

Rise of Shared economies in International Trade: A case study of Uber

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Introduction

This paper discusses the rise of International service trade providers established on new models of Shared economy through a case study of Uber- a global mobility service provider based out of San Francisco. The paper seeks to explain the theoretical models peer to peer platforms like uber are based on and how they are expanding their business globally. We look at how such platforms face little to no trade barriers facilitating smooth low cost setup and huge opportunities to generate economies of scale. The paper explains the role of uber as a digital intermediary that connects drivers to potential customers and charges a commission fee for facilitating this transaction. The paper argues that such facilitation creates new markets in transport industry challenging the traditional setups and improving welfare for customers. Platforms like uber have successfully increased levels of employment for the countries they operate in and their domestication provides opportunities for multiple social classes. However, the paper also argues that these benefits of sharing economy come at the cost of loss traditional taxi markets and decreased markups for drivers operating in the industry. We further argue that misclassification of uber drivers as independent contractors and arbitrary practices that have been in effect legally unchallenged probes larger problems for shared economy in the long run. The rise of shared economies can only sustain in the long term if policies are implemented to regulate such platforms.

Literature Review

Services make up at least 60 percent of world production but technically account for only 20 percent of world trade in numbers(Freund 1).Moreover, the share of services goes up to 50% or more if estimated in terms of direct and indirect involvement in value chains during processing of final goods for export(Hubert 5), in terms of sales added by foreign affiliates of multinational firms:\$1.5trillion(WTO 2009) or in joint venture businesses. The reasons for such differences are two fold- Primarily, traditional international trade economics assumed(asserted) that services were predominantly non tradable as many services necessitated physical proximity and Secondly, there is very little data available on services in general given the difficulties in measuring a service.¹ Essentially the only way to measure services was through a balance of payments approach excluding transactions on services of any form induced by Multinational enterprises externally or to increase productivity(Rugman 2).

With the internet boom of the 1990s, the first problem resolved providing a medium of exchange that overcame traditional barriers and incentivised offshoring: Non-traded services became tradeable, new services entered the international transactions and ideas about trade in services notably transformed(Nayyar 4). However, the second problem(measurement concerns) compounded with the rise of peer to peer networks or disembodied systems that attempted to create new market models under shared economies. Shared economy roughly defined “is a set of techniques and practices that facilitate transactions between strangers on a digital platform”(Caro 12). Shared economy is not necessarily a spontaneous concept, it dates back to carpools of the 1950s, Amway in the 1970s or even public self service laundries in the west. However, what's intriguing is the fact that the shared economy in the recent dialogue has in effect taken a form of disruptive force to established market players using technology and a leverage in favour of smaller players. Ironically, these same shared economies are being run by multibillion dollar corporations on a global scale and in turn generate markups from “a shared space”.

The rise of shared peer-to-peer platforms raise many fundamental questions on a policy level or their welfare elasticity and effect on traditional trade setup. While the sharing economy rhetoric

¹ For the purposes of analysis in this paper, definition of trade in service has been limited to all transactions excluding merchandise trade and private transfers.

and its effects has so far been very contentious in the literature, certain features of shared economies are common across industries and in the next sections we would examine them through a case study of Uber.

Theoretical framework

After the Great depression in the 1930s and the second world war, every fourth American was unemployed raising the demand for low skill and low barriers to entry jobs(education thresholds). Significant cost reductions in automobile manufacturing coupled with high unemployment rates led to an oversupply of taxis and comparably no demand for those taxis to cater(Tucker 8). With little scope for extracting surplus value or managerial control for employers beyond telephonic booths, economies of scale were not available. The Haas Act was passed in 1937 by the New York city council that limited the number of hack licenses- medallions- to roughly 17,000 allowing license holders to gain an economic rent which would otherwise be subdued by competition(Gelder 2). Moreover, as licenses were dispersed among individuals or small firms, it was anticipated that the rents would be shared and price regulation would protect customers too- a win-win for both taxi operators and customers. However, as the cost of entry for obtaining licenses and regulations imposed by the state for taxis increased, market imperfections inflated the prices and prompted problems of moral hazard and sabotage by middlemen/brokers. A lot of these issues independently continue till date specific to their regions.

