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Sharing economy and the city

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Theoretical Paper

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Sharing economy and the city

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Abstract: Sharing economy is a very broad term, covering various areas and forms of human activity. It includes activities of individuals, social groups, and enterprises, as well as local and state authorities, which aim to enable, facilitate, or even organize the sharing of resources. Sharing economy has an increasing importance and is accompanied by large-scale changes of revolutionary character embodied in innovative thinking. In this paper, a multidimensional assessment of the sharing economy from the perspective of various groups of stakeholders is undertaken. In order to analyze this phenomenon in more depth, the analyzed field of sharing economy has been narrowed subjectively (to the sphere of operations of for-profit corporations from this sector) and territorially (to the area of cities, as special places attracting sharing economy start-ups). The analysis has found that although the idea of sharing creates new opportunities, it also causes new challenges for cities' functioning and development, especially when considering the influence of large sharing economy companies on other stakeholders. The findings also show that not only does sharing economy have an uneven impact on the functioning of different cities but it also has heterogeneous consequences for different groups of stakeholders in the same city.

Keywords: sharing economy, city, sharing city, innovation, ridesharing, homesharing, city's stakeholders, Uber, BlaBlaCar, Airbnb

JEL Classification: R1

1 Introduction

Sharing economy is a modern trend of the 21st century, which is based on new technologies. It is expanding across the world unpredictably fast, spreading from the digital to the physical urban world [McLaren and Agyeman, 2015; World Economic Forum (WEF), 2017]. Although different forms of cooperation in the production and consumption of goods have been observed in various civilizations over the centuries, sharing is now becoming a convenience rather than a survival mechanism [Belk, 2018]. The term “sharing economy” has recently become popular, together with the growing digitalization of the economy [Sundararajan, 2016, p. 5].

The role of technology in the development of the sharing economy is very fundamental because “with technology as facilitator, sharing opportunities can be scaled” [Perera and Albinsson, 2018, p. 4]. In a basic sense, sharing economy is linked to the information revolution, and it consists of only four types of activities: open-source software, online collaboration, file sharing, and peer-to-peer financing [Hamari et al., 2016]. In a broader sense, sharing economy is perceived as a significant change in the society, concerning many

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aspects of business and human life [Rifkin, 2000]. One of the essential characteristics of these changes is the social transformation from “having to using”.

The novelty and the importance of the changes are reflected in the dynamically growing number of scientific publications in which attention is paid to various aspects of the analyzed phenomenon [Botsman and Rogers, 2011; Sundararajan, 2016; Perera and Albinsson, 2018]. Despite that, there is still a lack of uniformity in the approaches used to define sharing economy and to assess this phenomenon. As the term “sharing economy” is primarily about the ways in which to organize the use of scarce resources, increasingly more concepts emerge on various aspects of its functioning. Collaborative consumption is one of these concepts; it emphasizes the manner in which to organize the exchange of goods. This term “encompasses any economic model based on sharing, swapping, trading or renting products and services – enabling access over ownership and continuous group interaction rather than one-time, linear buyer/seller relationships” [WEF, 2017, p. 7].

There are three types of driving forces that fuel sharing economy: economic, social, and environmental [WEF, 2017, p. 10]. The importance of these drivers varies across different groups of main actors. For example, sharing enterprises may be economically motivated (for-profit enterprises) but also socially or environmentally motivated (social enterprises, cooperatives, nonprofit enterprises, and so on). Moreover, the motivation of the users varies for different ages, life cycle stages, education levels, or sex groups [Böcker and Meelen, 2016]. For example, sharing is generally more popular among younger generations, males, and more-educated and single people; however, users in various sectors differ, with females and families with children showing higher interest in homesharing; furthermore, new groups of users such as businessmen emerge [Global Investor, 2015; Rimer, 2017]. The mosaic of motives of the main actors of the sharing economy causes the creation of various models of action.

As can be observed around the world, cities are special recipients of sharing economy start-ups because they create favorable conditions for their local development, attributable to the density of their population and intensity of social interactions, which are greater compared to the same in rural areas. Citizens create not only higher demand as individuals and groups but also structurally different demands, which stimulates the growth of sharing activities. The cities accumulate resources and create a specific innovative economic and sociocultural environment that inspires innovative activities, such as sharing activity.

The purpose of the paper is to analyze both positive and negative consequences of the chosen aspects of sharing economy on the cities. The analysis is based on the exemplification of innovative international sharing start-ups, such as Uber, BlaBlaCar, and Airbnb, in order to show the scale, intensity, and character of the impact of the emerging sharing activities. The analysis shows a mutual relationship between sharing economy companies and the city, which is discussed from the perspective of various stakeholders of the city. These dynamic relations include both the impact from the companies’ activities and the adaptation of the companies to the market response.

All the three analyzed companies are dominant players in different market segments of ridesharing and homesharing. The subject of the study is discussed exclusively based on the examples of the three selected profit-making enterprises operating on a global scale, which serves the purpose of the unification of the research field. The methodology comprises a systematic review of multiple sources, such as academic publications, periodicals, companies’ reports, and other reports presented by the European Union (EU), the Organization for Economic Cooperation and Development (OECD), and the World Economic Forum (WEF). The methodology is based on the qualitative analysis of various secondary sources and uses the deductive method of research supported by comparative analysis of information and findings.

The first section of the paper is focused on the conceptual approach to sharing economy. It underlines the novelty of the processes and the importance of the influence of sharing economy companies. It is seen all over the world as a process forcing deep and comprehensive changes in the global economy and is, as such, perceived from the perspective of a changing paradigm.

The second section highlights the role of cities as places, which are reflections of glocalization [Kuciński, 2011] with reference to the sharing economy. The urban perspective is initially analyzed with regard to the spatial expansion of the exemplified sharing activities of Uber, BlaBlaCar, and Airbnb. It presents the local

impact of these companies in different cities worldwide. This is discussed in terms of the complex relations between different groups of stakeholders with diverse interests.

The third section comprises the discussion and conclusions from the study, revealing the complexity of the interactions that result from the expansion of the sharing services (ridesharing and homesharing), transforming cities around the world into “more sharing” cities. The research shows that the novel and intensive character of changes imposed by rapidly developing sharing economy start-ups creates huge opportunities but also threats and challenges, which are addressed globally and locally and, as such, are subject to the continuous supervision of local governments, which act as both promoters and inhibitors on behalf of the interests of all stakeholders and the general city. They support and regulate the sharing practices during the continuous process of adjustment of activity of sharing economy start-ups, whose impact reveals strong transforming (both creative and destructive) power for the city and its stakeholders. The study shows that the expansion of sharing services, with the inherent complexity of interactions, transforms cities into more sharing spaces with increasing peer-to-peer architecture, resulting in more collective social coexistence and more sustainable background for development, however with some uncertainty related to wealth stratification due to the complexity of conflicting interests of city’s stakeholders.

