CREATING VALUE THROUGH DIGITAL DISRUPTION

COMPANIES MASTERING DIGITAL TRANSFORMATION AND INNOVATION ARE BEST POSITIONED TO DISRUPT AND WIN THE'20s.

By Joerg Hildebrandt, David Panhans, Björn Ewers, and Dr. Akram Awad

The likes of Alphabet, Amazon and Apple top *BCG's Most Innovative Companies 2019* with good reason. They and the other organizations who fill out the top ten are technology, digital, or digitally-enabled companies which all lead the world with their ability to create value.

And digital innovators create more value than others. Since 2005, the top 10 innovators BCG tracks grew seven times more than the bottom ten (those ranked 41-50).

When surveyed about what areas of innovation and production development will have the biggest impact on their industries over the next 3-5 years, the greatest innovators were clear. Digital will be the source of the next value creation wave. Winning in 20s will be about mastering the three building blocks of digital: technology, speed and data.

To harness the value created via digital disruption, businesses that want to win the '20s will need to take three key steps – and soon.

The first is to identify the right digital opportunities and the value they can offer. One thing all today's winners share is the successful application of digital disruption to their business models, enabling innovation and creating value.

Once the source of value is identified, the second step is to transform the business and people to unlock the full potential of digital. Businesses must reinvent themselves, motivating their people to innovate with speed and agility, while also coping with the rapid pace of change.

Finally, disrupting to win digital means pushing boundaries. Businesses must explore, celebrate failure and remain human-centric. Digital and data disruption leaders show the way. They reshape their industries with new engagement and business models, new products and services, and new technologies, all to create value through digital disruption.

Businesses that can successfully take these three steps will be primed to disrupt their sector and win the '20s.

Competing on the rate of learning

Rapid technological innovation and shifts in the digital economy dominate conversations about what digital will mean for business. But businesses must look beyond these issues to explore how they will actually compete in the future.

As the volume and velocity of data exploded, algorithms have unlocked complex patterns and insights with unprecedented speed. This is what lies beneath digital disruption. CEOs must find ways to drive sustainable competitive advantage in this rapidly changing context.

Early organizations followed an experience curve, earning their advantage by building volume – and therefore experience – faster than competitors. But, as digital innovation and new approaches to design and customer insight have compressed product lifecycles, new learning curves now appear before old ones have fully played out.

In response, firms need to balance both their speed and scale, while also handling the emergence of disruptive competitors. This heralds a new era of competition, one where businesses compete on their rate of learning.

At this point, competition becomes about using technology and data to gain a better understanding of customers and operations. Competition becomes about finding new ways to solve old problems, while also taking a more human-centric approach. Crucially, competition also becomes about creating a disruption that moves the experience curve to somewhere new.

In this dynamic market, leaders will define their business models by combining technology, data, speed and agility. The challenge is that traditional organizations tend to react slowly, operating with limited bandwidth for decision-making. It is a status quo that has been slow to change, with many contemporary corporations failing to adapt to the new competitive environment rapidly enough.

This was borne out when BCG surveyed 2,700 executives with MIT Sloan in 2017. Respondents clearly recognized the potential impact of AI, but across the globe only 23% of executives reported embracing data and AI in their core business.

DIGITAL DISRUPTOR

Netflix is a key digital disruptor. It jumped from being a DVD rental business, to a streaming service, to in-house content creation, all while expanding to 190 countries in less than a decade.

Three-step journey to digital disruption

To harness value from digital, a three-step journey is needed to identify where the value is, adapt to unlock the value, and to disrupt with digital to win.

1. **Hunt the internal unicorn**. A big value win waiting to be found inside your organization. Starbucks found one by personalizing based on customers' product preferences, frequency and spend behavior. Using the wealth of customer data it had gathered, it drove customer engagement through personalized offers, rewards and recommendations. The outcome was an 8% growth in average spend per loyalty member.

2. **Search for value in operations.** Three years ago, Tata steel embarked on a journey to create its future value chain, from its customers right through its entire supply chain. The result: a 2-4% EBITDA impact, up to 10 days of inventory reduction and improved customer satisfaction.

3. **Create new business models enabled by data.** Examples can be found in downstream oil and gas, where data is used to optimize consumption patterns, or in patient platforms in healthcare, which have improved treatment recommendations and the effectiveness of visits to healthcare professionals.

Correctly identifying the opportunities within a business is not enough. Once the right opportunity has been found businesses must think through how they can really create advantaged business models around data. It is an area where there remain considerable shortcomings - 75% of companies launch AI initiatives without a clear business case.

Based on BCG's work with leading companies across a variety of industries, there are five key steps to take to build a real advantage.

1. **Cut a path to proprietary or advantaged data.** Whether internal or external, think about who collects and owns the data most meaningful to your business. Many organizations are surprised the answer is a third-party.

2. **Integrate data.** Create the capabilities to aggregate and integrate data to deliver new insights. There are many

gaps in the ability of organizations to manage diverse datasets, the data lifecycle, and supporting technology platforms.

