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Competition in the Sharing Economy

Author:

Vera Demary
Phone: +49 221 4981 - 749
vera.demary@iwkoeln.de

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Postfach 101942 - 50459 Köln
Konrad-Adenauer-Ufer 21 - 50668 Köln
www.iwkoeln.de

Content

Abstract

Sharing goods, services or knowledge is at the center of the so-called Sharing Economy. Businesses are usually based on online platforms that match demand and supply which is in many cases, but not always provided by individuals. Sharing Economy companies typically compete with traditional companies in many different markets. The main challenge of this type of competition currently is the application of the existing regulation. While incumbent firms adhere to this, Sharing Economy companies often feel it does not apply to their business model. This paper examines the organization of the Sharing Economy and the functioning of markets and competition in it. Europe is lagging behind the United States with respect to the diffusion of Sharing Economy businesses and the number of successful companies. Therefore this paper also offers policy advice from a European perspective to level the playing field between traditional and Sharing Economy companies and to promote the formation of the latter in Europe.

1 Introduction

Typically, the prevalent business model consists of companies producing a good or service which customers – be it other companies or households – buy. Recently, this traditional way of going about business has been complemented by non-traditional business models which focus no longer on ownership, but on the use of a product. Customers share goods or rent them instead of buying them. However, this is by no means a new phenomenon. People have been borrowing books from libraries for hundreds of years. Neighbors have been helping each other out informally for an even longer time. There are countless examples for these types of activities that have been around for some time. Still, the advent of the internet and the consequently facilitated opportunities for entrepreneurial activities have given rise to an enormous number of new non-traditional businesses and business models that encompass the so-called “Sharing Economy”. For consumers, suppliers, companies and competition authorities, the activities within the Sharing Economy are in many cases still new, puzzling and sometimes hard to grasp. This paper aims at providing insight into the organization of the Sharing Economy, the functioning of markets and competition in it as well as an outlook on possible policy implications at a national as well as at a European level.

2 Organization of the Sharing Economy

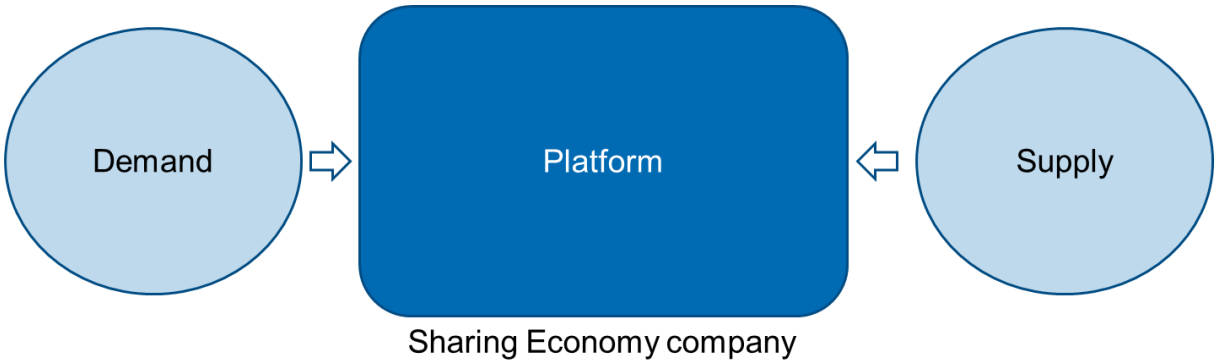
2.1 Business models of the Sharing Economy

The main characteristic of the Sharing Economy is its heterogeneity. There are numerous business models, markets and products involved, so finding a common definition for all these activities is difficult. Attempts to define the Sharing Economy consequently focus on distinguishing different aspects of business models, such as the way contracts are formed, trust is developed or whether transactions are market-mediated or not (Hienerth/Smolka, 2014). On another level, some definitions of the Sharing Economy put forward an altruistic motive for business (Stokes et al., 2014) that is however not applicable to all businesses of the Sharing Economy. Abstracting from these definitions and very generally, the Sharing Economy includes all economic activities that focus on sharing goods, services or knowledge. The sharing part of the business activities can either take place between consumers only as in so-called peer-to-peer models or involve suppliers as well. An example for the first case is a car sharing service where a driver shares his own car with another individual. The second case can be illustrated by so-called free floating car rentals that allow customers to rent cars by the minute on the go. The cars in this case belong to the

rental company. Thus, the definition of the Sharing Economy used in this paper is broader than the one put forth by the European Commission that only encompasses peer-to-peer business models (Dervojeda et al., 2013).

The business models of the Sharing Economy are usually platform-based to match demand and supply. The increasing use of the internet and its possibilities enable online platforms that are easy and cheap to access. Independent of the rest of the design of these non-traditional businesses, the Sharing Economy companies usually provide these platforms. These, in turn, attract demand, often on a very large scale, since they are accessible world-wide. Although the good or service that is shared might be regional or local rather than internationally accessible, one platform can cater several regional or even local markets. Take peer-to-peer (P2P) car sharing services, for example. Cars and drivers as well as demand for the service are local; the platform, however, usually matches local demand and supply in numerous different markets. Consequently, the scale of the operation is large.

