

Sharing Economy – a Challenge of the 21st Century?

Peterka Pavel, Soběhart Radek, Jílková Jiřina

Jan Evangelista Purkyně University

Abstract

The objective of the study is to point out the growing importance of sharing economy within the current discussion about the development of advanced economies after the economic crisis between 2008-2009. The study focuses on determining the growing importance of sharing economy in the context of GDP, growth factors of sharing economy in current conditions, and social benefit function of sharing economy. The study also focuses on other sharing economy challenges of the 21st century that are connected to the overall change in human behavior, growth of importance of modern technologies for everyone, trying to lower transaction costs, and increasing the quality of life of all households. The study's conclusion aims at summarizing the importance of sharing economy for modern society in advanced economies.

Key words: sharing economy, GDP, transaction costs.

Introduction

Sharing and sharing economy are phenomena that have accompanied human society since its inception. During the development of civilization, primarily due to the drastic increase in the standard of living of humans, the topic of sharing economy has never been a very important subject of socio-scientific research (Cheng 2006; Sundararajan 2016). This changed during the crisis years 2008 and 2009 that caused a decrease in the standard of living, which in turn started a new discussion about sharing and sharing economy. The rise of sharing economy has not slowed down since the end of the crisis, on the contrary, its importance has been continuously growing. Other important factors also helped to increase the importance of sharing economy, be it digital technologies or the growth of relative equipage of society with economic goods that can be shared. Sharing economy platforms are disruptive technologies that increase effectiveness of many branches thanks to a dramatic decrease in transaction costs and a better use of various economic goods (Cohen and Schmidt 2013; Al-Kodmany 1999). Crucial societal changes are

therefore initiated, and the functioning of traditional branches is also significantly impacted.

Material and methods

Size of sharing economy and its potential

The size of sharing economy cannot be easily calculated due to the aforementioned issue with its definition. In its study (Goudin 2016), the European Commission described an approach to understanding this new model of sharing economy. The study categorizes the users of sharing economy to explain the model:

- **Intermediate body**
Intermediate body is a key element of the current model of sharing economy. This link in the chain of sharing arranges the interconnection of supply and demand on the market. In other words, it connects users on one hand that demand certain services or goods with owners or providers on other hand that offer these goods or services. Such a body must fulfil three main prerequisites:
 - a) It disposes of a sufficient sharing offer.
 - b) It provides simple, clear, and safe communication between the individual parties of this model.
 - c) It controls contractual compliance and thereby prevents fraudulent activities.
- **Provider**
A provider of goods and services is the owner of the resources (assets, time, skills, etc.) who is willing to share these with other subjects on the market to make profit.
- **User**
A user is a subject on the market who uses the resources offered by the provider.

Providers offer their resources, which can e.g. be: housing, experiences, rides, or other services that the users pay for. Users pay to use resources offered by providers. Platforms (intermediate bodies) connects supply and demand, manages communication between market subjects, payments, and contractual compliance. Bodies do this via digital platforms that are in most cases available online or via mobile applications for easier access. Since platforms are an important value added for both users and providers, they are motivated to remain in the model after initial connection.

Analyses of the phenomenon of sharing economy therefore conduct qualified estimates when assessing its size. In its analysis of sharing economy (Marek et al. 2017), the organization Deloitte estimates the size of sharing economy based on two approaches: bottom-up and top-down. Both are described below.

The bottom-up approach estimates the size from “the bottom”. It estimates the expenses of households on sharing economy services. For this purpose, the following must be estimated or calculated:

- share of user expenses that can be shared,
- share of population that uses sharing economy services,

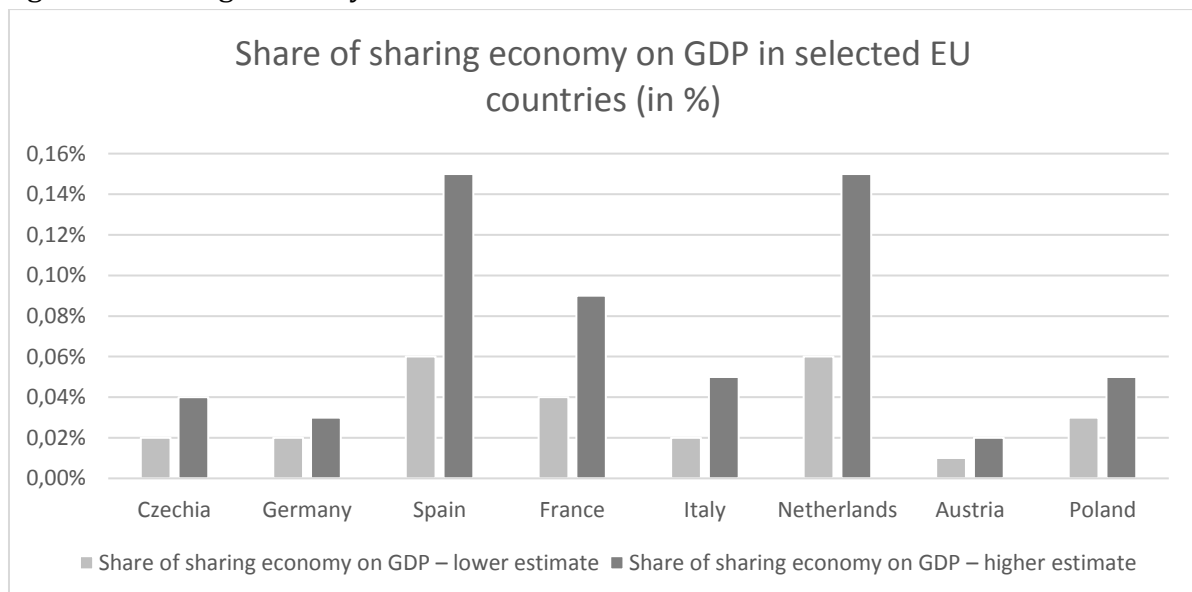
- share of expenses on sharing economy of those who use its services,
- share of GDP consumption.

