

An Economic Analysis of the Sharing Economy: A Case Study in Uber for Taxis

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Abstract

Uber is one of the most representative enterprises in the sharing economy has attracted the attention of many people. Lots of research have analyzed the economic analysis of Uber, especially on social welfare. In this essay, it analyzed the sharing economy digital platforms (Uber) in terms of the economic impact. This essay also provided some new information and insight about the Uber for taxis.

Keywords:

Sharing economy, Uber, Taxi market, Strategy, Pricing

1. Introduction and overview of the Uber

Uber. Uber Technologies, Inc., is a multinational company providing ride-sharing service that demand of passengers can send requests to Uber and pair with different vehicles via the online website or App. Uber was found by Travis Kalanick in Silicon Valley in the United States in 2009. Over the last decade, Uber's services have covered 69 countries and 785 metropolitan areas in the world, developed 63 cities in the Asian-Pacific region (Uber 2019).

Sharing Economy. The sharing economy is now one of the most popular economic topics. The sharing economy refers to individuals with idle and undistributed resources who have paid the rights to use resources to others so that resources' users can get benefits, and sharers use the idle resources to create value (Darcy 2019). Uber is now the most representative digital platform in the sharing economy, especially in global ride-sharing economy, because people can share their undistributed resources (cars) with others through the platform, increase resources' utilization efficiency, and gain payoffs from ride-sharing. In the sharing economy model, people can rent or borrow a commodity and skill instead of buying ownership to enjoy the services it provides; the sharing economy offers both supplier and demanders more flexible choices, increased utilization of idle resources improves the efficiency of economic operation. This essay analyzes the effect of Uber as an example of the sharing economy in economy, the effects of Uber's growth on the taxi industry, with its strategies.

The rest of the essay is structured as follows. Section 2 describes how the platform has changed existing market. Section 3 describes Uber's network effect. Sections 4

describes the industry data on the platform. Section 5 analyze Uber's pricing strategy. Section 6 provides competition analysis of Uber. Section 7 analysis Uber's online reputation. Section 8 provides social welfare analysis. And last section is conclusion.

2. How has Uber Changed Existing Market

Uber, as a multi-side platform, has a significant feature that the benefit gained by customers on one side of the platform generally increases with the increase in customers' participation on the other side. More active users on this platform would be better because the platform is more valuable to users. Thus, the platform's value will increase as it attracts more users.

Uber disrupts the particular existing market by a mobile application; passengers can call a car with one tap. The App can recognize the passenger's location; passengers can choose their destination even at a particular time. The App has a rating system in which drivers will be evaluated after the ride. Uber system can remove low rating drivers, to maintain a high-quality passenger service. For the convenience of users, Uber canceled cash payment methods. Users can use digital payments because they can define payment details by Uber App. For transparency, Users can also get an estimated charge (DPO).

The development of Uber has changed the taxi market; Uber has led to anxiety and restlessness of traditional taxi drivers due to their businesses have been threatened since Uber has attracted their passengers (Jay 2019). The reason for the threat is because Uber can provide low prices and cost, high-quality services, and more flexible approaches compared to the traditional taxi market. Furthermore, traditional taxi drivers must buy

licenses for the taxi to operate, whereas Uber drivers do not need licenses. Thus, Uber reduced the value of taxi licenses (Georgios 2016). There exists an unfair competition between Taxi and Uber in the transportation market.

3. Network Effects of Uber.

Economists use the phrase "network effect" to describe how the more users of a certain product or service, the more significant benefit. The definition of indirect network effect is that users from one side of the platform will benefit when more users from the other side join the platform. Uber's competitive advantage is as a result of the indirect network effect. For example, if the car drivers do not use the Uber platform, then Uber is useless for passengers. Similarly, if a passenger does not use the Uber platform when looking for a car to ride, the drivers will not use the Uber platform.

For Uber, the network effect will help the company succeed in making the platform as effectively as possible for its passengers. For example, if the Uber platform has more drivers and cars, the passengers' waiting time will be reduced. Thus, it might attract more people to choose uber as their first travel platform.

The Uber platform in many countries has enabled Uber to achieve a network effect, and the network effect continues to improve. Uber company has realized that compared to the taxi industry, it is the only company that has connections with billions of people around the world, and then creating a more significant network effect (Ashwin 2017).

4. Industry data on the platform

The platform of Uber has been operating for over ten years; today, Uber is available in more than 600 cities around the world. Uber has completed over 10 billion trips across

the world in the last ten years, and it is expected that the number of trips dramatically increases because Uber has 14 million trips every day. The United States has become Uber's largest market, with 41.8 million users until March 2018. Brazil is the second-largest market for Uber, with 17 million users. In Europe, the largest of Uber's market in the UK, with 3.5 million users until Aug. 2017 (Mansoor 2020). Uber is a for-profit service platform, but the platform only charges a small part of the fee charged, and the rest are paid to the drivers. An increasing number of users of the platform bring a large revenue of Uber company. Uber's revenue in 2017 was the US \$ 7.5 billion. In 2018, Uber's revenue reached US \$ 11.3 billion, an increase of 43% from 2017, and the total number of bookings increased by 45% to the US \$ 50 billion of business transactions. However, Uber experienced heavy losses and slowed growth, Uber's adjusted loss in 2018 fell 15% to the US \$ 1.8 billion, compared with US \$ 2.2 billion in 2017 (Mansoor 2020). Not surprisingly, Uber is still popular in many cities in the world, more drivers will become Uber drivers, and more passengers will choose Uber.

