The Sharing Economy and the "Uberization" Phenomenon: What Impacts on the Economy in General and for the Delivery Operators in Particular?

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1 Introduction

The word "Uberization" comes from a service developed by the firm Uber, founded in San Francisco in 2009, active in 59 countries and more than 200 cities worldwide and valued at $62.5 billion at the end of 2015. The service UberPop allows ordinary people, without any taxi license, to behave as taxi-drivers carrying passengers with their personal car (Griffin 2014; Areblad 2015).

Today "Uberization" has become common language and refers to the substitution of intermediated relationships with direct exchanges between service providers and users who interact on Internet platforms (Oram 2001; Sundararajan 2014). These online platforms provide a peer-to-peer marketplace for regular people to trade directly with each other in many sectors such as accommodation (Airbnb, HomeAway), car rental (RelayRides, Getaround), transportation by car (Uber, Lyft), Do It Yourself (1000tools.com, SnapGoods) and so on.

Postal operators cannot avoid this phenomenon. Many startups are developing an Uber-like business model on the last mile delivery segment. The two giants in the B2C e-commerce sector, Google and Amazon, are also developing their Uber-like delivery services, respectively Google Express and Amazon Flex Service. Uber itself is now targeting the transport of goods in addition to the transport of passengers.

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The aim of this chapter is to better understand the Uberization phenomenon, its impact on the economy in general and on parcel delivery sector in particular. In Sect. 2, the Uberization concept is defined, its link with the sharing economy and its drivers discussed. Then the benefits and the concerns raised by the sharing economy are discussed in Sect. 3 before giving an overview of the current debate over whether the sharing economy needs to be regulated in Sect. 4. Section 5 concludes.

2 The Uberization Phenomenon, Its Link with the Sharing Economy and Its Drivers

2.1 Uber, a Firm Belonging to the "Sharing Economy"?

The Uberization phenomenon has been portrayed by its supporters as an example of the "sharing economy" which encompasses under-used assets such as goods and services that are shared or exchanged for both monetary and nonmonetary benefit. The firm Uber itself defines its offer not as a taxi service but as a car sharing transportation service (Areblad 2015). In the same spirit, Airbnb defines itself as "a social website that connects people who have space to spare with those who are looking for a place to stay".

To its detractors, Uber distorts the original spirit of the sharing economy based on gift, reciprocity, exchanges rather than sales, and non-profit transactions.[1] Belk (2014) talked about "pseudo-sharing" practices, "a wolf-in-sheep's-clothing phenomenon"; Kalamar (2013) denounced practices of "sharewashing" (like "greenwashing" practices).

According to Sundararajan (2014), the phrase 'sharing economy' creates a misconception about these platforms and the businesses they enable. Although some may effectively facilitate sharing, they are typically not organized like food cooperatives or farmer collectives and do not fit with the functional economy as defined by Stahel (1997) or the gift economy (Cheal 1988).[2] Rather, they are grounded in simple free enterprise, individual property rights, external financing, trade-for-profit, market-based prices, and new opportunities for exchange. As emphasized by Geron (2013), "the concept of sharing has created new markets from things that were not previously considered as monetizable" and has converted informal peer activities into businesses. Nevertheless, the sharing economy is considered in its broadest sense in the remaining of this chapter.

[1]The pioneers of collaborative consumption criticized the wasteful character of consumerism in a world with limited resources and emphasized the social dimension of the sharing economy (Caillé 2013; Botsman and Rogers 2011).

[2]The functional economy seeks to optimize the use of goods and services and thus the management of existing wealth. The gift economy is based on exchanges where valuables are not traded or sold, but rather given without an explicit agreement for immediate or future rewards.

2.2 A Growing Phenomenon Which Spares no Economic Sector

Recent developments in technology and the development of the Internet have made it possible for individuals to do business and exchange content online with other private individuals, instead of having to trade with a traditional company as a middle hand as in traditional 'business-to-consumer' (B2C) commerce (Yu et al. 2004), at a scale without precedent. Placing the capabilities of these new digital technologies in the hands of millions of consumers has created the possibility of digitally intermediated peer-to-peer business. This is reinforced by the parallel development of social networks that have encouraged the development of relationships and interactions between specific communities.

