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Stepping up the game

The role of innovation in the sharing economy

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Contents

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Abstract

While the sharing economy is generally perceived to be very innovative, it has hardly been analyzed what defines this innovativeness. The main aspect for the sharing economy as a whole is the peer-to-peer (P2P) organization of its businesses. This allows sharing platforms to enter markets more easily, consequently increasing competition in these markets. In addition to that, many sharing platforms are also technologically innovative or apply a tested concept in a new setting. Increased competition may result in even more innovation in order to keep customers satisfied and boost the benefit these derive from participating in the sharing economy. However, in most affected markets, there is no level playing field yet between the established incumbents and the new sharing platform entrants. This calls for urgent action on the side of policy-makers to foster innovation in the sharing economy while enabling fair competition.

1. Introduction

Digitization is fanning out over all sectors of the economy. This involves an increasing utilization of digital technologies as well as the development of new business models. Online platforms are the most popular example for the latter. They match supply and demand for a service and are thus able to cut transaction costs tremendously. The sharing economy is one application of the online platform business model that is deemed particularly innovative. What makes up this innovativeness from an economic viewpoint has not been analyzed so far, however. This paper reviews different concepts of innovation and discusses their relevance for the sharing economy.

Overall, the peer-to-peer organization of the sharing economy – meaning that individuals act as suppliers and users – constitutes a large part of its innovativeness. Even in a small economic sector such as the sharing economy, innovation can take several forms, however. Many sharing platforms copy an existing business model and simply apply it to a new market. Others develop technological innovations. Whether all of this constitutes disruptive innovation as it is often proclaimed cannot be determined at this point. It is clear, though, that the multitude of innovative concepts within the sharing economy makes it all the more important for policy-makers to avoid stifling innovation when counteracting possible market failure and imposing regulation.

The remainder of this paper is organized as follows: Chapter 2 introduces the characteristics of the sharing economy, while chapter 3 puts forward different concepts of innovation. Chapter 4 then analyzes the innovativeness of the sharing economy building on these concepts of innovation. Chapter 5 studies how the results affect competition and whether regulation is necessary. Chapter 6 concludes.

2. The sharing economy – an introduction

The sharing economy is becoming increasingly important for the business landscape in Europe and elsewhere. From a marginal phenomenon with few active platforms and users just a few years ago, it has developed into an increasingly relevant, but also scrutinized part of the economic system with many participants, among them platforms as well as the supply and the demand side of these platforms.

The big sharing platforms such as Uber or Airbnb are well-known and well-utilized. There is no widely accepted definition of the sharing economy as such, however. Some definitions focus on an altruistic motive for matching supply and demand (Stokes et al., 2014, 9 ff.). However, this is hardly applicable to all sharing economy businesses. Other definitions list the different aspects of sharing economy business models (Hienerth/Smolka, 2014, 10 ff.). These different approaches to defining the sharing economy indicate that the types of business included in these definitions differ as well. While some definitions only include peer-to-peer (P2P) transactions (Dervojeda et al., 2013, 3), others widen the definition to also entail some business-to-consumer (B2C) transactions (Demary, 2015, 4). In this paper, the focus is on P2P platforms, implying a narrow definition of the sharing economy:

The sharing economy includes all economic activities among individuals which are facilitated by an online platform and which focus on using assets instead of owning them.

Contrary to early forms of the sharing economy, such as flea markets or neighborly help, this definition centers on digital intermediation by means of an online platform. Such platforms possess three main characteristics (Demary, 2016, 4): 1) Two or more distinctive groups of users use them. 2) The platforms enable interaction between the users and 3) these interactions at least initially take place online. The third characteristic differentiates online platforms such as sharing platforms from overall platforms such as physical market places, whereas the first two characteristics define the interactions on any kind of platform.