The share of user expenses that can be shared was collected from the Eurostat database. Expenditure consumption was divided into segments. For the purpose of the study, the segments of expenditure consumption that can be shared were selected. This data was then multiplied by the share of population that uses sharing economy services. The Deloitte analyst team derived this share from the results of an ING research (ING 2015) that focused on population shares of individual countries using sharing economy services. The above estimated expenses were further multiplied by the sharing economy expenditures of those who use its services. This value was estimated using the share of internet purchases in economy. The last value was the share of GDP consumption, which is available at the public Eurostat database. By applying this model, Deloitte estimated the size of sharing economy in the Czech Republic to be 0.02 % of GDP.

Results

The top-down approach consisted of using and analyzing data about value added in branches according to the NACE categorization that are significant from the perspective of sharing economy. Namely, these were the following branches: retail, wholesale, transportation, housing, hospitality and eating, finance, education, and more. The value added of these branches was then multiplied by the share of population that participates in sharing economy, the share of online purchases on household expenses that serve as an estimate of sharing economy expenses in the previous method. Using the top-down method, Deloitte estimated the share of sharing economy on Czech GDP to be 0.04 %. The following figure shows these values for selected EU countries.

Figure 1: Sharing economy share on GDP

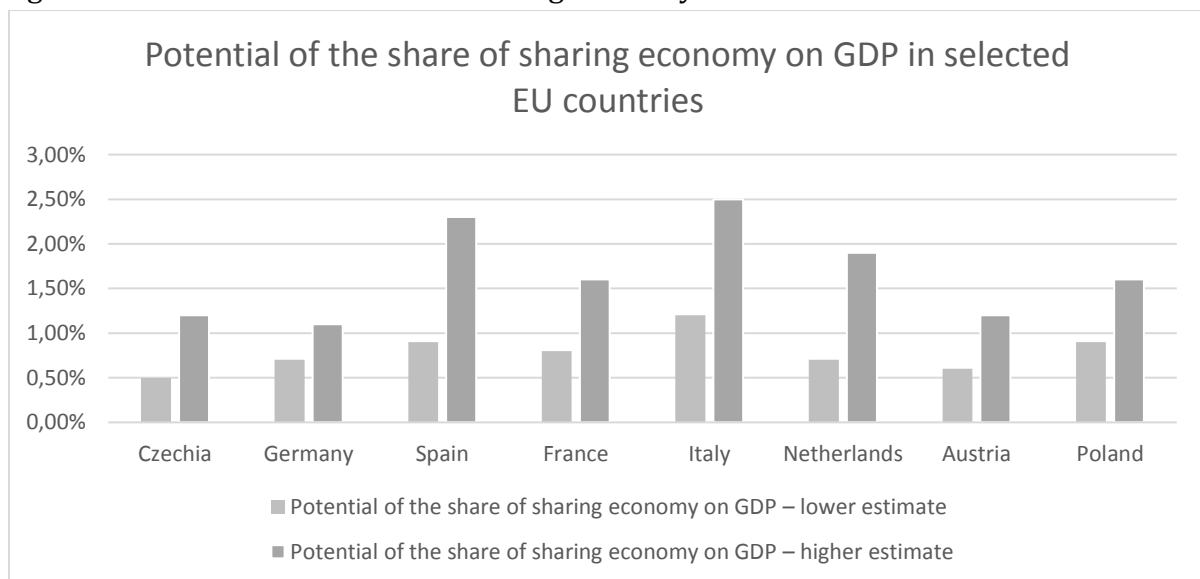


Source: Calculation by Marek et al. 2017, own design

The bottom-up approach is the lower estimate in the figure; the top-down approach is the higher estimate in the figure. The figure clearly shows that the sharing economy in the Czech Republic is not as highly advanced as in the case of other economies. The comparison was clearly more favorable to Spain, the Netherlands and less favorable to Germany and Austria. The above-mentioned methodology shows that the results in the individual countries are primarily influenced by the rate of using sharing platforms by their citizens, the value added for sharing economy's crucial branches, and the share of online payments on consumption.

