BECOME A TECHNOLOGY COMPANY OR HIT A DEAD END

OEMs need a shift in mindset to create the cars consumers want

The automotive industry is changing dramatically. Vehicles are becoming more like mobile computers, with the same intuitive features provided by smartphones, and many manufacturers are struggling with the consumer expectations this creates. Technology has changed everything, especially as what were previously seen as extras are becoming essential to convince consumers to even consider car ownership.

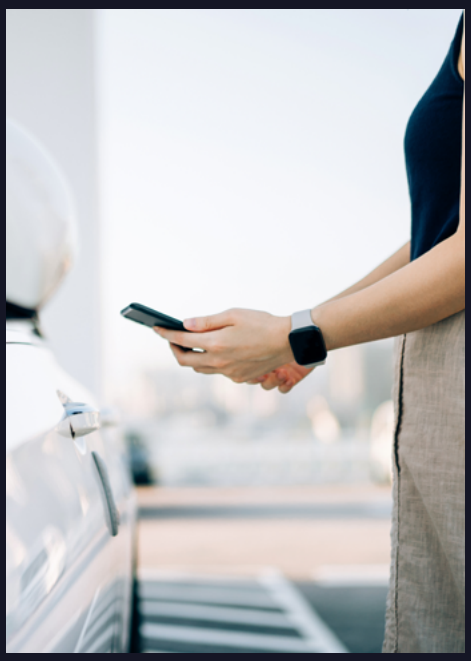
That means manufacturers now need to be technology companies as much as they are automotive producers, and this is happening as the pandemic brought its own set of challenges. Original equipment manufacturers (OEMs) have faced strained supply chains and chip shortages just as people look to purchase, rent, and lease vehicles in an opening economy. The disruption has also emphasized the importance of data in understanding changing consumer behavior.

THE INCREASING IMPACT OF DIGITIZATION

Automotive had its digital awakening years ago as conversations started to touch on autonomous driving and electrification. Digital has made CASE (Connected, Autonomous, Shared, and Electric) trends central in a move towards more sustainable and efficient transportation systems with improved driver and passenger experiences. It has revolutionized potentials and given OEMs the power to reimagine the machines that take us from A to B with a compelling autonomous experience.

To shape these experiences, however, requires manufacturers to identify the unique challenges digitization has brought to the industry and respond with solutions fit for the long-term. The rise of the software-defined vehicle alone has proven difficult for many players. An enterprise that has succeeded with foundational technologies, capabilities, and preferences for decades requires a big shift when the expectation is not just to innovate but disrupt.

GDPR has made control and privacy of data critical in Europe, but companies should anticipate this trend worldwide. Vehicle identity is also becoming important, especially in combination with car wallets. Car wallets are identity solutions integrated into automobile systems which incorporate blockchain security, user credentials, trusted ID, and payment details. This combination of car and driver identity offers a great opportunity for OEMs to deliver personalized user experiences for services like charging and paying for parking. This is only the start of a major trend.



OEMS MUST BECOME TECHNOLOGY COMPANIES

Software revisions will become integrated into vehicles in the same manner as we update our Android and iOS devices, again pointing out that OEMs need to transform into technology companies to create the cars of the future. Today, ***57 percent of consumers would buy cars from tech companies*** such as Google or Apple if they had the option, and this is only expected to increase.

The other large trend will be fully autonomous vehicles powered by sustainable energy. One barrier on that road is consumer trust. People will need to believe in what we call the "trusted vehicle." Through its machine learning and artificial intelligence capabilities, the trusted vehicle can aggregate and analyze real-time traffic data to identify hazards and predict problems before they occur, all while providing drivers with the connected, personalized experiences they desire.

KEEPING PACE WITH THE RIGHT ECOSYSTEM

Successful OEMs will also need to address the glaring issue of isolated systems. Major brands have created their own computer and sensory systems with particular coding processes and protocols, but these platforms have often been developed in isolation and require the support of custom application stacks to deliver their increasing complexity.

OEMs cannot be an island with their own ecosystem and mode of operations in the digital age. While the current business landscape is structured like an archipelago, with constant movement and widening gaps, this approach will not be sustainable. It creates inefficiencies and makes it a struggle to hire and train the right talent for these growing business demands.

Manufacturers facing this issue will need to migrate to centralized cloud ecosystems to enable seamless connectivity between disparate hardware and software systems. A focus on cloud implementation and integration allows OEMs to decrease the gap between isolated platforms and reduce the complexity of maintenance and development. This will also help them hire more engineers and developers, rather than just line workers, and capitalize on new digital trends and opportunities like the development of identity systems.

With this talent and the proper infrastructure in place plus a shift in mindset to adopt the ethos of technology companies, OEMs can act more like software companies to build an environment that fosters the development of the software-driven vehicles that people want. Organizations that apply this strategy will thrive. Failing to steer in this direction will be a dead end, and no major company can afford another significant disruption.

Capgemini has a deep understanding of the automotive and manufacturing industry with a long history of working with its major players across the globe. Together with Altran, one of the world's leading engineering and R&D companies, we are uniquely qualified in the field of cloud application development to support enterprises working to build a more sustainable and better future for transportation.

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For more information, please contact:

DANIEL DAVENPORT
Director, Automotive
daniel.davenport@capgemini.com