According to the definition of the sharing economy put forth in this paper, it includes all platforms that enable individuals to become (micro-) entrepreneurs and cater to the existing demand of the users. They own the assets that they then share with other users via the sharing platforms. Oftentimes, suppliers are users as well and vice-versa, depending on the sector and product or service. This makes sharing platforms asset-light business models in the sense that they do not own the assets that are being shared but provide a matchmaking service via the online platform.

Generally, either the sharing economy as a whole or specific platforms are thought of as especially innovative (e.g. Cohen/Sundararajan, 2015; Koopman et al., 2014; Gobble, 2015; Hirshon et al., 2015). Quite often, the innovativeness of sharing platforms is thought to be the main reason why they are able to compete so well in many different markets and against well-established competitors. By the same token, regulation of sharing platforms is perceived as impeding further innovation in the sharing economy (FTC, 2015, 8). This implies that “flexible and responsive regulations” need to be able to “keep up with the pace of [...] innovation” (Dostmohammad/Long, 2015, 5). Furthermore, cities would need to be receptive to the innovations the sharing economy brings about in order to become or stay an attractive place for business and living (Hirshon et al., 2015, 6).

3. Characteristics of innovation

The term “innovation” is widely and frequently used, often without further definition. When it comes to defining it, the definition depends largely on the discipline that covers this topic, be it economics, business and management, engineering, organization studies (Baregheh et al., 2009, 1326 f.) or law (e.g. Ranchordás, 2015, 427). In order to capture the essence of the innovation process that all these disciplines agree upon, the following definition of innovation will be used in this paper. It is a slightly modified version of a definition stemming from a meta analysis of innovation definitions (Baragheh et al., 2009, 1334):

> Innovation is the multi-stage process whereby organizations or individuals transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace or enhance social outcomes.

This definition implies that being innovative goes further than just having an idea. Instead, it includes making such an idea marketable and improving or maintaining competitiveness with it. In addition to profit-driven innovation activities which can be expected from companies, this definition also includes so-called social innovation. This concept implies progress with respect to programs and services that aim to improve social outcomes, such as a reduction of poverty or discrimination (Ranchordás, 2015, 428). Accordingly, social innovation covers a wide spectrum of activities (for some examples, see Phills et al., 2008). They have in common that "the value created accrues primarily to society as a whole rather than private individuals" (Phills et al., 2008, 34).

In addition to this, innovation is dependent on the framework or the circumstances (Ranchordás, 2015, 430 ff.). What is perceived innovative in one setting might not be characterized as such in another setting. This is particularly valid when countries with different development levels are compared. Among others, time and sector also play a role.

Innovation can be further categorized according to the extent of change that it brings about. **Disruptive innovation**, a term first coined by Christensen (1997), refers to smaller companies successfully challenging established incumbent firms by concentrating on providing suitable goods and services to previously overlooked market segments (Christensen et al., 2015). It hence has a strong reference to overthrowing existing structures, business models and consumer bases in exchange for a novel way of catering to consumers' needs. Christensen hence builds on the Schumpeterian "creative destruction" (1939) by classifying innovations: Opposed to disruptive innovation, **incremental innovation** (also called sustaining or transformational innovation) means making smaller changes to existing technologies, products, services or processes that improve but do not challenge them and that extend existing knowledge (Henderson, 1993, 251).

Besides this categorization, several types of innovation can be distinguished that are in most cases disruptive (Markides, 2006, 19):

- **Technological innovation:** New technologies that are superior to the existing ones surpass the latter in a market (Christensen, 1997). This eventually leads to the new technologies dominating the market because companies using them early on are able to lower costs and improve quality (Klepper/Simons, 2000, 381).

- **Business-model innovation:** "Business-model innovation is the discovery of a fundamentally different business model in an existing business" (Markides, 2006, 20). It is usually accompanied by an increase in market demand, either due to additional consumers or due to higher consumption of the existing consumers. This type of innovation does not include new types of products or services, but redefines the existing ones and the way they are provided.

