



UBER is a revolutionary ridesharing and chauffeuring service based on an app. It is quickly expanding, acts worldwide in 500 cities and can completely disrupt existing established taxi-services.

Problem description

UBER acts worldwide and offers taxi-like transport based on an App, with often superior service and lower prices than established taxi-services. It is a heavy disruptor, having replaced up to 50% of the incumbent taxi services within a few years in major cities across the globe.

UBER is a global company with lots of cash, large legal departments, strong marketing tools and great flexibility. When they start an operation in a city they normally start big and the disruption is massive. Often, traditional taxi services operate in a heavily regulated and protected market and the service is not very good. Uber often ignores or circumvents this protection and these rules but offers a superior service. They also provide a better image: digital, international, part of the sharing economy, easy to use, customer care via smartphone – goodies, incentives, information. They operate in a bewildering variety of services: UberX, UberGo, UberTaxi, UberPop, UberPool and is constantly innovating with experimental services like UberChopper and UberFRESH. The traditional taxi services and city administrations are often overwhelmed and do not know how to react: should they welcome this entrepreneurial approach, should they protect the market, should they deregulate at least partly, how to deal with (sometimes even violent) protests, how to deal with UBER ignoring the law.

How does it work

Uber is a worldwide online transportation network company headquartered in San Francisco, California. It develops, markets and



operates the Uber mobile „app“, which allows consumers with smartphones to submit a trip request, which the software program then automatically sends to the Uber driver nearest to the consumer, alerting the driver to the location of the customer. The Uber app shows the approach of the vehicle on a smartphone-map, thus providing very exact information for the person waiting, while the driver already knows where the trip is going to. There are no cash transactions, as the Uber app automatically calculates the fare and transfers the payment to the driver. In principle, anybody with a car can become an Uber driver and does not have to conform to any taxi quality standards – only to standards set by Uber – and these can vary widely from city to city. Uber's pricing is centrally controlled through algorithms set by Uber and can thus flexibly react on market demand, the general market situation and even the traffic situation. So they can flexibly engage in a price war with competitors. In times of high demand prices may surge, but then also the offer surges as drivers have a higher incentive to offer rides. The surge pricing is so efficient that the waiting

time is almost always below 5 minutes, regardless of circumstances. Users of the app may rate drivers; in turn, drivers may rate users. This provides for even more customer loyalty. As of August 2016, the service was available in over 66 countries and 507 cities worldwide. The value of the company is estimated at 68 Billion Dollars (Sep. 2016), the yearly revenue for 2016 is estimated to be at least 4 Billion Dollars, almost 8 times as much as 2014. However, the company still makes huge losses, but as it raised so much capital, it can heavily invest in innovations and company development.

Benefits - and for whom they are

On short term, the benefit is definitely for the customer: a much better and smoother taxi-service is offered – easy to use, easy to pay, easy to manage. The perspective is further expansion of services from Uber that can seamlessly be used. No adaptation to other countries/cities necessary – the app is the same everywhere, where Uber operates. On a longer term, through ride-sharing as provided by UberPool, and more competition from Uber-like companies like Lyft or in China Didi Chuxing, the service could become ubiquitous: you simply pull out your smartphone and have a relatively cheap ride within minutes almost everywhere and almost anytime in the city.

It is an opportunity to break the monopoly of taxi-services established in many cities - that offer a bad service for high prices.

On short term, there are interesting new local job opportunities for drivers – they have very flexible work hours and can work on a part-time or full-time basis. Anybody having a driving license and a car can in principle apply (although this is limited by quality standards from Uber and often also by legal requirements).

Long term Uber provides a networked and ubiquitous transportation option as alternative to private car ownership. Ideally, people would no longer buy a car but instead use walking, cycling, public transport, carsharing and ridesharing. The ridesharing element would be provided by Uber (or other companies). If

efficiently organised, the potential for replacing car trips is enormous (an simulation of an extreme scenario the International Transport Forum showed a potential of 97% reduction of car trips).

Uber experiments with self driving cars (with a driver monitoring the trip and present to act in case the automated system cannot cope). It is an opportunity for cities to test this technology.

Uber also experiments with other innovations – like cooperations with bicycle couriers, with app-developers, even flight services – and because of their market power might be able to bring such innovation very quickly to cities.

Disadvantages, dangers

Long term Uber can reach a monopoly position (similar like Google, Amazon or Facebook in their markets) and in that way dictate the market: controlling customers, drivers, data from drivers and customers, sales, prices, innovations, dependent suppliers, cooperations with public transport and even to some extent legislation.

