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Forks in the Road

Navigating Industry Disruption

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At a Glance

In many industries, incumbents are under threat from new rivals with new business models. In the auto industry, for example, nontraditional competitors are entering with connected software, alternative fuels, and shared mobility networks. Whether the shift in the industry is sudden or gradual, one thing is certain: incumbents must adapt.

The Need for Strategic Ambidexterity

Incumbents in uncertain and dynamic environments must simultaneously run the business by exploiting existing opportunities and reinvent the business by exploring new growth areas. This ambidexterity is especially difficult for large, established companies, which tend to overestimate the longevity of their business models. Those that do take exploratory steps often don't go far enough.

Five Imperatives

Incumbents in any industry ripe for disruption can survive by understanding how change affects each part of their business; choosing the right approaches to strategy and execution for each part; experimenting with new products and business models; becoming an orchestrator rather than a victim of change; and adopting ambidextrous organization structures that allow the business to adapt to changing markets.

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2015 BROUGHT RECORD SALES and profitability to the global auto industry. But current success is no guarantee of future success: it's clear to all that a new road lies ahead. Fueled by new technology and consumer needs, nontraditional competitors are entering the auto industry with connected software, artificial intelligence, alternative fuels, and shared mobility networks. For those new entrants—such as Tesla with electric vehicle technology, Uber with its collaborative consumption model, and Google and Apple with autonomous vehicles—industry shifts signal opportunities. But for incumbents, they represent uncertainty and perhaps even an existential challenge.

Maybe we're headed toward an upside-down world, where attackers with deep pockets take control, offering vehicles that are electric, fully autonomous, and not owned but shared through smartphone apps. Upheaval in other industries reminds us how swiftly incumbents can lose their advantage. Think back to 2007, when Nokia had record sales and more than 50% of the global smartphone market. That same year, Steve Jobs introduced the iPhone. The rest is history. Nokia had missed a crucial inflection point in the smartphone business model—toward connected software and a seamless user experience—and experienced a swift and unstoppable decline.

Change in the auto industry could also be much less dramatic, considering the many factors that must fall into place for radical new futures to unfold. For example, electric vehicle adoption is complicated by low oil prices, uncertainty about future tax credits, and the challenging economics of electric charging stations; autonomous vehicle adoption requires error-proof technology, regulatory clearance, and consumers' willingness to change how they think about mobility; and shared ownership models must be customized for cities and suburbs, where people have very different mobility needs.

Auto incumbents cannot bank on the continuing profitability of their current business model. Nor can they bank on any particular scenario.

Whether the shift in the auto industry is sudden or gradual, profits will continue to flow from the current business model in the near term. But incumbents cannot bank on this continuing indefinitely. Nor can they bank on any particular scenario. Preparing for the possibility of change will require them to develop new capabilities and shift resources away from their currently successful business models. Incumbent automakers face a difficult balancing act. In an industry whose dominant model has remained virtually the same for more than 75 years, they must navigate new tradeoffs in resource deployment as they seek to fulfill current demand for profitable core products while preparing for the future.

A Cross-Industry Predicament

This situation is not unique to the auto industry. In many industries, incumbents can no longer count on stability from long-standing business

models, oligopoly structures, and stable regulation. Consider banking, where fully digital models are undermining branch networks; energy, where smart grids, renewables, and upgraded battery technology are reshaping utilities' revenues; and cable television, where content providers are selling directly to consumers.

The traditional insurance business model is also on the brink of disruption. The industry has provided higher returns than most other sectors since the financial crisis of 2007–2008—not because incumbents are redefining the future but because they are increasing distributions to investors.

Even if companies know change is coming, it is very hard to recognize exactly when and how to shift business models.

Insurers' management teams have recognized that many of their traditional approaches and products are mature, so maintaining the stock price requires increasing dividends to investors and curtailing reinvestment. Since the start of 2010, European insurers have reduced their investment in new policies by 15% and as a result have increased distributions to shareholders by more than 100%.