Figure 1: Structure of a peer-to-peer model



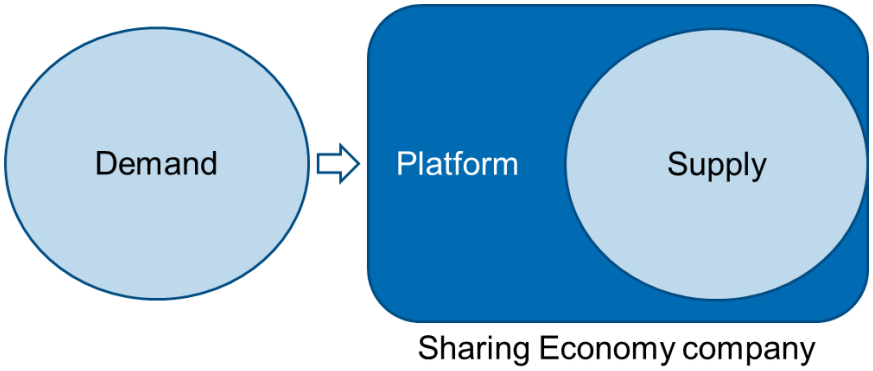
Source: Author

There are mainly two different models of Sharing Economy businesses. A web-based platform is the center of both; what differs is the way supply is provided. The most commonly known Sharing Economy model is a peer-to-peer (P2P) model (confer Figure 1). In this model, goods or services are shared between individuals, meaning the respective Sharing Economy company does not produce either good or service. It simply acts as an intermediary between demand and supply. Examples for this type of model are platforms that bring tourists or other travelers and private homeowners together for the purpose of providing accommodation. This service can either be free of charge or cost consumers and/or suppliers something. In the former case,

companies are usually non-profits that finance themselves via advertising or sponsoring. The latter case can be a very profitable business model when companies charge for a service that costs them little to provide once the initial fixed costs for installing the platform and marketing it have been incurred.

In contrast to this, business-to-consumer (B2C) models of the Sharing Economy resemble traditional business models in some ways (confer Figure 2). The company in these cases not only provides the platform to channel demand, it also supplies the good or service. Free floating car sharing companies are an example for this type of business, as well as any kind of web-based renting company, be it for clothes, toys or other goods. This model differs from traditional business models in the sense that firstly ownership plays no part and secondly, the interactions are mainly based on up-to-date communication technologies and devices like the internet, apps, smart phones or computers. The line between traditional and non-traditional businesses is sometimes blurry in B2C models, however. Renting companies have been around for a long time; does the possibility to book whatever good or service they provide online already constitute a Sharing Economy business? The focal point here should be whether the online platform and possible additional new technologies being used constitute the center of the business. If the booking of a good or service on a platform simply precedes a longer face-to-face interaction, as it is the case with traditional car rental companies for example, it cannot be considered the main aspect of the business model. Sharing Economy B2C companies usually have little or no face-to-face interaction with the consumer.

Figure 2: Structure of a business-to-consumer model



Source: Author

In addition to P2P and B2C models, the Sharing Economy also includes business-to-business (B2B) models. This fact is often neglected because at first sight, the Sharing Economy seems to be geared to the end user. It becomes increasingly popular, however, for companies that used to buy semi-finished goods or services from other companies to rent them instead (for some examples see Owyang, 2014). The B2B model in the Sharing Economy can work either way: The supplier of machinery, workspace or other goods or services can be just any other company that shares its own assets, facilitated by a Sharing Economy business that matches supply and demand. This basically constitutes a P2P in a B2B model. Alternatively, the B2B model can be identical to the B2C model in the sense that the Sharing Economy company owns both the platform and the good that is shared.

2.2 Drivers of the Sharing Economy

Technology is the main driver of the Sharing Economy. It makes economic activities easier and it makes them cheaper by reducing transaction costs. These occur for example when consumers and suppliers search for each other, negotiate the conditions of the transaction and check whether the good lives up to its promise (Dahlman, 1979). This is the case in every market transaction (Coase, 1960). Before the advent of the Sharing Economy, transaction costs could be quite high because direct – and consequently costly – interaction between consumers and suppliers often had to precede a deal. Many of these interactions did not take place at all because it simply was too costly to be feasible. The internet, smartphones and other new technologies overcome parts of this problem: Especially search and information costs are often dramatically reduced compared to direct interaction. Table 1 demonstrates this using the example of P2P car sharing, comparing traditional sharing and internet-enabled sharing.

Technology also facilitates interactions that were impossible just a few years ago. Take free floating, for example, which typically uses a web-based platform as well as mobile technologies: The car is booked via an app on the consumer's cell phone, it is located via GPS and the doors are then unlocked with a card reader or the app as well (Car2Go, 2015). In that way, the flexibility of this business model is facilitated mainly by technology.