In 2013, 44 percent of US consumers were familiar with the notion of the sharing economy, and 19 percent of the total US adult population had engaged in a sharing economy transaction (PwC 2015). In 2014, 89 percent of French people had already taken part in at least one practice of "collaborative consumption" (DGE 2015).[3] According to the Future of Privacy Forum, a Washington DC based think tank, the total value of the sharing economy in 2013 was estimated to $26 billion worldwide and could reach $110 billion in the coming years. Lilico and Sinclair (2016) estimated that around half of the final consumption of EU 28 households is in markets amenable to sharing-economy business models.[4]

Many traditional sectors and industries are disrupted by sharing practices. According to PwC (2015), the five key sharing sectors are the automotive industry or, more generally, the mobility industry, the retail and consumer goods industry, the accommodation sector, and the entertainment, media and communications sector. Sharing practices in these sectors have the potential to grow from roughly $15 billion in global revenues today to around $335 billion by 2025.

As many other economic activities, "the last mile [delivery sector] is under attack" (Accenture 2015). Many start-ups are entering the market of last-mile delivery of goods with an 'asset-light' business model. Among disruptors in the last-mile delivery sector, one can cite companies such as Postmates, Deliv, LaserShip, OnTrac, Roadie, Kanga who are operating in US cities, EasyVan, GoGoVan in Hong Kong, Delivery in India, Renren Kuaidi in China, Colisweb, Colivoiturage, Colismalin, Stuart, TokTokTok, Deliver.ee, Drivoo and Bring4You in France, PiggyBaggy in Finland and Nimber in Norway. Even Uber with UberRush and UberCargo (recently rebranded UberVan), Google with Google

[3] Rachel Botsman defined the "collaborative consumption" as an economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership. It is reinventing not just what we consume but how we consume (http://www.collaborativeconsumption.com/2013/11/22/the-sharing-economy-lacks-a-shared-definition/).

[4] They define the sharing economy as "the use of digital platforms or portals to reduce the scale for viable hiring transactions or viable participation in consumer hiring markets (i.e. 'sharing' in the sense of hiring an asset) and thereby reduce the extent to which assets are under-utilized".

Express and Amazon with FlexService are entering the market, a proof of the business opportunities offered by this activity.

A growing segment of on-demand delivery logistics is the Same Day delivery market, a segment until today served by express and courier operators. According to Gonzales (2014), about $100 million of merchandise was ordered via Same Day delivery in 2014 in 20 US cities, generating about $20 million in shipping fees. He predicted that by 2018, $4 billion of merchandise will be ordered via Same Day delivery, generating a little over $1 billion in shipping fees. According to the US Same Day couriers' trade association CLDA (Customised Logistics and Delivery Association) cited by Milt (2015), the Same Day market is worth $8.7 billion. Another specific niche targeted by disruptors is the meal and fresh food delivery service market, valued at $90 billion by 2019 (16 percent of food service global market) according to Rocket Internet (2015). Pioneers on this segment of activity (Foodora, Citycake, Resto-In) are now competing with Uber and its service UberEats already operational in Los Angeles, Chicago, New York, Austin, San Francisco, Seattle, Washington, Toronto, Barcelona and Paris.

2.3 The Drivers of This Growth

Along with the development of Internet, Sundararajan (2014) listed three other key factors that have led to the growth of the sharing economy at an unprecedented scale. The emergence of digital technology-based platforms that facilitate economic exchange, and of online or mobile payment systems that allow individuals to achieve peer-to-peer economic transactions, is the first of these factors. Urbanization and globalization is another. Cities have always been a place of interaction between people due to their proximity and a place of exchanges of goods through marketplaces and a place of shared use of infrastructure and services like healthcare, libraries, and public transport. The growth of the world population and the increasing concentration of people in cities both create new needs (for example in terms of mobility) and facilitate production of local services, which are at the heart of the sharing economy. Last but not least, according to Sundararajan, the development of the sharing economy is driven by ecological considerations people's desire to choose 'asset-light' forms of living that utilize fewer resources and lower their ecological footprint.

