Riku Vartiainen

Sharing economy

A look at the modern-day marketplaces

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The goal of this thesis is to look at the history, emergence and the future of the sharing economy sometimes also labeled as collaborative consumption. In the modern days, technology has made it possible for people and corporations to share their services, offer job opportunities and disrupt the old-fashioned way of offering services through peer-to-peer enabled form of sharing their services with the help of the Internet.

In everyday life it can be noticed that instead of using central booking services or big commercialized chains to reserve services, many tend to look at the other alternatives such as Airbnb for housing, and Uber for taxi rides. These two serve as intermediaries, with a purpose to handle the paperwork for billing, and connecting the two parties and enable them to engage in so called P2P economy.

The focus of this report will be on peer-to-peer sharing economy, with a look at two of the biggest brands to push it forward, Airbnb and Uber. These two brands have become staples in the industry, as they have paved the way for many other through customer acquisitions.

| Keywords | Sharing economy, Economy, Collaborative consumption |

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1   Introduction

1.1   Topic formation and research questions

Sharing economies are the modern-day marketplaces that have emerged as a huge part of consumption worldwide. With sharing economy taking more and more space in news headlines and other publications the subject matter has become a hot topic amongst all groups of people. The topic for this research will be relevant for readers who want to understand the mechanics and implications of using sharing economy platforms.

From the initial literauter review it was obvious that sharing economy had reached a point where it affects everyone engaged in trading in any form. It can be services or products. With this it also became clear that there are a lot of studies conducted on the matter, but none of them had a clear answer to the questions that arise when inspecting sharing economy.

To understand the different ways that sharing economy has affected the economy and social landscape of business and how it is projected to in the future. The subject will be studied by researching the two of the biggest sharing economy brands, how they got to this point and what problems rose on the way to becoming a huge part of modern consumption. This report is going to take a look on commercial P2P "sharing" business model involved in sharing economy, and answer the following questions:

- What is sharing economy?
- How does it affect local economies?
- How and why does it differ from traditional economy?
    - Legal aspects
    - Labour aspects
- How will it change in the future?

By the end of the research, all of the above-mentioned questions will be answered.

1.2   Research methodology

This report and the information it contains, is collected mainly from secondary data found online in the form of books, articles, reports and corporate publications. To get a good understanding of the thesis topic, it is important to look at the positive and the negative angles associated with sharing economy and its impact on the worldwide culture of consuming and economy. During the initial literature review it became obvious that many of the sources were disagreeing whether sharing economy is good or bad for the global economy in its present state. To avoid information bias, the sources will be picked from both sides of the argument.

This reports approach will be qualitative, even though there is data available. The data must be looked at critically depending on the sources, as the information and data about sharing economy in its current form is still incomplete. The fast change of the markets has not yet been fully researched and mapped. (Federal Trade Commission, 2016)

The author or this report has a broad experience of sharing economy platforms as a consumer, but not as a seller. This will be useful in sections that discuss individual experiences of sharing economy platforms.

1.3   Expected results

Before the research the assumption is that sharing economy has caused several problems due to the archaic systems that have controlled the markets, and have little to no flexibility when it comes to legislation, such as rent prices and hotels that include services. Some of the most prominent problems in the media have been the total lack of regulation on supervision of rental periods of Airbnb hosts which has led to local long-term rentals to come crashing down causing a housing shortage for local residents in the cities that Airbnb operates in.

Due to the newly changed and vague meaning of the term sharing economy, there is very little quantitative research done on it in total. To draw quantitative observations from the research, it will need to focus on some of the biggest companies known for using sharing economy, and more precisely peer to peer (P2P) business model, that are studied more compared to the less known smaller companies involved in the sharing economy.

At the end of the research it should be a way for a reader to get a deeper understanding on how sharing economy went from a small business to change the way we do trader in the modern society.

1.4   Thesis structure

The study will be divided into four main chapters:

- Introduction of thesis
- Explanation of sharing economy
- Case studies of Uber and Airbnb
- Regulative problems
- Conclusion and recommendations

Chapter one, containing the introduction of the thesis will present the reader with information about the thesis topic in a nutshell. It will prepare the reader by presenting the reader with introduction to central terms associated with the sharing markets. It will also clarify the thesis structure, the research methodology used in drafting the report and

The second chapter is a more extensive look at the present-day situation and definition of sharing economy, aiming to give more depth to the understanding of what sharing economy is. This chapter will also look at the forecasted future of sharing economy to give the reader an idea at the magnitude and implications of sharing economy and its impact on the global economy, by analysing its effects on pre-existing markets and with a support of economic forecasts done by reputable sources.

The third chapter will discuss possible effects that sharing economy platforms have brought nad can offer to sustainability both in environmental and socio-economical factors. This chapter is meant to give a sustainability perspective when reading rest of the thesis.

The fourth and fifth chapters will be about the two case studies about Uber and Airbnb. The main focus of these is to present real-life examples of the biggest companies that define the modern day sharing economy in many ways. Both of these companies are

used as examples in many of the chapters as they offer excellent examples of regulation, labour market impact and financial growth of sharing economy.

The sixth chapter will look at the impact that sharing economy platforms have had on labour. It will look at what kind of labour it creates, how it compares to traditional labour and the overall impact using examples from the case study companies.

The seventh chapter will look at the regulation being imposed on sharing economies, and how it differs from the traditional markets. It will also take a glance at trust systems used by sharing platforms and how they affect consumer protection.

The eighth and final chapter will be looking at the outcome compare to the expected results, conclusion and recommendations for solving the possible problems associated with sharing economy. This part will also pull together the previous chapters and propose possible financial, regulative and future applications for this business model

1.5   Literature review

The current state literature and research associated with sharing economy is proving to problematic. There are multiple studies conducted on specific areas of sharing economy, but all of them seem to have a different idea on what sharing economy is, and what it entails. Most of the sources state that there is not enough research done about the subject matter.

This report will mainly use studies either done or requested by governmental organizations due to the close association of sharing economy to regulations and countries' economies. A lot of these studies draw from multiple peer reviewed sources, and studies conducted to a certain control group which is then projected to the total number of sharing economy participants. Datasets released by Uber and Airbnb will be used that are analysed in excel, to plot maps and figures to better visualize the presence of the sharing platforms in urban areas.