This traditional setup does not:

- Operate on any economies of scale: With huge barriers to entry and no reductions in marginal costs, there was no external or internal economies of scale possible.
- On any theoretical international trade models: As cab services were heavily localised, there was no scope for explanation in terms of Ricardian or standard trade model to be even used.
- A fixed rent structure: Rents demanded were mostly driven by prices set by taxi unions and could be arbitrarily changed as decided by the unions.

Things changed when Uber was founded in 2009 as a matching on-Demand service platform that would help potential passengers to request the nearest available uber ride with a fixed cost structure calculated on a very specific parametric system. Uber neither owns the cabs nor the drivers are classified as uber employees. Uber argues that it is a technology company and not a transport service provider. In order to understand how uber generates its revenues or its business model, we must look at how the platform works:

The mobile app asks for the registration of the user through their phone number. The user must enter her preferred destination and the type of cab she wants to book: small, sedan, bike, auto etc. Thereafter, the estimated price and the waiting time is displayed on the screen and she gets to confirm the cab. Once the journey is complete, the user must either pay in cash or through netbanking and rate the driver. The driver in turn must also rate the user on a scale of one to five. From the payment made by the user, Uber autodebits 20% of the payment as its commission fee. Other costs such as fuel, maintenance, taxes etc are borne by the driver.

Importantly, uber does not operate as a traditional firm. In the literature, production function for a firm has inputs capital and labour with both having diminishing marginal returns. However, uber neither uses any capital for its business operations nor labour. It simply acts as an intermediary providing access to those who require a service from those who own that service. Equation 1 denotes a simple formulation of production function of uber. This function can be expanded to other peer to peer platforms such as airbnb, bookmyshow and so on.

$$Production f_n = F(T, A)$$

Where T stands for technology and A is Access. Technology as an input is used to setup the platform, regulate the drivers and for running other business activities. The returns to technology in this case are diminishing as the costs of imitation are low and the returns to every new user added decreases with the increase in expenditure on technology.

Access on the other hand, works as a source of resource to get as many customers on board. The more the number of active users, more will be the number of cabs booked and higher revenue

generated. Expenditure on access could be through marketing, advertisements, domestication in the country the platform is working in or through expansion in the service provided.

Based on the above inputs, it is possible to generate economies of scale but through channels unlike what literature in trade suggests. Marginal cost for uber does not decrease with every new user added but it becomes stagnant after a threshold number of users is crossed. Furthermore, as the first entrant it also enjoys profits on innovation and enough time to get maximum share in the market. Being a monopolist, it can then set prices to compete with other companies who come up with similar platforms. There is little scope for comparative advantage between multiple platforms in a shared economy because as the requirements of the consumers evolve, platforms would accommodate them given that the costs of adding new features are minimal and flexible.

However, if we consider the drivers, they can be analysed as independent firms or micro-entrepreneurs. They operate as traditional models of firm productivity with units being capital and labour.

Being an independent digital platform, Uber does not have to pay any tariffs or custom check taxes to the government of the country it operates in eliminating any traditional trade barrier that may hinder its growth. Cost of commercial licenses, car maintenance, state regulation etc are all paid by the drivers or “contractors”.

Winners and losers in a shared economy

Customers

Customers are the obvious winners in a shared economy as the advantages it presents are two fold:

Firstly, prices available on uber or any peer to peer platform are comparatively lesser compared to those demanded by taxis run traditionally. Secondly, the ease of just finding, choosing and booking a cab makes the whole process much more convenient than provided by the traditional setup. It provides for a level playing field for consumers *at least on paper*, where charges are based on simply how far one travels and how many cars are available.

