How Airbnb has affected the hotel industry

John C. Roach

The Internet provides a platform for businesses such as Airbnb to advertise their goods and services. Reduced startup costs and the ability to reach a broad customer base allows smaller companies to compete with their larger counterparts for the same consumer dollar. Many companies have used this platform to grow their business and become household names in their respective industries. Airbnb is a prime example of a company that has effectively leveraged the Internet to grow from small business to industry titan.

Airbnb, founded in 2008, has listed more rooms for rent than any hotel chain in the world. The company has experienced divergent growth and presence across the United States, with supply shares ranging from less than 1 percent in smaller cities such as Oklahoma City and Memphis to over 15 percent in New York City. Airbnb’s growth can be understood as a function of supply and demand. The hosts have the discretion to rent on any particular day, giving them the flexibility to respond to changes in demands for accommodation. In cities where demand for lodging is high, supply is often constrained, causing prices to go up. In such environments, Airbnb hosts, who generally have greater flexibility and lower operating costs than hotels, are well positioned to take advantage of spikes in demand.

In their paper, “The welfare effects of peer entry in the accommodation market: The case of Airbnb” (National Bureau of Economic Research, Working Paper no. 24361, February 2018), authors Chiara Farronato and Andrey Fradkin study the effect of Airbnb on the hotel industry. Farronato and Fradkin create a model that examines competition between Airbnb and the established hotels. The model is built on data extracted from the records of Airbnb hosts and STR (a company that tracks supply and demand for the hotel industry). The authors analyze the data on average prices and rooms by city, particular day, and accommodation type from 2011 to 2014. They limit their analysis to the 50 U.S. cities with the largest hotel room inventory.

Findings from the model show that in 2014, Airbnb reduced hotel profits by up to 3.7 percent. That year, Airbnb generated $41 of consumer surplus per room per night and 26 dollars of host surplus. The result, a total welfare gain of $137 million dollars. This effect was concentrated in locations and on dates where hotel capacity was most constrained (e.g., New York City on New Year’s Eve).

This article shows that Airbnb has had a positive effect on consumers and Airbnb hosts, both of which are part of the hotel industry. Hotel revenues would be 1.5 percent higher without the presence of Airbnb although between 42 and 63 percent of these would not have resulted in hotel bookings if Airbnb were not available. Airbnb offers accommodations that differ from your traditional hotel room, which is valued by customers who are looking for an atmosphere that exhibits a home aesthetic. Airbnb has increased room availability, resulting in reduced prices for consumers, especially during high peak times. These effects are more prominent in larger cities. High demand
during peak times coupled with limited capacity results in higher prices for the consumer. Airbnb can extend supply during these peak times to accommodate the higher demand for available lodging.