Uber company has a vast database that records every ongoing activity of passengers, starting from the passenger's request for a car, during the trip, and then to the destination. The database records the information about every trip, whether or not there are passengers, which is very important for studying demand and supply behavior (Sherice).

5. Uber Pricing Strategy

Uber has different pricing from other pricing structures, such as razor blade or penetration pricing. Uber is currently using the dynamic pricing model (strategy), which refers to the pricing method that the platform adapts to adjust prices frequently as the

different regional customer needs, weather, and time changes (Mansoor 2020). When more people are calling for a car in a certain area of the city than the number of undistributed Uber cars, that demand is higher than supply; Uber will impose a dynamic mark-up on the fare. Dynamic pricing can help the platform have enough drivers to accept passengers' ride requests, so passengers can get a car quickly and easily whenever they want. Although a dynamic pricing strategy improves efficiency, it is incredibly annoying. In the passengers' opinion, the most annoying part is the price increase when they need a car urgently.

6. Competition analysis

Since Uber entered the global transportation market, Uber's competitors have mainly come from the traditional taxi industry, Lyft, Grab, and Didi Chuxing. In January 2019, the number of Uber vehicles available in New York was approximately 78,022, compared to Lyft's 50,099 vehicles and traditional taxis' 15,280 only. Lyft only operates in the US market, while the Grab operates in the lucrative Southeast Asian, and Didi Chuxing controls 90% of Chinese market share (Mansoor 2020). The scale of the Uber and Lyft are both continually expanding, but, in terms of the number of vehicles and the gross revenue of the two companies, as shown in Table 1, Uber's growth rate is significantly better than Lyft's. Besides, Uber is trying to expand the ride-share service into the delivery and moving market. However, Lyft only focuses on the ride-share services until now. Uber is now opening up the market by more cities and providing new services.

Table 1, Uber vs. Lyft, by May 2018.

	Uber	Lyft
Area of operation	69 countries worldwide	300 US cities, 2 Canadian cities
Users	75 million	23 million
Drivers	3.9 million	1.4 million
Total trips	More than 10 billion	More than 1 billion
Revenue	US \$11.3 billion	US 2.2 billion

Source: Uber Revenue and Usage Statistics (2020)

Although Uber has developed rapidly in recent years, unfair competition among the taxi market cannot be ignored. In section 2, we analyzed this view; regulatory asymmetry may be the main result of unfair competition between the traditional taxi and ride-sharing platforms. Thus, to ban Uber is not a unique solution, the regulatory sector should regulate it and establish a policy to increase benefits and reduce related costs and risks

New recommendations for Uber's global promotion

Not all countries are Uber's markets. Uber company should do enough market research before entering new potential markets. This can avoid product illegalization and industry conflicts. Second, improving the regulation of drivers, such as driving age and driving license's class. Finally, improvement of product functions will increase drivers' and passengers' satisfaction.

7. Online Reputation

Reputation and the internet are the necessary conditions for the sharing economy. The

purpose of reputation is to reinforce trust. One of the mechanisms used by Uber to regulate drivers and passengers is the rating system. Reputation can resolve two-sided uncertainty under incomplete information (Shorish). Passengers prefer to select available drivers with high ratings because drivers with higher ratings will provide better service. Similarly, drivers also want to drive passengers with high ratings. Passengers can rate Uber drivers from one star to five stars according to passengers' experiences. Passengers play the role of "managing drivers," and the ratings directly affect drivers' qualifications. To obtain a higher rating, drivers must improve their behavior to enable passengers to get good trip experiences. In addition, if passengers' ratings less than four stars, they will not be able to use Uber services. From the driver's view, when a private car driver trusts the Uber platform, the driver would be a driver Uber; from the passengers' view, when the passengers trust this platform, the passengers will choose Uber when they want to trip.

8. Social welfare analysis

Most economists suggest that social welfare is the distribution of income to achieve good for the society. Uber has a positive impact on society from its low pricing, drivers' income, high-quality services, and other mobility services, which make the people in the society enjoy the better transport services in the world.

Consumers. One of the reasons that Uber continues to develop in the global transportation market is that consumers are attracted by lower prices, which most people in the society can benefit from. Consumers are requested to provide their feedback and rate their trips. The higher rate means that more consumers may choose

this mode of transportation, which brings more social convenience because people will be able to travel from place of departure to destination at a low price.

9. Conclusion

It is clear that Uber is a representative of the sharing economy, and more and more people will use this platform. Uber is developing rapidly in current society, even if other companies such as Lyft also provide ride-sharing services, most of people will still choose Uber firstly. It shows that Uber has a large market share in the taxi industry, the reason for this is that people are preferred to low prices, high-quality services, faster transport and less waiting time, and all these factors are provided by Uber. Social welfare analysis is a non-ignorable part because people are often interested in how services can assess the benefit of the Uber to consumers and the economy. From the discussion, it is clear that Uber has benefited society because most people can now enjoy quality services at low prices.

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