2 Literature review

The sharing paradigm can be approached strictly from an economic perspective of owned goods (e.g., pooling or allocation of resources) or, more broadly, in a sense of sharing things, services, and activities [McLaren and Agyeman, 2015] (Table 1).

The novelty, complexity, and comprehensiveness of the sharing economy are expressed in the differentiation of the terms that are used to define, describe, and analyze the processes associated with sharing. It may lead to oversimplification, when the terms are being used interchangeably, or misunderstanding, when separate division is used because many sharing companies can be labeled under different terms depending on the character of their activity: collaborative consumption [Botsman and Rogers, 2011]; collaborative economy [Aluchna and Rok, 2018]; peer-to-peer economy [Brescia, 2016]; circular economy [Andersen, 2007]; access economy [Denning, 2014]; or gig economy [Friedman, 2014]. Such comment refers also to Uber, BlaBlaCar, and Airbnb’s activities, which are the company cases analyzed in the paper. These companies are classified not only as sharing economy start-ups; due to the exposition of different features of their activities, they are also presented as follows: parts of collaborative consumption, benefiting from the exchange of assets between individuals; peer-to-peer economy, enabling the sharing of assets between individuals [Botsman and Rogers, 2011]; or collaborative economy [WEF, 2017], linking providers of services and users in ways that bypass traditional institutions.

The term “sharing economy” has become very commonly used as the best term describing this changing paradigm. However, it does not mean that academic and public discourse around sharing has stopped [the problem with defining such complex phenomena is exemplified in the extended discussion over the term “culture”, as discussed by Brdulak, 2011]. Commenting on this issue, Teffer [2017] argues that it is rather an umbrella term combining different aspects, such as behavior, benefit, business model, market structure, and status of participation, in the process of sharing.

Table 1. Different scales and applications of the sharing paradigm in modern communities

	Things	Services	Activities
Individual	Swapping, bartering, gifting	Ridesharing, couchsharing	Skill sharing
Collective	Car clubs, tool banks, fab-labs	Childcare, time banks, crowdfunding	Sports, clubs, open-source software
Public	Libraries, freecycling	Health services, public transport	Politics, public space

Source: D. McLaren, J. Agyeman, *Sharing Cities – A Case for Truly Smart and Sustainable Cities*, The MIT Press, Cambridge, Massachusetts, London, England, 2015, p. 8.

Although the process of sharing is perceived in different ways, its major characteristics is the new role of consumers, whose behavior has been transforming from “having” to “using”, as a result of the technological progress seen in constantly increasing digitalization of the economy [Sundararajan, 2016]. The changes from “Generation Me” to “Generation We”, for whom sharing, participation, and collaboration become fundamental values, are possible due to the availability of infrastructure for participation and the “immersion” of its users in innovative information and communication technology (ICT) platforms, specifically online social networks and mobile devices. Due to the accessibility of the Internet, the network necessary for sharing has the capability to redefine its scope, meaning, and possibility, thus transforming principles into the behavior of the “we” mind-set [Botsman and Rogers, 2011, 51–55].

The new position of consumers in the sharing economy is emphasized by Frenken and Schor [2017] in their words defining sharing economy as “consumers granting each other temporary access to under-utilized physical assets (idle capacity), possibly for money”. This aspect is stressed also by Sundararajan [2016, p. 27], who sees one of the basic characteristics of sharing economy as the new opportunities it creates related to sharing, ranging from sharing assets and skills to sharing time and money, which are to be used at levels closer to their full capacity. PwC highlights the role of contemporary technology in providing benefit of access to consumers, which is put in the following way: “sharing economy uses digital platforms to allow customers to have access to, rather than ownership of, tangible and intangible assets” [Vaughan and Hawksworth, 2014].

The EU, at the beginning of changes associated with the emergence of the sharing paradigm, used the term “collaborative consumption”. The present approach highlights the concept of “sharing economy” and the participation of business providers, defining it as “business models where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals” [A European Agenda for Collaborative Economy, 2016].

Considering the above-presented approach to the herein-discussed phenomenon, sharing economy can be defined as “organized interactions in which individuals and entities exchange with others the untapped surplus or idle capacity of their assets, typically for some type of payment or service” [WEF, 2017, p. 6]. The specification of this new market is seen in the use of digital technologies to match buyers and sellers; capitalizing on idle capacity and trust verification (through, e.g., peer review ratings, third-party validation). Such an approach asserts the economic behavior of individual actors related to the more optimal management of resources.

The specific nature of assets results in the scenario that they are used as both a possibility and an opportunity with regard to idling capacity, which enables the respective actors to use their untapped social, economic, and environmental value [Botsman, 2015a]. The environmental aspects are often highlighted while discussing the effects of various sharing activities, because sharing by changing needs and habits contributes, as a principle, to increasing usage of goods and saving of resources. Therefore, the sharing economy is often described as a new relationship, which saves resources and energy and creates local jobs [Stahel, 2016]; moreover, it is also generally expected to be highly ecologically sustainable [Prothero et al., 2011].

The scale and intensity of the sharing economy have been expanding extremely rapidly. According to the estimates of the OECD [2016], the global revenue of the sharing economy is expected to increase from \$26 billion to \$335 billion over the period between 2013 and 2025. It denotes a nearly 13-fold rise just within a little more than a decade. One of the aspects of this rise associated with the intensity of connections is seen in the unprecedented increase in the number of things connected, which is even described as an explosion. It is perceived to triple to 30 by 2020 up from 10 in 2014; this figure is also estimated to increase to >100 within the span of the next 30 years. Automatization and robots will have an increasingly important role in the new economy.

The sharing economy has already started to change the socioeconomic life in cities as areas naturally suitable to be tailored to sharing. Generally speaking, the pragmatic character of sharing embodied in human nature is evident. The changes can be highlighted within the context of the statement that sharing economy is about organizing our lives and our cities [Dodwell, 2018]. Cities, as natural environments for

sharing, favor these processes also in the strictly economic sense reflected in business behaviors. Sharing companies use the socioeconomic benefits offered by cities, drawing on the various categories of resources concentrated in cities, particularly bigger cities, such as the population and its demographic and cultural characteristics, talents, and skills; capital; market; and dense infrastructure, including ICT and research and educational facilities. The “popularity of smartphones” in cities and “lower data costs”, together with “high population density”, are crucial drivers for urban sharing [WEF, 2017, p. 10]. Cities create high potential of demand, resulting in highly increasing general level of demand for sharing practices and a widening range of needs, from food and tools to cars and homes, which are being increasingly shared. Sharing companies can grow very fast in many cases due to critical mass, which can be reached in cities as they are population-dense areas enabling successful connections.