When discovering the potential of sharing economy, the analysis is once again based on ING's research that for the needs of the calculations uses the percentage of population in the individual countries that have previously heard about sharing economy. In the Czech Republic, this percentage was 20 % according to ING. These percentages then substitute the willingness to participate in sharing economy in the future. Another parameter of the model is the gradual growth of the rate of online payments on consumption. According to this estimate and the bottom-up method, sharing economy will have a potential of 0.51 %, and according to the top-down method 1.19 % GDP.

Figure 2: Potential of the share of sharing economy on GDP in selected EU countries



Source: Calculation by Marek et al. 2017, own design

These estimates feature some deficiencies due to the lack of high-quality and reliable data, which is why some entries had to be generalized. Regardless, it is one of the best estimates available, which is also why this model was used in the materials for developing sharing economy by the Czech Chamber of Commerce (Czech Chamber of Commerce 2018).

The objective of the analysis is however not to precisely quantify the size of the research economy segment. The goal is to stress the fact that over a short period of time, sharing economy has attracted many users and has a large future potential. This is primarily thanks to the network effect that helps the platform grow. Mutual interconnecting of users serves also as advertisement for the platform, it increases the quality of services, provides

a more interesting supply and demand, and thanks to the self-regulation principles also manages itself internally. A shining example of the network effect is the Wikipedia portal where users mutual share, perfect, and check content. YouTube functions similarly and existentially depends on its users uploaded high-quality content (SunMarketing, 2018). The importance of sharing economy is based on new opportunities for all subjects on the market thanks to lowering transactional costs and not just its size. The growing number of users further increases this importance and shows that subjects are motivated to long-term use of the platforms and not only as one-time intermediaries of contact between supply and demand.

Sharing economy growth factors

As stated above, sharing economy (after its decline in the past) has been experiencing an incredible boom in the last decade. Some of the main factors of this growth are:

- Economic crisis between 2008 and 2009,
- Technological progress in the field of digital technology,
- Relative equipage of society with economic goods that are in demand and can be shared,
- Inception of platforms that make the actual sharing easier.

Economic crisis between 2008 and 2009

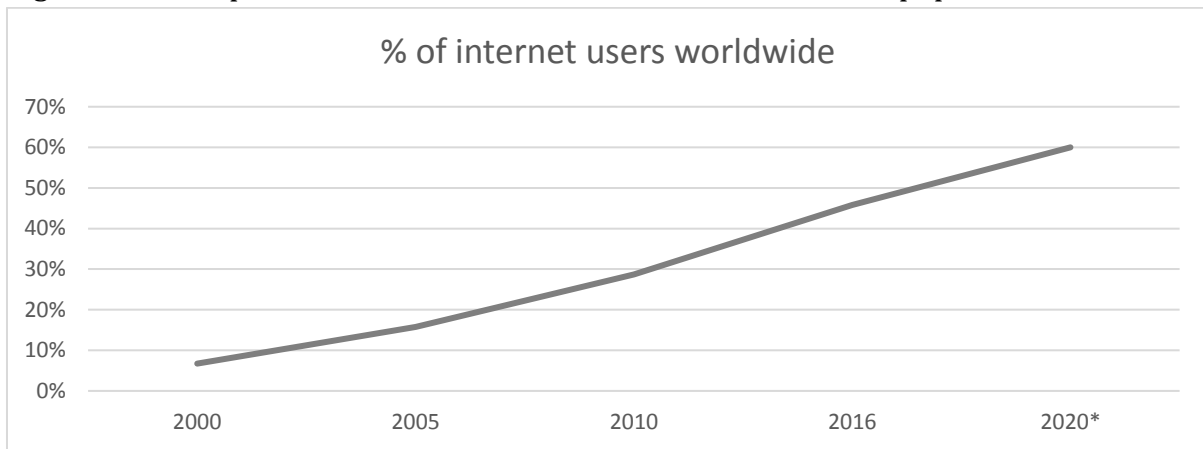
The economic crises between 2008 and 2009 negatively impacted the prosperity of the entire society that became relatively poorer. The society was then looking for possible ways of decreasing the impacts of recession. There were several ways. Sharing economy made one of the approaches much easier – lowering costs. For the users of the platforms, it was often much cheaper and more effective to short-term share goods or pay for them instead of purchasing them themselves. On the other hand, the owners of these goods saw an opportunity in sharing economy, to increase their income (Marek et al. 2017). It is therefore not a coincidence that it came to a fast growth of sharing in the accommodation branch. Travelling was still desired, but it was often needed to either decrease the amount of travelling or decrease its financial demanding character. P2P loans became the alternative to classical banks that declined a lot of loan applicants during the crisis. The decrease in the standard of living due to the economic crisis and the pressure to more effectively use resources were two of the factors of growth but they do not fully explain it.

Technological progress

Another factor for the expansion of sharing economy is technological progress, primarily in the field of digital technology (Batty 2013). The development and fast adoption of modern technologies such as e.g. cell phones, smart phones, optical fiber, microchips, new battery types, etc. accelerate progress not only of the sharing economy. Internet and the rate of its usage is an important factor for the development of online platforms of sharing

economy (Van Dijk 2006). The following figure shows the development of the share of internet users in the world population.