The pace that new studies, reports and articles about this topic is clearly growing as the market grows. It attracts a lot of interest from media, governmental agencies, students and researchers alike.

The most prominent releases on the matter were conducted by Federal Trade Commission (Federal Trade Commission, 2016) and the European Commission. (Codagnone, C. and Martens, B., 2016) These two add up to over 140 pages, and will be used as the main resources to gather information on the report. Various other sources will be used in conjunction to create a sufficient report on the sharing economy. To avoid bias to either direction, the research will make sure both sides of the argument are captured, therefore also Uber and Airbnb hosted data on positive impact will be included in the research.

1.6   Key concepts and terminology

This section introduces the main economical concepts that are associated with sharing economy. These terms appear throughout the thesis report.

Peer-to-Peer (P2P) Economy is a decentralized model in which two parties interact and trade goods or services with each other, without an intermediary third party or a company that serves a huge segment. In P2P the parties involved in the actual transaction are to independent parties. In sharing economy the concept is a bit skewed as there is a third party, but most of the time they only work as an intermediary to bridge together two parties that want to either sell or buy products or services. Because of the nature or P2P, the producer owns both the means of production and the finished product or service. (Botsman, R., 2018)

Reputation system is often used when trying to conduct quality control in P2P rental and service sharing services such as Airbnb and Uber. In these two company examples it is a grade from 1 to 5, pictured by either number or stars. (Botsman, R., 2018)

P2P accommodation means household sharing in various forms to utilize the unused space in personal homes or empty properties by renting it out to the other party. (Botsman, R., 2018)

P2P Transportation is used in several forms, the biggest being Uber where an individual shares their transportation to wanting other party by using the Uber platform to connect the two. This can also be carpooling. (Botsman, R., 2018)

Collaborative consumption is an alternative term used for sharing economy in some contexts. Both terms will be seen in this report. More precise while sharing economy is used as an umbrella term.
(Botsman, R., 2018)

2   Sharing economy platforms

Sharing economy has existed for millennia, people have always shared resources. Car sharing was first used in Zurich in 1948. When the digital era or the Web 2.0 was released, everything changed. What used to be a small controlled environment, for example a city, could now easily communicate instantly with others. The effect this change had on sharing economies was huge. There could be no Airbnb or Uber in their respective present forms without the internet. (De Groen, W. and Maselli, I., 2016)

In the timespan of last 10 years, many sharing economy platforms have entered the market and disrupted the pre-existing conditions. Sharing economy has become a socio-economic trend. Sharing economy platforms works as a sort of market places, enabling the supply and demand to meet easily. It makes supplying of goods and services easy for almost anyone that is willing to participate in some form. The use of sharing platforms also allows individuals to reduce their fixed costs of existing personal assets. It is changing the way we conduct business and live our everyday lives. (Federal Trade Commission, 2016).

> "Successful platforms must design and maintain efficient markets that enable both buyers and sellers to capture gains from trade. Parties will not participate in a platform unless they expect the benefits to outweigh the costs of finding a transaction partner and completing the transaction. Thus, platforms must efficiently match suppliers and buyers for whom there are substantial gains from trade, without imposing transactions costs that undermine these gains." (Federal Trade Commission, 2016).

The tree main layers that the sharing economy platforms consist of are the platform, the seller and the buyer. The platform works as the intermediary matching the seller and the buyer, the seller owns the goods or tools that are required to provide a certain service and the buyer has a need that can be fulfilled by the seller. In most cases the transactions are peer-to-peer based (P2P). The platform then provides help with arranging the transaction. In the traditional market there is a centralized party where the retail platforms are single sided, with direct sales to customers which makes a contrast between the two.

As stated in the Federal Trade Commission report, designing a platform for sharing economy is formed by three principles of design attributed to Al Roth, Nobel laureate in Economics.

> *"Markets will generally be "successful if they are liquid"; if they enable matchmaking between buyers and sellers in real time; and "if the transactions in them are safe." Liquidity requires that markets be thick, i.e., that there be substantial numbers of potential transaction partners on both sides of the market, and likely leads to two-sided network effects on these platforms. Matchmaking requires that participants be able to search among potential transaction partners, find suitable transaction partners, and enter into transactions. Safety, as a general matter, implies a degree of confidence that the transaction will be completed as expected, minimizing potential harms. The design challenges facing sharing economy platforms vary with conditions in the particular sector in which they operate. For example, as the number of product attributes a buyer considers increases, the effort a buyer may expend for searching and matching may also increase." (Federal Trade Commission, 2016)*

As the competition gets tougher, many new platforms face one of the basic requirements to be hard to fill. For the platform to work, the markets need to be thick, which means that it is vital for the user base to be large enough so that the built-in systems work. (Federal Trade Commission, 2016)

These days sharing platforms operate mainly on two different markets, factor market which composes of labour and capital, and the product market which composes of goods and services. The report is going to delve deeper into these by observing the major moments in the development their respective case companies, Airbnb and Uber.

With the constant tug of war between the group that is for and the group that is against sharing economy, the companies have started to only publish positive effects, and do not give metrics of their negative impact to researchers to avoid further conflicts. From 2012 to 2015 most of the headlines that used to be positive and optimistic, have been replaced with negative headlines. As the JRC report on the matter states, the honey-moon period for sharing economy has come to an end. (Codagnone, C. and Martens, B., 2016)