McLaren and Agyeman [2015, p. 28] stress that, in recent periods, sharing behaviors have spread from cyberspace to urban space across the world, which is seen in the growing interest in promotion of sharing-related practices in cities. Cities remain under the increasing influence of the sharing economy because many service providers and producers offer new services with sharing access. Implementation of the attributes of sharing economy, seen in peer-to-peer-architecture, opens up new possibilities for their functioning and growth (sharing of resources, as well as entrepreneurial and collective participation), which are based on change and adaptation to change. This model is important for them because it may ease many problems of their functioning and thus stimulate their growth. The ICT-enabled urban sharing offers novel and promising ways of interaction and resource use between urban actors [Zwolska et al., 2018].

Cities that are recognized within the sharing paradigm are described using the term “sharing cities” [Gorenflo et al, 2018]. This term refers directly to the idea of sharing, which is usually treated as embracing a broader context rather than just the economic perspective of sharing of underused assets. Considering the case for “sharing cities”, McLaren and Agyeman [2015, p. 4] emphasize that this means the understanding of cities as shared spaces and also as spaces that are shared fairly. Sharing behaviors multiply through the establishment of sharing norms and trust building online [McLaren and Agyeman, 2015, p. 28]. They help to overcome the obstacle of “stranger danger” associated with the novelty of an offer and strengthen the social basis for the reshaping of cities into “sharing cities”. By adopting the “sharing paradigm” enabled by ICT technology, cities have been changing their economic, sociocultural, and environmental characteristics, which gives them the opportunity to lead the transition toward sustainability.

Cities introduce sharing behaviors through online markets and, for this reason, they are called “the original sharing platform”. It was the role assigned by Jay Nath – the first chief innovation officer in San Francisco – while discussing the character of changes in the city and the region, which became the experimental field for implementation of the idea of sharing, because of the status of being the home city of the most innovative sharing companies in the world (in the context of ridesharing and homesharing).

3 Research and results

3.1 Framework of approach

The sharing economy changes many perspectives of a city’s life by implementing innovations and innovative solutions to the extent that, in some areas, it can act as a disruptive innovation in the sense that it changes the nature of the market concerned. This process is driven by the accelerating pace of implementation of their activities across the urban world and within a defined city.

Innovative sharing start-ups create new groups of actors on the urban scene and soon become powerful players in cities, which thus become places of particular interplay of changing interests represented by different groups of actors directly or indirectly involved in urban sharing (Figure 1). Although collective actions, including sharing, which constitute the essence of the process of shaping of the urban scene,

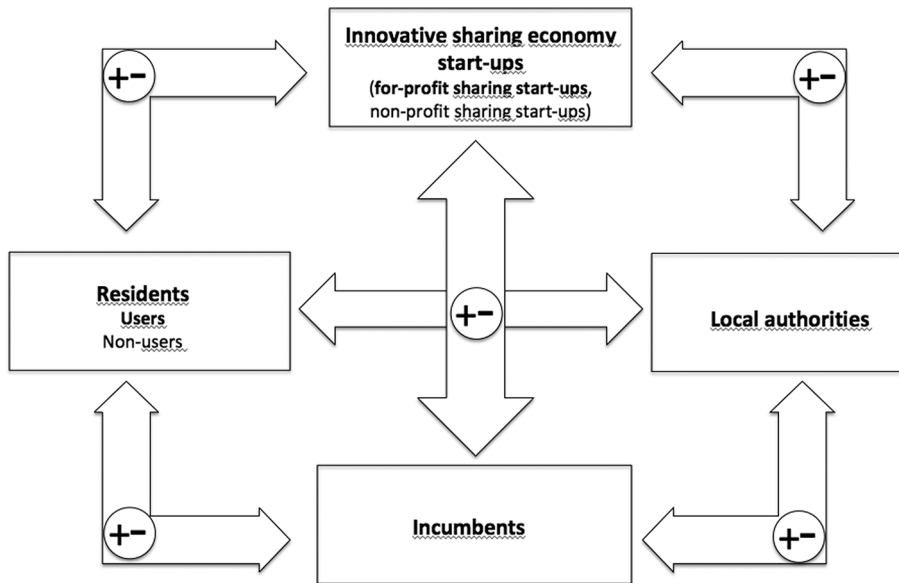


Figure 1. Impact of innovative sharing economy start-ups on the city: interplay of interests of various stakeholders in the city.

Source: Own elaboration.

have a cooperative character, they are the result of the mixture of conflicts and coordination [Sagan, 2017, p. 25]. The emerging sharing economy, exposing new collaborative dynamics (large-scale, intense, and multi-interactive), does not eliminate conflict, being strictly associated with innovation embedded in this new approach to economy, and even often escalates it. This is because it induces change, which is favorable for forerunners and disruptive for incumbents acting in the economic sphere, and has different types of impact on other groups of social participants of urban life, who are the users of technological and social innovations [Norman, 2015].

3.2 Global urban impact of innovative sharing start-ups: Airbnb, BlaBlaCar, and Uber

The scale and intensity of the sharing economy have been expanding extremely rapidly. The potential is huge, and the changes are happening right now. It is evidenced in the high increase of global revenue of the sharing economy [OECD, 2016], as well as by the large scale and intensity of development of various sharing practices implemented by different entities, including emerging sharing start-ups. Multinational corporations become crucial participants of the sharing economy of various countries, with a huge impact on the local scene.

It can be stated that the process of a city's transformation into a "sharing city" is run by big, international corporations – sharing economy start-ups, which are expanding extremely quickly and becoming hugely popular around the world. Uber, BlaBlaCar, and Airbnb, which are exemplified as powerful globalization actors [Lassere, 2018, pp. 310–311], are among the leaders of this process. Particular business success is attributable to highly innovative enterprises such as Uber and Airbnb, which invested in two of the most prospective areas of the economy for sharing: ridesharing and homesharing. Their financial heft is reflected well in the level of venture funding invested in their operations. As the Boston Consulting Group (BCG) reveals – while presenting changes in venture funding into the asset-sharing economy since 2010 – venture funding growth, particularly in ridesharing and accommodations, has increased greatly since 2013 (Figure 2). Of the \$23 billion spent for sharing economy platforms since 2010, more than half was only for Uber and Airbnb which shows the financial roots of their rising dominance on the global market (general indicators for the different sectors are shown in Figure 2). The spatial reflection of their expansion is visible in their "global urban path".