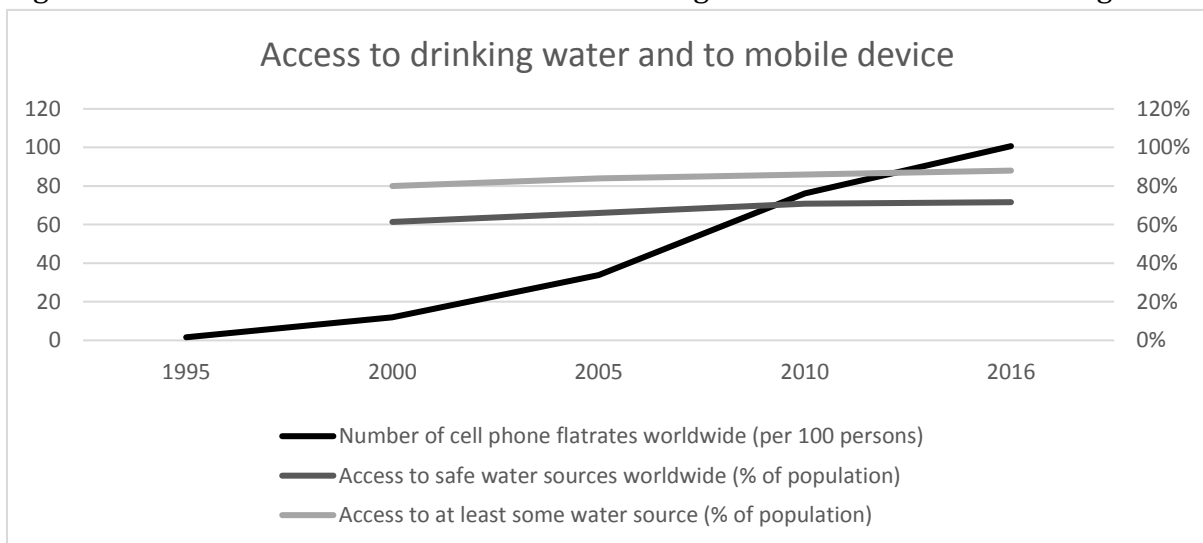
Figure 3: Development of the share of internet users in the world population



Source: Worldbank.com, own design

The more internet users, the more users and providers can use the platforms. Worldbank data shows a very favorable development of the share of internet users. Between 2000 and 2016, the percentage of worldwide population using the internet more multiplied over seven times. According to the Global Cloud Index prognosis of the organization Cisco, approximately 60 % of the worldwide population will be using the internet in 2021 (cisco.com 2016). That constitutes a growth of almost nine times since 2000. The speed of growth is also underlined by the fact that the world population is not constant and grew by approximately 1.3 billion between 2000 and 2016. The number of internet users therefore grows significantly faster than the population. The progress of digital technologies is faster than the progress of other and partially more significant aspects such as access to drinking water, as shows in Figure 4.

Figure 4: Access to communication technologies vs. access to drinking water



Source: Worldbank.com, own design

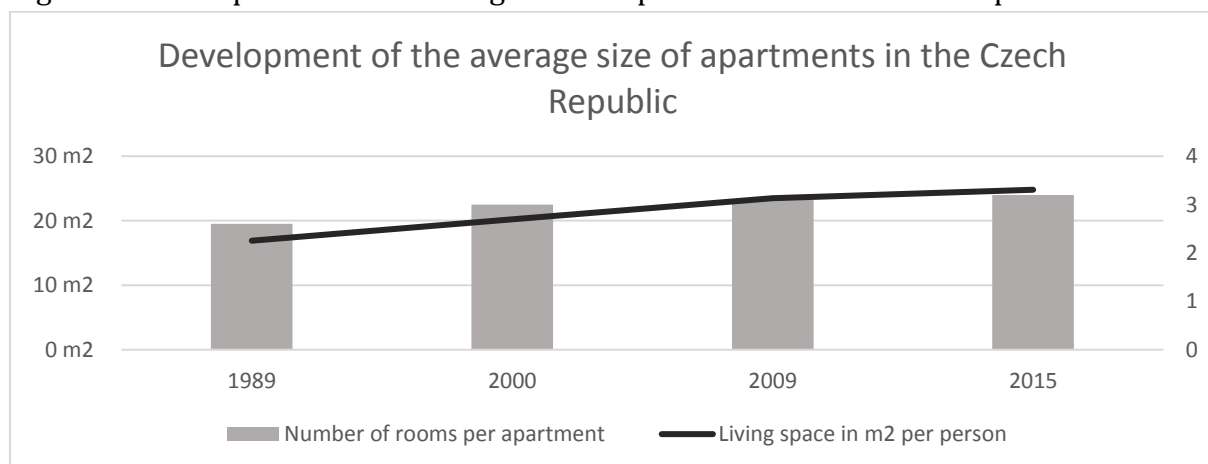
Figure 4 shows data on having a cell phone connected to a mobile network and the access to drinking water. The left axis of the figure shows the scale for the number of cell phones connected to a network worldwide, which is shown as a number of flat rates that have been used at least once in the last three months per 100 persons. Its development is the blue line. The right axis shows the percentage of worldwide population with access to drinkable water. The orange line shows the access to safe water sources – source that are safe when used over a longer period of time; the grey line shows access to at least some water source. Worldbank defines access to drinkable water as a water source that is accessible in under a half hour. Access to unsafe water sources increased by 10 % (from 61.4 % to 71.16 %) since 2000. The access to cell phones in the same period increased from 12 per 100 to 100,1 per 100.