PricewaterhouseCoopers (PwC) concluded a research on the growth and acceptance rates of sharing economy in the European Union. Within two years from 2013 to 2015, the revenue generated by sharing economy has grown to 3,6bn and it facilitated 28 billion pounds in transactions in 2015, as presented in figure 1. below.
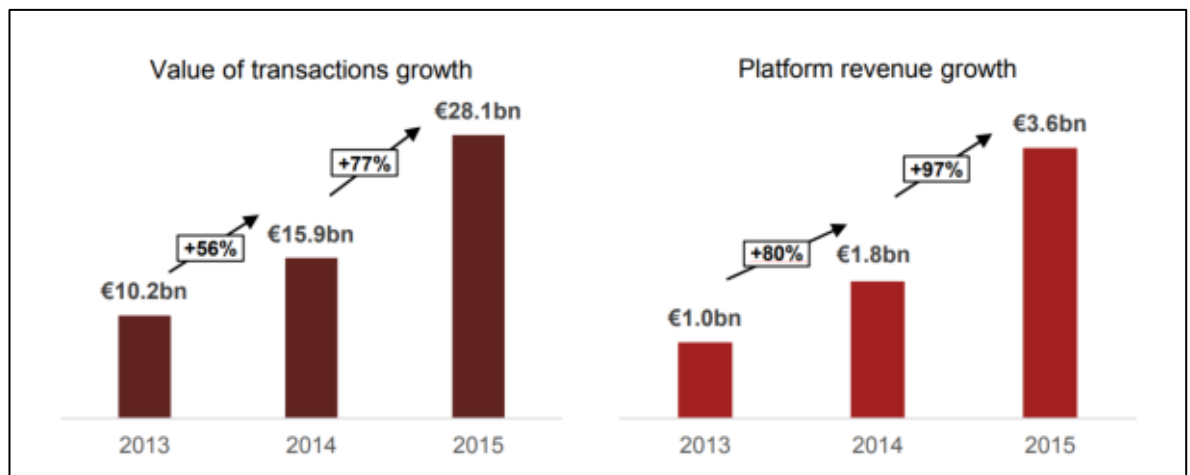

Figure 1. Growth of the sharing economy (PwC, 2018)

The biggest growth in Europe has been seen in the United Kingdom. As shown in figure 2, value of transactions in 2015 reached a whopping 7,4 billion pounds. The growth is forecasted to grow to 140 billion pounds by the year 2025, and the platform revenues to go up to eighteen billion pounds from one billion pounds in the same amount of time. (PwC., 2018)

One of the more mysterious markets for sharing economy is China. The market is huge, but due to the protectionism in the business culture, for example Uber failed to penetrate the market, and opted to exit the market due to the largest competitor Didi winning the market. Didi is valued around $54 billion. In the end the 2017 Didi announced that they intend to expand to international markets. (Bloomberg, 2017)

3   Sustainability

Sharing economy has been argued to be a green alternative to traditional businesses, as it usually utilizes pre-exsisting assets. It is a sort of a trend for the sharing platforms. Once again, the key problem for proving its sustainability to be true, seems to be the fact that there is no credible way to account for all the impacts that sharing economy has compared to traditional consumption. For that reason, this aspect of sharing economy will be approached from more of a qualitative perpective. (Schor, J., 2014)

Sustainability has proven to be an important factor in business worldwide. Sharing economy might offer a modern alternative to a proven failure that is the traditional manufacturing and service sector. The outlook for global environmental and socio-economical is critical. There have been no major steps forwards in this matter even though there have been a lot of discussion around it. (Schor, J., 2014)

Sharing economy has a potential of being the change in consumption and utilization of assets, but because it is mostly profit driven, there are no guarantees it will do any good to the present situation. For example, carsharing was studied to find out that there were decreases in carbon emission from existing car users, but also people who never used cars now had access to them, which became counterproductive for the emission reductions. The platforms offer a tool for society to engage in more sustainable consumption, but they wont alone make the world better. There needs to be a bigger movement that make people using these platforms prioritize sustainability. (Schor, J., 2014)

Sustainability can be improved through better regulation. The environmental factors aside, social-capital can be created through offering more fair solutions for labour and consumers. Social capital is also built by connecting people who have received high ratings in the app to create a sort of a circle of trust among the users of the sharing platforms. (Schor, J., 2014)

4 Company case: Airbnb

4.1 Company profile

P2P accommodation market is led by Airbnb. It connects two parties to help arrange a place to stay in for a compensation. Airbnb business model is to take a fee for enabling the transaction with ease by the two parties using their platform. (TechCrunch, 2018)

Because of the nature of housing markets and the disruptive innovation to it that is Airbnb, regulation has not caught up with the growth and there are a lot of question marks regarding sharing economy. Due to the unregulated nature of sharing economy, the model has had controversial headlines over racial discrimination, uneven housing prices, under-pricing and undercutting the competition through loopholes. In the recent months for example Airbnb has done extensive renovations to their public image to fight these problems by hiring people to advocate equality and even the CEO of Airbnb has stated that they need to work in closer cooperation with legislators to ensure that the benefits that Airbnb offer do not have to come at a cost to local economies. (Zervas, G., Proserpio, D. and Byers, J., 2016)

Since it was founded in 2008 Airbnb has become a staple in tourism housing, and a cheaper alternative to traditional hotels and hostels. With a whopping $31 billion USD valuation in the end of march in 2017, Airbnb has experienced very fast growth and has reached a stage where it has over 3 million listings in over 65,000 cities in 191 countries. Airbnb represents the modern tech boom-enabled sharing economy which has created an easy middle man for people to get the most out of their respective properties and for the customers it provides ease of access to affordable housing for short periods of time. According to Zervas, Proseperio and Byers, the main motivation for the sellers in the beginning was to use Airbnb for short term rentals is to generate extra income by utilizing the unused space of the property owned.
(Zervas, G., Proserpio, D. and Byers, J., 2016)

4.2   Impact on economy

According to Airbnb over half of their guests look to spend time in their respective neighbourhoods of residence, and on average they spend almost $1000 USD on local services. This means that the local neighbourhoods that the accommodations are located in get more income and the neighbourhoods that have very limited or non-existing hotel services. This means that more even spread of income from tourism is created. (Airbnb, 2018)

Figure 2. Spending in neighborhoods (Airbnb 2018)

It is also reported that approximately 67% of the income earned from letting your home in Airbnb was spent on their own housing expenses which means that the money keeps circulating to existing rent providers, which might not necessarily be correctly shown in the studies concluded about the matter. (Airbnb, 2018)
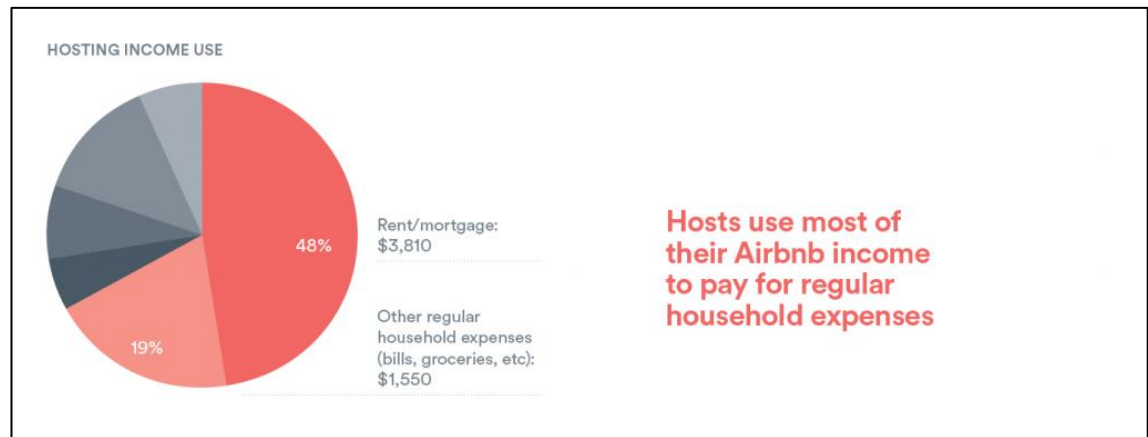
Figure 3. Hosting income use (Airbnb, 2018)

