



## COSTUMER INCREASE SYSTEM AND THE EFFECT OF SURGE PRICING: IN CASE OF UBER PLATFORM

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### ABSTRACT

*In 21st century, technology covered most of the segments of market, some ride-sharing companies made a turnaround in the taxi industry by the help of dynamic pricing system. This paper studies how Uber company attracting U.S. customers to work with them, moreover, how the surge pricing is influencing these processes. And also in paper, observed, how many driver-partners worked on the Uber platform and categorize them into particular groups according to their behavior types. And regular data of each the driver-partners from day they started work and quit or continued the work, the reasons why they worked in particular period, and why they made the Uber platform as their choice. And Uber has different services for both consumers and customers and some of them don't use dynamic pricing system and so the reason is they try to give maximum comfort for its driver-partners. The Benenson Survey Group's research work's data is used in terms of show how attractive Uber platform.*

## СИСТЕМА УВЕЛИЧЕНИЯ КЛИЕНТСКОЙ ПОТРЕБНОСТИ И ВЛИЯНИЕ РОСТА ЦЕН: НА СЛУЧАЕ ПЛАТФОРМЫ UBER

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Резкое повышение цен, совместные поездки, платформа Uber, рынок труда, опрос, водители-партнеры.

### ABSTRACT

*В 21 веке технологии охватили большинство сегментов рынка, некоторые компании совместных поездок совершили переворот в индустрии такси с помощью динамической системы ценообразования. В этой статье изучается, как компания Uber привлекает клиентов из США для работы с ними, более того, как резкое повышение цен влияет на эти процессы. А также в статье рассматривается, сколько водителей-партнеров работало на*



*платформе Uber, и классифицируются они в определенные группы в соответствии с их типами поведения. И регулярные данные о каждом водителе-партнере с того дня, как они начали работать и ушли или продолжили работу, причины, по которым они работали в определенный период, и почему они сделали платформу Uber своим выбором. И Uber предлагает различные услуги как для потребителей, так и для клиентов, и некоторые из них не используют динамическую систему ценообразования, поэтому причина в том, что они пытаются предоставить максимальный комфорт своим водителям-партнерам. Данные исследовательской работы Venenson Survey Group используются с точки зрения того, насколько привлекательна платформа Uber.*

## **Introduction.**

Some ride-sharing companies, Such as Uber and Lyft used the technology and pricing strategy, flexible work as a privilege in taxi industry. And Uber is one which started this strategy as earlier as possible (2009). Dynamic pricing system has become a massive change in terms of labor market. These pricing strategies allowed to Uber increase enormously its driver-partners year by year. Today drivers wish to work for themselves not the under supervisor control, without eye-contact and rules, and finally not for fixed prices. In terms of Uber, they have flexible work and surge pricing system where their driver-partners can work anytime when they wish and what price they agree to work based on demand and supply. And looking the years, in 2014, Uber announced that they had over 160,000 active drivers in the United States, and that number doubled in 2015 to 327,000 drivers. <sup>1</sup>

These given statistics look very attractive, however, some driver-partners still failed to continue the work reasons are various. Main factors can be competitiveness, patience, and maybe overworking on this system for long terms of periods. And exceptional reasons also for example, many drivers stopped driving because they couldn't count on getting enough trips to make it worth their time. In 2021, there are more riders requesting trips than there are drivers available to give them — making it a great time to be a driver<sup>2</sup>.

## **Literature review**

### *The Uber vs taxi market*

There is a lot assumption toward to labor market and how it's being modified temporarily. And there are some factors which make labor market to change, according to Congressional Budget Office report, published in 2018<sup>3</sup>, factors can be gender, race, education and etc., but in taxi industry they stay limited from 2009. The Uber platform changed the view of taxi industry and its employees. Even though they settled the company, but labor market wasn't seem to ready for the revolution and stood up with complaints. So that meant drivers didn't wish to make change or improve things they had. And according to Camerer, Babcock, Loewenstein, and Thaler (1997) developed the theory of "primitive"



