

Car Sharing is Smart Business for Manufacturers and the Environment

Written by Katherine Johnson on October 19th, 2016.



Yannis Bellos, assistant professor of information systems and operations management, said it's an exciting time for the auto industry as they explore the new, "unchartered territory" of the sharing and access economy. Several auto manufacturers have started to become involved in a business model that has nothing to do with selling cars. This is the model of car sharing.

People often associate car sharing mainly with third-part providers like Zipcar. However, the largest car sharing provider today is Daimler through its Car2go program, which counts more than one million members worldwide. BMW, and most recently GM, have also been very successful in operating car sharing programs.

Coauthors Mark Ferguson, University of South Carolina, Beril Toktay, Georgia Institute of Technology, and Bellos' research "The Car Sharing Economy: Interaction of Business Model Choice and Product Line Design," found car sharing to be an innovative business model that transforms the economics of transportation. It also improves both the profitability and environmental performance of car makers.

Car sharing programs typically charge a small annual fee, which allows customers access to a fleet of cars. After that, they can reserve a vehicle online, pick it up from the parking lot, drive it and return it. Customers pay only for the amount of time they used the car. Gas, insurance and maintenance are already included in the hourly rate. It's a new business model that focuses on selling the use or function of the car instead of the car itself.

"Conventional wisdom would say if you're selling cars, you don't want to do anything that can negatively impact your sales. And this is the danger you are facing with car sharing. The moment you offer a car sharing program, some customers that were planning to buy a car from you will use a car sharing service instead," said Bellos.

Bellos said that despite this danger, his research found that car sharing can be profitable for manufacturers. The main reason is that, with car sharing manufacturers can use a small pool of vehicles to reach out to the customers who previously could not afford or did not want to buy a car. This benefit may be more pronounced for higher-end manufacturers like BMW and Daimler.

Another challenge that car makers face is the design and production of cars that comply with environmental regulation such as the Corporate Average Fuel Economy (CAFE) standards. Bellos said in order to comply with regulations, manufacturers must balance the trade-off between fuel efficiency and driving performance. Furthermore, given that car sharing can be environmentally beneficial, regulators will also have to consider the use of incentive multipliers so that they encourage more auto manufacturers to offer car sharing programs.

Ride sharing services like Uber and Lyft are also part of the “sharing economy” but are different from car sharing. “The main difference is who’s the owner. In Uber and Lyft the owner is the driver. In the car sharing program, the owner is the manufacturer,” Bellos said. With Uber and Lyft, “usually one car is tied to one driver and one customer,” he said.

Google recently entered the sharing economy with Waze, a ride share carpooling program. Google’s advantage is having “better access to data,” such as information on road and traffic conditions that drivers provide using Google Maps.

“We’re going to see a lot start happening in the next five years. I think everyone is going to jump on the sharing business. What is becoming increasingly clear is that car makers no longer see themselves as manufacturers. They see themselves and try to position themselves as mobility solution providers” Bellos said.

Manufacturing & Service Operations Management, the leading journal in the field of operations management, will publish the paper.

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