The purpose of this comparison is to highlight the rapid growth of digital technologies in comparison to traditional branches. With this rate, it can at point happen that it will become easier to call someone or to contact someone than acquire drinkable water. Developing and expanding in the field of internet and other communication technologies can have a positive influence on the effectiveness of a wide variety of activities worldwide. This influence is positively strengthened by sharing economy. It is therefore no surprise that sharing economy has been very popular in the mentioned economy segments (housing, transportation, finance) and elsewhere. Easier and less expensive communication between market subjects provides needed flexibility that is another factor of its success.

Growing equipage of households with consumer goods

The growing relative equipage of society with economic goods that are in demand and that can be shared is another key factor for the growth of sharing economy. The following figures show the development of equipage with some goods in households in the Czech Republic between 1989 and 2015.

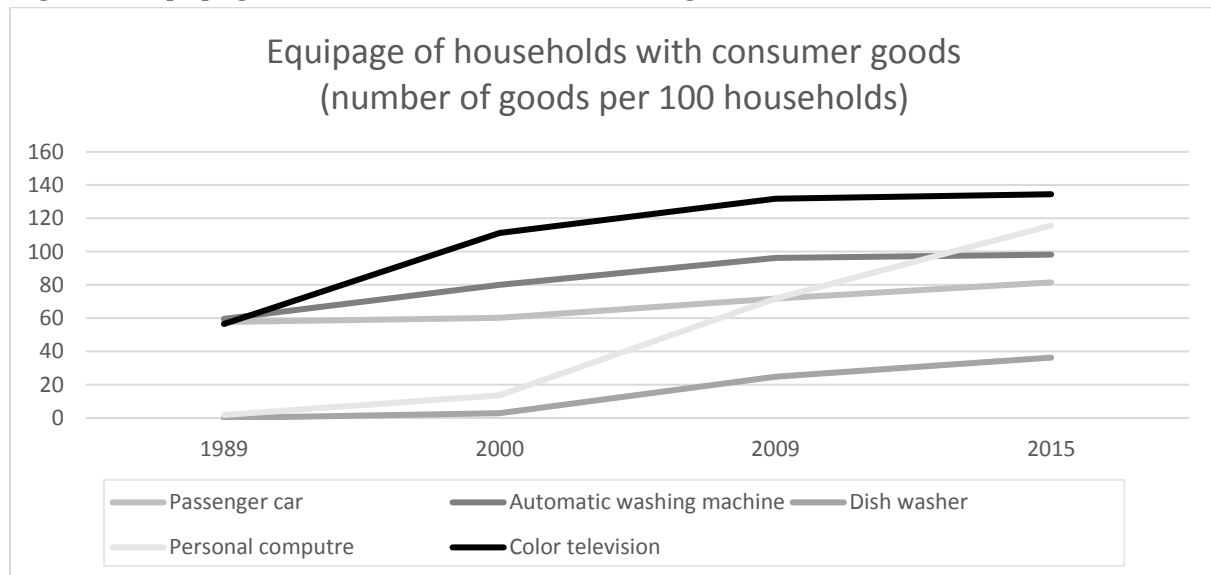
Figure 5: Development of the average size of apartments in the Czech Republic



Source: Czech Statistical Office, own design

Figure 5 shows the development of the size of apartments based on two scales. The first shows the number of rooms per flat. We can see that since 1989, this number grew from 2.6 rooms to 3.2 rooms, which is a 23 % increase. The second scale shows the size of the living space per person. Here, we observe a growth from 16.9 to 24.8 square meters, which constitutes a growth by almost 47 %. An average person in the Czech Republic therefore has almost half more living space than in 1989.

Figure 6: Equipage of households with consumer goods



Source: Czech Statistical Office, own design

Figure 6 shows the development of the equipage of households with consumer goods between 1989 and 2015. We can see a growth in numbers for all of the featured goods during the observed period. The growth of the number of goods in Czech households helps to approximate the overall growth of equipage of households with consumer goods. Basically, anything can be shared in sharing economy. The growth of equipage means that there are goods to be shared.

The growth of equipage of households with consumer goods since the 1989 revolution is significant. The average living space per person grew by 50 %. The average number of rooms grew by 23 %. Other goods also experienced growth. The number of passenger cars per 100 households grew by 41 %, the number of automatic washing machines by 65 %, the number of color television by 138 %.