Table 1: Reduction of transaction costs in the Sharing Economy

Activities in peer-to-peer car sharing from the consumer point of view, examples

	Traditional sharing	Sharing Economy
Search and information costs	Finding someone in your vicinity who owns a car and is willing to lend it to you	Finding the internet platform that specifies the supply of cars in your vicinity; picking a supplier
Bargaining and decision costs	Negotiating the price and conditions of the deal individually	Checking the price and conditions specified by the platform
Policing and enforcement costs	Organizing payment method and payment; negotiating with the insurance and the supplier in case of an accident	Payment via the platform; relying on the platform in case of an accident

Source: Author based on Dahlman, 1979

The advent of the Sharing Economy coincides with the global financial crisis. Google Trends places the first search for the term sharing economy worldwide in 2009. European countries like Germany, France, Italy or the United Kingdom started using the concept in late 2013 the earliest. Research conducted by an expert team working for the European Commission shows that the loss of trust in traditional companies during the financial crisis was a major enabler for the feasibility of many business models of the Sharing Economy (Dervojeda et al., 2013). It is remarkable that the loss of trust in one segment of the economy leads to the foundation of numerous businesses in another segment that is based on trust even more. In P2P models, the main reason for this is probably that the Sharing Economy company itself, while its motivation and goals might not differ at all from traditional companies, takes a back seat. The consumer and the (individual) supplier sharing the belongings or knowledge of the latter are at the center of the interaction. Trust might hence be built simply on the fact that an individual supplier is not a business in the traditional sense

of the term. Consumers are producers at the same time, they become so-called prosumers.

Still, Sharing Economy companies work hard to establish trust since it is a prerequisite for conducting business in this environment (Finley, 2013). While technology is the main driver of the Sharing Economy, at the same time, an aversion to web-based applications in general or insufficient knowledge about their possibilities and limitations are obstacles to trust in Sharing Economy businesses (Dervojeda et al., 2013). For these companies, the most common avenue of creating trust is a rating system where consumer and supplier rate each other after each transaction (Allen/Berg, 2014; Finley, 2013). In turn, prospective consumers can then check different suppliers' ratings before engaging in a transaction. This reduces information asymmetries by increasing transparency. The risk of manipulation is dimished when the number of transactions involving the same supplier increases. In some cases, the identification of both consumer and supplier is verified via a scan of their official identification or a link of their online profiles on the platform to details provided in their respective social media profiles (Allen/Berg, 2014).

The most disruptive business ideas of the Sharing Economy are P2P business models because they are associated with several characteristics that allow them to enter a market and to conduct business in a way that differs severely from traditional companies or even B2C models. Consequently, the analysis in the following chapters focuses on the P2P business models of the Sharing Economy.

3 Markets and competition in the Sharing Economy

Markets in the Sharing Economy evolve around a platform-based Sharing Economy business that competes with other such businesses and traditional companies. Therefore, this chapter first analyzes the properties of markets with two-sided platforms. In a second step, market structure in the Sharing Economy in general is examined in more detail.

3.1 Markets with two-sided platforms

P2P Sharing Economy business models are basically virtual networks that connect individual consumers and individual suppliers. In contrast to a traditional network where physical connections like railroad tracks link the different nodes, the linkages in virtual networks are invisible but no less important (Shapiro/Varian, 1999). Shy (2001) defines a network using six characteristics: complementarity, compatibility, standards, externalities, switching costs and significant economies of scale. These characteristics all apply to P2P Sharing Economy businesses.

Complementarity

Complementarity means that one good needs to be consumed together with another good (Shy, 2001). The basic example for this are DVD players and DVDs that are essentially complements and do not work one without the other. In the Sharing Economy, networks typically are not associated with products that are complements. Platforms match unfulfilled individual demand with individual supply. In that sense, these constitute the complements that characterize networks. Without a (individual) supplier that provides the shared good or service, the platform and in that sense the Sharing Economy business is not able to satisfy demand. Vice versa, without demand, the platform cannot conduct business with the suppliers.

Compatibility

Closely connected to complementarity, demand and supply need to be compatible for a Sharing Economy network to work. A platform where all sorts of do-it-yourself equipment is shared will not accept suppliers aiming to share clothing, for example. Demand and supply in that case simply would not be suitable.

Standards

Another essential aspect of networks, standards, ensure compatibility. Usually, coordination is needed to agree on standards within a network (Shy, 2001). In the Sharing Economy, the platforms take this role and set standards for the transactions. These refer to terms of business, payment or communication, for example.

Network externalities

Networks are further characterized by externalities (Shy, 2001). Network externalities mean that the number of participants or consumers using a platform is positively correlated with the value they get from their use of this platform (Shapiro/Varian, 1999). The more subscribers a telephone company has, the more value is created for each user since the number of possible calls is increased (Shy, 2001). For the Sharing Economy, the network effects are indirect ones. Usually, in P2P platforms the extra value does not stem from the other consumers directly. Instead, if a lot of consumers use a platform, their demand is better met and hence, the value of their use of the platform increases. Take a P2P accommodation platform, for example: A high demand for this type of accommodation results in many suppliers of private accommodation participating and consequently increases coverage and possibly demand. The number of users on one side of the platform thus attracts more users on the other side (Haucap/Heimeshoff, 2013). Indirect network externalities or network effects, often on both sides, are a major property of two-sided markets (Peitz, 2006). Hence, P2P Sharing Economy businesses constitute typical two-sided platforms. The indirect network effects occur on both sides.