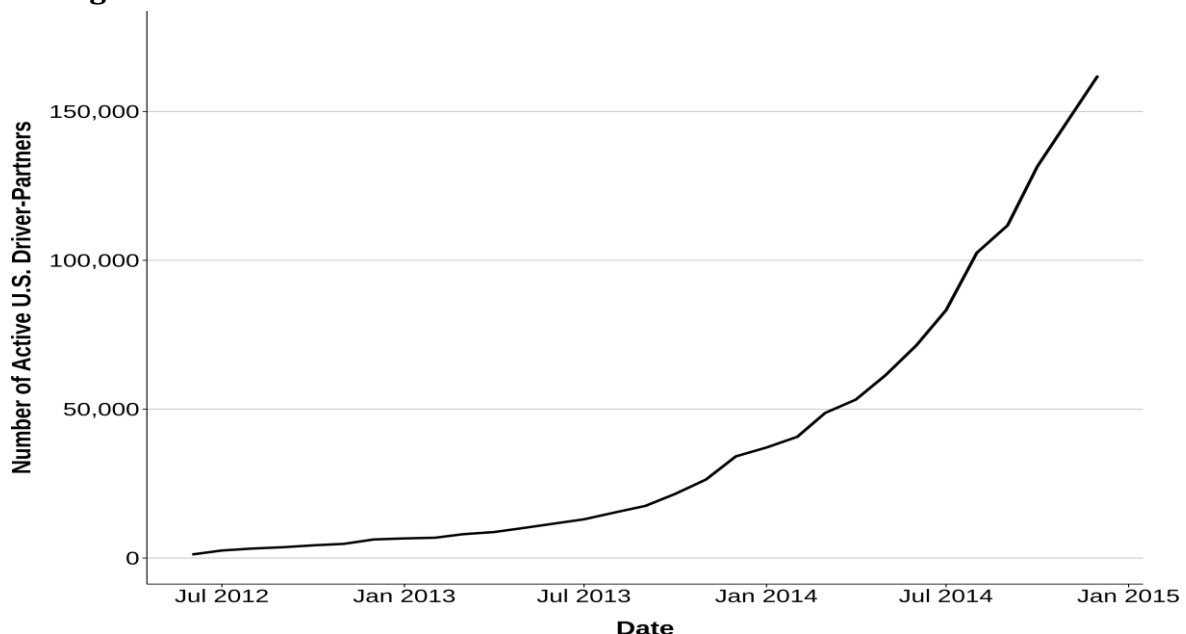
drivers so that meant drivers made complaints to save their traditional income path<sup>4</sup>. And they used several antitrust laws, in the result the U.S. government alleged the company with The Sherman Antitrust Act of 1890 law<sup>5</sup>, where they against Unlawful Restraints and Monopolies. And this factor made Uber to change system which is available today. And another factor was taxes, where the Uber platform didn't include in its jurisdictions that mean driver-partners have to pay from their earnings per mile. Being primitive driver they have idea of daily income-targeting, where they used to get their taxes paid by company. And then Uber and its CEO made another move towards labor market and its consumers, as they represented their new services like UberX and Uber BLACK in 2012. UberX is affordable taxi service, which uses surge pricing system and UberBLACK is the right service for drivers' complaints where they can earn more, as the service is essentially the luxury version of UberX. "It allows you to get from point A to point B ... in style"- Uber<sup>6</sup>. And still number of drivers has shown that half of them quit the job after just one year drive<sup>7</sup>.

### The Uber's success in Labor Market

However, there is a picture which shows success of Uber platform in the labor market and opposite of this all mentioned above.

Figure 1 shows huge growth of active-drivers Uber platform from mid-2012 to the late 2014. As drivers-partners used enter to platform on averagely five times per, so the managing the count would be a headache for any taxi company which Uber platform offering<sup>8</sup>. And the figure based on U.S. UberBLACK and UberX driver-partners providing at least four rides in any month (284,898 individuals).<sup>9</sup>

**Figure 1: Number of Active Driver-Partners in United States Each Month<sup>8</sup>**



And another example of flexibility is Matt Dan, 3 years ago Uber posted video in its YouTube account about the man who is flight attendant and driver-partner, by this they showed they can claim broadly in labor market.