- **Radical product innovation:** So called "new-to-the-world" products are developed and marketed, resulting in disruption both to established competitors as well as to consumers (Markides, 2006, 22 f.). This type of innovation is supply-driven rather than demand-driven because the new products are connected neither to what consumers are currently demanding nor to the competences and assets of established competitors.

The following section describes how the concept of innovation is applicable to the sharing economy.

4. Innovation in the sharing economy

Innovation can take different forms. The following subsections will focus on the different aspects of innovation that are relevant for the sharing economy.

4.1 Patents

Innovation on a micro- as well as a macro-level is difficult to measure (e. g. Archibugi/Pianta, 1996, 451 f.). This is mainly due to the characteristics of the innovation process, its dependence on the setting as well as the number of different types of innovation. The number of patents is a typical indicator used to measure the output of the innovation process (Atun et al., 2006, 3; Basberg, 1987, 131 ff.). It has its limitations, however, among them:

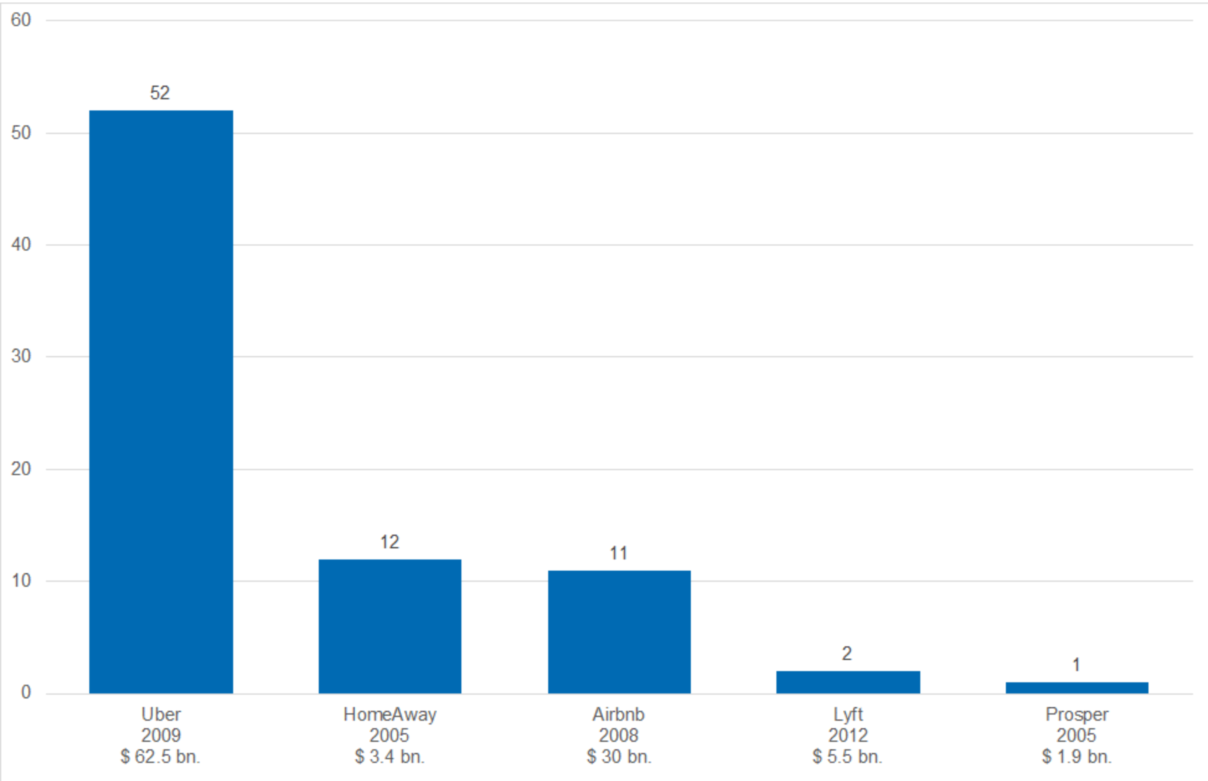
- Not all patents lead to innovations (Basberg, 1987, 132; Mansfield, 1986, 180).
- Not all innovations are patented or even patentable (Archibugi/Pianta, 1996, 453).
- A granted patent or a patent application does not give any indication of the quality of the idea. This renders comparisons of the number of patents or patent applications difficult (Basberg, 1987, 132).