Switching costs

Networks are further characterized by high switching costs between different networks (Shy, 2001). If these are so high that switching becomes basically impossible, a so-called lock-in effect occurs. In case of Sharing Economy companies, there are in fact switching costs although they are not as high as in other networks, say for instance social networks. A consumer who wants to rent a private home for his accommodation during his vacation can easily open a free account at several different platforms that offer this kind of service, for example. In comparison, switching social networks effectively means leaving behind all the connections to other people that have been established in the past and starting over. In that sense, lock-in is typical for social networks. Still, even for Sharing Economy businesses, there are switching costs involved: First of all, the consumer incurs training and learning costs (Shapiro/Varian, 1999). Once he has used and gotten used to the specific standard of one platform, it will take at least some time to get used to another one. Furthermore, he incurs search costs because he needs to find another platform first that offers the same service. Finally, the consumer faces possible considerable loyalty costs due to the fact that the trust forming mechanism of the new platform might be different. This is especially important when trust is formed via evaluations of past interactions with suppliers. In this case, switching the platform would essentially entail starting over when building trust.

Economies of scale

Networks are typically characterized by significant economies of scale (Shy, 2001). This also holds for Sharing Economy companies: While there are notable sunk costs associated with developing the platform and maybe marketing it before even the first consumer can use it, there are almost no extra costs if more consumers use it once the programming of the platform is done. In consequence, it is fairly cheap for Sharing Economy companies to reach a large number of consumers as well as suppliers. This can lower the market entry barriers considerably. Consider the taxi market, for example. To be able to compete with the incumbent firms, an entrant needs to possess a significant number of cars in order to attract consumers. Matching demand for and supply of private rides via a platform means that this threshold is basically nonexistent because a large number of (individual) suppliers are easily reached. On top of this, it does not even cost the platform any money to provide this supply. This is the main reason why in many markets P2P Sharing Economy companies have found it quite easy to enter into (sometimes fierce) competition with the incumbents.

Besides the aforementioned properties of two-sided platforms, another main characteristic is that the platform is able to differentiate between different types of users and can cross-subsidize between them (Rochet/Tirole, 2003). This typically means that there is a profit-making segment and a subsidized segment. Generally speaking, there are different types of pricing possible in this kind of setting (Peitz, 2006): Either the demand side or the supply side pays. A mix of both or price discrimination for different types of consumers or suppliers is also possible. If neither consumers nor suppliers are charged, but the platform finances itself via advertising, the platform can be defined as multi-sided because the advertisers form another (third) side of the platform. Table 2 provides some examples for pricing in Sharing Economy companies.

Table 2: Pricing in P2P Sharing Economy companies

Examples, effective 15-04-28

	Sharing Economy company	**Description of pricing**
Two-sided platform		
Suppliers are charged	Zilok – platform for rental items of any kind	Monthly price for rental businesses to list their inventory, transaction fee
Consumers are charged	Uber – platform for private car rides	Percentage of price per kilometer
Consumers and suppliers are charged	Airbnb – platform for private accommodation	Service fees for guests and hosts as a percentage of price of reservation
Financed through other means (e.g. donations)	Wikipedia – platform for encyclopedic knowledge	Donations
Multi-sided platform		
Financed via advertising	The Freecycle Network – platform for redistributing items of any kind	Advertisements on the website

Source: Airbnb, 2015; Dervojeda et al., 2013; Smolka/Hienerth, 2014; Wikipedia, 2015; Zilok, 2015

3.2 Competition in the Sharing Economy

Sharing Economy companies hardly compete with each other only. Instead, the markets they are active in are in many cases characterized by a number of traditional firms competing with one or more platform-based Sharing Economy businesses. The properties of two-sided platforms – mainly the ability to grow very large quickly and use economies of scale – typically result in a reduction of the barriers to entry in the market. Sharing Economy companies hence find it easier to enter markets than traditional entrants.

The entry of a Sharing Economy company in a market does not necessarily have to result in a split of existing demand among more competitors. Instead, Sharing Economy businesses have unique properties that sometimes even allow them to increase demand in an existing market: They appeal to consumers' striving for sustainable consumption. Car sharing is the prime example for this contradictory phenomenon: Consumers who use a P2P car sharing service do not need to own a car. This leads to greater sustainability and lower pollution if the alternative for the consumers was indeed owning a car. It is also possible, however, that some consumers of car sharing services used public transport or their bicycles before. In that case, the advent of a Sharing Economy company in the market for mobility via motor vehicles could in fact increase demand. To a similar end, a study conducted by two German free floating car rental companies reached the conclusion that only about half of their customers did not have their own car (car2go/DriveNow, 2015). Consequently, the other half did have a car and still used free floating.