Incumbents cannot continue this pattern unless they deliver sustainable growth in profits, but their innovation efforts have been modest, despite the obvious opportunities: customers' engagement with insurance products remains low, and the online experience insurers offer is inferior to that of most other industries. Some mature insurers, such as Allianz, AIG, and AXA, are trying to innovate at arm's length from the core business, but only a few nimble, smaller players, such as Discovery, and younger emerging-market businesses, such as Ping An, are managing to disrupt the industry from within.

The incumbents' weakness has not gone unnoticed. Since 2008, venture capitalists in Europe have invested more than $30 billion in startups that are experimenting aggressively to find sustainable profit growth. New business models are being introduced, such as using ubiquitous data to identify and underwrite attractive customers; replacing expensive distribution channels with highly customized digital propositions; and connecting motor and health insurance products to customers' everyday lives through the Internet of Things.

Traditional insurers, like incumbents in many industries, must innovate and adapt or face losing their industry leadership. Doing so requires switching from old to new business models and satisfying customers and investors during the transition.

The Need for Strategic Ambidexterity

Even if companies know change is coming, it is very hard to recognize exactly when to shift business models. And surviving the transition

is no easy feat. Switching from old to new often requires not only building new capabilities to support the journey but also cannibalizing familiar models with new, untested ones.

Incumbents in uncertain and dynamic environments must straddle multiple business models to succeed. That is, they must be ambidextrous: simultaneously running the business by *exploiting* existing opportunities and reinventing the business by *exploring* new growth areas.

Challenges for Large, Established Companies

Mastering ambidexterity is inherently difficult, because it requires firms to embrace contradictions. Running the business involves optimizing the known in order to deliver quarterly profits; success is often achieved through standardization, scale, efficiency improvements, and top-down management. Conversely, reinventing requires experimenting with the unknown; success depends on a culture of entrepreneurial risk taking, a flexible, decentralized structure, and a focus on the long term.

Ambidexterity is *especially* difficult for large, established companies. We found in recent research that they are prone to overexploiting the products and business models that were the foundation of past success. Measuring firms' propensity for exploration using the present value of growth options (PVGO) as a percentage of market capitalization, we found that large, established companies are about 20 percentage points less exploratory than younger peers.[1] (See "Tomorrow Never Dies: The Art of Staying on Top," BCG Perspectives, November 2015.)

Large, established companies tend to overestimate the longevity of their business models and underinvest in new ones.

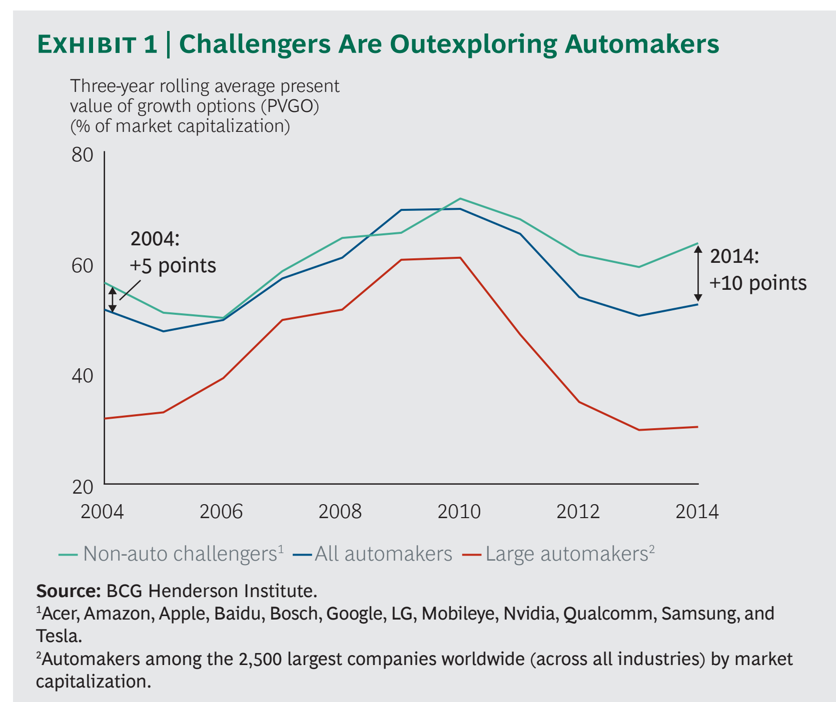
It's easy to understand why. Scale is often an advantage in stable industries and can initially confer resilience in dynamic ones, but it also leads to strategic inertia. Large, established companies are vulnerable to what we call the success trap: they tend to overestimate the longevity of their business models and underinvest in new ones, even when their core business is threatened. Bound by complex structures and processes and a change-averse culture, companies in the success trap find it hard to respond effectively to change signals when faced with performance pressure. Instead, they often respond by cutting costs and exploiting more, leading to a downward spiral of diminishing sustainability.

