



GOING FASTER IS NOT ENOUGH; ADD INNOVATION TO OUTPERFORM

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In the many workshops that MIT CISR conducts with senior executive teams, we often hear participants say “if only we could go faster.” So we decided to research what happens if a company goes faster, and the answer was surprising: speed alone doesn’t differentiate much. In our research, companies that were top performing on both growth and margin relative to their industries not only went faster to market but also innovated more effectively.

In this briefing, we identify four drivers of the combination of speed and innovation and discuss how it contributes to top performance. We describe how companies achieve this combination with a mix of enabling technologies and management mechanisms. Finally, we illustrate this approach with a case study of Mercedes-Benz that demonstrates how the company achieves resilience via combined speed and innovation.

THE NEED FOR MORE THAN SPEED

To better understand the impact of speed on performance and what it takes to get there, we surveyed 721 companies at the end of 2022. We asked a series of questions regarding speed and innovation and the technologies (e.g., APIs, automation) and mechanisms (e.g., dashboards, data access) that companies used to enable them. We adjusted for industry differences and ran a series of regressions and other statistical analyses to create a management framework illustrating how top performers operate (see figure 1).¹

The management framework divides companies on two dimensions: revenues from innovation and time to market. We measured innovation based on the percentage of companies’ revenues from new products and services introduced in the last three years; respondents self-assessed speed, based on time to market, relative to competitors. We found that companies in our survey fell into four quadrants, which we named somewhat provocatively: Slow and Steady (32 percent of respondents), Innovative but Slower (17 percent), Fast but Incremental (24 percent), and Fast and Innovative

(27 percent). Figure 1 tells the performance story: the Fast and Innovative companies performed much better—respectively 9.8 and 11.6 percentage points higher on net profit margin and revenue growth compared to industry averages. The worst-performing companies comprised the Slow and Steady group, with respectively 4.8 and 8.2 percentage points of growth and margin below their industry averages.

Surprisingly, the Fast but Incremental companies performed only marginally better than their Slow and Steady counterparts. And the Innovative but Slower companies in our survey performed significantly better than the Slow and Steady companies, with performance around industry average on both growth and margin, suggesting not only that speed is not enough but that innovation may be more important.

THE DRIVERS OF BEING FAST AND INNOVATIVE

To better understand what enables a company’s pursuit of both innovation and speed, we looked at the enabling technologies and management mechanisms used most effectively by the companies in each quadrant in our framework. We found four drivers of top performance:

1. Empowering leadership while simplifying work
2. Adopting leading-edge technology
3. Using data as the guide
4. Nurturing an innovation ecosystem

In a digital world no company can thrive on its own. Companies that are above average on innovation and speed collaborate more effectively, contributing to growth; and they are very effective at creating value from ecosystems and getting above-average revenues from channel partners. To keep innovation flowing, they provide suppliers with access to real-time data. They perceive a greater threat from digitization, which drives them to innovate faster, focused on creating more value with digital for and from their customers.

Additionally, such companies have simplified work and organization to succeed, shifting orientation from the more traditional

¹ Based on a multistage analysis using data from the MIT CISR 2022 Future Ready Survey (N=721). See a description of the analysis with the figure on page 3.

command and control to coach and communicate. They understand there is no longer time to pass decisions up and down the hierarchy, and instead empower local teams to make decisions, with accountability supported by dashboards that articulate value creation goals, identify the levels of capabilities needed to achieve them, and demonstrate if they are achieving them.

HIGH PERFORMANCE AT MERCEDES-BENZ

Mercedes-Benz is a premier luxury car brand with a heritage of employing leading-edge technology. Mercedes-Benz's strategy is focused on building dedicated electric vehicles, developing leading in-car software, and adhering to the highest standards in operational excellence. Following this approach, in 2022 Mercedes-Benz Group AG increased its earnings before interest and taxes (EBIT) by twenty-eight percent year-over-year and showcased the technical feasibility of a 745-mile-range electric vehicle with the company's Vision EQXX car that relied on a less than 100kWh battery. Mercedes-Benz aims to be the leader in luxury mobility, and to achieve this along with some of the most ambitious sustainability goals in the industry the top management team is focused on the four drivers identified in this research—but with a Mercedes-Benz flavor.