On the other hand, one of the only more analytical reports about Airbnb's impact on local economies by Zervas, Proserpio and Byers, found that the shared accommodation giant has had a significant impact on the local hotel industry in Texas. The biggest areas of clientele loss are customers who are more incentivized to use rental opportunities enabled by Airbnb instead of the typical Hotel accommodation. This is partly caused by the fact that Airbnb supply is a lot more flexible and caters to almost every need when it comes to the location of the accommodation. It is also stated that the competitors impact to these numbers are not significant, as Airbnb in size is superior to any other sharing economy platform that offers accommodation. (Zervas, G., Proserpio, D. and Byers, J., 2016)

Airbnb is also accused of being a facilitator in the gentrification of neighbourhoods, inflating the rent prices. According to the report published by BJH Advisors LLC (2016) in New York, over thirty percent of the listings are classified as Commercial. The report study defines units' commercial based on the number of listings controlled by the seller and the amount of time the listing has been on Airbnb platform. Out of all the listings in New York, due to the continuing participation in the sharing economy, 16% of the listings are classified as Impact Listings. In total these listings are calculated to generate $27.6 million revenue on average. The vacancy rate of New York city has remained below 5% for a decade, and if these units that are on Airbnb would be on the standard housing markets, the number would increase by approximately 0,5%. This would mean greater availability for the locals. (BJH Advisors LLC, 2016)

The fact that these two markets compete with each other is presented in the correlation of rental prices. NYC study stated that "the correlation between Airbnb listings and median asking price for residential rental units is 0.93, an extremely strong correlation" (BJH Advisors LLC, 2016). The amount of extra income for a property owner for engaging to short term rentals through platforms like Airbnb is calculated to be over $10000 USD annually. The extra income creates a strong incentive for the property owners to use short term rentals instead of renting on the traditional market. (BJH Advisors LLC, 2016)

5   Company case: Uber

5.1   Company profile

Uber is a P2P transportation enabling platform, that connects two parties allowing them to exchange transportation services. The business model of Uber is that it takes a cut of the fee for the service it provides.

In many countries Uber has caused an uproar with the local taxi industries because they offer cheaper rides, with what is said to be less consistent level of service. In Finland Uber had to take a year off the market to wait for a legislative reform for the taxi industry, after battling on the verge of a legality for couple of years in Finland.

Uber as we know it got started when it's two founders met in Paris in 2008. The Founders, Travis Kalanick and Garrett Camp were both taking part to an annual tech conference known as LeWeb. Both men had previously sold their previous start-ups for a hefty sum, combining to almost 100 million USD in assets.

It is said that the Uber concept was born when the two could not get a cab home from the conference. It would now be possible to use the ever-developing technical solutions to tackle this problem by hiring ordinary people with ordinary cars to do the driving.

After they returned to the United States, Camp bought the domain name UberCab.com. This was a start to something big. In 2009 the dream became reality. In the beginning UberCab took of really well, but already in 2010, they faced their first big problem. Using

the term Cab was not allowed in this context due to it being different from the traditional taxi companies and so UberCab became Uber.
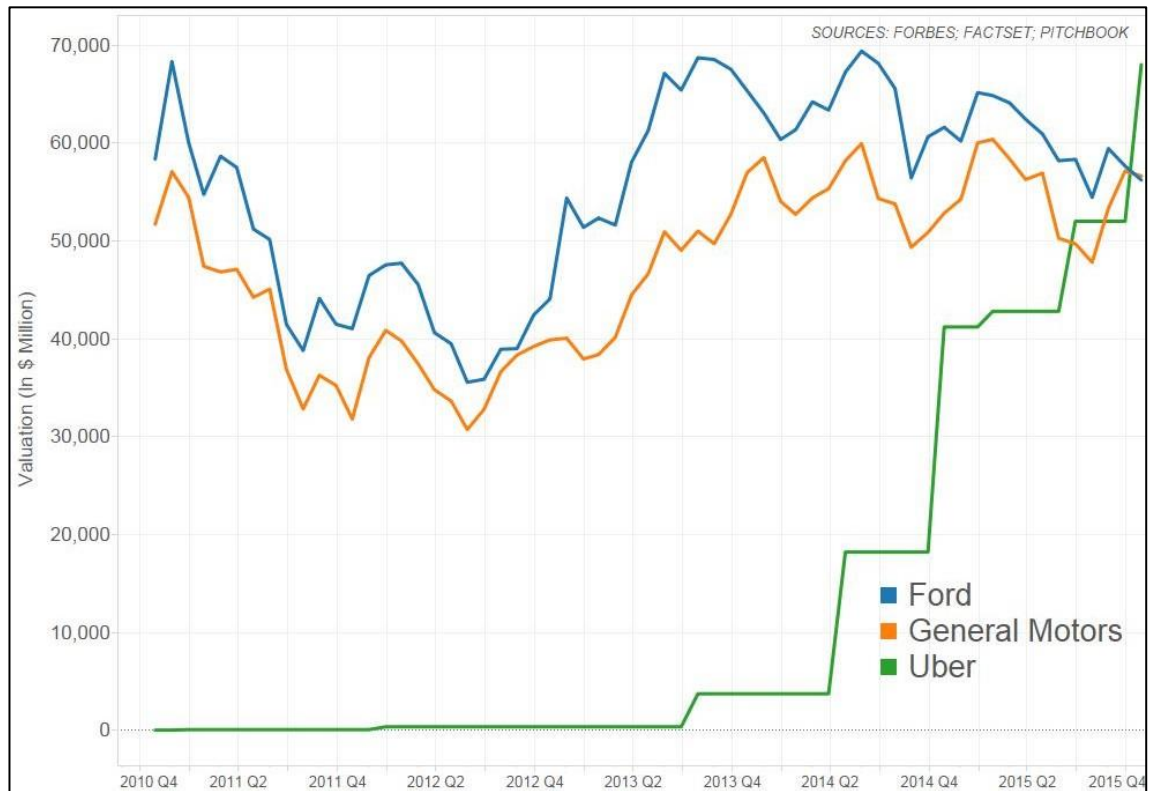