An additional factor should be added to this list: the current economic crisis. Because of the bad economic context, some individuals have turned to peer-to-peer practices to supplement their revenues by providing some services and monetizing excess or idle resources. According to Robert et al. (2014), peer-to-peer practices "are conditioned by the financial opportunity they represent and the immutable quest of purchasing power."

3 The Pros and the Cons of the Trend of Uberization

These peer-to-peer platforms change the way many people commute, shop, go on vacation, and borrow. They open up new opportunities and generate positive externalities, but also disrupt long-established companies.

3.1 The Sharing Economy: An Engine of Sustainable and Durable Growth

Like many others economists, Sundararajan (2014) argued that the sharing economy generates productivity gains, reduces transaction costs thanks to an increased utilization of shared assets, leading to cost and price decreases, sustaining consumption and economic growth. Koopman et al. (2015) also support this view. The sharing economy creates value for both consumers and producers by giving people an opportunity to exploit on a more productive way underutilized assets or “dead capital”. By coordinating buyers and sellers online, marketplaces reduce the transaction costs and the need of intermediated organizations (such as the traditional firms) and by collecting and analyzing a huge amount of data, they are able to monitor exchanges more efficiently and reduce information asymmetries, making both the supply and demand sides of markets more competitive. Moreover, according to Lilico and Sinclair (2016) and contrary to a preconception that sharing increases inequality,[5] the sharing economy is likely to reduce social exclusion by increasing access to goods and services (for instance, increased access to mobility might reduce isolation among the elderly) and to reduce inequality by diminishing the degree to which either wealth or the ability to borrow is necessary to access valuable assets, and by increasing the welfare of low-income consumers.

More globally, according to Gori et al. (2015), “sharing-economy models may constitute one of the primary instruments through which a city becomes smart” (p. 13). This new economic model based on the usage rather than the property of goods, on a shared and more efficient use of resources, is potentially source of positive externalities for the planet (provided that reuse does not slow the diffusion of new, more resource-efficient technologies and that sharing practices do not create a “rebound effect” leading to overconsumption). According to Demailly and Novel (2014), shareable goods account for about a quarter of French households’ consumption expenditure and a third of the quantity (in tons) of goods they throw out each year (like clothes, books, DVDs and CDs, household electrical goods, furniture, tools, and so on). If sharing models could be operated under the most favorable conditions, savings of up to 7 percent in the household budget and 20 percent in terms of waste could be achieved.

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[5]At first glance, the sharing economy might exacerbate inequality: the existing owners of assets will be able to increase the return on those assets by increasing their utilization (homeowners can rent out their homes using Airbnb, for example), but fewer people will own assets.

The impact of sharing practices on the environment will depend on the organization of production and on consumers' behavior. The first empirical studies concluded sharing practices generate positive externalities. For example, Santi et al. (2014) showed that cumulative trip length can be cut by 40 per cent or more thanks to ride sharing practices in New York City, leading to reductions in service cost, price and CO_2 emissions. In the same spirit, Copenhagen Economics (2015) concluded that a well-functioning peer-to-peer transport service in Stockholm is likely to create significant economic benefits by reducing the use of private cars and consequently, congestion and pollution. Under conservative assumptions, this would create a total value for society of up to SEK 870 million per year (around $102 million).

3.2 *The Sharing Economy: A Disruptive Change for Traditional Actors that Raises Some Concerns About the Level Playing Field and Labor Conditions*

Beside these rather positive points, peer-to-peer practices put competitive pressures on established players. Indeed, established manufacturers of physical goods or traditional service providers could be negatively affected by the growth of the sharing economy, which could induce a decrease in the demand for their products and services (the disruptors proposing both better and cheaper services). Ultimately, the degree of disruption created by sharing platforms will depend on how much customers are willing to switch away from traditional providers, on the level of rents in traditional sectors that can be more or less easily captured and the competitive intensity among disruptors. For example, Zervas et al. (2014) estimated that the entry of Airbnb into the Texas accommodation market has had a negative impact on local hotel revenues: an additional 1 percent increase in the size of the Airbnb market will result in a 0.05 percent decrease in total hotel revenue.