- Uber is an US-based company and a substantial part of the revenue will go overseas.
- Uber might kill traditional local taxi services.
- Uber might not conform to sustainability goals.

Stakeholder analysis - who are drivers, who are opponents

DRIVERS: in general, these are organisations interested in free markets and better customer service. However, in organisations like chambers of commerce the interests can be controversial: some want innovation, others want to protect vested interests like those of taxi companies.

OPPONENTS: these can be local taxi organisations that do not want competition, unions that want to protect drivers from contracts with little rights.

Legal framework

Most often the laws governing Uber activities are mostly on a national level, as they fall into general licensing, permission and labour rules and laws – as set for transport and taxi industry. Often some local regulation is in place.

When Uber comes to a city, they normally analyse the local legal framework to be prepared for possible adversity, but they usually do not ask for permission to operate if there is no explicit necessity. Institutions like unions, the chamber of commerce or the local guild or association of taxi companies monitor the situation and are usually the first to react.

Policy options for cities

Basically, there are four basic policy options for cities:

IGNORE: Largely let the market forces and the existing judicial system react on the introduction of Uber. Persons or institutions that have something against Uber are free to sue. On the market, other companies are left to react to the new competitor, possibly with better service, different prices, competing apps.

STOP: decrees or even design laws or as a city, sue Uber, all with the aim to stop them from acting in the city. This has not been very successful, as Uber flexibly reacts with different services, or by ignoring such decrees and paying the fines, or by appealing against a ruling.

REGULATE: Regulations can force Uber to use only licensed drivers – or perform proper background checks on drivers, or not treating drivers as independent contractors but as employees. It can make the operation more expensive for Uber and ease the competition with Taxi services somewhat.

ACCOMMODATE: Some cities (like Edmonton in Canada) have welcomed Uber as a new service, but have put some regulation in place to protect drivers from unfair contracts and consumers from dangers and unfair pricing – for example by defining ridehail services and

requiring commercial insurance. Thus, they create a fair playing field for taxi, ridehailing and similar services.

Who (in the city administration) has to deal with it

Usually the city administration is not approached, as the legal framework is mostly on a national level and as regulations for transport and taxi services are in place. In the city administration, it can be the department for economics that first has to deal with the situation (this was e.g. the case in Vienna – they developed an approach for air bnb and other players in the sharing economy as well). Similar as for transnational car operators like Car2go, Uber can be approached by the traffic department or other departments of the city in order to have regular talks, some amount of data exchange, some cooperation with the local public transport operator and to resolve possible regulation issues. Usually the chamber of commerce or the local union are the first to get active. The city is in the unusual situation that it does not really HAVE to act, as Uber is a commercial operation and basically based on an app and does not directly cost the city anything. But as Uber has a large impact and grows very swiftly, it is advisable for the traffic department of a city to not totally ignore the situation and instead have a more proactive approach by checking the situation, thinking through policy options and actively approaching Uber.

Good/bad practises (short examples)

In France, particularly in Paris, there were real “taxi-wars”, as Uber was perceived as taking away jobs from existing taxi services. Organised protests were widespread and nationwide and some turned violent involving riot police. UberPop was banned for some time, but the service was simply continued by Uber and other services like UberPool, UberX, UberGreen and UberVan were introduced as alternative. According to the taxi-union, revenues from regular taxi drivers have dropped by 30-40 percent.

LONDON: is actually a very good example – as it is a huge market in which Uber started very early (it was the 11th Uber city and the first in Europe) and has by now reached a dominant position. It started in 2012 as a luxury car service. It's main aim at the time was to get as many drivers as possible on the street to provide the customers with the feeling they have a well accessible service. It swiftly became very popular with drivers as Uber “burned cash” and simply paid drivers 25 pounds an hour regardless whether they were driving or not. It was easy money and swift expansion. Then, at a certain level, Uber started the UberX service: ride prices were lower than a typical “black cab” taxi. There was an organised, nationwide strike of traditional taxi drivers against Uber which was supercounterproductive: it got Uber a lot of publicity and increased the download of the app by 850%! Drivers got paid less but still substantially more than drivers for other services. As the Uber network got denser and denser, drivers got more and more customers per hour and less and less idle time. The average waiting time for customers is now 172 seconds, a driver has to decide to pick up the job within 15 seconds. Uber claims that drivers earn more though earning less per customer. Uber is still decreasing prices and increasing the density of the network – in their terminology – “liquidity”. The next step is that Uber introduced UberPool, in which rides can be shared with other customers. The optimum would then be that drivers drive almost all the time. The service has become fantastic – cheap, you have statistics over all your rides, only high rated drivers stay in the system – but the pressure on the drivers is rising relentlessly and Uber has already achieved market dominance – within just 4 years. (See: <https://www.theguardian.com/technology/2016/apr/27/how-uber-conquered-london> retrieved 8 Nov 2016)

Time frame

Once Uber becomes active in a city, they develop the operation quite fast – they can be on the street within a few months and take a sizeable share of the market within a few years. Thus, a city should be prepared so there is the option to act with similar speed.