Figure 4. Uber Valuation (Petropoulos, G., 2016)

These days Uber has become the single biggest sharing economy start up with a market valuation reaching as high as $71 billion USD in 2016 as shown in the figure 5 below, passing over 100-year-old companies, Ford and General Motors.

5.2   Impact on economy

Even though there is strong resistance towards sharing economy and Uber in the countries it operates in, there have been multiple reported positive impacts on the taxi industry. Now that competition is stronger, taxis must become more flexible with their pricing to sustain their client base, and if they cannot compete on price, they need to improve their level of service. This is good for the consumer in the terms of service quality and prices. (Pieria.co.uk, 2015)

By using the reputation system that is in place in Uber platform, the consumer gets a better overview of the service quality. If a driver's rating drops under a certain threshold they can be removed from the system. With the price estimation implemented in the Uber platform, the user gets a greater transparency to the price of the ride, in which the conventional taxi industry has failed in comparison.

As Ubers success has affected the taxi industry directly, it has also caused many questions and possible problems for the taxi service providers. Due to the unregulated nature of Uber, the more strictly regulated taxi companies have a hard time to compete. In the past taxi drivers needed a licence to compete, but these days almost anyone can drive an Uber without a licence which reduces the value of an expensive taxi licence. The very expensive licences becoming obsolete create an asymmetry between the two, and creates unfair competition.
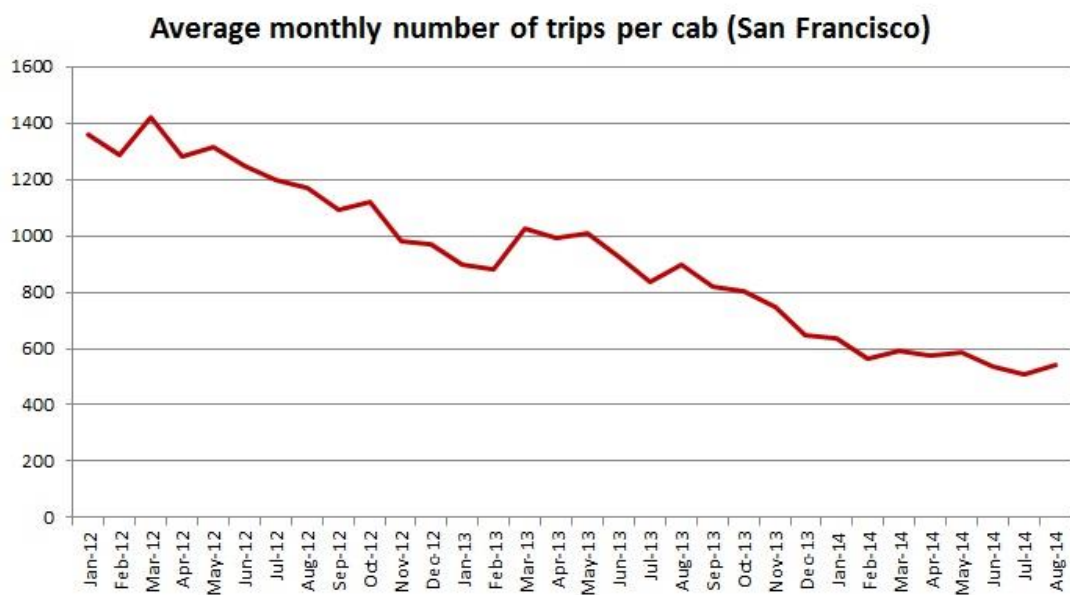
Figure 6. Average monthly number of trips per cab (Pieria.co.uk, 2016)

The unfair competition has led to taxi ride amounts to fall by a large margin. According to a research by Bruegel, (2016) shows that the amount of taxi rides trips taken per month has fallen by a big margin. Uber really picked up steam late 2013, which can be seen in the figure 6.

6   Labour markets

6.1   Labour created by sharing economy

According to a survey of 3000 americans conducted in 2015, over 44% of the population were active on the sharing economy platforms. With ridesharing and accommodation being among the largest categories for the number of workers, as shown in the figure 7 below.
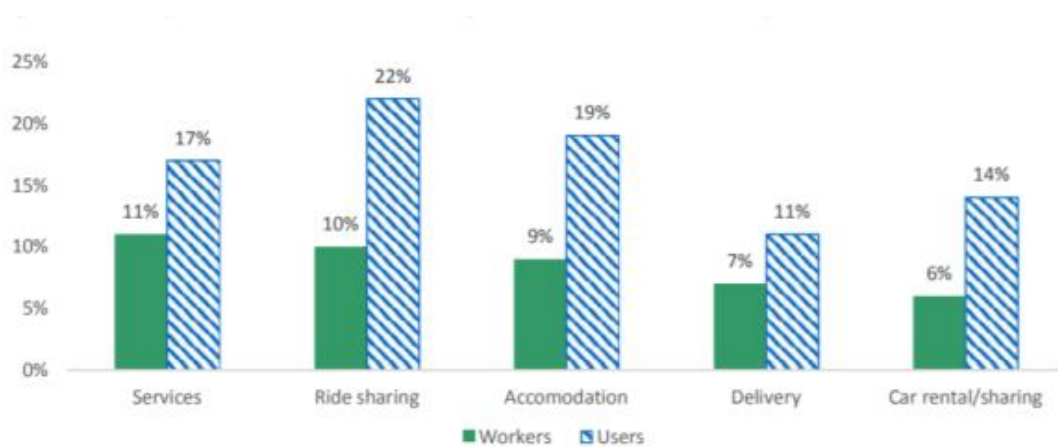