On last-mile delivery markets, previously cited new actors are clearly disrupting established couriers, express and postal operators. But, from now, no empirical study has been done to estimate the impact of this new business model on traditional operators. In all cases, it is clear that not having vehicles, warehouses to maintain and regular salary and benefits to pay helps these start-ups to minimize their costs and creates a new cost-effective logistics network, adding flexibility to the delivery process. For some experts, the competitive threat put on established delivery operators is rather low: the peer-to-peer model could only be applied to specific and local market segments and has some pitfalls. For example, according to an anonymous source cited by Isaac (2016), several delivery start-ups are currently facing difficulties to recruit and keep drivers and are not profitable. On the contrary, some analysts [like David Battersby, Redmayne-Bentley investment manager, or Gary Paulin, co-founder of brokerage Aviate Global, cited by Prakash (2016)] think that new entrants could dent the market share of incumbent courier, express and postal operators.

Current consumer protection regulatory rules may not be appropriate to deal with this new economy. (Regulation based on market dominance is assessed in Sect. 4.) This raises asymmetries and several concerns about the level playing field between the new platform players and traditional service providers. For example, while traditional companies have to comply with strict rules to ensure consumer protection, sharing economy platforms have much freedom in this field; application of rules related to the liability of the intermediary or data protection for example is not always well defined on peer-to-peer markets. In the long run, this lack or inadequacy of consumers' protection rules could be detrimental to the development of the sharing economy based on trust.

Another highlighted concern of the sharing economy is related to the fact that under the current rules, most of the revenues coming from peer-to-peer practices escape taxation. In Spain, it is estimated that in the accommodation sector, such practices would have caused a tax shortfall of €2.5 billion per year. In the USA, States would have lost 3.4 percent of their annual tax revenues on car sales due to the development car sharing practices (DGE 2015). New taxation policies are being developed to ensure the taxation of these activities.[6]

Last but not least, the working conditions of these new self-employed workers have raised important concerns. According to Sundararajan (2015), two opposite forms of employment could emerge. On the one hand, we might see more, what Sundararajan calls "empowered micro-entrepreneurs", i.e. "individuals who take control of their own destinies on an unprecedented scale, working fewer hours with more flexible schedules, striking a better work-life balance and earning money doing work they enjoy". On the other hand, we could see more disenfranchised workers gaining low wages, facing high levels of job insecurity, without or with only a low social safety net.

These self-employed workers acting in the sharing economy do not enjoy the same labor conditions as in large companies. They do not have the same access to regular training, limiting their ability to respond to the changing skills requirements of the economy and to develop their career. In addition, they do not access the supplementary social protection schemes (health insurance and welfare) as developed for employees in large companies under basic welfare schemes. Finally, the chances for them to be granted personal loans by financial institutions is lower, as their revenues are variable and do not match as easily with bank criteria. The same goes for housing, especially in large cities, where the rental deposit asked for is likely to be higher for them, as their revenues tend to be more variable in the sharing economy as in more traditional jobs.

However, according to authors such as Schor (2014) and Hall and Krueger (2015), the way platforms of sharing economy affect wages themselves is actually not clear.

[6]To limit fiscal distortions, several countries or cities implement new rules. For example, the French government introduced in December 2015 new rules to tax revenues from collaborative economy: platforms like Airbnb or Drivy will now be obliged to provide their members with a statement of revenues earned during the previous year, an amount that they will have to declare to fiscal authorities (if this obligation is not satisfied, platforms will be subject to a fine of €10,000).

In the current gloomy economic environment, new earning opportunities could be a good thing at least for some workers of the sharing economy. According to an empirical study by Sundararajan and Kokkodis, cited by Sundararajan (2015), wages in the sharing economy were higher than the national averages in "non-offshoreable" occupations like plumbing or electrical work (that could not be made at distance) but significantly lower in "offshoreable" ones (for example, call center operators who could make the job from a foreign country). They explained the observed higher average wage rates by the fact that peer-to-peer platforms give customers a more visible window into labor quality levels of providers (thanks to online feedback and reputation systems) and that these feedback systems motivate providers to do a better job (knowing that bad job could severely impair their ability to find work in the future). Hall and Krueger (2015) obtained a similar result when comparing the after-tax net hourly earnings of Uber's drivers and taxi drivers: according to their study, Uber drivers earn at least as much as taxi drivers, and in many cases even more.