In any case, patents are an imprecise measure of innovation (Basberg, 1987, 132) and only – if at all – cover part of what makes a company innovative. Still, they can be used to take a first look at innovation in the sharing economy. Figure 1 depicts the number of worldwide patent applications of five large sharing platforms that are all valued at more than one billion dollars, belonging to the most valuable sharing platforms worldwide. Since they are all founded in the United States, the number of patent applications is somewhat comparable as the definition of "patent" and of what is actually patentable differs across the globe. For example, while US patent law allows for both software and business models to be patented, the European Patent Office does not (Mewburn Ellis, 2015). Because the five sharing platforms are all US-American, the initial patent application in almost all cases was in the United States.

Generally, the number of patent applications of the five selected sharing platforms is comparatively low. Uber, the ridesharing platform, exhibits the largest number of applications with 52, while Prosper, a P2P lending service, applied for just one patent. To compare: The trading platform Amazon has applied for several hundred patents worldwide since its foundation in 1994. Many of the patent applications of the five selected platforms cover business model inventions. These are "new and non-obvious ways of doing business" and do not necessarily include new technical features (Mewburn Ellis, 2015). Consequently, they are very likely not patentable in Europe.

Many sharing platforms, even the biggest and most valuable ones, have not applied for patents yet. Quite possibly, this could be due to the simple fact that they have not made any patentable inventions. However, another reason for this could be the required time, effort and money to file an application. Additionally, if in fact some innovations are not patentable in an important market such as Europe, it might make sense not to file for a patent at all.

Figure 1: Patent applications of sharing platforms
Number of worldwide patent applications, adjusted for patent families and registered designs, selected sharing platforms (with year of foundation and estimated market capitalization), as of 30-09-2016[1]



Source: DEPATISnet, 2016; Kerr, 2016; Schubarth, 2015; Ting, 2016; Yahoo! Finance UK & Ireland, 2016; own calculation

[1] I would like thank Oliver Koppel for his thorough introduction to the database of the German Patent and Trade Mark Office.

Online platforms generally exhibit network effects, meaning that more users of the platform generate more utility for all other users (Shapiro/Varian, 1999, 183 f.). A patentable invention of a sharing platform could very well benefit from network effects if it was not patented. That way, other businesses – sharing platforms as well as other enterprises – could use the invention and create additional value that way. This might even help the invention to become a standard. Network effects in the sense of a quickly growing number of users of the inventor's sharing platform might also help to generate a return to investment that is higher than the benefits a patent might entail (Dreyfuss, 2000, 275).

