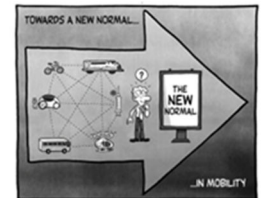
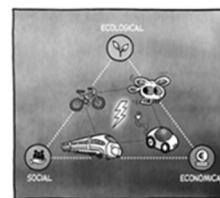


FUTURE OF THE AUTOMOTIVE INDUSTRY



Theses on future value creation in the automotive industry

New competitors such as Tesla from the US, BYD, Nio, and Geely from China, technology companies such as Google and Huawei, and ride-sharing providers such as Uber and Didi are changing the value creation structures in the automotive industry. The question is: to what extent? Two theories on this important question for the automotive industry¹.

Thesis 1: New competitors are increasing their share of automotive value creation

In the CASE transformation to connected, autonomous, shared, and electric mobility, even if it is slowing down somewhat, traditional car manufacturers and major automotive suppliers are losing their previously very high share of value added (over 80 percent) from the manufacture of motor vehicles and motor vehicle parts. This is because connected and highly automated, shared, and electrified mobility is opening new value creation channels for start-ups and companies from outside the industry, such as high-tech and sharing companies. New automotive companies from the US and China are taking further market share from traditional car manufacturers and suppliers because of their declining value creation.

250 global automotive companies surveyed by us in 2023 expect the share of traditional automotive manufacturers, suppliers, and dealers in global value creation to fall to 40 percent by 2030, while the share of new, primarily Chinese and non-industry companies will rise to 60 percent. After that, however, respondents see a stabilization of value creation structures. They expect little further change until 2035.

One reason for these significant changes in automotive value creation is certainly that electric vehicles have significantly fewer and simpler parts than vehicles with combustion engines. As a result, system

¹ The theses are based on discussions held by the Chair of Business Administration and International Automotive Management at the University of Duisburg-Essen, including at the 16th Science Forum on Mobility on June 13, 2024, in Duisburg and at the 32nd Gerpisa Colloquium on June 26, 2026, in Bordeaux, France. They are also based on surveys conducted in collaboration with Deloitte Consulting, in companies, at scientific and trade conferences, and at trade fairs in Germany and the most important automotive markets worldwide.

integration capability as a core competence of traditional automotive manufacturers is becoming less important for vehicles with combustion engines. This lowers the barriers to entry into the global automotive markets, e.g., for technology companies and contract manufacturers who produce on behalf of others, but also for new manufacturers of electric vehicles, e.g., from China, who can produce more cost-effectively without the burden of established production structures.

Thesis 2: Traditional automotive companies are losing vertical integration

By 2035, successful car manufacturers will be less vertically integrated than traditional manufacturers with R&D, central component manufacturing, marketing, sales, and after-sales are today. As a result, they will lose their dominance in global automotive markets. The central component in the future software-defined vehicle, the operating system, will be supplied by technology companies. Cooperation between traditional automotive companies and technology companies in partner networks (ecosystems) will become more important in order to create shared value.

The vertical integration of traditional automotive companies is declining, even though the most successful manufacturers of electric vehicles (Tesla and BYD) are currently highly vertically integrated, primarily due to value-added-intensive battery production.

Currently, 80 percent of new vehicles worldwide still have a combustion engine, with only 20 percent having an electric motor, although there are significant country-specific differences. In China, every second new car is already an electric vehicle. This means that vertical integration is not automatic, and existing suppliers of vehicles with combustion engines will tend to lose significant value creation.

Chinese OEMs such as Geely and battery manufacturers such as CATL are developing an alternative to vertical integration, known as “skateboards,” a vehicle platform for battery-powered electric vehicles on which batteries, electric motors, and other electronic components are installed. Chinese manufacturers and suppliers not only produce skateboards for their own use, i.e., for vehicle production on the skateboard chassis, they also sell the skateboards or enter into partnerships with automobile manufacturers (such as Geely with Renault). This allows them to earn money initially by selling the vehicle or skateboard chassis, and later by providing software subscriptions and value-added services for the vehicles or skateboard chassis sold. By adapting the software in skateboards and, above all, the hardware, it will be possible in the future to update vehicles and skateboards “over the air” to the latest technical standards. Those who can do this will dominate value creation.

Vertical integrators thus become orchestrators or coordinators or complementary partners in strategic partnerships, known as ecosystems, in which a fixed group of partners with multilateral relationships align themselves with an overarching value proposition. Cooperation between companies that are also competitors (coopetition) makes it possible to design the CASE transformation in an asset-light manner. Such cooperation is necessary when skateboards and chassis are separated, and technology companies supply the central operating system.

The problem with ecosystems is that technology and software development works very differently from vehicle development:

- In software development, zero-error tolerance is not possible, as it is with traditional automotive companies. Instead, agile, minimally viable solutions are developed and tested.
- Unlike in vehicle production, where everything is always thought through to the end, software is never finished.
- Software has never had any value in OEMs, which is why OEMs must finally recognize this value.

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The technology and software companies involved in the automotive industry today are different from those of the past. In the past, it was Apple, for example, a company that was unable to realize its plans. Today, it is semiconductor manufacturers such as Nvidia and Qualcomm that are driving development forward, for example in the field of autonomous driving. In China, the importance of technology and software companies is significantly higher than in North America and Europe. These new value-added partners limit the globalization strategies of Chinese automotive companies because, like Alibaba in the EU, they cannot use their cloud in all countries due to data protection laws.

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