Discussion

Platform inception

Sharing platforms capitalize these and other circumstances. They primarily benefit from the network effect that causes that the more users a platform has, the faster the number of its users grows. Platforms are also continuously cultivated and perfected by the users themselves, which creates a continual innovation environment, which in the end

significantly lowers barriers of entering markets and makes it easier to function within it. Traditional branches enable expansion of sharing platforms by leaving various market holes that can be filled or used for expansion into other market sectors. Key benefits of sharing platforms will be more closely described in the following chapter.

Thanks to the previously mentioned factors, we can nowadays share almost anything, and it is only a matter of time and demand development in society when other economic goods will be shared. These could e.g. be:

- sharing leftover food,
- sharing parking spaces that are otherwise not used during the day,
- swapping living spaces for a certain period of time,
- sharing basically anything on borrowing platforms,
- sharing camping room on property,
- tandems for foreign languages,
- grocery shopping delivery – one person goes grocery shopping and shops for his/her neighbors,
- looking after or waling pets,
- purchasing economic goods as a group because they are not needed for one individual.

These are by far not all sharing options. The list serves only as an overview of what sharing is considered to be.

Sharing economy and societal consumption function

A phenomenon such as sharing economy is expected to have a significant influence on and meaning for economy. This chapter formulates the main principles of how sharing economy functions. The chapter also sketches out its main benefits and challenges. The meaning for economy is then described in the form of key opportunities and main threats of this new model.

Main benefits and pluses of the sharing economy ecosystem are according to the expert society (Ernst & Young 2015), (Government of the Czech Republic 2017), (Kasparovicz et al. 2016) the following:

- Expands the offer of goods,
- Makes it easier to access economic goods,
- Lowers prices and increases effectiveness of preference satisfaction,
- Ensures effective functioning of self-regulations of the ecosystem.

Some of the main challenges of the sharing economy ecosystem are:

- Upkeeping the security and protection standards,
- Eliminate the avoidance of tax liability,
- Ensuring equal conditions to all market subjects.

Benefits and pluses of the sharing economy ecosystem

This chapter discusses more in detail the benefits and pluses of sharing economy.

Expands the offer of goods

The influence on expanding the offer of goods and services of sharing economy is evident. According to the study by European Parliamentary Research Service (Goudin), the rate of unused passenger cars in the EU is around 60 to 90 % and the rate of unused living capacity around 1-5 %. It is therefore possible to long- or short-term share these capacities and thusly expanding the market supply. Sharing motivation exists on both sides of the market – providers and users. Two of the most important motivations are covering a part of the costs (including sunk costs) for the providers, and lower prices for the users. An integral part of these transactions is also the social aspect, primarily being closer to the local way of life in visited destinations – which is sometimes more important for some travelers than the actual price.

Makes it easier to access economic goods

Thanks to a hospitable environment of the individual platforms, it is much easier to enter the market – for both providers and users. Goods and services are easily and clearly listed on online platforms that everyone with an internet connection can access. They are all in the same space and the filter functions make it easier to compare offers, which has a positive effect on competitiveness. Thanks to a platform, providers have a simplified payment system, demand organization, marketing, etc. according to the platform they use.

Lowers prices and increases effectiveness of preference satisfaction

The above-mentioned service expansion and easier access also lowers transaction costs for all market participants. It also increases competition on the market which according to the neo-classical economic theory lowers prices. Lowering of prices and market barriers in combination with increased offer attracts new customers and, in many cases, even creates completely new customer segments. The same goes for financial services – primarily crowdfunding, which helps to gather resources not only for new organizations and start-ups but also for established entrepreneurs (e.g. music bands or writers).

Ensures effective functioning of self-regulations of the ecosystem

Sharing economy platforms are co-created by their participants. It is therefore no surprise that certain practices and unwritten rules are formed that help securing a smooth run of interactions within the ecosystem. The platforms then adapt these practices into their official procedure, such as a rating system (e.g. Airbnb, Uber). Ratings of individual users and providers can signal to other participants if a subject is trustworthy and reliable. Individual participants therefore follow the rules and provide high-quality services since

negative ratings can significantly endanger their position on the market (Cohen and Kietzmann 2014). Self-regulation or private regulation has many benefits in comparison to global or public regulation (Chovanculiak 2016):

- Strong motivation of platforms to provide high-quality and effective regulation since they are the ones effected by it the most. In comparison to public administration regulations,
- Competition between individual private regulation systems that creates a competitive advantage for the good and effective ones,
- Lowering of transaction costs by using the reputation system that motivates participants to act professionally and warns about the ones who do not.

Self-regulation in its current form of course cannot fully replace global regulation from public institutions and does not strive to do so. It strives to increase reliability and improve user experiences that can have an overall positive effect on the entire platform.

Challenges of the sharing economy ecosystem

At the start of the chapter, we introduced the main challenges, threats, and cons of the sharing economy ecosystem. This part will inspect them in more detail.

Upkeeping the security and protection standards

Not upkeeping certain obligations of traditional branches by the platforms of sharing economy can significantly endanger the security and disrupt the current framework of citizen protection (Czech Chamber of Commerce 2018), primarily in the following areas.

- consumer protection – not upkeeping established norms and rules disrupts its established level,
- agreements on employment - not upkeeping established norms and rules disrupts its established level of protection,
- general safety.