3. **Apply leading analytics capabilities.** Data must be made accessible through visualization, exploration and modeling. This is often achieved with new skills and techniques.

4. **Use data with speed and agility.** Respond to and learn from changes in market to alter the ways of working in your organization. Be ready to react in real time.

5. **Create a trust advantage.** Establish the correct governance, privacy and security measures. Anticipate emerging regulatory changes and use them as an opportunity to build trust in how you manage data.

Adapting the organization

While creating advantaged business models around data and analytics takes multiple components, the most important of these is not algorithms or technology, but organizational adaptation.

Businesses need to be proactive about changing traditional ways of working, building new skills and utilizing Agile approaches. CEOs must ask themselves how their organizations will adapt to becoming data-driven.

Making the shift will mean looking for the real value in data. Market leaders will be the organizations that can be more data-driven and adapt faster. A successful transition will require organizations to be bold. Market leaders won't play around with small things, they will look ahead and disrupt with data.

Organizations looking to be data-driven must also focus on the fundamentals, examining how they combine their assets and create new ones. Organizational change will be the fulcrum. How effectively an organization uses data, adapts to changes in the external environment, innovates and learns will all prove critical for companies that want to deploy data at scale.

Disrupting with digital

Leaders in the world of digital disruption have demonstrated some common traits.

For one, they do not fear failure - they celebrate it. The way disrupters see the world is not limited to the way the world is defined today. They look beyond accepted boundaries to challenge the status quo.

They also deliberately set out to create professional environments that attract disruptive minds and enable creative ways of working.

Leaders in digital disruption also demonstrate a focus on solving a very specific human problem, which in turn can lead to the disruption of specific industries. So while technology is often in the spotlight as the force behind of disruption, BCG would argue that being customer centric is the true driver.

DIGITAL DISRUPTOR

When Uber first emerged to disrupt urban transport many were surprised by the scale at which it grew. Skeptics looked at a specific geography like San Francisco and sized the overall taxi-cab market. They took a top down view of how much of that market could be captured by Uber. The flaw was missing the core customer friction with traditional taxi-cabs - the experience. Improving the customer experience revealed a market size significantly larger than forecast.

In this sense, disruption must start with a customer friction, setting out to address a human or business problem first. Technology is then used to build solutions to ease that friction. A key reason for startups failure is losing sight of the core friction the new business set out to address if they do not find a fit between their product and the market.

BCG Digital Ventures has absorbed these lessons and applied them to its own ventures. In doing so it tries to create what we call an 'unfair advantage', basically introducing a new logic of competition. Every startup needs resources, channels and capital. Established businesses need innovation, new ways of working and speed. BCG Digital Ventures takes the strategic assets of a corporate and combines them with startup ways of working to create that unfair advantage.

SHELL CASE STUDY

Companies face a multibilion dollar industry-wide problem as fleet vehicles are under-utilized, suffer high-idling times (when vehicles are running but not working) and are poorly maintained.

The result is high operating costs, high emissions, CAPEX waste and project delays thought to be worth somewhere in the region of $30bn a year.

MachineMax was developed by BCG Digital Ventures, BCG's corporate innovation, incubation and investment arm, in partnership with Shell to tackle these issues while enabling construction and mining firms to maximize the profitability of their fleets.

Using smart sensors and next-generation analytics MachineMax offers a digital service designed for off-highway vehicles located anywhere in the world, regardless of manufacturer. It is powered by an easy-to-install wireless smart IoT sensor that fits near the engine of any off-highway fleet vehicle.

Using artificial intelligence, MachineMax can quickly create a unique machine signature to track vehicles, measure idling and generate other utilization analytics. Cloud and edge computing is used to deliver all-in-one real-time data and analysis to operators and site managers via an easy-to-use interface. This information is then used to optimize fleet operations and preventative maintenance programs.

Summary

TO WIN IN the '20s, businesses must find ways to use the tools of digital disruption to become leaders in their industry. Competition will be driven by how fast companies can learn, applying the information and insights that digital tools enable to drive innovation at an unprecedented pace.

Finding the right opportunities will be key to creating the value being a successful digital disruptor can bring. For most this will mean rapid changes that will see businesses reinvent how they operate and what they do. Many will have to embrace entrepreneurial traits, finding lessons in failure and adopting Agile approaches.

Technology firms and digitally enabled businesses are already showing just how much value can be created through digital disruption. All businesses must learn the lessons of digital disruption quickly if they want to emulate the successes seen so far, or even just to survive.

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About the Authors

Joerg Hildebrandt is a Managing Director and Senior Partner in the Dubai office of Boston Consulting Group.

David Panhans is a Managing Director and Partner in the Dubai office of Boston Consulting Group.

Björn Ewers is a Managing Director and Partner in the Dubai office of Boston Consulting Group.

Dr. Akram Awad is a Project Leader in the Dubai office of Boston Consulting Group.

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