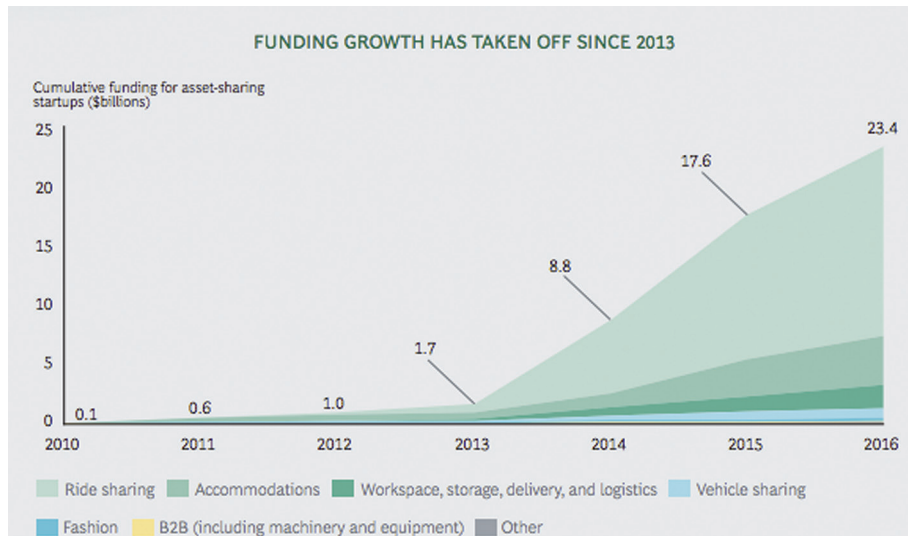


Figure 2. Cumulative funding for asset-sharing start-ups from 2010 to 2016.

Source: Wallenstein and Shelat, BCG analysis [2017], p. 5.

3.3 Sharing economy in cities – perspective of sharing start-ups (Uber, BlaBlaCar, and Airbnb)

The intensification and spread of Uber in cities around the world are so fast and deep that, after a decade from its start, the term “uberization of a city” has already been coined to denote this process. Using modern technology and the peer-to-peer business model, Uber expanded from San Francisco in 2011 to other US cities. The global expansion of Uber across cities is astonishing – until May 2011, Uber was available only in San Francisco, while in 2018, it continued operations in >400 cities worldwide located in more than 60 countries around the world [Computer Business Review (CBR), 2018]. Consumers in Poland have been able to use the Uber app since 2014, after it was launched in major Polish cities, including Warsaw, Krakow, Lodz, Wroclaw, Poznan, Tricity, and the cities of the Silesian conurbation [Uber, 2018].

The expansion of BlaBlaCar, gradually gaining the position of the world’s leading carpooling service (classified as a ridesharing service), also confirms the success of new sharing start-ups delivering peer-to-peer and on-demand service. By putting into practice a slogan “together, you share the journey and split the costs”, BlaBlaCar successfully connected increasing numbers of drivers with empty seats to passengers going the same way from a given city to another one. The range of impact of this French start-up spread within a decade from Paris to other cities across Europe, including the Czech Republic and Slovakia, which joined the platform in 2016. Participants of the Polish BlaBlaCar long-distance carpooling platform were included in 2012. In 2015, BlaBlaCar acquired its biggest competitor Carpooling.com and the Hungary-based AutoHope to become Europe’s largest ridesharing service [Cowan, 2015]. The activity, present in 19 European countries, has expanded gradually to other regions such as Asia and South America, with the entry in 2016 into such huge markets as India, Brazil, and Mexico. The scale of adoption of its services is reflected in the figure of 60 million users, including 8 million active drivers. BlaBlaCar’s website has approximately 1.5 million registered users.

The fact that French carpooling is consequently “taking the world by storm” [BlaBlaCar, 2015] is also reflected in another innovative offer of BlaBlaCar, which is mytaxi match, the world’s first taxi booking application. The new business proposal is offered only for urban dwellers using specific software within defined city limits. Mytaxi match, the taxi journey to share with others, was launched for the first time in September 2017 and Warsaw was chosen as the first market for this application. This new technological innovation “made by BlaBlaCar” has had apparently successful and very fast urban adoption, because it is offered already in 70 cities in 12 European countries. Polish citizens have the opportunity to share the

taxi trip also in other cities, the number of which is still increasing and includes such cities as Krakow, Tricity, Poznan, Lodz, and 17 cities of the Silesian agglomeration [Fedoruk, 2018]. The case of Warsaw and other major Polish cities shows favorable urban environment for innovative sharing practices related to carsharing and generally to sharing services. It results from the positive approach of governments at different administrative levels to international sharing companies (as far as the local governments are concerned, Warsaw city's government is being perceived as a creator of one of the most favorable investment climates in Europe). The second major factor is the societal approval (growing awareness of city dwellers and openness to changes, as well as digital readiness) necessary to gain enough critical mass to perform operations in a sharing economy.

Encouraged by the success of long-distance carpooling, BlaBlaCar plans to launch innovative carpooling lines – a new application that enables commuters to share shorter-distance trips. Passengers are offered a line that most closely matches their needs just like a route on public transport. Since May 2018, regular commute from home to work has been tested on two 45- to 50-km-long lines: Reims–Châlons-en-Champagne, and Toulouse–Montauban [BlaBlaCar, 2017].

Airbnb is another example of collaborative consumption successfully gaining new markets in hospitality service around the urban world. It is gaining worldwide attention as the leading example of the mediated commercial sharing platforms spreading through the urban global North [McLaren and Agyeman, 2015, p. 28] and probably the most promising start-up of the sharing economy [The Sharing Economy: Accessibility-Based Business Models for Peer-to-Peer Markets, 2013]. It has developed one of the savviest public relations and marketing capabilities among all the sharing economy start-ups [Sundararajan, 2016, p. 8]. Airbnb, similar to Uber, has expanded rapidly from its headquarters in San Francisco to many cities around the world, including a lot of European locations. Hamburg and London were chosen as its first and second international offices. The urban path of progress was associated with acquisition of city-based rivals such as Hamburg-based Accoleo or London-based rival CrashPadder [Gobry, 2011; Kerr, 2012].

International expansion of the company is reflected in the increasing number of cities across the world that have shared their properties using Airbnb. The number of cities with lodging listings much more than doubled during the period 2014–2018, from 34,000 cities to 81,000 cities offering lodging listings in >190 countries [Forbes, 2018]. Rising interest in homesharing on Airbnb was also expressed in the huge increases in the number of listings offered worldwide, rising from 600,000 to 4 million during the period 2013–2018.

The “global urban path” of Uber, BlaBlaCar, and Airbnb is reflected in their within-city expansion (Table 2). It is evidenced largely in American cities, from where American-based companies Uber and Airbnb

Table 2. Timeframe and expansion of the three studied companies

Uber	– spread of activity from US to all regions of the world 2011 San Francisco 2018 >400 cities worldwide in >60 countries
BlaBlaCar	– spread of activity between cities from France across Europe to 19 countries, as well as to Asia (India) and Latin America (Brazil, Mexico) – diversification of activities aimed at cities, with mytaxi match being an application only for urban dwellers 2017 Warsaw 2018 70 cities in 12 countries in Europe e.g., Hamburg, Vienna, Zurich, Barcelona, Madrid – spread of activity (diversification of carpooling) between cities to daily commute through BlaBlalines: pilot launch in France 2018 Reims–Châlons-en-Champagne and Toulouse–Montauban
Airbnb	– spread of activity from US to all regions of the world 2008 San Francisco 2018 >190 countries in 81,000 cities

Source: Own study based on literature.