Market structure can take various forms when Sharing Economy companies are involved. Since they generally operate on a big scale, there are usually various regional markets involved. The number of suppliers can vary between just a few (as in the taxi market in Germany) and very many (take the market for overnight stays with numerous hotels, B&Bs, guest houses and private accommodation in most places). The number of consumers is usually large as well, so markets commonly exhibit either an oligopoly or a polypoly structure, the former being far more common.

Sharing is contrary to ownership. As a consequence, Sharing Economy companies transform anything into a service. Therefore, the Sharing Economy business models organize the matching between consumers and suppliers of all sorts of goods:

- *Durable consumer goods*, such as cars, bicycles, or apartments
- *Nondurable consumer goods*, like meals, or food in general
- *Investment goods*, e. g. machines, or factory buildings
- *Intangibles*, first and foremost knowledge
- *Services*, like babysitting, cleaning, or other typical services (with suppliers sharing their time while providing the service)

Sharing Economy companies have significantly increased competition in most markets they are active in. They are in many cases not only an extra competitor: The markets they have entered have sometimes been undisputed for a long time, so the Sharing Economy companies might even introduce competition to markets. An example for this is the market for taxi rides that is strictly regulated in many countries (Schwalbe, 2014). This, in turn, has caused almost cartel-like structures in the past (Kroes, 2014). Companies that match demand for and supply of rides in private cars introduce a competitive element in such a market. Even in markets that are already competitive, the entry of a Sharing Economy company causes an increase in

competition that is mostly unparalleled when compared to traditional business models.

The main reason for this is that Sharing Economy companies often do not apply the framework and regulation of the respective market to their activities while traditional companies do. The motivation for this behavior is that they believe that existing, pre-Sharing Economy regulation is inapplicable to Sharing Economy companies, especially P2P models. The argument being made is that the supplier is in fact an individual, not a company (confer Uber, 2015, for example). In consequence, it is reasoned that a framework of a market geared to companies could not be applied. Not surprisingly, traditional companies disagree and strive to apply framework and regulation to all companies (and in case of Sharing Economy businesses to individual suppliers) in a market in the same way (e. g. Schlenker, 2014).

Thus, a thorough analysis of the Sharing Economy markets by competition policy-makers is imperative. It needs to be appraised whether the framework and the regulation of these markets that was originally implemented to organize markets with traditional companies apply to non-traditional companies as well. Due to the heterogeneity of the numerous markets that Sharing Economy companies are active in, each affected market needs to be examined separately. In general, there are two possible outcomes: Either the existing regulation and framework is to be applied to all companies in a market or it is to be reviewed and possibly changed. In the first case, the application of the existing regulation would pose a competitive advantage for the incumbent firms. The business model of the Sharing Economy companies would be threatened, if not completely suppressed. Take a Sharing Economy business that matches travelers with private accommodation, for example. This type of business competes with traditional hotels, among others. If private accommodation had to apply the same regulation for fire safety, pollution control, hygiene or labor law for example (cf. Handelskammer Hamburg, n. d.), almost no private accommodation would be suitable for rent.

In the second case, the existing framework and regulation would be reviewed in the face of digitization and new business models. In some markets, this might have been long overdue even without taking the entry of Sharing Economy businesses into account: In Germany, taxi drivers have to prove their knowledge of the city they operate in (Rebler, 2014) even in times of GPS, for example. As a consequence of the reevaluation of the existing regulation, competition in the respective markets might be increased when Sharing Economy companies continue to operate or new ones enter the market. This, in turn, has a positive impact on the consumers as competition might increase selection as well as decrease prices.

4 The Sharing Economy from a European Perspective

The first P2P business models of the Sharing Economy were created in the United States (Dervojeda et al., 2013). A study based on the United States showed for 2014 that 44 percent of surveyed Americans aged 18 or older knew the term Sharing Economy (PricewaterhouseCoopers, 2015). 19 percent have already shared goods or services as consumers, 7 percent have acted as individual suppliers. Although studies are rare and the results are usually not representative for the whole population, the numbers for Europe are probably much lower. In Germany in 2012, 12 percent of interviewees had shared goods via the internet (Heinrichs/Grünenberg, 2012). Generally speaking, the Sharing Economy is still in its infancy. While there are more and more originally European Sharing Economy businesses arising, Europe seems to be lagging behind the United States. There are several possible explanations for this:

Starting a business can be complicated in Europe.

Entrepreneurs need support on different levels to be able to actually start a business. Besides financial support, administrative procedures need to be as simple as possible to allow for speedy implementation of the business idea. Europe scores lower than the United States with respect to many of the indicators that are typically used to assess the ease of starting a company. Take finance, for example: The IMD World Competitiveness Yearbook shows that Europe scores an average of 4.12 points out of a possible 10 with respect to access to venture capital (0 symbolizing hard access and 10 easy access). The United States attains 7.61 points, Israel 6.64. Similarly, some administrative procedures in Europe seem to be more complicated than elsewhere: While the number of days to start a business in Europe is 12 days on average, it takes only 5 days in the United States and 6 days in Korea (IMD World Competitiveness Center, 2014).