3.3 An Opportunity for Traditional Providers of Delivery Services?

In the postal sector, the "Uberization" of delivery could threat the universal postal service provision by reducing the profitability of traditional postal operators in a moment in which they are trying to develop their parcel delivery activity in order to compensate the decrease in mail volume and revenues. On the other hand, these changes offer new business opportunities to traditional providers.

Some operators like DHL are testing their own crowdsourced delivery services to compete with disruptors (the "Bring.Buddy" project). Other operators made the choice to conclude partnerships or to make acquisition of disruptors. For example, in February 2016, UPS participated to the fund raising launched by Deliv. GeoPost (a subsidiary of the French postal operator La Poste) took over a minority share in the capital of Stuart, an on-demand delivery French start-up in October 2015. To win market shares the last-mile delivery market over their rivals, parcel delivery operators are also investing in alternative forms of delivery, in order to offer more choice and flexibility to consumers. Many offer parcel delivery services in relay points, in automatic parcel boxes, or even directly in your car trunk.

4 Is Specific Regulation Needed?

Concerns about the new business models of the sharing economy (related to consumers' protection, working conditions, fiscal issues, and so on) raise a common question among States: should these new business models be regulated in a specific way to minimize risks and maximize benefits to consumers, workers and the whole economy?

4.1 The Pro-regulation Proponents’ Argument of Peer-to-Peer Platforms’ Dominant Position

The pro-regulation proponents expressed concerns about peer-to-peer platforms’ market domination and the risk they use their dominant position to engage in anti-competitive behavior that may ultimately reduce consumer welfare. Conversely, the opponents to any form of regulation argue that dominant platforms are already facing competition and new entrants. Even if Uber is currently dominating the ride-sharing sector in many countries, Lyft is a genuine competitor in many US cities. Similarly, Airbnb faces the competition of VRBO and HomeAway among others. On the last mile delivery market, we saw that competition is tough. Thanks to the very low switching costs normally associated with these sectors, it’s very easy for consumers to move around and look at competition. Furthermore, as argued by Tapscott and Tapscott cited in the *Wall Street Journal* (2016), blockchain technology could soon disrupt the current disruptors by connecting services providers and users directly without any intermediary, in the same way as cryptocurrencies, such as Bitcoin, had disrupted the payment system and the financial sector (Bach and Jaag 2015).[7] In sum, the dominant position argument to justify regulation is rather thin.

Another argument against the pro-regulation proponents’ point of view is that the above dominance issues related to network effects, reputation, lock-in, and so on, are not specific to the sharing economy but common to the whole “digital economy”. Competition authorities are already well versed in these issues and well equipped to handle these competition policy issues. So, there is no need for additional law or body of regulation in this area.

4.2 Arguments Based on New Market Failures

The pro-regulation camp argues that new market failures appear in the sharing economy such as safety concerns, labor concerns, and so on, and that the mechanisms based on reputation which should discipline agents, are not free from drawbacks (they can be biased or manipulated by interested parties) and raise concerns about privacy (Ranchordas 2015; Dzieza 2015; Dambrine et al. 2015).

[7] La’Zooz and Arcade City are examples of this new sort of cooperative ride-hailing service, connecting directly riders and drivers without any intermediary platform and using the blockchain technology to issue “crypto-equity”. The main difference between Uber & Co and La’Zooz or Arcade City is on the pricing decision level: whereas Uber and Lyft manage prices in a centralized way, by decentralizing that decision to the level of the driver and rider, Arcade City frees the driver to be an entrepreneur (he is free to set its own rates) and empowers the rider with control over their entire experience (riders are able to review driver profiles in advance of choosing their ride).

For the anti-regulation camp, reputation effects are a better regulatory mechanism than the law (Koopman et al. 2015). Platforms have a natural incentive to alleviate exchange-deterring forms of information failure and offer efficient feedback mechanisms, since their commercial success is linked to the ability of their participants to engage in exchange and so relies on trust. In this context, Edelman and Geradin (2015) pled for an "updated regulatory framework that is sufficiently flexible to allow software platforms to operate and deliver their services efficiently, while ensuring that service providers, users and third parties are adequately protected from harms that may arise from services provided through these platforms" and denounced what they call "protectionist regulation" whose primary purpose is to protect "incumbents" at the expense of new entrants and which so not seem to be justified by genuine consumer protection concerns.