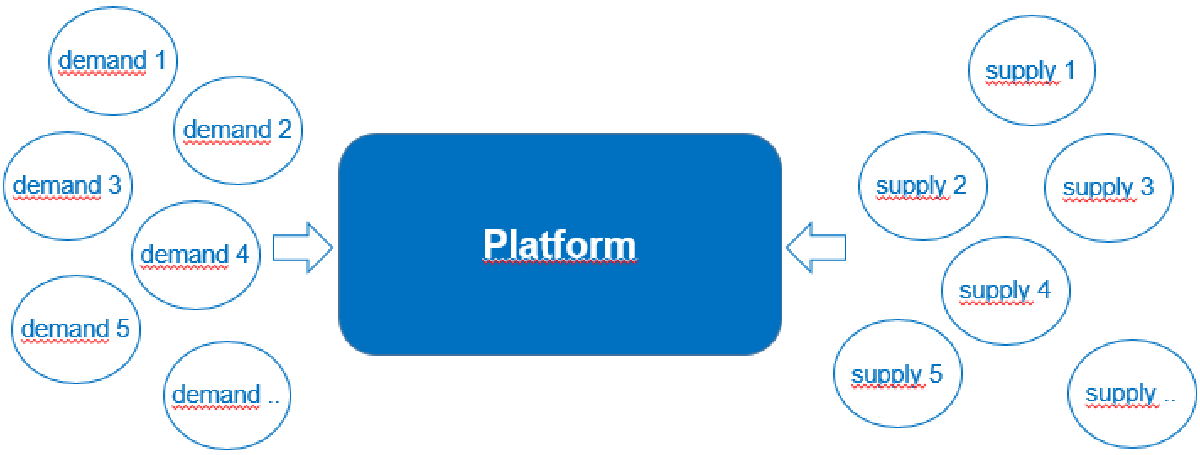
Despite these possible reasons for the low number of patents in the sharing economy, in the end, innovation in the sharing economy might just be different from what can be covered with a patent. This will be investigated further in the next chapter.

4.2 Business model innovation

The innovativeness of the typical sharing economy business model results from the application of the P2P concept to an existing technology, the online platform. The latter has been around almost as long as the internet itself. Marketplaces such as eBay or Amazon were founded in the mid-1990s, social networks and search engines have been around for a while. The sharing economy, however, has only become increasingly relevant in the past few years. Consequently, the platform aspect itself cannot be the main innovative aspect of the sharing economy business model. Take the market for accommodation, for example. Before the advent of P2P accommodation sharing platforms such as Airbnb or Wimdu, many online platforms already offered to match (commercial) supply in form of hotel rooms and demand. However, depending on the market, the application of a well-established concept like an online platform might still be considered innovative. An example for this could be P2P car sharing platforms that first introduced the concept of an online platform in the market for individual motorized transportation.

The business model innovation in the sharing economy stems from the facilitation of interaction between individuals via a platform, which is an established business model. Taken together, this makes up a new, innovative business model. Figure 2 shows the structure of a P2P sharing platform. In its role as a digital intermediator, the platform matches individual demand and individual supply. The idea is that individuals become micro-entrepreneurs facilitated by digital technologies and the internet. The resulting services and products are new in the sense that they are very individualized (from staying in someone's home to being driven to a particular destination in a private car) and readily available with respect to time and location. This way, sharing companies are able to enter markets that in some cases have been previously uncontested for a long time (Demary, 2015, 12). The P2P organization of the sharing economy therefore constitutes a large part of the sharing economy innovativeness.

Figure 2: Structure of a P2P sharing economy platform



Source: Own depiction based on Demary, 2015, 5

While most sharing economy companies are institutions that aim to maximize profits, there are exceptions (Demary, 2015, 5 f.). Some sharing platforms, often financing themselves via advertising or sponsoring, are non-profits that follow other goals. The P2P organization of the sharing economy allows for socially desirable outcomes, for example with respect to the location of a service rendered. While motivations like that are particularly important for non-profit platforms (Ranchordás, 2015, 423), they also play a role for the profit-oriented ones. More choice for users implies a higher attractiveness of the platform itself, which can, in turn, generate more profit. Studies using Airbnb data show that the available offerings on the platform are much more scattered than the available hotels, for example in Texas (Zervas et al., 2016; Inside Airbnb, 2016). In consequence, the sharing platform offers travelers a wider array of choices. Sharing platforms are also oftentimes thought to enable sustainability and reduce pollution. A study on Airbnb calculates that stays in properties listed on Airbnb instead of stays in comparable hotels would significantly reduce global greenhouse gas emissions (AECOM, 2015).

These examples demonstrate that some aspects of the sharing economy business models could also be interpreted as social innovations. This conclusion is not clear-cut, however. This is in part due to the great scope of the concept social innovation and the lack of conceptual clarity. Also, the market entry of a sharing platform might as well increase demand (Demary, 2015, 14). This happens, for example, if people who used public transport before, participate in car sharing instead. Consequently, effects on the environment in particular are oftentimes ambiguous and therefore have to be determined carefully and on a case-by-case basis.