originated and spread to the world [Bliss, 2018]. Uber, together with other smaller sharing companies of the Transportation Network Company (TNC), has transformed transportation in American cities and the positions of incumbent businesses within the span of just a few years. In 2012, Uber and Lyft ridership was marginal, but within 5 years, the introduction of ride-hailing into cities occurred at such a rapid pace that, in 2017, TNC trips accounted for about three-quarters of the total annual taxi and TNC ridership. The scale of the increase in ridesharing in US cities is very rapid, and the forecast for 2018 sees further substantial increase of around 1.4 billion trips. The effect of this phenomenon in the US is already substantial because it cut taxi ridership by half and stimulated a drop in bus ridership. A very significant scale of changes in city transportation, which illustrates the “uberization” processes, has been registered in San Francisco, the home city of Uber, where the two ridesharing services combined (Uber and Lyft) log more than 200,000 daily rides within the city limits (based on data regarding typical Fridays in the fall of 2016; Charlton, 2017). The impact of Uber Technologies on urban transportation is even deeper because it is involved in projects that change future modes of urban transportation, such as self-driving cars (the first launch took place in 2016 in Pittsburgh and San Francisco) and fully electric flying vehicles, named vertical-takeoff-and-landing (VTOL) planes.

The data show also an increasing local interest in homesharing using Airbnb. Only in 2016, in major cities hosting Airbnb offices such as Paris, San Francisco, and Seattle, the size of the host-and-guest community accounted for about 20% of the population. High annual growth of the community in other regions (>200%) brought new cities such as Sydney and Tokyo to high positions in the ranking of top markets of Airbnb – among the first five [Airbnb, 2017a].

3.4 Sharing economy in cities – perspective of incumbents

The emerging businesses in sharing economy, supported by considerable venture funds and the capital of the taken-over competing sharing start-ups, leave decreasingly less room for the incumbents operating in traditional economy sectors such as city (or intercity) transport and hotel services. It leads to aggravation of conflicts on the urban scene between the main groups of actors involved: sharing businesses and traditional businesses from the conventional economy. The incumbents argue that the companies achieve high incomes by using unfair competition, which causes a reduction in demand for taxi services and a subsequent drop in revenues and wages of the taxis and hoteliers. Start-ups in the sharing economy have a privileged position as they can leverage the largest pools of resources in the world: the assets and skills owned by peers. They represent an outstanding competitive potential because they are able to compete promptly with the established incumbent businesses in industries, which normally have substantial entry barriers [The Sharing Economy, 2013; Sobiecki and Pietrewicz, 2017, p. 15].

Taxi drivers emphasize that Uber’s activity fails to comply with national/local legislations requiring taxi drivers to fulfill costly regulations, such as stringent licensing involving psychological tests and demanding, time-consuming training. TNCs are also accused of tax evasion because, as unregistered services, they are free from taxes [The Nation, 2017]. It creates highly competitive conditions in terms of time costs, which tends to be otherwise a barrier difficult or even impossible to overcome for some groups of residents. Commenting on this issue, Farronto and Levin [2015, p. 12] stress that cab drivers in London historically have had to study for several years to learn the city routes, but acquiring the status of an Uber driver might be limited to just a few days.

The situation is similar with Airbnb, where people rent owned rooms free from hotel taxes. It worsens the position of individual businesses and the total industry. Thus, the estimates based on the example of New York City revealed that in the fiscal year ending August 2015, \$451 million in direct revenues were lost by hotels to Airbnb, representing a nearly 5% share of the overall city lodging market, with revenue potential to double within the next few years. During this period, Airbnb has provided nearly 2.9 million room nights in New York City only [HVS, 2015, p. 20]. A serious problem is highlighted in another US top city, Washington, where Airbnb “mushroomed into a leading short-term service” [Bhattarai, 2017]. The example of Vancouver also illustrates this problem as about one third

of the Airbnb rental units was owned by hosts who had them in intense commercial usage. Such a situation has also a negative effect, expressed in the rise in property prices [Edwards, 2016]. Networked hospitality businesses have been expanding very fast in Europe also, causing problems in local real estate markets, which changed the hotel industry markets created over entire decades of the tourism industry development. According to a study by Exceltur, the Industry Business Association operating in Spain [Gutierrez, 2017], in 2016, available beds in so-called “tourist apartments” exceeded the number of hotel beds across Spain’s major cities. During 2012–2016, the supply skyrocketed by 1,633% in the 22 cities that account for 84.5% of all city tourism in the country. The major share in this impact is attributed to Airbnb, growing at a yearly pace of nearly 100%, which resulted in the increasing of the company’s share, accounting for >54% of all available vacation rentals [Gutierrez, 2017]. In London, the fast development of Airbnb also brought about commercial usage: 41% of the listings belonged to hosts who are renting more than one rental [Edwards, 2016]. The results of studies [Housing Solutions Platform, 2019] related to the impact of Airbnb on the housing market, conducted in US cities during the period 2011–2016, show that Airbnb increased the rental rates by 0.59% and housing prices by 0.82% yearly. Similar effects were noticed on the European housing market, namely, in Barcelona, where the study concluded that a one-point increase in Airbnb density would entail increasing rents by 0.5%–1% and increase in housing prices by 1%–1.8%.

The situation in the real estate and housing market in Prague also show the high scale of accommodation offer via Airbnb, which is compatible with the capacity of Prague hotels. The data from Prague substantially outstrips the European average and reveals both the potentially significant misuse of the Airbnb platform for normal entrepreneurial activity and the associated potential tax evasion. As such, 7.4% of the Airbnb users offer five or more accommodation units and thus control approximately 40% of all accommodation options offered via this platform (based on data from March 2016 to April 2017). A similar level of market concentration evidenced by the share of users offering five or more accommodation units can be found only in Barcelona (Table 3).

The impact of Airbnb becomes increasingly powerful, because it has started to absorb also the business segment, which could multiply the negative effect on the hotel industry in the longer term. In the face of a possible future threat, many big hotels have already begun to invest in homesharing rivals [Global Investor, 2015].

Escalating discontent causing aggravating conflicts on the urban scene often takes the form of organized protests on the streets of cities around the world, which exerts pressure on the local authorities to change legislations. It is particularly evident in the case of Uber and Airbnb as businesses violating the local status quo. BlaBlaCar represents the more regional option of expansion and has

Table 3. European comparison of the number of Airbnb listings per user

City	1 listing	2 Listings	3 Listings	4 Listings	5 or more listings
Paris	90,97%	6,73%	1,16%	0,36%	0,77%
Nantes	89,03%	8,61%	1,60%	0,35%	0,42%
Cologne	88,55%	8,33%	1,46%	0,66%	0,99%
Amsterdam	88,53%	7,92%	1,85%	0,69%	1,01%
Strasbourg	88,53%	9,01%	1,27%	0,47%	0,72%
Toulouse	87,55%	9,30%	1,53%	0,37%	1,15%
Munich	87,30%	9,47%	1,81%	0,79%	0,63%
Berlin	86,18%	9,73%	2,19%	0,72%	1,07%
Frankfurt	86,18%	10,34%	1,88%	0,86%	0,74%
Glasgow	83,50%	11,97%	2,45%	1,09%	1,00%
London	80,89%	12,03%	3,12%	1,27%	2,69%
Manchester	78,61%	13,18%	3,72%	1,62%	2,87%
Edinburg	77,88%	14,03%	4,11%	1,66%	2,31%
Prague	70,63%	13,94%	5,28%	2,75%	7,40%
Barcelona	69,37%	16,57%	6,11%	2,65%	5,30%

Source: Ključnikov et al. [2018]. International Sharing Economy: the Case of Airbnb in the Czech Republic, Economics and Sociology, No. 2, Vol. 11, p. 132.

been dedicated up to 2018 only to intercity journey and, therefore, has raised much less controversy around the world. However, it can become more controversial as it is diversifying its activities into carpooling lines.