### **Data and Methods**

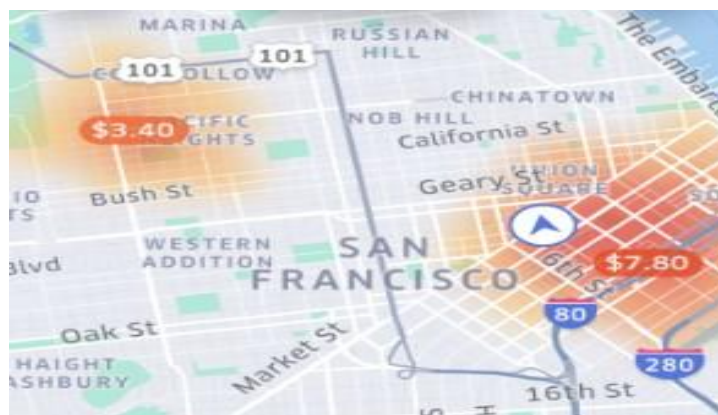
#### The effect of Surge Pricing

The Uber platform uses a real-time dynamic algorithm known as "Surge" pricing to modify its prices, which has intrigued the drivers and chauffeurs. Surge pricing is the result of an algorithm that increases the price of a trip automatically as demand increases within a certain geographic region.



a) *Multiplicative surge heatmap.*

"1.6x" on the map means that the standard fares for trips from the corresponding area are increased by 60%.



b) *Additive surge heatmap. "\$ 7.8" on the map means that \$ 7.8 is added to each trip's standard fare from the corresponding area.*

Source: Nikhil Garg and Hamid Nazerzadeh "Driver Surge Pricing" March 9, 2021.

Under multiplicative surge, the driver payout from a surged trip scales with the length of the trip. In contrast, under additive surge, the payout surge component is constant (independent of trip length), with some adjustment for very long trips (Uber, 2019c).<sup>9</sup>

And here the table shows comparison of median hourly earnings of Uber driver-partners and hourly wages of taxi drivers and chauffeurs among cities like Boston, Chicago, Los Angeles, New York and San Francisco.

**Table 1: Comparison of Median Hourly Earnings of Uber Driver-Partners and Hourly Wages of Taxi Drivers and Chauffeurs**

	Earnings Per Hour or Hourly Wages
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	<b>Uber Driver-Partners (Earnings Per Hour)</b>	<b>Taxi Drivers and Chauffeurs (Hourly Wages)</b>
<b>BOS</b>	\$20.29	\$12.92
<b>CHI</b>	\$16.20	\$11.87
<b>DC</b>	\$17.79	\$13.10
<b>LA</b>	\$17.11	\$13.12
<b>NY</b>	\$30.35	\$15.17
<b>SF</b>	\$25.77	\$13.72
<b>Avg. BSG Survey Uber Markets</b>	\$19.19	\$12.90

**Source: For Uber Driver-Partners: Uber. Data aggregated to the driver-month level and medians of hourly earnings reported for Uber's driver-partners who drove at least one hour a week during the month of October 2014.<sup>7</sup>**

*BSG survey: Attractive Uber*

At Uber's request, the Benenson Survey Group (BSG) conducted a web survey of Uber's driver partners in December 2014 in 20 market areas that represent 85 percent of all of Uber's U.S. driver-partners. Fully 80 percent of driver-partners said they were working full-or part-time hours just before they started driving on the Uber platform, and two-thirds of these individuals reported that they had a full-time job.<sup>7</sup>A significant impact has been made by the Uber platform over taxi industry recent years, and many past transportation industry workers choose to switch completely over to Uber. 88% of people who drove taxis before Uber, now drive with the Uber platform instead of another taxi company, 74% of people who drove black cars before Uber, now drive with the Uber platform instead of another black car company. Greater income, personal safety big motivators for many pros to drive with Uber: 63% of higher-income a reason to drive Uber, 64% of higher safety a reason to drive Uber. 59% were working at least one full-time job before they came to Uber. Only 8% were unemployed. 36% of driver-partners weren't even looking for a job before signing up with Uber. Most of those looking for a job had been looking for less than 2 months.