4.3 The micro perspective

The previous chapter discussed business model innovation in the sharing economy from a macro viewpoint, considering the sharing economy as a sector, not as individual companies. This approach neglects the individual sharing platform's point of view, the micro perspective, which will be discussed in the following. An individual sharing platform's activities do not need to be innovative, although the entire sharing economy might be considered as such. For each sharing platform except for the first mover, its innovativeness does not primarily lie in the P2P aspect of the business model itself, but in its application to a new market.

Most sharing platforms that are currently in business have only been around for the past decade or less. These platforms cater to many different markets, both with respect to location and to the offered product or service. Certainly there has been at least one first mover in the sense that the P2P online platform concept was first applied in a particular market, although it is difficult to determine today which company that might have been. Most sharing platforms that are in business today have applied the first-mover idea to a different market. There are even some start-up investors, most notably the German company Rocket Internet that specialize in cloning an idea and taking it to a new market. The P2P accommodation sharing platform Wimdu is such an example that was created to copy the US-American platform Airbnb in the European market that at that time was largely untapped by the original. While this way of doing business – cloning successful ideas – is often looked at disparagingly (Parr, 2016), it still constitutes innovation since it transfers an idea into a new market.

On the one hand, copying ideas like that holds less risk than being the actual first mover. The sharing platform business model has been tested in other surroundings, consumers' and individual suppliers' reactions have been observed and flaws in the execution of the idea have been detected. This makes it somewhat easier to judge if and how a business model could work in another setting. On the other hand, transferring a business model to a different setting is still a challenge that often requires major adjustments to make the business model work in the new market. Hence, there is still a lot of risk involved, its focal point is just different. It should be noted that while this type of behavior can be considered innovative, it is not restricted to the sharing economy.

In addition to business model innovation on a micro level, the sharing economy also includes technological innovation. Depending on the sharing platform and its market, technological innovations have been developed, often in the form of software that improves the consumers' or individual suppliers' experience or simplifies doing business. It is hardly possible to analyze the extent and nature of these innovations, especially since they are not on the forefront of innovation in the sharing economy. Still, especially in cases of competition between similar sharing platforms, having or gaining the technological edge might make a difference.

While there are many aspects of the sharing economy that are novel and innovative, there are some sharing platforms that are not very innovative on a micro level. Compared to other sectors of the economy, this is not unusual. Given the innovativeness associated with the sharing economy, this might be surprising. Non-innovative sharing platforms neither apply a tested business model to a new market or product or service, nor do they develop technological innovations. Instead, in an already developed market where there is at least one competing sharing platform that already applies the business model in this setting, these non-innovative sharing platforms copy the competitors' approach and try to gain both demand- and supply-side users. The prospect of high profits in winner-takes-all-markets (Demary, 2016, 14 f.) makes market entry in this way attractive without incentivizing innovation.

4.4 Disruptive innovation

Since the first introduction of the concept, disruptive innovation in markets has been of great interest. This also holds for the sharing economy which is sometimes perceived to be a typical example of disruptive innovative activities (Vanoverschelde et al., 2015). Disruptive innovation typically follows a five-step path (Guttentag, 2015, 1194):

1. **Creation of appealing product or service:** The new product or service is cheaper, simpler or more convenient than the products or services that are already in the market.
2. **Occupation of a niche in the market:** The new product or service appeals to a niche in demand in the market or creates new demand. Because demand for the product or service is limited, it does not appeal to the incumbents to cater to this part of the market.
3. **Improvement of the product or service:** Over time, the new product or service improves.
4. **Attracting the mainstream market:** The new product or service attracts increasing parts of the mainstream market due to its improved quality.