4.3 The Risk of Over-Regulating the Sharing Economy

It seems obvious that applying outdated rules conceived to compensate market failures in the context of old-fashioned commercial relationships between a professional and a consumer (and not for peer-to-peer transactions) is not appropriate. Laws written to regulate taxicabs, hotels, and other industries fit poorly with the new platforms, providers, and consumers using the sharing economy. Business models are different. The "one size fits all" principle is irrelevant. Imposing the same old-fashioned regulatory rules to new ways to do business could get new companies in trouble and stifle innovation. All the benefits consumers get from the sharing economy would be lost (optimized use of previously under-utilized property or skills, ability to bring together people who might otherwise not be consumers with people who might otherwise not be producers, and so on).

The sharing economy needs a new legal framework based on simplified and flexible rules. Regulators must carefully adapt their regulatory tools to fit the diverse ecosystem of new business models, producers, and platforms. In particular, there is more room for self-regulation in the sharing economy. In many cases, peer-to-peer platforms have the right incentives, an incredible amount of information, and are best able to control those consuming and providing services through their platforms. For that reason, new technological and reputation-based mechanisms of self-regulation could be a key tool for regulating the sharing economy.

Some countries have rightly adopted friendly and smart regulatory rules to peer-to-peer platforms.[8] On the contrary, under the lobby of "traditional" providers, public authorities have sometimes imposed the same old regulation rules (relevant to regulate old-fashioned firms) to peer-to-peers platforms and even prohibit some

[8]In February 2014, Amsterdam became the first city to pass so-called "Airbnb friendly" legislation and in London, 1970s regulations limiting short-term stays were scrapped, making it easier for Airbnb and others to operate in the city. The British government has even launched an initiative to make the UK the "global center for the sharing economy".

sharing services like UberPop.[9] Facing the diversity of situations among EU Member States, the European Commission (2016) presented policy orientations aimed to sustain a balanced development of the sharing economy. The Communication invites EU Member States to review and where appropriate revise existing legislation according to this guidance. The Commission plans to monitor the rapidly changing regulatory environment as well as economic and business developments.

5 Conclusions

The sharing economy is a source of uncontestable benefits for consumers who will tend to benefit from lower prices, an increased quality of services, and the ability to satisfy more diverse preferences over time. From the “peer-to-peer” services providers’ point of view, the situation is more mitigated: they may enjoy new economic opportunities and higher aggregate earnings, but may not enjoy access to the other benefits associated with traditional employment (paid holiday, paid sick leave, employment protection, and so on). Traditional good manufacturers and existing service providers could clearly be affected by the reduction of barriers to entry and therefore face more competition in the markets in which they operate.

This complex situation has motivated the call for greater regulatory of the sharing platforms. However, there are a number of reasons why regulation might not need to be the same for the sharing economy as for traditional providers. In particular, the transparency provided by digital technologies reduces transaction cost, asymmetries and the need to regulate sharing economy providers in a world based on trust. Moreover, in the digital economy, things are evolving very, very rapidly and according to some experts, the current disrupters of the sharing economy like Uber and Airbnb could be soon disrupted by blockchain technology.

In the delivery sector, even if the business model of last-mile sharing delivery services is in its infancy and not yet always sustainable, it is undeniable that crowdsourced delivery services put pressure on established courier, express and postal operators, pushing them to innovate and to provide even more reliable and fast delivery, to the benefit of consumers. To compete with new entrants, traditional providers should certainly focus more their efforts in asking for a softer regulation regarding the obligations currently imposed to them rather than trying to call for a stronger regulation of Uber-type providers.

[9]UberPop is currently considered as illegal in Spain, France, Germany, Belgium, the Netherlands, Italy, South Korea, Thailand, and India and in some US cities (Miami, Houston, Portland, Austin, and New Orleans). Other US cities, such as Minneapolis and Detroit, have subjected ride-sharing services to taxicab regulations.

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