesn't, and together with tech-savvy people (some hired from the outside), they can help devise new and better solutions.

But such a transformation cannot happen without changes to the working environment. We subscribe to the view, espoused by behavioral economists, that people's decision making is a rational response to the environment in which they work. So, if you want to change their behavior, you have to change the context. This means that, among other things, you will need to redraft your company's role charters, rework the work processes and systems, and revamp performance targets.

This should also enable you to attract more talent with the right skills from the outside. They will not only see your ambition to embrace the new future, but also experience the mindset and the environment that allow them to build a stronger future for the company, its customers, and themselves.

If you do this, you can expect to create an energized and high-performing workforce that will drive the company forward.

The CEO Takeaway: Mindset First, Machines Second

It is easy to assume that the key task of CEOs who want to turn their firm into a technology company is simply installing new technology—and keeping it updated.

Yes, of course, everyone will need to start thinking like a technologist, as far as possible. Marketers and manufacturers may not need to be able to write software code, but they will have to be able to submit raw data to detailed analysis and draw out actionable insights.

But the key task will be instilling a new restless change mindset. With this, a company will have the resilience and flexibility to approach the future with optimism rather than anxiety, with courage rather than despondency, and with determination rather than resignation.

About the Authors

Hans-Paul Bürkner is the chairman of The Boston Consulting Group. You may contact him by email at buerkner.hans-paul@bcg.com.

Saurabh Tripathi is a senior partner and managing director in BCG's Mumbai office. You may contact him by email at tripathi.saurabh@bcg.com.

Edwin Utama is a partner and managing director in the firm's Jakarta office. You may contact him by email at utama.edwin@bcg.com.

Yvonne Zhou is a partner and managing director in BCG's Beijing office. You may contact her by email at zhou.yvonne@bcg.com.

11/18