5. **Entrenchment in the mainstream market:** The new product or service becomes so entrenched that incumbents struggle to compete and the whole market changes.

Because the disruptive innovation process typically takes time, it is difficult to tell today whether sharing platforms overall or in certain markets bring about disruptive innovation. As Guttentag (2015) demonstrates for the case of Airbnb, the disruptive nature of the business model for the accommodation or tourism sector can neither be acknowledged nor denied. While Airbnb started out occupying a niche, namely adventurous, technology-savvy younger travelers, it has since spread to other target groups such as families and business travelers (Guttentag, 2015, 1204 ff.). It may have increased demand by interesting people for travelling that would not have used traditional accommodation. At the same time, the majority of all Airbnb users most probably were travelers that would have chosen traditional accommodation otherwise, hence attracting the mainstream market to a new business model. Finally, it is unlikely that Airbnb will replace the traditional accommodation sector; nevertheless it has exhibited exponential growth in the past and has become a relevant competitor even to large incumbents. However, only time will tell whether the change that Airbnb or its sharing competitors brought for the accommodation sector was part of disruptive innovation.

The disruptiveness of the sharing economy differs between different sharing business models and markets. In order to become powerful enough to be disruptive, sharing platforms need to be able to attract a large number of users, both on the demand and the supply side. The various growth paths of sharing platforms suggest that they succeed in doing that to a different extent. However, even if ex-post analysis showed that the innovativeness of sharing platforms did not disrupt markets in the sense discussed above and in chapter 2, the behavior and the business model of sharing platforms might still be perceived as disruptive to the incumbents because they might need to rethink their strategy due to increased competition.

5. Competition, innovation and regulation

The innovativeness of sharing platforms has effects on competition, both among sharing platforms and between sharing platforms and traditional incumbents. As the previous chapter describes, the main innovative feature of the sharing economy business model is the P2P organization of the provision of goods and services. Due to this asset-light approach it is fairly easy for a sharing platform to quickly facilitate the supply of a significant number of products and services. Additionally, economies of scale occur: Fixed costs for the development and installation of the platform itself are high. They would be even higher if it were not for the fact that individual suppliers own the assets (asset-light business model). While fixed costs are still considerable, there are hardly any marginal costs to cater to additional users (Demary, 2015, 12). Furthermore, network effects allow online platforms to grow rapidly because each additional user increases the benefit of all other users (Demary, 2015, 11). These factors facilitate market entry for sharing platforms and make it much easier for them to be active in a market than for traditionally organized companies.

If a sharing platform enters a market, this initially increases competition in that particular market segment. In many cases, incumbent firms do not feel challenged by sharing platforms at first due to the initially relatively small size of sharing platforms and an underestimation of their growth potential. However, sharing platforms are able to grow quickly and become relevant competitors for incumbents. That way, sharing platforms are stepping up the game for the incumbents.

The increased competition and the pressure to keep one's market share (in case of the incumbents) or to increase it (in case of the sharing platform) might provide an incentive for innovative activities (Dostmohammad/Long, 2015, 5). The bottom line is that incumbents and sharing platforms try to attract and keep customers by providing the best cost-benefit ratio for the product or service provided. While this competition might initially work mainly through pricing or the convenience of the product or service or its provision, quality quickly becomes crucial (Guttentag, 2015, 1194). Innovation can help companies – both traditional companies and sharing platforms – to be able to persist under these circumstances.

This result may even hold in the case that a market entry of a sharing platform is only expected. The threat of entry of an innovative business model could suffice to incentivize innovative activities on part of the incumbents. They aim to keep competition out of their markets and might do that by improving their products, services or processes in a way that makes market entry unattractive.