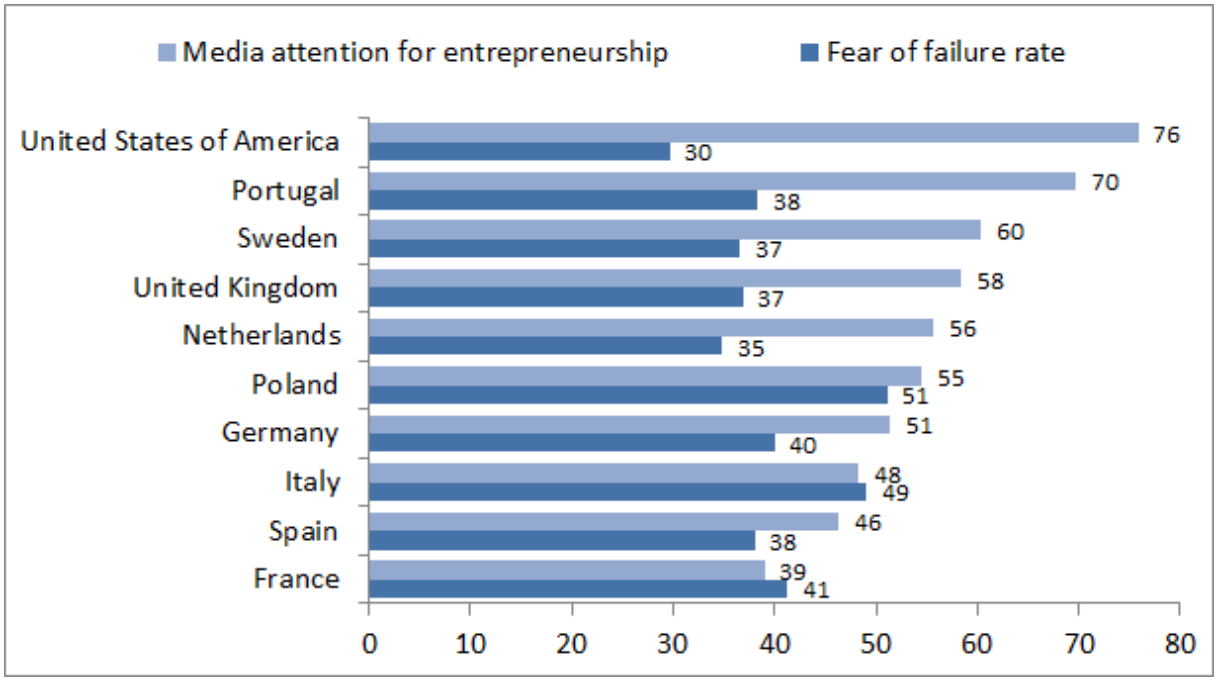
In addition to these obstacles with respect to the entrepreneurial framework, the European mindset is hesitant when it comes to starting a business (figure 3). While 76 percent of the American population agree with the statement that stories about successful new businesses are frequently present in the media, only 51 percent of Germans do. The percentage is even lower in countries such as Italy (48 percent), Spain (46 percent) or France (39 percent). Entrepreneurship seems to be promoted less in Europe or at least in parts of the continent than in the United States. This approach starts in schools, as research for Germany has shown: Common school books for different subjects such as political science, history or geography, do not portray entrepreneurship in a decidedly positive way (Klein/Schare, 2010).

Figure 3: Assessment of entrepreneurship in Europe and the US

2014, selected countries, percentage of 18- to 64-year-old population…

… who agree with the statement that in their country, you will often see stories in the public media about successful new businesses (Media attention for entrepreneurship).

… with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business (Fear of failure rate).



Source: Global Entrepreneurship Monitor, 2014

In consequence, fear of failure of a business is widespread in Europe (figure 3). Despite their perceived positive opportunities for starting a business, 40 percent of the German population indicate that fear of failure keeps them from becoming an entrepreneur. This holds true for an even higher share of the population in Italy (49 percent) or Poland (51 percent). In contrast, less than a third of the population of the United States would refrain from starting a business due to fear of failure.

European consumers are reserved about online activities.

Another aspect that is a comparative disadvantage for Europe is the relative distrust of possible consumers of Sharing Economy companies in online activities (Dervojeda et al., 2013). While such businesses have been operating in the US for several years

and consumers had idle time to get accustomed to them, the Sharing Economy in Europe is still in its infancy.