Figure 6. Share of US population participating in the collaborative economy. (De Groen, W. and Maselli, I., 2016)

Sharing economy's impact on labour markets cannot be exactly defined yet though. The data is too scarce and inaccurate compared to data about traditional labour to give an exact effect of the sharing economy to the reader. At the current environment that these platforms operate in, it is almost impossible to define the real size of the sharing economy, as most of the platforms are privately held and are not required to report as much information as traditional public companies. (De Groen, W. and Maselli, I., 2016)

Sharing economy is only partially recorded in the official labour statistics for three different main reasons, according to the report published by CEPS. The first reason being that there is no relevant labour category for all the services and products that sharing economy provides, the second reason being that most of the participants engage themselves in the sharing economy only as an extra income, and are not occupied in the sector full time. The third and the final reason stated in the report is that because of the general

confusion around everything concerning modern sharing economy due regulation, doc- umentation and people not viewing it as a proper job and thus not necessarily reporting it the same way as they would regular labour.

It must be taken into consideration that the data available even if plentiful, is very likely full of statistical errors due to the before mentioned factors affecting the responses in surveys and statistics. To better grasp the complexity of the matter, more extensive re- search needs to be conducted in collaboration with the regulators and the sharing econ- omy platforms to ensure the data available is correct and complete. (De Groen, W. and Maselli, I., 2016)

6.2   Differences compared to traditional labour

In the service sector, the differences to traditional labour are more distinguishable. In a survey conducted by Hall and Kruger (2015) in the United States that included 600 Uber drivers collected data was used to compare it to the traditional taxi industry. The survey found that the typical worker engaged in sharing economy in the services sector is younger than their counterparts in the conventional taxi business with approximately 50% of the drivers being under 40 years old, where as in the conventional taxi industry the same number was approximately only 28%. There was also a noticeably higher percent- age of female drivers in the male dominant profession with almost 14% of the drivers using Uber being female, whereas the same number was 8% among taxi drivers. (Hall & Kruger, 2015)

The same study found that the average Uber driver was more educated with over 47% of them holding a college degree, compare to the 18% amongst the conventional taxi drivers. (Hall & Kruger, 2015)

As sharing economy has been able to reach a point where it competes with traditional businesses, it has had a steep effect on non-business enterprises in the US. The number of non-employer enterprises has grown by 9 million from 1994 to 2014 to reach 24 mil- lion.

6.3   Sharing economy's impact on labour markets

In the Centre for European Policy Studies (CEPS) commissioned study, it is stated that "Collaborative platforms seem for the moment not to have a large impact on the offline labour market or the create/destroy impetus" (De Groen, W. and Maselli, I., 2016). with only the taxi sector possibly being the only exception especially in European cities in where Uber has been successful in market entry.

At first glance, in EU the sharing economy platforms seem to have in correspondence with the offline labour markets increased the amount of flexible workforce. Especially in the case of taxi industry, where Uber and other platforms alike have high amounts of workers that do not engage in full time work using the platform. This is speculated by the CEPS panellists to be the case in every market that sharing platforms impose a serious competition to the pre-existing businesses. (De Groen, W. and Maselli, I., 2016)

In 2006 the amount of contingent workforce in the EU was 16%, by 2014 the amount had grown to 18.1% which means there was a 2.1% percentile rise in the statistics as shown in the figure below. It is possible that the number is even higher due to not all sharing platforms being recorded in the official labour statistics, as part of the population using the platforms consider themselves as entrepreneurs instead of traditional workers. (De Groen, W. and Maselli, I., 2016)
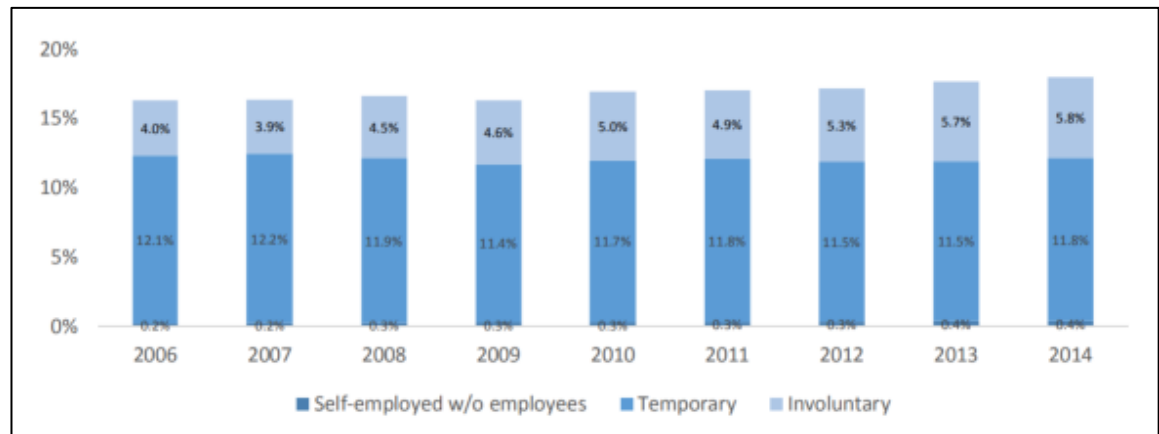
Figure 7. – Contingent workers in the EU (De Groen, W. and Maselli, I., 2016)

This phenomenon is also for a big part explained by the fact that there are more involuntary part time workers and self-employed people compared to before, within this period of time. (De Groen, W. and Maselli, I., 2016)

7 Regulatory Challenges

Due to the unregulated nature of modern sharing economy platforms, legal problems have plagued their rapid rise to the top of the modern economy as the most valuable start-up. In various countries both Uber and Airbnb along with other companies participating in sharing economy have faced regulatory problems.

There are different views to this matter, but most agree that some level of governmental regulation is needed to ensure fluid operation and to ensure sharing economy being a sustainable alternative. The problem with regulation is that too much of it can kill the healthy competitiveness that sharing economy platforms bring with them, and this would ultimately hurt the consumers that have benefitted from the introduction of these platforms. In many cases the old regulations might benefit the pre-existing companies and due to this reason they might not be directly applicable as they would be unfair towards the sharing economy platforms. (Federal Trade Commission, 2016)

With the growing amount of companies trying to enter the sharing economy market after witnessing the success stories of the likes of Uber and Airbnb, the regulators are forced

to be in a reactive position, trying to catch up and regulate the new ways that innovative sharing platforms make us of underutilized assets.