Online platforms and sharing platforms in particular tend to be natural monopolies (Demary, 2016, 14). This means that it is more efficient for one platform to cater to demand than for several. In practice, this means fierce competition between platforms initially to gain market share and obtain monopoly rents. Each platform attempts to crowd the competitors out of the market. The more capital a sharing platform has been able to raise, the more likely it will be able to persist in such a competitive situation. However, its innovativeness may also play a role. While innovation might make a business model more attractive to potential users, it is also costly. Non-innovative sharing platforms that copy the business model of their competitor might hold an advantage in this case. Because they usually do not incur the high costs of innovative activities, but simply try to win over users making minor changes, they might be advantaged in such a race for a market. Whichever platform manages to reach a critical mass of users that creates positive feedback and a rapidly growing number of users wins the market (Demary, 2016, 8 f.). This does not have to be the innovative sharing platform; it could very well be the copycat. The effects of this possible market result on innovation incentives for sharing platforms can hardly be determined at this point. It is just a dynamic that needs to be considered, especially bearing in mind the modest patenting activities of sharing platforms.

In general, innovation is perceived to be positive because it improves the product or service, creates competition and benefits economic development. Despite this, the innovativeness of sharing platform is often perceived as a threat. In most markets, especially the P2P approach of sharing platforms also poses challenges. Due to the organization of their businesses, sharing platforms often argue that the existing regulation does not apply to them (Demary, 2015, 15). The main argument for this is that they believe the regulation only applies to companies as suppliers, not to individuals. As sharing platforms claim to match individual supply and demand, their innovativeness is used as an excuse to disregard the regulatory framework. In that sense, the advent of the sharing economy is an opportunity to review existing regulation that in many markets might need adjustment. Oftentimes, despite technological advances, regulation has not kept pace and has remained unchanged for decades. The urgent necessity to create a level playing field between sharing platforms and traditional companies therefore poses a chance to update the regulatory framework. This is all the more relevant in case it should in fact be determined that not all suppliers on sharing platforms are in fact individuals but small commercial suppliers instead.

From an economic viewpoint, regulation of a market segment is only necessary in case of market failure. A per-se necessity for regulation does not exist. In practice, most markets exhibit some sort of market failure due to information asymmetries or external effects, for example. At the same time, misguided regulation can stifle competition and innovation (Koopman et al., 2014, 10 ff.). It is crucial at this point to find the right balance: On the one hand, there needs to be a balance between fostering innovation and competition and regulating in order to avoid market failure (Ranchordás, 2015, 437). One the other hand, there needs to be a balance between the interests of the incumbents in the affected markets and the interest of sharing platforms. Regulators are walking on a tightrope trying to get it right.

There have been some promising approaches already, however. In its guidelines to what it calls the collaborative economy, the EU Commission attempted a cautious approach to regulating the sharing economy in June 2016. It merely offered interpretations on how to apply the existing legal framework to the particularities of the sharing economy. This strategy is helpful to support innovation while protecting consumers. However, a large part of the regulatory framework for sharing platforms lies in the hands of the EU member states, depending on the affected markets. Their regulatory approaches have been quite diverse so far (Vaughan/Daverio, 2016, 13 ff.). For the sake of the ability of sharing platforms in Europe to scale up across borders, a harmonized approach to regulation is advisable (Demary/Engels, 2016, 25).

6. Conclusion

The sharing economy in general is innovative. Its innovativeness mainly stems from the P2P organization of the provision of products and services. While technological progress plays a part for many sharing platforms as well, there are some platforms that are mostly copying innovative ideas in already fully developed markets. The innovativeness of the sharing economy allows it to quickly compete against well-established incumbents in many different markets. However, creating a level playing field without stifling innovation remains a challenge for policymakers. The challenge is not just a question of finding the right balance but possibly also of cross-border coordination. The ideal regulation for the sharing economy would be cautious, moderate and harmonized across the EU. This requires resources on part of the policymakers, even more so because the affected markets are rapidly changing and evolving. The effort will be worthwhile since the sharing economy and the associated innovativeness hold a great potential for the European economy. They can help to maintain Europe an attractive business location and to introduce dynamics in many markets which might be just right to modernize the European economy.

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