The rise of Uber
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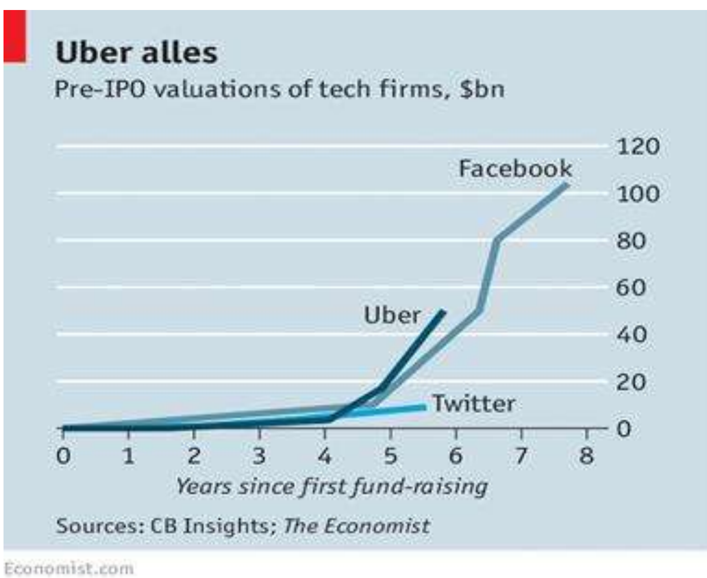
In an earlier article, I covered the key issues involved in designing, building and running digital platforms. In this write up, I examine in more detail, Uber, one of the most successful digital platforms in the world today. The write up draws heavily from a recent cover story on Uber in The Economist.

Introduction

Founded in 2009, Uber is now the world's most valuable startup, worth around $70 billion. Its services are consumed by some 30 million monthly users in more than 425 cities in 72 countries around the world. In 2016, Uber will generate around $4 billion in net revenues, more than double the figure in 2015. Uber wants to make cab hiring so cheap and convenient that people may over time give up car ownership altogether. The $100-billion-a-year taxi business is just the start. Uber has its eye on the far bigger market for personal transport, estimated to be $10 trillion a year globally.



The evolution of Uber

Uber was not the first firm to recognize the potential of peer-to-peer ride-sharing. Sidecar, a failed startup in San Francisco, got the ball rolling. Lyft came next. But it was Uber's founder, Travis Kalanick who combined visionary thinking with fast execution to move ahead of the pack. Kalanick realized the importance of funding and increased the initial momentum he achieved by raising a lot of capital. Uber's huge cash pile now acts as a formidable barrier to new entrants. And even with $9 billion, Kalanick may well raise more money because that is what is needed to fight competitors and occasionally acquire them. Since the launch of its first smartphone app, UberCab, in 2010, the startup has attracted $18 billion in equity and debt. No tech company has mobilized a larger amount of money than Uber before going public.

Uber is not Kalanick' s first venture. Scour, a file sharing company went bankrupt in 2000 while Kalanick sold his second start up to Akamai for a small amount of $ 15 mn. These experiences have shaped Kalanick' s thinking and made him details oriented and intensely involved in the affairs of Uber. It has also been reported that Kalanick solicits brutally honest feedback from his colleagues and acts upon it quickly. According to a senior exec in Uber, Kalanick "changes himself faster than we can change our algorithms."

Just like Amazon, Uber has tremendous potential to grow. That probably explains the high valuation. For example, today ride-hailing accounts for less than 4% of all kilometers driven globally, but that is expected to more than 25% by 2030. Moreover, In India, South-East Asia and Latin America, penetration of car ownership is low. Just as consumers in emerging markets bypassed the desktop and went straight to mobile devices, they might bypass car ownership and move around using cabs instead.

In many cities, Uber is trying to persuade people to use its carpooling service instead of public transport. People in San Francisco can use UberPool to go anywhere in the city for a mere $7 (2015 data.). Over time, Uber hopes to become so popular and ubiquitous that residents of many cities will give up their cars and all the associated costs and challenges of parking, maintenance, insurance, etc.

Like Amazon, Uber is trying to emerge as a market place with plans to expand its range of services like food delivery and long distance cargo haulage. Just like Google, Uber too has grand ambitions. If Google's mission is to organize all the world's information, Uber's is to offer "transportation as reliable as running water, everywhere for everyone".