Uber partners who previously drove taxis: among Uber driver-partners who came from the taxi world 59% say their income has increased since their joining And 51% believe their income will increase each year -while only 36% were seeing income rise before Uber 71 % say "being their own boss" was a major reason to join Uber 73% say they have more control over their schedule now.

Driver-partners are remarkably satisfied - especially New Regulars and Part-Timers: In total 78% of Uber platform driver-partners hailed working with: 72% professionals, 68% crossovers, 88% new regulars, 81% part-timers.

Driver-partners would rather have 73% a job where you choose your own schedule and be your own boss, 27% A steady 9-to-5 job with some benefits and a set salary. And according to ages 19% are 18 to 29, 30% are 30-39, 26% are 40-49, 24% are 50 or more. By contrast,



taxi drivers and chauffeurs are substantially older, with nine percent under age 30, and 44 percent age 50 or above.<sup>7</sup>

Income isn't the only thing that's gotten better:

<b>Control over your schedule</b>	<b>74%</b>
<b>Income</b>	<b>71%</b>
<b>Flexibility in work-life balance</b>	<b>70%</b>
<b>Sense of financial security</b>	<b>61%</b>
<b>Sense of confidence</b>	<b>56%</b>

### **Further researches**

There are more statistics related to Uber taxi company, such as ethnicity, age, education, which are respectively can be counted as the demographics. From the time it started to Uber platform has become a "home" for anyone, not differentiating their age, race, gender, whether they have diploma or not or whether he/she student and maybe veteran, so who have driver license can work or could work. According to the survey veterans and students were both 14% of whole driver-partners of Uber<sup>10</sup>, no matter they work a part-time or full-time. It's obvious from the mentioned information that various aged people able to work with Uber and the most drivers are between 30-39 which concludes 30%, which shows people are intentionally making their livings and career with the company. And 26% percent are 40-49, 24% are 50 or above, the least are 18-29 aged young people who might be in process of making choice their career path which concluded 19% of whole driver-partners of the company.

And the education is not a problem for Uber where 28% of driver-partners are has at least high school diplomas, even though most of them have a college or higher education degrees, which is 72% of whole company. By the way, 50% of them are married and 46% have children and 25% of them care of their parents or relatives financially. With the big respect to female gender holders, they are also working whether part-time or full-time, and makes up 14% of the whole driver-partners of Uber.

Uber stands against any discrimination activities, and as the company holds the quote "If you tolerate racism, delete Uber". Safety is first goal of Uber company, and they want to show their position against racism by making new anti-racism education for its partners, and specialized training for Customer Support agents, and by the report of BSG survey Uber driver-partners hold a very diverse ethnicity, where most of them are White/Caucasian race people in combined 37% of whole riders and drivers, and 18% of them are Black/ African Americans respectively which is the second most race among the whole driver-partners. 16% are Hispanic/Latino, while Asian/Pacific Ocean people are 15%, and the least 6% are some other ethnics. As it can seen from statistics the race is not tolerated by Uber company from the beginning of their edge. However, left amount of people, 7% percent, preferred not to answer to the survey. This shows that people are still in fear or don't feel comfort to reveal their race as the racism is still ongoing on.

### **Conclusion.**

Well, Uber company has all convenient that driver or chauffeurs dream to have, especially its flexibility in terms of work time and earnings, where surge pricing plays main



role in attracting drivers and riders. Company from the start point of its establishment has a lot of ups and downs which made them to upgrade modify their system and adapt to taxi industry. And surge pricing system is a quite fair for both consumer and customer in terms of pricing the trip. And Uber's driver-partners have earned roughly double times more per hour in some big cities of USA comparing to primitive taxi drivers or chauffeurs. As earnings are really attractive more people prefer to be as taxi driver, or making their part-time job. But surge pricing or flexibility is not only case that attracts drivers but its attitude to its customers no matter of their age, race and gender.

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