Local governments around the world have to tackle the issue of ridesharing and homesharing. The activities of Uber, treated as a transportation company competing directly with local taxis, was partially, temporarily, or completely banned in many cities, regions, and countries of the world. Although “the map of resistance” is constantly changing, it shows how problematic and disruptive can be one of the world’s most popular apps [Craggs, 2017]. The regulations impose various labor law requirements on Uber drivers, such as licensed taxi drivers through a cap on the number of minicabs to a total ban on its services. The areas include the UK (London), Denmark, Italy, Finland, France, the Netherlands, Spain, Bulgaria, Hungary, the US (Austin, Texas, Alaska), Canada (Vancouver, British Columbia), Australia (Northern Territory), China, Taiwan, Pakistan (Punjab), and India (Delhi), [Hao, 2017; Rhodes, 2017]. In April 2018, Uber ceased its operations in most of the East Asian regional markets [Iwamoto, 2018]. As far as Poland is concerned, Uber’s activities are not banned; however, the Polish government plans to introduce a new law on January 1, 2020, imposing strict rules on app-based companies such as Uber [Voa News, 2019]. The new law will require Uber to use licensed taxi drivers under a governmental plan aimed at creating fair competition in this market segment. Planned regulations are a response to the waves of protests of incumbent businesses in Polish cities.

Local authorities are also under pressure to cope with the issue of homesharing available on Airbnb. To lessen the problems on the local rental market, authorities impose different types of restrictions on homesharing sites, directly or indirectly, by limiting the number of short-term rentals by Airbnb hosts or changing financial regulations. US cities such as San Francisco, New York City, and Santa Monica have passed strict regulations on Airbnb, which include ban on short-term rentals of 30 days or less (New York). Washington’s authorities are now at the stage of tightening existing restrictions targeted at people who are too speculative while using owned properties for short-term rentals. Legislation will limit hosts to renting out one unit at a time, and only in their permanent homes [Bhattarai, 2018]. Restrictions on Airbnb were also adopted in large Canadian cities, namely, Vancouver and Toronto.

European cities are also engaged in the battle against Airbnb, passing more or less strict regulations. This group embraces, first of all, the capital cities of Western Europe, including London (its largest city based on listings) and Amsterdam, where the authorities imposed restrictions, starting in 2018, making the shortest possible length of renting out entire homes longer than 90 and 60 days a year, respectively, in the central city districts. Prior to these regulations, Amsterdam incorporated a tourist tax on rentals. Barcelona imposed differentiating regulations in various neighborhoods, including a ban on new tourist accommodation in the city center. In order to decrease short-term rental activity, the Dublin City Council decided to introduce legislation for property owners to seek planning permission from June 2019 before letting properties out for short-term rent [Housing Solutions Platform, 2019]. Restrictions were adopted in Paris, Berlin, and Madrid also [Petroff, 2017].

Airbnb is the second company, among the three discussed in the paper, the activity of which is planned to be legally restricted in Polish cities by the end of 2019. It is the direct consequence of the intervention of the Chamber of Commerce of the Polish Hotel Industry, which submitted a request to the Ministry of Sport and Tourism. The Ministry intends to introduce time limits for short-term rentals and an obligation to register rented apartments [Zalewski et al., 2018].

Airbnb, on its part, reports willingness for collaboration to ease problems resulting from its activity to adjust more to local conditions and defend its local position. It is reflected in the declared collaboration with governments across the world and evidenced in 400 agreements made with local and national authorities on fairer homesharing rules [Petroff, 2017; Housing Solutions Platform, 2019].

3.5 Sharing economy in cities – perspective of users of sharing platforms

The impact of the sharing economy on the urban scene depends on not only the entities representing opposing positions in the city stakeholders’ structure (sharing companies and incumbent businesses)

but also the citizens, who act as participants of both supply-driven and demand-driven sides of the local sharing economy.

Many users in a sharing economy rely on sharing activities as a basic source of income or to earn extra cash, which can be spent, for instance, on education (example of a host described by Kramer, 2016). Extra income and living expenses induce demand and support local development, as Airbnb reports. According to its data, the company's services brought in \$500 million to the New York City economy, \$300 million to London, and \$150 million to the Barcelona economy alone [Herman, 2014]. Users of sharing platforms benefit from sharing services because these platforms enable them to save money. According to the EU report on sharing economy [The Sharing Economy: Accessibility-Based Business Models for Peer-to-Peer Markets, 2013], the rent price of most of the luxurious apartments in London was about one third cheaper on sharing platforms compared to the cost per night in an average hotel.

Ride hailing creates new comfort and quality of life with a possibility of replacing traditional movement and communication with sharing alternatives. Studies confirm that people use ridesharing instead of both walking and traveling by buses, trams, and self-owned cars [Charlton, 2017; Bliss, 2018]. New alternatives for traditional modes of transport induce cheaper access to the incumbent services, which is an additional benefit for the clients.

Nonusers of sharing services are also being involved in the sharing economy, although social support for sharing practices on their part is more ambiguous. It is particularly evident in cities with overtourism, where additional number of tourists renting Airbnb apartments creates excessive commotion and overcrowding. In all the cities, there is a more general problem rooted in the location of the rented sharing apartments within housing areas, unlike hotels, which are usually situated within areas with commercial developments. Residents complain about bad-mannered behaviors of tourists not respecting the fact that they use "unconventional services", which should put more limitations in that matter because of the closeness of the neighborhoods to other residents [Spinks, 2018].

On the other hand, one of the positive social consequences of sharing is the process of socialization based on the use of the Internet and social networks. This so-called "new socialization" leads to the creation of new communities interconnected both virtually (by the collective use of sharing platforms) and in reality (by face-to-face interactions). Using the same platform allows to "create a unique space" for new communities and also create immaterial values [Poniatowska-Jaksch, 2017, p. 61].