Legacy/Traditional Market

The traditional market of taxis that do not operate through any digital platform but rather through agencies and commission agents took a huge blow when Uber entered the market. With reduced prices, easy access to customers and inflow of large number of new cars, the profits were redistributed. While as the literature suggests, entry of new players should lead to better quality and a positive effect on prices, the effects were observed only on the latter.(Calo 21) . Changing consumer expectations, lower prices, more players and surging regulations costs all have led to traditional travel taxis being the biggest losers in a shared economy. One might argue that given the comparative advantage of riding an uber compared to a traditional taxi, there should be mobility of drivers between the two markets. While there is little evidence of the movement happening so far, I argue that there would be following obstacles:

- Uber sets a considerable control on quality and standards: There are only certain cars that are eligible to be uber cabs. For instance, to maintain quality there should be no cosmetic damage, car should be 15 years or younger, no commercial branding, should not have been a rental and so on.(Helling 2) While these measures are definitely necessary for a good business to flourish, a lot of drivers fail to meet the standards and thus cannot change companies quickly.
- Hindrance of technology: Given the large income gaps and car driving being a low skilled job, most of the drivers find themselves inconfident to operate the app or new GPS systems. While the transition is happening very quickly, it would still take a lot of time for a large population of drivers to get used to new forms of technology.
- Shift from a full time job to part time 'gig' work: While shifting to a more flexible model of working with the independence to choose own timings to work and rest seems definitely alluring and superficially welfare improving, half of the uber drivers leave their job within a year(Frizzell 1). One third of the people only work as uber drivers as part time to earn that extra income before they find a stable full time job. With more number of people offering services to drive cars part time, incomes of drivers who work full time gets affected thereby leading to a supply inflow and unchanging demand. As Uber offers

lower compensation per km, shifting from a full time work to a part time job seems disinsentivising.

Domestic competition-Ola

While Uber continues to hold a monopoly position around the world, it also faces domestic players as competitors in almost every continent such as Lyft, curb, cabify and so on. In India, Uber's main competitor Ola was launched in 2010 and subsequently has recorded over 1.5 billion rides on its app. While there is little empirical evidence so far on which company dominates the market, the price structure, commissions and services offered are pretty much similar. Furthermore, as both companies categorize their drivers as independent contractors, there is no conflict between the companies if one driver chooses to drive for both. Moreover, in the recent times a lot of drivers do use both uber and ola apps to earn revenues and customers keep both apps installed for convenient availability. Thus, there is little evidence to suggest that domestic competition would lead to diminishing importance for uber or uber's entry into the market prohibit ola from making profits. Furthermore, due to the sharing economy model presence of both the companies would be rather welfare improving.

Domestication of uber

Uber traditionally was only a cab hailing service platform providing only cars. However, given its competition with ola and local auto drivers, other peer to peer platforms like swiggy and zomato, uber expanded into business to fit local needs. As auto rickshaws and hand-pulled rickshaws were the cheapest options and considerably popular among the indian middle class, uber also launched uber auto and uber mini. With prices significantly lower than those charged for a sedan car service, it was able to attract more consumers. In response to bike hailing service rapido, uber launched uber bikes for quick and cheapest modes of transportation for customers. Furthermore, uber eats was launched to compete with swiggy and zomato in food delivery. While domestication of uber significantly helped the customers and generated new modes of

employment for drivers who could not afford a car, rickshaw pullers were the first losers and the most affected by this change.

Externalities

- Pollution:

Growing evidence suggests that Uber does more damage to the environment than the cars it replaces (source). According to the federal vehicle efficiency statistics, the ride hailing industry, dominated by Uber, has increased the pollution rates by 69% compared to the non-ride-hailing system (source). The data was acquired by studying traditional private transportation trips and Uber trips, concluding that less than 15% of Uber rides are “pooled” or shared by different customers. Rest of the rides, that are solo-trips, produce more than 47% of carbon emissions as compared to private vehicles (source).