Leadership while Simplifying Work

Leadership around technology at Mercedes-Benz is focused on creating digital mastery and entrepreneurial accountability to deliver on both speed and innovation. For all of its digital roles, Mercedes-Benz has established specific training paths to help people excel and continuously improve on their way to achieving expert status. As becoming a digital company requires more than employing experts, Mercedes-Benz has built communities of practice throughout the entire company, including for the production teams, to ensure digital fitness. The company accomplished this by moving to a coach-and-communicate leadership approach, which was especially necessary as the communities of practice are not reflected in the formal organizational structures.

Providing clear direction on what should be done is good—but explaining why to do things that way is better because it creates entrepreneurial accountability. At Mercedes-Benz, people are encouraged to think beyond the boundaries of their own responsibilities to care about and contribute to the overall result. Mercedes-Benz is in the process of introducing a product orientation for everything in the digital space. Going forward, work will be focused not only on project input parameters such as timelines and resources but also on the outcomes of the digital products, with the product owner fully accountable and empowered. This new orientation has thus far enabled Mercedes-Benz to implement a full-fledged online commerce

suite for more than forty markets in less than one year—an innovation that is driving revenue. The company set the ambition for its online commerce suite of “five clicks to buy, three clicks to finance,” which requires that the suite is backed by a significantly streamlined business model.

Leading-Edge Technology

Everyone talks about cloud technologies, and yet they are often referring to a narrow application of cloud focused on hyperscale infrastructure. Mercedes-Benz, by comparison, employs cloud native as a technical ecosystem to develop and run software.

To achieve advanced software capabilities, Mercedes-Benz relies on modular applications rather than monolithic, inflexible systems to allow for more flexibility and maintainability. The company also uses highly automated tools for the delivery of new code to facilitate continuous deployment. To additionally enable speed and innovation via enhanced software capabilities requires on-demand infrastructure, which provides compute power that can scale as required (i.e., elasticity); and reliability, by leveraging scaling to create redundancy, so that faulty components do not become a single point of failure.

In a cloud-native environment, one team is in charge of development and operations (DevOps), producing an end-to-end understanding and accountability. This is the driver for simplifying and automating business processes—which in turn drives speed and innovation. Mercedes-Benz's cloud native approach to digital shop floor management enables a high level of resilience in production, even with an ever-increasing number of disruptions in global supply chains. Every impact is displayed in real-time dashboards, supporting a zero-delay production program. During the worldwide bottlenecks of certain semiconductors, these capabilities enabled Mercedes-Benz to optimize its production within a very short time, focusing on high-margin vehicles and thus protecting profits.

Data as the Guide

Mercedes-Benz uses data in various ways, including to make better decisions based on comprehensive data—targeting the development of predictive action (e.g., predicting maintenance needs for capital-intensive shop floor equipment) and the creation of improved customer services through knowing customers better—while observing all relevant data protection principles. For example, having customer data available at every touchpoint, whether physical or digital, allows Mercedes-Benz to make a “next best offer²”—an action identified

2 Next best offer—also known as next best action—is a form of predictive analytics that helps marketers and their organizations better judge customer spending habits and guide marketing efforts toward connecting with customers to close a deal. “Definition: Next Best Offer,” NGDATA.

using predictive analytics—which contributes to revenue growth. Mercedes-Benz can use data from your interactions with the company and the telemetry of your vehicle to predict and notify you about your car’s maintenance needs—for example, if you are a sporty driver, to contact you at a less-than-standard interval to visit a Mercedes-Benz repair shop to change your tires or brake pads. Mercedes-Benz’s customers decide for themselves which services they want to use and which data to pass on to the company and not.

Also, Mercedes-Benz is establishing a comprehensive digital representation (a digital twin) of vehicles throughout their entire life cycle, starting with the order of the vehicle and extending from production through recycling of the used vehicle. The target is to radically speed up time to market, reduce costs in development and operations, and further enhance the customer experience. For example, when developing a quick or even predictive reaction to potential issues on the road, the digital twin can help Mercedes-Benz go faster and innovate. Mercedes-Benz’s ambition is that the first physical vehicle built will be the one used for certification.

