Want to Reinvent Your Business? Start With Your Products

How to attain smart-product success

The era of smart, connected products has arrived. Manufacturers face a new world in which digital technologies and software are so affordable, mature and pervasive, they will eventually drive every kind of product.

Take the automotive industry: With autonomous vehicles on the horizon, more than the car's driving functions are set to change. Vehicle interiors will very likely become an extension of the home and office. Cockpit personalization means that users can always have their customized settings and services at their fingertips, even while using car-sharing services or friends' vehicles. With such disruptive changes, auto OEMs and their suppliers must transform the driving experience and provide a new range of services.

Manufacturers in many industries now look to their suppliers to provide innovative concepts that will help differentiate their products in the market. The upshot? Product reinvention is more important than ever.

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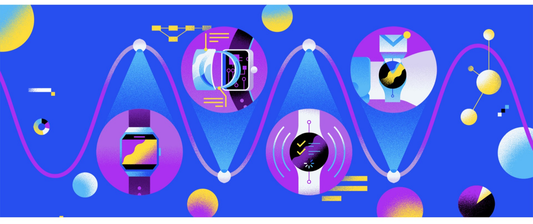
>
> ERIC SCHAEFFER, SENIOR MANAGING DIRECTOR AT ACCENTURE

"Digitally transforming products provides the opportunity to capture and create new values," says Eric Schaeffer, a senior managing director at Accenture and co-author of the new book "Reinventing the Product: How to Transform Your Business and Create Value in the Digital Age."

As our habits change, more people expect their devices and environments to be smart and interactive. And industrial companies must keep pace with ever-increasing expectations. "The products of tomorrow are very different from the products of today," Schaeffer says. "They're intelligent, connected and experience-rich."

The simple fact is: If your business isn't creating smart products, it could be left behind.



CREATE A RADICAL ROADMAP FOR YOUR COMPANY'S FUTURE

Reinvention starts with a vision. Successful businesses, instead of focusing on what they've done in the past, imagine what they should be doing differently in the future. "Begin by identifying the key digital opportunities, or value spaces," Schaeffer says, "and then go from there."

No universal path exists when it comes to product reinvention, so organizations need to adapt their digitization journeys to their specific goals. Each business must develop its own new roadmap to improve workflow across all business functions and create new operating models around smart, connected, "living" products.

"Once you've identified the end game," Schaeffer says, "it's time to ask: What are the products and services you want to put in the market that take advantage of those opportunities? How will you reach new levels of operational efficiency and fund the required investments in new technologies?"

Schaeffer identifies three core capabilities necessary to pivot from traditional, hardware-focused manufacturing:

AGILE ENGINEERING

Creating smart products requires a company mindset that supports rapid prototyping and continuous market feedback. "You will need to engineer different software to regularly update your product," Schaeffer says. For manufacturers accustomed to traditional engineering, this iterative approach can be difficult to master.

SUPPORTIVE ECOSYSTEMS

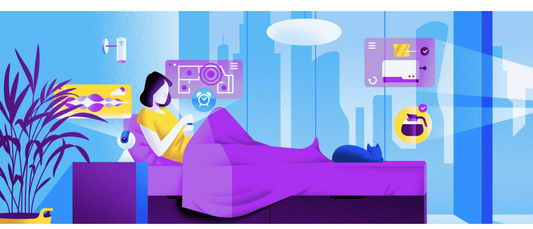
Now, connected products may work on a platform that requires continuous product innovations, which can't be provided fully in-house. This requires the support of a flexible ecosystem that leverages the skills of outside partners who can contribute technology, data or services. These partnerships can spark innovation and disruptive growth opportunities.

AS-A-SERVICE CAPABILITIES

Many enterprises are moving from selling simply a product to selling a service or solution. "This has significant implications on a business," Schaeffer says. As-a-service models typically come with service-level agreements, and revenue is linked to customer usage, so businesses need to be prepared for big shifts in product management processes.

Schneider Electric, a global energy-management and automation corporation with 137,000 employees in 100 countries, co-created its Digital Services Factory with Accenture to rapidly build and scale digital products that can solve customers' energy-use and sustainability problems in a more agile manner. "We were able to cut the time from product ideation to market testing from two or three years to less than eight months," says Cyril Perducat, IoT Executive Vice President at Schneider Electric.

"One major highlight is that we've sparked a new innovation culture throughout Schneider Electric, which continues to strengthen," Perducat adds. "Schneider has attracted startups, new digital talent and other disruptors into our digital ecosystem, Schneider Electric Exchange, to push beyond traditional industry boundaries."



USE NEXT-GEN TECHNOLOGY TO FUEL TRANSFORMATION

How do these big changes happen? With the help of digital innovations such as embedded sensors, data analytics, artificial intelligence, cloud services, edge computing and more. These advanced technologies enable organizations to evolve their products, Schaeffer explains, along a spectrum of intelligence:

CONNECTIVITY

The first step moves from a traditional standalone product to one that is connected through sensors to a cloud-based network, which gathers data and analyzes it. Connectivity allows manufacturers to remotely manage their products, then begin to sell services over the network.

INTELLIGENCE

Next, a product moves beyond simply being connected to becoming smart. That is, it learns from experience by leveraging a basic form of artificial intelligence. "Take a smart refrigerator, for example," Schaeffer says. The fridge might know a customer's preference for tomato salad, and if it detects a lack of tomatoes, it places an order automatically. "This requires both connectivity and intelligence, using A.I. and computer vision algorithms," he says.

AUTONOMY

The highest level of product intelligence is autonomy, which means the item makes decisions on its own. This maturity level necessitates more complex A.I. and digital twin technology. "An autonomous robot on a shop floor, for instance, requires access to a digital twin to know the layout of the factory," Schaeffer says, "as well as an ability to recognize context so it can react."

Faurecia, a leading French automotive supplier, uses disruptive technologies to create products for the connected, autonomous cars of the future. "Cloud and edge computing, 5G connectivity and A.I. are key for Faurecia's value creation," says Grégoire Ferré, the chief digital officer of Faurecia. "Indeed, the best breakthrough is to show no disruption in the consumer's journey across his day. Consumers are connected and expect nothing less in their journeys through life. Their digital identities should be seamless, from their homes to their cars to their offices and anywhere else. They expect not just a pure digital experience, but also that the vehicle adapts to them. Consumers want intuitive."