To be fair, we see many incumbents grasping competitive threats and taking exploratory steps. But they often don't go far enough to prepare for the future by moving from experiments and pilots to scalable business models. Recall Kodak's "death by pilot": the company built the first digital camera long before digitization fully took hold but missed the critical opportunity to scale up the new offering, focusing instead on its legacy film business.

In the auto industry, incumbents are certainly exploring, with nontraditional partnerships (between GM and Lyft, and Baidu and BMW, for instance), advanced software options (such as Ford's SmartDeviceLink and Nokia Here), and alternative-fuel vehicles. Time will tell if they are exploring effectively or sufficiently. Will the first new scalable business models come from auto industry incumbents or attackers?

What is clear is that incumbent automakers must step off the well-trodden path to overexploitation. We analyzed PVGO over the past ten years for large automakers, the industry as a whole, and select challengers: non-auto companies that recently entered the space. The results were striking. Whereas the industry's and large automakers' orientation toward exploration has not increased, the challengers' has steadily increased, starting off about 5 percentage points higher than the industry's in 2004 and growing to a 10-point spread by 2014. (See Exhibit 1.)

Exhibit 1 | Challengers Are Outexploring Automakers



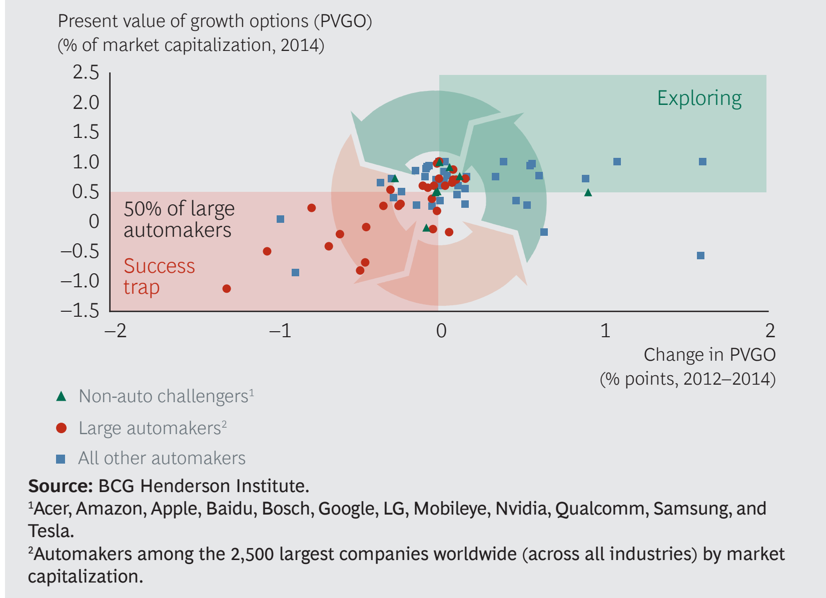
Source: BCG Henderson Institute.
[1]Acer, Amazon, Apple, Baidu, Bosch, Google, LG, Mobileye, Nvidia, Qualcomm, Samsung, and Tesla.
[2]Automakers among the 2,500 largest companies worldwide (across all industries) by market capitalization.