Table 1: Online activities in Europe

2014, in percent of all individuals in the European Union, selected indicators

Regular internet users	74.6
Regular internet users, 55 to 74 years old	49.9
Individuals who have never used the internet	18.1
Individuals with medium or high internet skills	46.6
Individuals with medium or high internet skills, 55 to 74 years old	19.5
Ordering goods or services online	50.2
Selling online	19.3
Using online banking	44.1
Uploading self-created content	26.0

Source: European Commission, 2015

Data collected by the European Commission show that the unfamiliarity of the Sharing Economy is not the only obstacle but unfamiliarity with the internet and online activities pose an obstruction as well (table 1). This is particularly relevant with respect to the older population: While around three quarters of the overall population in the European Union regularly use the internet, only about half of the 55- to 74-year-olds do. Only about 20 percent of that age group possess medium or high internet skills. On the other hand, nearly one out of five people in the EU have never used the internet. Knowing these facts, it is not surprising that online activities like ordering goods or service, selling them or online banking are not hugely popular in Europe. Consequently, web-based Sharing Economy businesses face obstacles in the EU, at least with respect to trust in and familiarity with new technologies.

European consumers are reluctant to outsource activities.

Many businesses of the Sharing Economy aim at providing (domestic) services to consumers that make their life easier (Dervojeda et al., 2013). Examples for this are mobility services, cleaning services or administrative tasks. In most cases, these are offered using P2P business models. Generally, the outsourcing of domestic services first appeared in the United States (Estévez-Abe, 2014). Recently, it has also become more popular in Europe and in many countries, it has even been promoted by introducing tax subsidies, for example. Still, many Europeans are still somewhat reluctant to use such services, and are consequently less accessible for Sharing Economy businesses (Dervojeda et al., 2013).

However, data on household consumption do not necessarily support this argument nor do they quash it. An example for this is household consumption of catering services as reported by the OECD (OECD, 2015). In the United States, catering services in restaurants used by all households combined amount to 3.65 percent of GDP. In some European countries, like Germany (2.3 percent) or France (2.72 percent), households seem to eat out less. In others, like the United Kingdom (4.9 percent), consumption of catering services is relatively higher. A reluctance to outsource, i. e. eat out instead of cooking in this case, only seems to be present in some European countries based on this indicator. Using catering services is just one incomplete proxy for outsourcing activities, however. The result might be different if more and broader indicators for this subject were available. Still, business models aimed at providing such (domestic) services are just one face of the Sharing Economy. There are many companies around that have found different niches and hence, would not be affected by a reluctance to outsource activities anyway.

Although the European Sharing Economy is still lagging behind the United States, this also implicates that there is room for development. In general, the Sharing Economy and its businesses are very dynamic, meaning that new business ideas are developed daily and new companies are started frequently. The reason for this is that there are profits to be made. For companies, this is the most powerful driver to become active in a market. An innovative, often disruptive business idea enabled by new technology gives promise to huge profits. Starting up such a business is still very risky, and start-ups need investors willing to carry that risk. Many examples, often from the US, but also from European countries have shown that carrying out innovative ideas in the Sharing Economy can lead to success. An example for the latter is Spotify, a Swedish P2P on-demand music streaming service that has expanded to 58 countries and has more than 60 million active users (Spotify, 2015). Due to technical reasons, Spotify shut down its P2P technology in 2014, however (Dillet, 2014). BlaBlaCar, a French P2P ride sharing platform, is another example for a successful European Sharing Economy business. It has recently raised 100 million US-Dollars in 2014 to expand its business globally (BlaBlaCar, 2014).

Sharing Economy companies need to operate on a large scale. Inevitably, this goes along with a global expansion into many countries and markets. Ultimately, this means that every country is affected and the Sharing Economy is a worldwide phenomenon. From a European perspective, a stronger European Sharing Economy with companies that have their roots in Europe would be beneficial. If the Sharing Economy continues to become an increasingly important part of the economy as a whole, it might as well be European companies that enter traditional markets with novel business ideas: Not only for tax reasons but also for growth and prosperity in Europe.

5 Policy Implications

Sharing Economy companies are business models just like traditional ones, except for the fact that they typically reach a large scale quickly, use new technologies and the internet extensively and often do not feel bound by the existing regulation in the relevant market. In that sense, they are disruptive and offer a promise of steeper competition (with more variety at lower prices) that improves the situation of the consumers. From a European perspective, the current discussion about regulating Sharing Economy companies respectively platforms in general – as addressed in the European Commission's strategy for the Digital Single Market – warrants a few thoughts on how policy-makers should react now and what the policy implications of the Sharing Economy are.

Level the playing field quickly.

Sharing Economy companies often enter markets that have been uncontested for some time. In order to enable and ensure fair competition between them and the incumbents, competition authorities need to examine whether the framework in place is still appropriate or needs to be adjusted. Technological progress and the resulting technological possibilities are especially relevant in this context since they might render some of the existing regulation redundant. While the existing regulation might in some cases protect the market from entry, traditional incumbents would also profit from a modernization of the framework. The costs associated with adhering to the existing regulation are often high and might be reduced in case the regulation is adjusted.

Many Sharing Economy companies enter US markets before they do so in Europe. This provides competition authorities in Europe with a unique advantage: By observing the effects Sharing Economy companies have in US markets, as well as

the impact of policy measures or of the adjustment of the regulation there, decisions on how to adapt European frameworks can be taken on an empirical basis. Although there are obviously differences in competition policy and market regulation between the US and Europe, in some cases, the US could possibly serve as a natural experiment of sorts.