Eliminate the avoidance of tax liability

Another challenge is limiting tax liability avoidance if established rules are bypassed. Tax liability is not consistently enforced according to a study by the Office of the Government of the Czech Republic (Government of the Czech Republic 2017), which causes the decrease of the volume of collected resources to the state budget.

Ensuring equal conditions to all market subjects

Unequal conditions on the market are partially connected to the topic of taxes. If one group of service providers does pay taxes and the other goes not, unequal conditions arise. The tax paying group has higher expenses and has a competitive disadvantage. The same principle also goes for not abiding by other conditions defined by the state. If one

group abides by them and the other does not, the first group is in disadvantage to the second group.

Conclusions

The importance of sharing economy cannot be easily separated because it is connection with many other branches. It initiates a number of intentional or unintentional consequences. These consequences can have positive and negative impacts on the entire society. In its “The rise of the sharing economy,” the consultancy firm Ernst and Young (Ernst & Young 2015) tries to define the area that sharing economy affects positively.

More effective use of resources

More effective allocation of resources is beneficial for the entire society and increases the performance of entire economy. This benefits individuals regardless if they participate in sharing economy or not. When it comes to transportation, it enables more effective planning of trips; in housing, it helps to lower costs for small hotels as well who can advertise and increase their bookings. Cost effectiveness is also connected to the functioning of the platforms that are not as financially demanding as some traditional competitors.

Supporting social mobility and creating jobs

The topic of social mobility is closely connected to effective use of resources. Due to lowering of prices, even small companies and entrepreneurs can participate in the market mechanism. New earnings opportunities benefit all subjects on the market, mostly low-income people otherwise excluded from the market – entrepreneurs because of prohibitive entry barriers or users because of prohibitive high prices.

Thanks to low entry barriers in contrast to many traditional branches, work can be started immediately. This is beneficial to people looking to earn some extra money or to people who are “between two jobs” – they end one long-term employment and before they start another one, they stay economically active via sharing services or other resources.

Environment

Thanks to more effective use of resources, the environment is positively impacted in many ways. A certain goal can be thusly achieved by using less resources (gas, metal, etc.). Lower prices can also create a “pillow” for using resources in a more economical way towards the environment (renewable energy sources, etc.) that would usually be unthinkable due to the prices. An interesting example is the result of a study conducted by the Berkeley University (Shaheen and Chan 2015) that focused on the impacts of sharing economy on transportation. According to their calculations, one shared car can replace 9-13 standard cars. Thanks to a more effective connecting of supply and demand in transportation, there is a significant decrease in emissions of greenhouse gases and driven kilometers by up to 40 %.

On the other hand, it is important to remember that sharing economy can have negative effects such as market distortion which lowers its allocation effectiveness and thereby also the prosperity of society. A certain risk is also a disruption of legal security, which is affected primarily by a lack of a legislative-regulation framework that would state which rules must be followed and which not. This fact can also cause a negative attitude of society towards sharing economy that could reflect in pressuring public institutions to generally regulate, something which would not help either subjects.

Acknowledgement

The article was created as a part of the project OPVVV "Smart City – Smart Region – Smart Community" (CZ.02.1.01/0.0/0.0/17_048/0007435).

References

AL-KODMANY, K., 1999. Using visualization techniques for enhancing public participation in planning and design: process, implementation, and evaluation. *Landscape and Urban Planning*. **45**(-), 37-45. ISSN 0169-2046.

BATTY, M., 2013. Big Data, Smart Cities and City Planning. *Dialogues in Human Geography*. **3**(3), 274-279. ISSN 2043-8206.

CISCO, 2018. VNI Global Fixed and Mobile Internet Traffic Forecasts. [online]. [accessed: 2018-05-15]. Available at: <https://www.cisco.com/c/en/us/solutions/service-provider/visual-networking-index-vni/index.html>.

COHEN, B. and J. KIETZMANN, 2014. Ride On! Mobility Business Models for the Sharing Economy. *Organization&Environment*. **27**(3), 279-296. ISSN 1086-0266.

COHEN, J. and E. SCHMIDT, 2013. *The New Digital Age: Reshaping the Future of People, Nations and Business*. New York: Knopf. ISSN 978-0307957139.

CZECH CHAMBER OF COMMERCE, 2018. *Doporučení pro rozvoj sdílené ekonomiky*. [online]. Prague: Czech Chamber Of Commerce. [accessed: 2018-05-15]. Available at: https://www.komora.cz/tiskova_zprava/hospodarska-komora-predstavila-50-doporuceni-rozvoj-sdilene-ekonomiky-ceske-republice/

ERNST AND YOUNG, 2015. *The rise of the sharing economy*. [online]. Calcutta: Ernst&Young LL. [accessed: 2018-05-15]. Available at: [http://www.ey.com/Publication/vwLUAssets/ey-the-rise-of-the-sharing-economy/\\$FILE/ey-the-rise-of-the-sharing-economy.pdf](http://www.ey.com/Publication/vwLUAssets/ey-the-rise-of-the-sharing-economy/$FILE/ey-the-rise-of-the-sharing-economy.pdf)