Uber and the disruption of the taxi market

The rise of Uber is an excellent example of how technology can disrupt markets, where the incumbent players take customers for a "ride". Taxi markets have long needed a shake-up. We would think that all that one needed to become a cab driver was a car and a driving license. A regular entry of new drivers would help keep cab fares close to costs and make it a perfectly competitive market. (As we learnt in Micro economics 101, in such a market, competition eliminates the scope to make any profit beyond the opportunity cost of the resources deployed.)

But the reality has been quite different. Regulation and archaic laws have gone a long way in protecting incumbents and giving a raw deal to consumers. For example, in New York, a pair of taxi medallions sold at a 2013 auction for $2.5m. Many other cities have similar schemes. In London, another global city well known for its cabs, a test of familiarity with the city's streets (which GPS has made largely if not completely redundant) can take new drivers four years to complete. So many taxi markets have ended up as cozy places for operators, with cabs in short supply and supernormal profits for the vehicle owners. At the same time, potential entrants are virtually shut out of the market.

Uber has tried to change all this. Customers can call drivers using their smartphones. Customers enjoy using the app and many find it much cooler than standing on the road and waving for a cab. Consumers also like Uber because it is in general cheaper than conventional taxis, clean and reliable. UberX lets drivers offer rides to passengers using its app. This service now accounts for the bulk of the firm's revenues. The company also offers an UberPool service that allows several passengers travelling in the same direction to share a ride. On the supply side, Uber does not need to own a car and can access a large number from its pool of registered drivers. Uber typically takes a 25% cut on a ride. Moreover, Uber's freelance drivers (who typically pay it around 20% of their fares) enjoy flexible working hours and do not have to struggle to qualify as a conventional cabbie.

Uber's business model is predicated on matching supply with demand in real time. Most of the time, Uber's prices are cheaper than a street-hailed cab. But when demand spikes, the surge prices kick in and these can be even 7 times the normal rate. Though surge pricing has attracted a lot of criticism from governments and regulatory bodies, not to talk about customers at the receiving end, Uber claims it is needed to increase supply to cope with the rising demand during peak hours, rains, etc. The surge prices motivate taxi drivers (who would have otherwise have taken it easy and stayed at home) to come on to the roads. This way, Uber tries to ensure that customers can always get a car quickly, even if it sometimes costs a bit more.

Leveraging the platform

Uber is less of a taxi provider and more of a market place. Indeed, the company is emerging as a case study in how to construct a platform on top of which a range of businesses can be built. As it arrives in a city, it launches a vigorous recruiting programme for drivers, offering them incentives to sign up. And as it locks up the market, Uber can use the same app or a variation to offer those customers a range of other services.

Uber has begun experimenting with local delivery services. In 2015, the firm's lunch-delivery service, UberEATS was running in top cities like Toronto, Chicago, Los Angeles, New York and

Barcelona. New Yorkers can call up a cycle-courier service on their Uber apps. In Washington, DC they can order household supplies for rapid delivery. The company is reported to be in talks to set up same-day delivery for various retailers in America. The possibility of Uber entering Postal services and logistics also cannot be ruled out. Uber has been described as “FedEx and Hertz combined” by a venture capitalist, Max Levchin, a founder of PayPal and an investor in Uber.

Analytics gives Uber a tremendous competitive advantage. Data about customers enables Uber to know how to attract them. Like Apple, Uber keeps its users’ credit cards on file for seamless payment, which also makes it easy to sell new services to them.

Looking ahead

Uber looks well positioned today in the personal transportation market but these are still early days. Uber has to address various concerns as it strives to maintain its lead.

To start with, it is too early to write off Uber’s competitors. Uber’s experience in China is a cautionary tale. After a bruising war with local rival Didi Chuxing, Uber has finally called it quits recently and decided to merge its China business with Didi. In short, Didi proved a far nimbler innovator than Uber.

Didi used its early presence in the market to establish its operating platform on a large scale. It started with taxi-hailing, not chauffeur-driven cars, which helped it win over taxi drivers and local politicians. Then Didi added bus-hailing and car-pooling and other inventive offerings. And it was able to integrate its service early on with WeChat, China’s incredibly popular messaging application, owned by Tencent, a Chinese online gaming and social media firm. (Incredible is actually a mild word. During a Chinese New Year Eve TV show last year, the app was used 11 billion times. In one minute, as many as 810 million people used the app. By way of comparison, during the announcement of the JEE results on June 12, this year, one of our premier technological institutions, IIT Guwahati could not handle a traffic of even a few thousand per minute! The JEE website was down for about 9 hours. Just goes to show that even in the tech world, the Chinese are moving ahead of us by leaps and bounds.)