An Innovation Ecosystem

Mercedes-Benz has created an ecosystem around its customers. The company combines the data it gathers on a customer from sources such as online and offline touchpoints and car

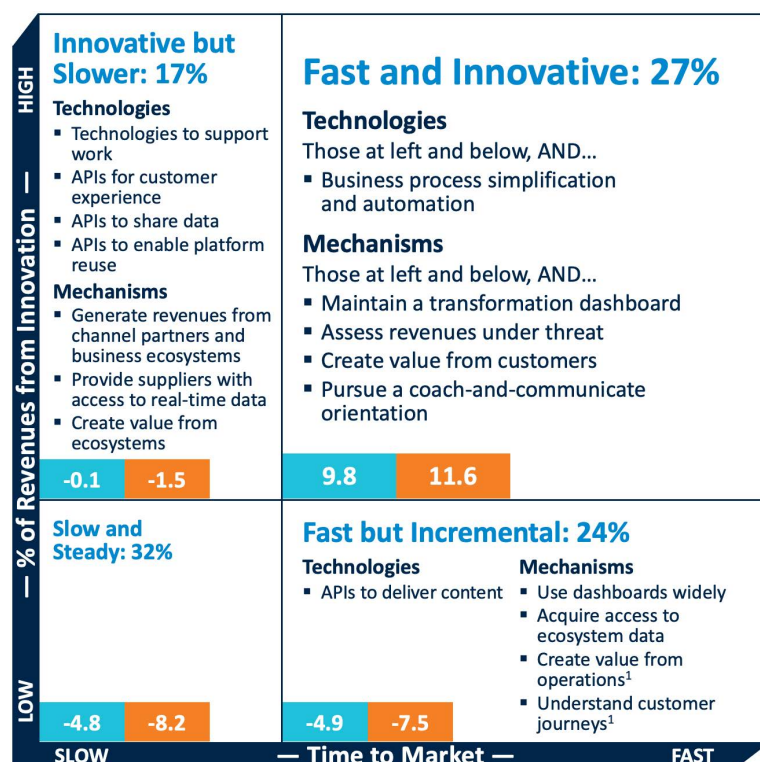
usage to not only make a next best offer but also to interact with customers more often, in particular through the Mercedes me connect app or other digital services. These interactions create even more data. Additionally, Mercedes-Benz has partnered with a number of other companies, such as hotels, to create special offers for Mercedes-Benz customers.³ Customers can rely on the fact that data protection is of great importance to Mercedes-Benz and that the company ensures a responsible and transparent handling of data.

WHAT IT TAKES TO SUCCEED

We found that in today’s digital world top performers are both faster to market and innovating to generate new revenue. We suggest you have a conversation about where your company is today and where you’d like it to be. To start, place each of your business units on the 2x2 in the framework, using the best data you can find to measure each axis. Then review the enabling technologies and management mechanisms in the 2x2 and see how your company compares. Being excellent at both these enabling technologies and management mechanisms was common in the top-performing companies. Digital enablement of both speed and innovation is a great opportunity for you to reinvent how your company does business—to become the company you have always wanted it to be.

3 “Hotel Partnerships,” Mercedes-Benz USA.

Figure 1: Top Performers Excel at Speed and Innovation—and the Technologies and Mechanisms Used to Achieve Them



We hypothesized that innovation and time to market (TTM) were important to firm performance and performed a multistage analysis of the effects using data from the MIT CISR 2022 Future Ready Survey (N=721). First, we measured innovation based on the percentage of a respondent company’s revenues from new products and services introduced in the last three years; respondents self-assessed speed, based on TTM, relative to competitors. Next, we created a 2x2 with innovation and TTM as the axes, dividing quadrants at the average (innovation avg.=36%, TTM compared to competitor avg.=52%). We then conducted a difference of means test to examine the firm performance for each quadrant; differences between the quadrants were significant at the p<.001 level. Then we compared net profit margin and revenue growth to industry and 5% mean-trimmed to remove outliers. Finally, we ran separate regressions using innovation and TTM to identify enabling technologies and management mechanisms. The figure shows the technologies and mechanisms that were significant at the p<.05 level in the regressions, except where otherwise noted. The Innovative but Slower quadrant includes only those technologies and mechanisms in the regressions that were significant for innovation; the Fast but Incremental quadrant only those significant for TTM. In addition to those technologies significant for only innovation or TTM, the Fast and Innovative quadrant includes those significant for both and lists just these.

¹ Significant at the p<.1 level

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