The analysis of the existing regulation needs to be conducted individually for each market Sharing Economy businesses are active in. Due to the large scale of operation of many of these companies, there might be several competition authorities involved in any such analysis because several (regional) markets might be affected. It can be expected that the results of such an analysis differ between these competition authorities and markets, just like regulation now. However, from a European perspective at least, a uniform or similar regulation all over the continent would be useful. This would provide legal certainty all over Europe and consequently significantly reduce costs associated with adapting and adhering to the regulation for Sharing Economy companies. The same argument holds for traditional companies that conduct business in more than one country.

The Sharing Economy is very dynamic in the sense that new businesses are started all the time, and existing Sharing Economy businesses are constantly expanding into new markets. In order to keep up with this dynamic, competition authorities need to conduct their analysis of the existing regulation quickly. Legal uncertainty weakens Sharing Economy companies because they incur the risk that their business models become unsustainable. On top of this, traditional incumbents in many cases lobby for court rulings prohibiting Sharing Economy business practices. These legal battles are expensive and can, if they last long enough, drain Sharing Economy businesses of vital resources so that they are forced to leave the market. A speedy analysis of the existing regulation in light of new technological possibilities is thus vital.

Provide resources for competition authorities in Europe.

Competition authorities have a variety of responsibilities and are consequently generally engaged. A quick analysis of a number of markets that Sharing Economy companies are active in is bound to engage even more resources. Most likely, competition authorities are not equipped well enough to handle this on top of their other assignments. Backlogs and delays in the evaluation of market frameworks and regulation are probable consequences. Therefore, policy-makers at the appropriate levels (national or European) need to provide sufficient extra resources to competition authorities to deal with the implications of Sharing Economy companies. As a speedy market analysis is vital in many markets, resources need to be made available quickly as well. Depending on the market and the country, this may also

mean that policy-makers themselves devote more of their own resources to analyzing markets and implementing a revised framework.

Foster venture capital.

Sharing Economy businesses are a rather new, but increasingly important part of the economy and contribute to tax revenue and economic growth. Still, Europe is lagging behind the US with respect to the extent to which these companies are launched. One reason is the availability of venture capital as a means to finance the upstart of such a business during the risky first years. To increase the number of start-ups in the Sharing Economy, policy-makers need to facilitate the provision of venture capital. Some European countries already foster venture capital with an attractive framework for private equity funds and investors, or optimal conditions for start-ups. An example for this is the United Kingdom that uses tax incentives to foster venture capital, for example (Röhl, 2014). Others, like Germany, need to catch up and bring their relevant legislation up to date. In Germany, this entails for the current government to finally act on the plan to install a venture capital law that fosters the provision of financial resources for start-ups (BVK, 2015).

For Europe to become more competitive with regard to Sharing Economy companies compared to the United States, a similar promotion of venture capital in all European Union member states is paramount. If start-ups like Sharing Economy businesses face a similarily easy availability of venture capital all over the continent, Europe will become one big attractive location for such businesses and will be able to compete with the United States on the same level.

Foster the ease of starting a business.

Besides the difficulty to obtain the financial means for starting a business, administrative requirements represent obstacles for start-ups in Europe. A reduction of the number and extent of such requirements would ease starting a business. As a consequence, a greater number of Sharing Economy businesses might be founded. For prospective founders, a clear overview of the requirements within the European Union and its member states might be helpful as well. Just like the financial means of starting a business, having a similar regulation all over Europe with respect to administrative requirements would certainly have an impact as well.

Foster entrepreneurship in schools.

Starting a business, in particular an internet-based Sharing Economy business, is risky, despite the governmental support. The mindset needed to be willing to undertake this risk needs to be supported by fostering entrepreneurship in schools. This could be achieved by pursuing different avenues: The portrait of companies in general and entrepreneurship in particular in school text books should be decidedly positive, but at least neutral. Projects that engage students in entrepreneurial activities, like starting their own business for a year, take a more active approach. Students are thereby introduced to what it means and what it takes to be an entrepreneur in a playful way. Studies have shown that these programs have a significant, positive impact on the participants and the economy as a whole (e. g. Young Enterprise United Kingdom, 2012; JA Worldwide/Prudential plc, 2013; Junior Achievement Sweden, 2011). In addition to these measures, introducing computer science as a mandatory subject in secondary schools would enable more students to start businesses based on online platforms that need programming and technical maintenance. The extent of required improvements in entrepreneurship education in schools differs between the European countries. It is safe to say, however, that the basis for starting a business, in particular a Sharing Economy one, is an innovative idea and the willingness to take risks. Schools play a crucial role preparing students for both.

Sharing Economy companies are an important addition to the corporate landscape in Europe. They create jobs, contribute to tax revenue and facilitate economic growth. Their business models often feature ideas that are disruptive in markets that have been uncontested for some time. From a consumer point of view, they offer unique services and often increase competition in markets that can result in more variety at lower prices. These benefits can only be realized, however, if regulation allows fair competition in the relevant markets. It is therefore vital to take action now to make this possible.

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