Another contributing factor to this is that a significant portion of time Uber rides spend is “deadheading”, resulting in constant CO2 emission without any passenger (source). Moreover, since deadheading provides quicker reach to its customers, it also reduces opportunities for alternatives such as walking, cycling or using public transportation.

- Cultural effects:

The Institute for Work and Health indicates that Uber drivers have high risks of mental and physical health which are different from traditional taxi drivers (Bartel 3). Both these groups share biopsychological problems such as; working alone for long periods (including night duty), sitting at the same spot and not being able to exercise, inaccessibility of food or washroom facilities or being subject to physical abuse from their customers (Rahman 8). Compounding this, Uber drivers have reportedly marked higher rates of stress and anxiety. Reasons include; the fear of negative rating from customers that will result in a pay-cut, penalties for arguing or declining passenger requests, and the strain of driving and operating a navigation system at the same time (Bartel 4).

- Safety

Carpooling can be extremely beneficial from the environmental perspective, however, women have a high proclivity to not opt for it (Sbarouni 3). This issue arises from the safety and security concerns, and it is one of the key areas that have to be addressed to increase the usage of ride-sharing. A study conducted in India and Bangladesh revealed possible theories for these

outcomes. Unemployed women prefer to not opt for ride-sharing because of their poor exposure to such facilities, and have an inherent lack of trust in such applications. The larger population of young women fear being victimized; and this fear is enforced by real-time cases of harassment that have been reported in both rural and urban areas (Sbarouni 4).

- Moral hazard and discrimination

Evidence suggests that Uber surges its prices when the demand for availing rides soars in a concentrated area. The company explains that this situation occurs when there is a scarcity of cars, and to prevent more drivers from clustering at the same place, they have to increase their price. I argue that this is unfair to users and a better option would be to develop a first-come-first-serve mechanism. Secondly, Uber reportedly charges luxury phone users like iPhone more, as compared to other phones users, and additionally hikes the price when it detects lower battery of the user (Minchin 49). Though these policies are highly debated, however, with regards to the mobile battery discrimination, I infer it as an unethical approach to exploit the user's vulnerability. Finally, multiple scholars consider Uber's rating system to be discriminatory due to its rating "parameters" (42). The mechanism is considered so "abstruse" which enables prejudice against the drivers (47). This includes the possibility of reviewing on the basis of a driver's color, surname, physical appearance or religion. Lower ratings and poor feedback later compounds to lesser rides and poorer wages.

Wider Policy Implications

Debates around regulating shared economy is not new but it has taken a central stage only in the recent due to its exponential growth after Covid-19. The central problem in the shared economy is classification of workers. As platforms usually categorise their employees only as independent contractors, any form of legal frameworks to protect workers rights become irrelevant. Furthermore, platforms are in no way legally bound to pay any remittances or allow drivers to set their compensation rates as prices and fares are generated through algorithms suited to maximise uber's markups. With so much control over its drivers, data of potential customers and no legal

authority to hold such platforms accountable, sharing economies not only become monopolies in their own right but also open a gateway to exploitation of its customers and workers in the long run.

The first step to regulate such firms would be to fundamentally change the way we look at firms and amend laws that define service provided based on a particular producer. In the case of Uber, categorisation of Uber from only “a digital platform” to “a cab service provider operating through a digital provider” will go a long way in improving welfare of workers and drivers that have so far been classified as independent contractors. Furthermore, to regulate such platforms and make a more level playing field with legacy markets for cabs, they should be regulated and charged licensing fees. This would help governments to keep quality checks on vehicles. Canada at provincial level in Alberta passed Traffic Safety Amendment Act, 2016 which created an administrative penalty upto \$50,000 on a transportation network company if it violated any legislation with the burden of inspection on the companies itself. (Geist p.10)

Conclusion

This paper evaluated the framework under which a shared economy works internationally through the case study of uber. We tried to understand the framework under which shared economies expand and how they cross traditional trading barriers to create new markets that challenge orthodox way of trading services. We also saw winners and losers in such economies, externalities they pose and a wider need to regulate such markets.

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