Approximately 50% of large automakers are already in the success trap, compared with less than 10% of smaller auto players. (See Exhibit 2.) This suggests that the incumbents should not wait to experiment with new business models.

Five Imperatives to Build Ambidexterity

Fortunately, succumbing to overexploitation is far from inevitable. For incumbents in any industry ripe for disruption, we offer five steps.

Exhibit 2 | Large Automakers Are Vulnerable to the Success Trap



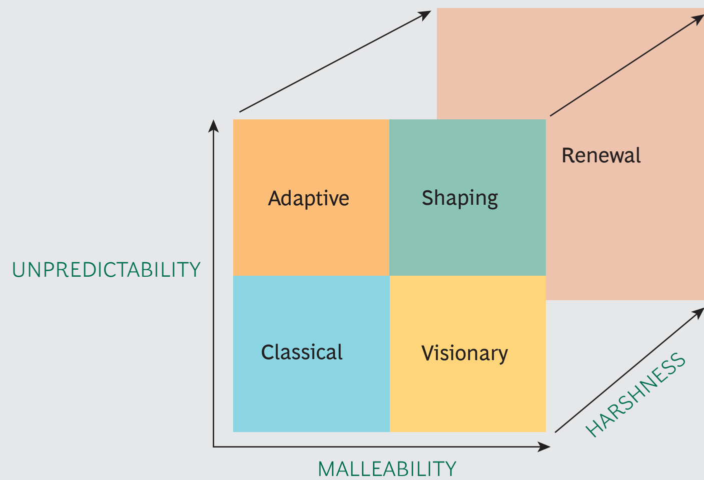
Source: BCG Henderson Institute.
[1]Acer, Amazon, Apple, Baidu, Bosch, Google, LG, Mobileye, Nvidia, Qualcomm, Samsung, and Tesla.
[2]Automakers among the 2,500 largest companies worldwide (across all industries) by market capitalization.

1. **Understand how change impacts each part of your business.** The Strategy Palette is useful in this regard. (See Exhibit 3.) Auto incumbents, like those in many industries, until recently faced a *classical* environment, which is stable and predictable, and where scale is an advantage. The industry now faces increasing *unpredictability* from changes in technology, consumer trends, and regulations. Those forces also increase *malleability* and the opportunity to shape industry evolution by influencing technology, customer preferences, and regulatory standards, often through collaboration with others.

2. **Choose the right approaches to strategy and execution.** Having understood the strategic environments in which they operate, firms must employ the appropriate approach to strategy and execution for each. The classical approach, built on analysis and planning, works well in stable environments, which are highly predictable. But unpredictable or malleable environments require very different approaches and capabilities. For example, auto incumbents may find that the classical approach is still appropriate for their core businesses. But new businesses such as autonomous and alternative-fuel vehicles may require adaptive, visionary, or shaping approaches.

3. **Build an adaptive capability.** Firms in unpredictable environments would be ill advised to set a strategic direction based on an unreliable "forecast." Instead, they need to substitute *experimentation* for prediction in order to place and manage bets on the future.

Exhibit 3 | Match Your Strategic Approach to Your Environment



Sources: Henderson (1970); Lochridge (1981); Nadler and Tushman (1990, 1994); Abell (1999); Wiltbank et al. (2006); Reeves et al. (2015).

A portfolio of experiments lets companies quickly test and refine new products and business models and thus adjust rapidly to changing market conditions. Success with such adaptive experimentation requires switching from the classical mindset of "be big" to the adaptive imperative to "be fast."

To do that, companies must get better at exploiting change signals to inform bets and challenge long-held assumptions to uncover blind spots. Adaptive enterprises monitor experiments using metrics suited to the "be fast" approach, such as time to market, cost per experiment, and experimental yield. Firms must also capture and exploit lessons from both successes and failures.

