



Ride Sharing and its Impact on Automotive Interiors

If recent concept designs are any indication, automobile interiors could change dramatically in the coming years. What is causing the shift?

The global growth of ride sharing is yet another well-known automotive industry trend such as electrification and lightweighting. Thus far, multiple studies indicate its impact depends on location. For larger cities (more than 500,000 people), ride sharing is likely at least on the periphery of residents' daily lives. They are already somewhat familiar with the notion of shared resources due to crowded roads and the finite availability of parking. Meanwhile, the United Nations predicts that by 2050, more than 60 percent of the world's population will live in a "mega-city" of more than 10 million people.

According to [Forbes](#), the ride-sharing up-and-comer Lyft reported that more than 23 million people used its service in 2017, up from 12 million the year before. Lyft also announced it had doubled rides in the last year, for a total of 375.5 million rides in the United States and in its new market of Toronto, Ontario, Canada. Uber, the ride-sharing leader worldwide, [delivered 4 billion rides](#) in 2017.

Forces Affecting Ride Sharing

We are already seeing a significant shift in attitudes toward vehicle ownership across the globe. In a study released in January 2016, [McKinsey & Company](#) found that the share of people 16 to 24 years old who hold a US driver's license dropped from 76 percent in 2000 to 71 percent in 2013. At the same time, organizations in North America and Germany reported a 30 percent annual growth in car-sharing members in the last five years.

Part of this is a reverse of what has motivated personal vehicle ownership for decades, at least in the US – drivers have tended to view the car as a source of freedom. Increasingly across the world, vehicle ownership is an unnecessary burden when more practical sources of mobility exist.

"In the future, you could rent a pickup truck one day and the rest of the week is a compact car," said Center for Automotive Research (CAR) analyst Adela Spulber in [Investors Business Daily](#) in August 2017. "From a consumer's point of view, it's an opportunity to have products and services that are a lot more tailored to their changing needs during their day-to-day life."

Experience vs. Ownership

Meanwhile, even niche manufacturers and suppliers are purposely looking at drivers on a global scale. They are finding that individual experiences are becoming more important to drivers, and to consumers as a whole.

Yanfeng Automotive Interiors (YFAI) recently [conducted a study](#) on quality of life (vs. more conventional definitions of success) for global consumers. It captured not the specific means they choose for transportation, but their attitudes regarding what makes them feel empowered. Its results tie into a

growing trend toward customization. For suppliers of the future to be successful, they must start tailoring their products to suit not just lifestyles, but very specific segments within them.

“Knowing that a vehicle has only 20 minutes to fulfill its brand, service, or product promise to the passenger is a different proposition compared to the way that cars have been traditionally designed, developed, marketed, and sold,” the YFAI study finds.

In the same vein, LUNAR recently released [two interior concepts](#) – one created for shoppers and one for commuters. , McKinsey & Company found shoppers comprise 18 percent of US vehicle miles traveled (VMT). This design incorporates plenty of storage space for bags and other items. The other design specifically serves commuters, featuring tall, wraparound swiveling seats that give riders the option of interacting with one another or going solo without creating uncomfortable dynamics.

Ride Sharing and Autonomous Vehicles

Leading OEMs developing autonomous vehicles are entering the marketplace via fleets, so ride sharing is already emerging as the first viable use for tomorrow’s truly self-driving vehicles. [McKinsey finds](#) that these companies could eventually create small, individualized fleets for specific user groups, and build in GPS-enabled self-parking capabilities that would allow for parking outside of service areas to reduce congestion. Operators of ride-sharing platforms may also be anxious to develop autonomous fleets to reduce the business costs of employing human drivers.

Specific Challenges for Creating Multi-User Vehicle Interiors

Some estimates indicate that as many as one in 10 cars sold by 2030 will be a shared vehicle. What does this mean for OEM designers and tier suppliers today?

If the trend toward limited, customized experiences holds, the need to provide new features and greater technology will find its way into the interior space. Viewing screens, connective ports and WiFi units, configurable seating, haptic controls and secure, seamless storage areas could become mere points of entry as ride-sharing platforms compete for business.

Durability will be mandatory. A shared vehicle may have thousands of users in its lifetime, and many will not be motivated to care for the interior as they would if they owned the vehicle. The need for tough, light materials will be extremely important. The need for durable materials only increases with the possibility of smaller, customized fleets – such as shoppers, that could haul any number of heavy items in and out of these shared vehicles.

Along with the challenges of customization and durability will be the need to literally hold everything together. Many of these new materials are not conducive to traditional welding, and may have very low surface energies which make bonding with standard adhesives less effective. Also, sound management materials must adapt to interiors with constantly varying numbers of passengers, even as design requirements change. Traditional acoustic absorbers will need to become much lighter and more adaptable to thin and irregular spaces, and must be developed to address damping as well as absorption.

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