PriceWaterCoopers research on the issue, indicates that more specific and tailored regulation should be applied, rather than trying to make the sharing economy to conform to exactly same rules as the traditional markets. If the sharing economy platforms are limited by too much, they will lose flexibility and responsiveness, factors which make them good for the consumers. (PriceWaterhouseCoopers, 2014).

Data ownership has been a problematic issue when it comes to sharing platforms. It goes two ways as more data from the sharing platforms could provide legislators with tools to create more equal competition. On the flipside data privacy cannot be forgotten. Data held by the platforms is split into two different levels. The first part being the data that they have the right to keep private with the current legislation, for example in Uber's case, route information since the route planning is done by the system built by Uber using digital maps and GPS. (Federal Trade Commission, 2016)

Uber also uses history data to pinpoint locations such as workplaces, homes and other important locations for the customer. With history data it is possible for Uber to select their customers more efficiently, but it can also lead to discrimination of some customers. After a public outcry about the matter, Uber added a clause to Uber Privacy Statement that gives Uber the customers agreement to be allowed to collect the data. (Uber 2014)

7.1 Regulatory fairness

P2P is seen as the main fform of sharing economy where individuals utilize their pre-existing assets and gain profits from that. Overtime more professional suppliers are entering the market and changing the landscape of sharing economy, as this has caused the competition to be harsher towards the traditional businesses. Because the regulation has been very lackluster, this can have a major impact on the traditional businesses operating alongside the sharing economy in the same sector. (Federal Trade Commission, 2016)

Traditional operators have complained that platform-based companies engaged both in P2P accommodation and P2P transportation industries, either are not required or completely ignore the regulations that apply and limit the traditional suppliers. The fact that there is a competitor that does not follow the same rules, makes it really hard for the companies to operate with profit.

Within the hotel industry, the companies have requested for the regulators to intervene in this unfair business environment that the sharing platforms operate in, with a goal to create a level playing field. If these regulations are not enforced on the sharing economy platforms, there is a real possibility of unfair competition being a serious problem for the traditional companies operating in the hotel industry.

Taxi operators have the same problem as the hotels competing with sharing economy platforms. Drivers using Uber as their way to find clients, do not need any sort of licences at the moment, with the exception of China. This puts the drivers of traditional taxis to a huge disadvantage as the licences are really expensive. Uber has stated that the impending regulations that are aiming to make the playing field even, is a welcome and smart decision. Even with the actions and regulations planned, the taxi industry has expressed that they are not extensive enough to protect fair competition. (Federal Trade Commission, 2016)

7.2   Trust systems as a tool of regulation

There are multiple reasons why the trust and reputation systems associated with sharing economy platforms Trust systems in sharing economy platforms are one of the most important parts that make then as popular as they are. The system itself works very autonomously after implementation and have become a crucial part of the sharing economy ecosystem. (Federal Trade Commission, 2016)

If the companies would not have any sort of trust system to filter out the bad apples, the overall experience would be questionable for both seller and buyer. By making it easier for the customer to pick from hundreds of options by reading reviews, the barrier for using the service is not as steep.

According to the Federal Trade Commission report (2016), in most cases, the seller has more information available than the buy relative to the risk that is being taken when trading on the sharing economy platforms. This information asymmetry makes it possible for "Lemons Problem" to be formed. This can lead to a drop in overall quality of the services and products sold on sharing economy platform, and even be a cause for the markets dissolving due to the customers not wanting to make purchases on items.

The case companies presented in this report, Uber and Airbnb, are both using rating systems to combat the lack of information presented to both parties. These rating systems are bilateral with both the customer and the seller rating their transactions. The benefits that come from the rating systems, is that it can inherently promote improvement in many areas without any specific requirements. On the other hand, the fact that ratings mean so much, the users do not necessarily want to leave bad reviews to promote a culture where high ratings are the standards, in fear of getting bad reviews themselves. This effect can create problems for the new users of the applications who might not be familiar with the rating systems average ratings and how for example four stars out of five is in actual quality. (Teubner, T., Saade, N., Hawlitschek, F. and Weinhardt, C., 2016)

According to a paper by Teubner, T., Saade, N., Hawlitschek, F. and Weinhardt, C., in Airbnb, ratings directly affect the price of the listing. The ratings are divided to different groups, scores for location, check in, communication, cleanliness and accuracy. All the categories had the same effect, higher the score, higher the listing price on average. Also the date of joining Airbnb had a impact on the listing price as longer operating listings are seen as more trustworthy. More experience usually translates to better service as the hosts can learn from past experiences and improve their service level. Best hosts can axquire a status of "superhost" which means that they have consistently received good reviews from customers that have used their services. Lastly, more photos usually translate to more trust from customers which also affects the listing price. (Teubner, T., Saade, N., Hawlitschek, F. and Weinhardt, C., 2016)

8   Conclusion and recommendations

This report was written along the lines of four main questions and two sub questions, which have been answered based on information currently available. However, case studies, surveys and research used to provide information, focus mainly on small part of the collaborative economy. More research needs to be done to complete the picture on sharing economy.

While technological advancement has brought explosive growth to sharing economy platforms, most sharing economy platforms are still very young and are searching for ideal business models that would make them grow. Due to this face the sharing economy platforms are subject to great change and that might affect how they influence the economy. These changes should be followed so markets can react to the changes in their early stages. The growth rate of sharing economy indicates that studying the subject should be a high priority for economist so that the market will stay stable.

From the research we can find out that the subject matter requires more deeper studies, which is difficult to do without the proper data and legislation. Due to these restrictions, consumer protection and transparency are very low compared to the traditional businesses. Regulating the sharing platforms will be difficult because new innovative ways to utilize it are emerging at an increasing pace. Regulation should be applied carefully in general. Before applying the same regulations that are already applied to the traditional markets, it would be preferable to have the companies itself should introduce self-regulation. If the governmental intervention is too heavy, it might kill the benefits of sharing economy to the customer.

In the future, a further transparency is required from the sharing economy platforms to ensure working co-operation with regulators and to ensure there is a fair market for all the platforms included. This must be done carefully though because a majority of the platforms have individuals' personal data which should not be published to avoid infringing customers' personal privacy.