Sharing platforms spread particularly quickly among younger generation; thus, this new online offer is addressed mainly to the Millennials, also known as Generation Y and Generation Z (born within the technological age 1995–2009). V. Rosso, the Director of BlaBlaCar for Spain and Portugal, confirms that most of BlaBlaCar users are young: 60% are below 35 years of age and 40% are younger than 25 years [Gualtieri, 2014]. He also strongly emphasizes the great importance of the role of the Internet and social network usage (it explains the position of Spain as one of the most cutting-edge countries in the company's network) in the company's policy of expansion. The opposite situation is found in countries and societies that are weakly virtually connected and do not have the critical mass necessary for sharing operations [McLaren and Agyeman, 2015, p. 156] or have a cultural barrier regarding ridesharing with strangers. Another issue is the matter of quality and safety, which makes traditional companies more preferable for older people, who are usually also financially stable and appreciate quality over price.

Sharing start-ups, on their part, promote and support emerging communities by strengthening individuals' feelings of belonging and identity based on the noneconomic effects of joining the platform (e.g., the community of Helpers created by BlaBlaCar). Members of the carpooling community notice that carpooling has made them more open to other cultures and opinions because carpooling creates a unique space and opportunity for meeting and for exchanges between people who share a ride and who might have never met otherwise. People declare (45% of BlaBlaCar carpool members) that they travel more and organize more weekend trips. Hence, share riding develops tourism and strengthens social interactions or family ties (Bringing People Together. BlaBlaCar study, 2016). The BlaBlaCar community has grown to the largest size of carpoolers in the world (40 million users), which coincides with the positive image of its services and satisfaction with its offer. According to the "Exploratory study of consumer issues in online peer-to-peer platform markets" [2017] studying the BlaBlaCar case in comparison to

other platforms, the visibility of BlaBlaCar was the highest. The survey showed that such factors as satisfaction of consumers with the overall experience and the likelihood of using BlaBlaCar again in the future were the highest both among sharing/hiring ride platforms and across all surveyed peer-to-peer platforms (87.2% of peer consumers and 86.9% of peer providers were satisfied or very satisfied with BlaBlaCar). Less than half reported experiencing problems on the platform. They mainly indicated (15%–19%) the poor quality of rides, cancelation of the ride, or the ride not being performed as described (all these figures, except regarding cancelation, were again the lowest for BlaBlaCar).

Similar benefits are associated with Airbnb service. Due to the much cheaper offer and greater diversification of locations, the number of travelers is greatly increasing. In some cases of top tourist destinations, inflow of tourists can lead to overcrowding and cause troubles in the city's daily life, as in Spanish cities [Gutierrez, 2017], but generally, it is a favorable trend for both inhabitants and cities. For example, because Airbnb listings offer attractive short-term rentals in places with limited hotel availability, tourist attractiveness of the cities increases as does the popularity of locally organized events, which is beneficial for both cities and visitors. For example, the festival in Austin, Texas, has grown exponentially due to Airbnb listings [Kramer, 2016, p. 20]. To help clients who are members of the Airbnb community become more local and integrate with local communities, Airbnb supports its basic activity of a broker with additional services. It publishes an online travel magazine under the brand name Airbnbmag [Bloomberg, 2018], formerly known as AirBed&Breakfast. It also offers other less-standard digital content, marketing products such as "Neighborhoods travel guide" (presenting 23 US cities), "Airbnb stories" (which connects hosts with guests through videos), or the social media campaign "Live There" (aiming to encourage people to live like a local).

Due to sharing activities, people rely less on ownership, which creates a sphere of comfort for those who are interested in reconstruction of the individual (family) budget or who just want to save on the partial costs of possession. This aspect has numerous crucial implications for the economy of cities, expressed in the environmental dimension. However, recent studies reveal that the flow of revenues to housing markets is geographically uneven and creates a new form of rent gap contributing to gentrification, a process observed, for instance, in New York City, especially in nonwhite areas, which are becoming culturally desirable and internationally recognizable neighborhoods, a change associated with an increase in prices [Wachsmuth and Weisler, 2018].

Use of sharing services provides environmental gains over traditional services due to reduced environmental impacts owing to the leverage of underused assets. Airbnb's [2017b] study, *Airbnbcitizen*, highlighting its role as a supporter of an environmentally conscious way to travel, presents the comparative statistics of the environmental benefits of home sharing with reference to energy, water, and emissions. The analysis made for North America and Europe in 2016 reveals substantial energy savings equal to the yearly use of energy in about 900,000 homes and reduction in greenhouse gas emissions that would be emitted by 1.8 million cars.

Airbnb's role in creating sustainable tourism does not limit its area of interest to providing its clients with the opportunity of accommodation at homes instead of hotels. The company sees its role also in contributing to creating environmentally conscious services and products. Its concern for eco-friendly travel is seen in its partnerships with policymakers, nongovernmental organizations, and the security system provider Vivint Smart Home (which helps to use energy effectively). Moreover, Airbnb joined the World Tourism Organization's campaign for the International Year of Sustainable Tourism for Development, which supports the United Nations in caring for sustainable travel [Airbnb, 2017b].

Uber and BlaBlaCar also take part in creating sustainable travel from the environmental perspective, changing the need for a car fleet due to the more optimal usage of cars. The opportunity that Uber and BlaBlaCar create for the clients reduces the need for ownership of personal cars, which consequently leads to a decrease in air pollution. Estimates of carsharing for the global market indicate that, by 2020, there will be about 26 million users of carsharing globally (compared to 4 million in 2014), which could lead to a reduction in new vehicle sales by 0.7% in 2020. The sharing economy promotes new business models and new management of resources by different categories of individual actors to optimize productivity [Global Investor, 2015, p. 20].

However, the impact of Uber on traffic congestion and journey speed is inconsistent as studies show different results (London versus Copenhagen) depending on the horizon of research [European Parliamentary Research Service (EPRS), 2016, p. 73]. Present-day transport problems with congestion, such as those observed nowadays in London, might be temporal because there is a strong incentive to maximize utilization, which is likely to improve the situation in the medium or long term. The situation on city roads is challenging, which is seen in two contradictory tendencies that are being observed nowadays. Sharing economy platforms tend to increase congestion by increasing the number of journeys overall as they substitute for walking, cycling, or public transport. At the same time, sharing economy platforms reduce congestion as they substitute private cars and taxis, which improves traffic and parking capacity [EPRS, 2016, pp. 17, 74]. According to the annual Carplus survey, one shared car could remove 17 privately owned cars (Urban sharing in London, 2019).

On its part, Uber takes steps to improve its image and ease the present-day consequences of ridesharing on traffic congestion. The “Uber Movement” serves as an example for the cooperation in this area. This Uber project, which started in 2017, provides urban planners with extensive data on the commuting habits of citizens of certain cities gathered by the company. The aim is to indicate how best to invest in new infrastructure [Gilbertson and Salzberg, 2017]. The program uses data from >2 billion trips and includes data from cities in all the regions of the world: North America (Boston, San Francisco, Washington DC, Toronto, Pittsburgh, and Cincinnati); Central and South America (Bogotá); Europe (London, Paris, and Amsterdam); Africa (Johannesburg, Pretoria, Cairo, and Nairobi); South Asia (New Delhi, Hyderabad, Mumbai, and Bangalore); Australia and New Zealand (Sydney, Melbourne, Brisbane, and Perth).