Costs

Uber is a commercial service and thus does not cause any direct costs to the city – to the contrary, it can bring revenue in the form of taxes or license fees.

Open questions

As Uber is still very new, there are many open questions.

REGULATION: will there be a European or a national regulation for Uber?

COMPETITORS: Many competing services have developed, some fairly local, some global. They often have slightly different business models. In some markets there is a heavy price competition. Examples for competition are Lyft in the USA, Didi Chuxing in China, Grab in Southeast Asia and Ola in India. No real competition (except very local) has developed in Europe. The question is if this competitors will also try their luck in Europe or whether a strong European competitor will develop. Else Uber will almost have a monopoly.

THE PERPETUAL TRIP: will it become real? Uber envisages drivers on a never-ending chain of pick-ups and drop-offs – and call this the “Perpetual Trip”. With UberPool, they are on their way to achieve this. New York Uber drivers have seen their idle time per hour shrink from 36 minutes to 20 minutes within three years. This would revolutionise city transport and possibly cannibalise public transport as well as individual car transport and even bicycle and foot travel. The potential is there.

Possible future developments

SELF DRIVING: Uber is experimenting with self driving cars (there is still a driver onboard for emergencies and monitoring, but in principle the car is self driving) and constantly improves technology. The objective is clear: to eliminate the low reliability, limited hours and the cost factor of a human driver. It is the ideal technology for Uber. There might be heavy competition from other tech players like Google, Tesla and even Apple.

LOGISTICS: Uber is also experimenting in the logistics market with services like UberEATS – providing home delivery of food from restaurants – simply ordered with the app. In a test-phase in a few cities there is also UberCargo – expanding the market to goods transport.

FLYING: Most extreme is a concept only made public in October 2016: UberElevate. Within five years, Uber plans to introduce a fully electric, vertical-takeoff-and-landing plane that can fly 150 kms at about 240 km/h, carrying multiple passengers and a pilot. Utopian? Maybe. But Uber plans an IPO and with possibly 60 Billion in cash you can do a lot of things.

BIG DATA: Uber collects an enormous amount of data on city travel, city transport and driver and customer behaviour. It is as of yet unclear what it will do with that beyond optimizing its own services. Looking at the development of Uber in the short time of its existence since 2009, it can be expected that these data will be used, maybe for very unorthodox and unexpected purposes.

How and where does it fit in a SUMP

Uber (and similar services) have a huge potential and can impact a city in the timespan of a few years. So far, Uber focuses on large cities. In Europe (including Russia) as of November 2016, it is present in almost 100 cities – the smallest of which have about 400.000 inhabitants. Therefore, cities with more than 100.000 inhabitants should be prepared.

Good taxi services and carsharing can replace car ownership. Uber is potentially a new form of transportation as a hybrid between carsharing and taxi. With driverless cars, these services essentially become identical. To accommodate and to be prepared for this innovation, cities need to look into the laws and regulations regulating all these transportation modes and be prepared to modify and adapt them. Cities need to work out scenarios on how Uber could impact city travel and how it could be controlled and channeled. Cities could set specific goals for such services: such as number of drivers, density of their network, marketing, co-

operation with public transport. It would make sense to invite stakeholder to discuss their interests, worries, hopes.

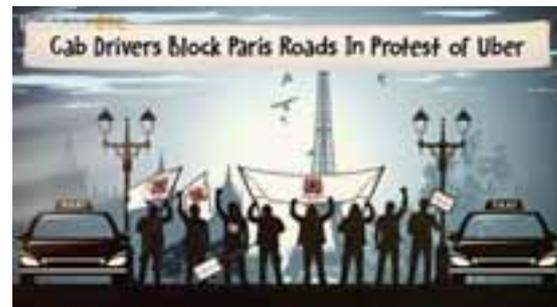
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Final note: the name “UBER” comes from the German über (meaning “over” or “beyond” depending on context) and is a slang word in American English meaning “hyper-“ or “super-“.

Pictures: Uber inc. and BidnessEtc.

www.sump-network.eu

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CIVITAS PROSPERITY has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement N° 690636.