It is recommended for the reader to revisit this topic later, as at the moment of writing of this thesis, the whole sharing economy is experiencing rapid changes. With further studies matters that are still very much open to interpretation, such as sustainability will surely be provided with more defined answers in the future when more data has been acquired concerning the sharing economy overall.

9   References

Airbnb (2018). AIRBNB'S POSITIVE IMPACT IN LOS ANGELES. [Blog] Available at: https://blog.atairbnb.com/airbnbs-positive-impact-in-los-angeles-2/?_ga=2.56296811.1369053611.1495627191-416709501.1491826099 [Accessed 18 Apr. 2018].

Berger, T., Chen, C. and Frey, C. (2017). *Drivers of Disruption? Estimating the Uber Effect∗*. [online] Available at: https://www.oxfordmartin.ox.ac.uk/downloads/academic/Uber_Drivers_of_Disruption.pdf [Accessed 18 Apr. 2018].

Bershidsky, L. (2016*). Millennials Are Buying Cars After* All.Bloomberg, p.1. [online] Available at: https://www.bloomberg.com/view/articles/2016-01-04/millennialsare-buying-cars-after-all [Accessed 17 apr 2018]

BJH Advisors LLC (2016). *Short Changing New York City The impact of Airbnb on New York City's housing market*. [online] New York: Housing Conservation Coordinators Inc. MFY Legal Services Inc. Available at: http://mobilizationforjustice.org/wp-content/uploads/Shortchanging-NYC.pdf [Accessed 17 Apr. 2018].

Bloomberg (2017). Look Out Uber—China's Didi Just Raised $4 Billion to Go Global in the Ride-Hailing Battle. [online] Fortune. Available at: http://fortune.com/2017/12/21/uber-didi-4-billion-ride-hailing-global/ [Accessed 18 Apr. 2018].

Botsman, R. (2018). THE SHARING ECONOMY: DICTIONARY OF COMMONLY USED TERMS. [Blog] *Rachel botsman*. Available at: https://rachel-botsman.com/blog/the-sharing-economy-dictionary-of-commonly-used-terms/ [Accessed 18 Apr. 2018].

Codagnone, C. and Martens, B. (2016). *Scoping the Sharing Economy: Origins, Definitions, Impact and Regulatory Issues*. JRC Technical Reports. [online] European Commission. Available at: https://ec.europa.eu/jrc/sites/jrcsh/files/JRC100369.pdf [Accessed 17 Apr. 2018].

De Groen, W. and Maselli, I. (2016). *The Impact of the Collaborative Economy on the Labour Market*. CEPS SPECIAL REPORT. [online] Centre for European Policy Studies. Available at: https://www.ceps.eu/system/files/SR138CollaborativeEconomy_0.pdf [Accessed 17 Apr. 2018].

European Parliament (2015). *SOCIAL, ECONOMIC AND LEGAL CONSEQUENCES OF UBER AND SIMILAR TRANSPORTATION NETWORK COMPANIES (TNCs)*. pp.1-2.

Federal Trade Commission (2016). *The "Sharing" Economy - Issues Facing Platforms, Participants & Regulators*. [online] pp.17-85. Available at: https://www.ftc.gov/system/files/documents/reports/sharing-economy-issues-facing-platforms-participants-regulators-federal-trade-commission-staff/p151200_ftc_staff_report_on_the_sharing_economy.pdf [Accessed 17 Apr. 2018].

Hall, J. and Krueger, A. (2016). *AN ANALYSIS OF THE LABOR MARKET FOR UBER'S DRIVER-PARTNERS IN THE UNITED STATES*. NBER WORKING PAPER SERIES. [online] Cambridge: NATIONAL BUREAU OF ECONOMIC RESEARCH. Available at: http://wws.princeton.edu/system/files/research/documents/Krueger_An%20Analysis%20of%20the%20Labor%20Market%20for%20Uber's%20Driver-Partners%20in%20the%20United%20States.pdf [Accessed 17 Apr. 2018].

Iicom.org. (2018). *Impact of the Sharing Economy*. [online] Available at: http://www.iicom.org/themes/item/impact-of-the-sharing-economy-2 [Accessed 17 Apr. 2018].

Inside Airbnb. (2018). *Inside Airbnb: Amsterdam. Adding data to the debate.*. [online] Available at: http://insideairbnb.com/amsterdam/ [Accessed 17 Apr. 2018].

Petropulos, G. (2016). *Uber and the economic impact of sharing economy platforms*. [Blog] Bruegel. Available at: http://bruegel.org/2016/02/uber-and-the-economic-impact-of-sharing-economy-platforms/ [Accessed 18 Apr. 2018].

Pettersen, L. (2017). Rating mechanisms among participants in sharing economy platforms. [online] Available at: https://firstmonday.org/ojs/index.php/fm/article/view/7908/6586 [Accessed 18 Apr. 2018].

Pieria.co.uk. (2018). *Uber and the economic impact of sharing economy platforms*. [online] Available at: http://www.pieria.co.uk/articles/uber_and_the_economic_impact_of_sharing_economy_platforms [Accessed 17 Apr. 2018].

PwC. (2018). *Outlook for the Sharing Economy in the UK 2016*. [online] Available at: https://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/outlook-for-the-sharing-economy-in-the-uk-2016.html [Accessed 17 Apr. 2018].

Schor, J. (2014). *Debating the Sharing Economy.* [online] Available at: http://www.msaudcolumbia.org/summer/wp-content/uploads/2016/05/Schor_Debating_the_Sharing_Economy.pdf [Accessed 20 Apr. 2018].

Statisca. (2018). *Number of smartphone users worldwide from 2014 to 2020. [online]* Available at: https://www.statista.com/statistics/201182/forecast-of-smartphone-users-inthe-us/ [Accessed 18 Apr. 2018]

Teubner, T., Saade, N., Hawlitschek, F. and Weinhardt, C. (2016). *It's only pixels, badges, and stars: On the economic value of reputation on Airbnb*. The economic value of reputation on Airbnb. [online] Wollongong. Available at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1055&context=acis2016 [Accessed 17 Apr. 2018].

Zervas, G., Proserpio, D. and Byers, J. (2016). *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry*. [online] pp.1-2. Available at: http://people.bu.edu/zg/publications/airbnb.pdf [Accessed 17 Apr. 2018].