Telenor, the Norwegian telecom company, is a classical incumbent that built an adaptive capability. As the industry evolved from traditional voice to data and Internet, scale advantage diminished. Telenor responded with adaptive experimentation, shortening its planning cycle and focusing on innovation and speed to market. It successfully navigated the industry transition, launching several successful data-oriented offerings.[2]

4. **Build a shaping capability.** Incumbents can avoid being a victim of change by using their reach and influence to become instead an orchestrator of change. Orchestrators coordinate a diverse ecosystem of players that share their capabilities, distribute risk, and accelerate market development.

Orchestration requires a shift in mindset for incumbents, from exclusivity to openness and from control to flexibility. To build a healthy network capable of adapting to change, orchestrators should reach beyond industry bounds to find new partners that can make unique contributions. They must also create mutual trust and allow the free flow of ideas and information. This requires creating win-win opportunities for participants and focusing on holistic metrics such as the growth or profitability of the entire network.

We already see signs of this new mindset in the auto industry. For example, Toyota followed Tesla's lead by opening its hydrogen fuel cell patents, sacrificing complete control over IP in order to bring more participants into its ecosystem. And Ford recently communicated the need for nontraditional partners, such as Google. As Don Butler, Ford's executive director of connected vehicles and services, said, "We compete but in other senses we are partners. It's something we have to become accustomed to."[3]

Become an orchestrator of change by creating a flexible network of new partners.

5. **Create the organizational context for ambidexterity.** The ability to exploit the present while exploring the future calls for an organizational context that supports both old and new businesses and allows for adjustment as conditions change.

   Firms should consider separating exploratory business units from exploitative core activities and giving them differentiated "performance contracts" with tailored goals, metrics, and incentives. A good example is BMW's Project i, which manufactures plug-in electric vehicles as a sub-brand of BMW. As its chief, Ulrich Kranz, describes, "I had the freedom to assemble a team the way I wanted. The project was not tied to one of the company's brands so it could tackle any problem. We were allowed to completely break away from the existing structures."[4]

   In especially fast-changing or uncertain situations, firms should avoid rigid structural solutions and instead encourage free information flow among employees and with customers and competitors. Alibaba is a textbook example: it deals with industry turbulence using self-steering teams. When a team member sees a new opportunity, he or she can initiate a co-creation process, in which employees develop new business ideas directly with customers.[5] This fluidity allows the business to continually match its approach to a changing market.

The road ahead presents both tremendous opportunities and real dangers for incumbents. In the many industries facing disruption from creative and nimble players, incumbents can survive if they

become truly ambidextrous. That capability will help them not only fend off attacks in the near term but also position themselves for future growth and success.

Notes

1. PVGO is based on a methodology developed in Han T.J. Smit and Lenos Trigeorgis, *Strategic Investment: Real Options and Games,* Princeton University Press, 2004. PVGO is calculated as the residual from a company's market capitalization and the perpetuity of its current dividend stream (taking into account firm-specific beta, yearly US risk-free rates, and an equity market premium derived from investor surveys) and expressed as a proportion of the company's market capitalization. We consider PVGO to be a useful proxy for the true extent of exploration activities but by no means an exhaustive measure. A more granular assessment requires internal company data.

2. For further discussion of Telenor, based on interviews with former CEO Jon Fredrik Baksaas and other sources, see *Your Strategy Needs a Strategy: How to Choose and Execute the Right Approach,* Harvard Business Review Press, 2015. 3. Arjun Kharpal, "We Need to Think Like a Software Company: Ford," CNBC, November 2015.

4. Eric Loveday, "How and Why the BMW Project i Team Grew from 7 Individuals in 2007 to Several Hundred Today," Inside EVs, May 2013.

5. See Martin Reeves, Ming Zeng, and Amin Venjara, "The Self-Tuning Enterprise," *Harvard Business Review,* June 2015.

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