In contrast, Uber used Google maps, which do not work well in China, for too long before switching to a local service. Uber also erred by offering a credit-card-based payment system even though such cards are not widely used in China. The Chinese prefer to transact using WeChat. And to complicate matters, WeChat, whose owner, Tencent, is an investor in Didi, at times blocked Uber from WeChat, hurting Uber’s business further. To complete the story, Uber took 5 years to log a cumulative 1 billion rides while Didi managed 1.4 billion rides in 2015 alone, just in China!

Uber's battle with Didi may be over. Assuming Didi and Uber have decided to spilt the global market between themselves into China and Rest of the world, the question now is can Uber defend itself against rivals such as Lyft in America, Ola in India and Grab in South-East Asia?

Uber has boldly entered many countries without worrying about regulation. But now many governments are examining the key question: Are the drivers who work for Uber in fact freelancers or should they be treated as employees? This would have significant implications for Uber's lean cost structure. Some governments are also concerned about whether Uber properly protects passengers by doing background checks on drivers. Last but not the least, some governments are sympathetic to local taxi monopolies. (A few months back, when the government of Delhi imposed restrictions on surge pricing, what else was it doing? Delhi's taxi drivers are among the most notorious in the world. They practise surge pricing, with consummate ease throughout the day!)

Most of Uber's bookings are generated in just 20 cities. Many potentially lucrative urban areas in countries including Germany, Italy and Spain are out of reach for the time being because of regulatory problems. It is not clear how soon and how favorably these will be resolved, if at all. Fortunately for Uber, some competition authorities do see Uber in a positive light, because it provides more transport options to people in cities. Uber is also betting that its popularity among both passengers and drivers will overcome various objections from local governments and regulators. But when Uber puts many taxi companies out of business and becomes an essential part of a city's infrastructure, there will be calls to regulate it more strongly. Those calls will get louder when Uber starts to focus less on boosting revenues and more on generating profits.

Many drivers like to work with Uber as they are assured of customers and also enjoy the flexibility of working as per their convenience. But Uber's relationship with its drivers cannot be taken for granted. Drivers in California, Massachusetts and New York have sued the company, claiming that they are employees, not freelancers, and are thus entitled to benefits. A judge in California recently allowed one of these cases to proceed, creating fresh uncertainty over Uber's financial obligations. Some drivers say that once they cover expenses, they make less than the minimum wage.

In the longer term, autonomous vehicles constitute the biggest threat to Uber's business model. Google is testing autonomous cars in Mountain View. A startup called nuTonomy recently launched a self-driving taxi service in Singapore. Tesla's electric cars are well equipped with driver-assistance technology. SoftBank is launching driverless buses in Japan. (As buses typically follow a pre-determined route, they seem to need less artificial intelligence compared to cabs.) A ride-hailing business which depends on human drivers cannot compete on roads full of driverless cars. But this existential threat is bringing a sense of urgency into Uber. (A similar thing happened to Facebook at the time of its IPO as it did not have a strong presence in mobile. Facebook made the transition quickly. That transition in itself is a remarkable story. As Bloomberg reported, early in 2012, Zuckerberg called an all-hands meeting and declared that the company would be "mobile first." He then reinforced that focus by unceremoniously ending any meeting where employees began their presentations talking about computers rather than smartphones.) Uber itself is about to launch driverless car rides in Pittsburgh. (though a human will be on hand to take back the wheel if needed). But even if Uber succeeds in the world of driverless cars, that world would be different from matching customers with drivers. In a driverless world, Uber might also have to own and operate its own fleet, undermining its "asset-light" model and eroding margins in a big way. That is because in that world, the competition may expand to include carmakers like GM, Ford and Tesla as well as tech companies like Google and Apple—which have plenty of cash to spend on fleets, if they want to. If the fleet model proves the way to go, Uber would have to give up its asset-light approach and join in. The shift to autonomous cars may also lead to a backlash from Uber's drivers.

In recent years, global business has come to be dominated by a small number of tech giants-Google in search, Facebook in social networking, Apple in personal communication and entertainment, Amazon/Alibaba in retail. Can Uber join this elite group?