ERNST AND YOUNG, 2016. *Get ready: open to sharing means open for business*. [online]. EYGM. [accessed: 2018-06-02]. Available at: [http://www.ey.com/Publication/vwLUAssets/ey-get-ready-open-to-sharing-means-open-for-business/\\$FILE/ey-get-ready-open-to-sharing-means-open-for-business.pdf](http://www.ey.com/Publication/vwLUAssets/ey-get-ready-open-to-sharing-means-open-for-business/$FILE/ey-get-ready-open-to-sharing-means-open-for-business.pdf)

- GOUDIN, P., 2016. *The Cost of Non-Europe in the Sharing Economy*. European Parliamentary Research Service. [online]. Brussels: European Union. [accessed: 2018-04-12]. Available at: [http://www.europarl.europa.eu/RegData/etudes/STUD/2016/558777/EPRS_STU\(2016\)558777_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/558777/EPRS_STU(2016)558777_EN.pdf)
- GOVERNMENT OF THE CZECH REPUBLIC, 2017. *Analýza sdílené ekonomiky a digitální platformy*. Sekce pro evropské záležitosti Úřadu vlády ČR. [online]. Prague: Office of the Government. [accessed: 2018-04-30]. Available at: <http://docplayer.cz/57478794-Analyza-sdilene-ekonomiky-a-digitalni-platforem-sekce-pro-evropske-zalezitosti-uradu-vlady-cr-analyticky-material-06-2017-vychodiska-a-shrnuti.html>
- CHENG, M., 2016. Sharing economy: A review and agenda for future research. *International Journal of Hospitality Management*. 57(-), 60-70. ISSN 0278-4319.
- CHOVANCULIAK, R., 2016. Sharing Economy. Less Regulation, More Reputation! 4liberty.eu. [online]. Lodz: Industrial Foundation. [accessed: 2018-05-16]. Available at: http://4liberty.eu/wp-content/uploads/2016/10/web_single_page_4liberty_no_05.pdf
- ING, 2015. What's mine is yours – for a price. Rapid growth tipped for the sharing economy. [online]. ING. [accessed: 2018-05-16]. Available at: https://www.economics.com/ing_international_surveys/sharing_economy_2015/
- KASPROWICZ, T., 2016. In: *Sharing Economy*. 4liberty.eu. 4-17. [online]. Lodz: Industrial Foundation. [accessed: 2018-05-16]. Available at: http://4liberty.eu/wp-content/uploads/2016/10/web_single_page_4liberty_no_05.pdf
- MAREK, D. et al., 2017. *Sdílená ekonomika Bohatství bez vlastnictví*. [online]. Deloitte. [accessed: 2018-04-05]. Available at: <https://www2.deloitte.com/cz/cs/pages/deloitte-analytics/articles/sdilena-ekonomika-studie.html>
- SHAHEEN S. and N. CHAN, 2015. *Mobility and the sharing economy*. [online]. Berkeley: University of California. [accessed: 2018-04-06]. Available at: http://innovativemobility.org/wp-content/uploads/Innovative-Mobility-Industry-Outlook_SM-Spring-2015.pdf
- SUN MARKETING, 2018. Síťový efekt. [online]. Prague: Sun Marketing, s.r.o. [accessed: 2018-06-03]. Available at: <https://www.sunmarketing.cz/nastroje/navody-pro-klienty/sitovy-efekt>
- SUNDARARAJAN, A., 2016. *The Sharing Economy The End of Employment and the Rise of Crowd-Based Capitalism*. London: The MIT Press. ISBN 978-026034579.
- VAN DIJK, J., 2006. *The Network Society*. London: Sage. ISBN 1-4129-0867-1.

Contact address of the authors:

Ing. Pavel Peterka, Department of Economics and Management, Faculty of Social and Economic Studies, Jan Evangelista Purkyně University, Pasteurova 3544/1, 400 96 Ústí nad Labem, Czech Republic, e-mail: pavel.peterka@ujep.cz.

PhDr. Radek Soběhart, Ph.D. Department of Economics and Management, Faculty of Social and Economic Studies, Jan Evangelista Purkyně University, Pasteurova 3544/1, 400 96 Ústí nad Labem, Czech Republic, e-mail: radek.sobehart@ujep.cz.

Prof. Ing. Jiřina Jílková, CSc., Department of Economics and Management, Faculty of Social and Economic Studies, Jan Evangelista Purkyně University, Pasteurova 3544/1, 400 96 Ústí nad Labem, Czech Republic, e-mail: jirina.jilkova@ujep.cz.

PETERKA, P., R. SOBĚHART and J. JÍLKOVÁ, 2018. Sharing Economy – a Challenge of the 21st Century?. *Littera Scripta* [online]. České Budějovice: Institute of Technology and Business in České Budějovice, **11**(1), 155-169 [accessed: 2018-06-29]. ISSN 1805-9112. Available at: http://journals.vstecb.cz/category/littera-scripta/11-rocnik-2018/1_2018/.