The new business models of sharing companies have to struggle much to fit within the reality of the cities’ economies. After many tensions in the area of communication with the institutions and some groups of stakeholders, Uber and other companies such as Airbnb or BlaBlaCar try to contribute to the cities’ life in a way that would somehow create a counterweight to the disruptive impact that they cause to the city’s social and economic life and its participants, namely, citizens and local businesses.

4 Discussion

Due to the scale and intensity of sharing economy activities enabled by technological progress, sharing economy is being perceived as an emerging and novel phenomenon and, as such, is gaining the interest of business and public sectors, government entities, academy and mass media, and also society, whose members increasingly act as users of sharing practices. Analyzing the changes taking place nowadays, it is, however, necessary to keep in mind the universal and historical role of sharing and its embeddedness in socioeconomic relations through human history.

The sharing economy processes, which bring together various actors (*sharing companies*, *citizens* as providers or users of sharing practices, and *governments*) embrace different spatial levels. The ICT-enabled urban sharing is regarded as a particularly promising example of smart innovation [Zwolska et al., 2018]. Activities that are contributing to urban sharing have much in common with those promoted by smart city agendas in terms of values and comprehensive goals contributing to digital-led sustainable growth, because both phenomena (urban sharing and smart city) “frame the concepts of innovations led by citizens’ and consumers’ needs functioning in well-defined communities, whose aim is to share resources” by taking advantage of ICT [Zwolska et al., 2018]. For example, urban sharing organizations are included in the Greater London Authority’s efforts under the agenda of the Smart London Plan, while mobility organizations are cooperating with Transport for London – the authority responsible for operating public transport in London, which is heavily involved in the smart mobility plan for London (Urban sharing in London, 2019).

A sharing economy implies a disruptive and creative impact on a city and its citizens, who are under pressure for the necessary adjustment to the rapid changes. They are exemplified in the innovative processes forced on them by the rapidly developing global companies of the sharing economy, such as Uber, BlaBlaCar, and Airbnb. Although the activity of the three sharing economy companies discussed in

the paper is limited to selected areas of the sharing economy, they have already put a huge and transforming urban impact in many countries of the world. The analyzed start-ups represent very successful profit-making international sharing companies leading in innovative changes in their respective urban market segments such as ridesharing and homesharing. Their economic success is seen in their global urban path (so far, only BlaBlaCar has a more regional-oriented strategy of development) and the very fast internal expansion seen in many cities around the world. It is worth noticing that after 8 years of its functioning, Uber was still presented by its cofounders as a modern start-up experiencing continuous development, seen in the increasing network of city-based independent businesses [Bartczak, 2015].

Sharing companies develop their activity mainly in cities as these are densely populated places providing various locational advantages, which are the catalyst for innovative changes. Such an urban environment creates and stimulates interactions through the abundance of quickly developing sharing platforms and their fast progress. Sharing economy companies rapidly transform cities around the world. It is reflected in the increasing number of cities that are being influenced by the sharing economy; the impact is economic, sociocultural, political, and also environmental, which is differentiated locally. Successful monetization of the process of sharing instead of real sharing has many consequences for a city's functioning, which are both positive and negative. The fact that such companies as BlaBlaCar, Uber, or Airbnb turn ridesharing and couch sharing into multimillion businesses causes an ongoing public debate [Cowan, 2015]. The companies illustrate the disruptive potential of the sharing economy, which is especially highlighted while discussing the impact of large, international, quickly expanding companies involved in the sharing economy. As disruptive businesses, they have a tremendous and complex impact on the economy at different levels. It is worth noting that although Uber was established in 2009, later than the term "sharing economy", the word "uberization" began to be used regularly as its synonym to emphasize the scale of changes, as well as to show its negative aspects [Gross, 2017]. Donald [2017], commenting on Uber's impact, stated that it became "one of the most vexing problems facing cities today, because it exploded on the market without much warning, leaving policymakers to react quickly".

The sharing economy unleashes the various interests of different urban actors involved in the city's growth machine [Moloth, 1976]. The impact of the analyzed sharing companies threatens existing local structures and sparks activities defending economic local status quo. The disruptive influence of sharing economy companies leads to local conflicts, expressed in the opposing approaches of different stakeholders: incumbent companies and sharing economy companies. The incumbents argue that the companies achieve high incomes by using unfair competition, which causes a reduction in demand for taxi services and a subsequent drop in revenues and wages for the taxis and hoteliers. Sharing economy start-ups are developing extremely quickly because they have small entry capital barriers and vast potential for demand as they offer services in a new way [Rutkowska-Gurak, 2016] and at very low prices (the impact of price changes on the shrinkage of local markets is seen largely in Poland with reference to the BlaBlaCar price policy; see Stankiewicz, 2018). The peer-to-peer business model allows these companies to reduce all costs related to ownership (does not refer to Uber) or costs related to employment (Uber relies on private contractors), allowing citizens/clients to act as both third-party service providers and users of the services, while keeping to themselves the position of intermediaries. Both parties are financially motivated and have a common goal, such as gaining increasing number of consumers and maximizing income from them. The fast development of the discussed companies shows that scale enabled by technology becomes a base for their business models (and constitutes a characteristic feature for all business models of the sharing economy). It is a condition for their functioning and business operations and constitutes a base for their competitive advantage. Fast and aggressive accumulation of large value in a short run by some sharing companies such as Uber, which has little to do with sharing (which is contrasting, e.g., with BlaBlaCar's model) is a reason for the criticism of such business models [Cicharska et al., 2018, p. 128] or for just excluding Uber from the category of sharing companies (Botsman, 2015b).

Fast-developing sharing economy companies have been radically modifying existing local markets and business models, leading to a change in the structure of market segments such as transportation and accommodation. This disruptive economic influence is being partially diminished through the positive socioeconomic effects, expressed in the entrepreneurial character of the sharing economy. It is seen not

only in the rapid growth of sharing start-ups but also in the inclusion of different groups of citizens, mainly nonprofessionals, as service providers. The unconventional supply of cheaper services positively influences the individual budgets of citizens. It also has a positive multiplying effect on a city's economy (shift of demand to new groups of citizens), including the strengthening of a city's economic base (e.g., tourist function). The sharing economy quickens the better utilization of underused assets (cars, apartments), enables savings on individual assets, encourages sharing of resources, and induces the multiplication of environmental benefits (projected drop in total sales of cars). By promoting new business models and new management of resources by different categories of individual actors, the sharing economy helps to optimize productivity.

One of the important social consequences of sharing economy causing social changes is the creation of sharing communities, whose participants' values and norms are shaped and reshaped, contributing to the multiplying and strengthening of sharing behaviors. As McLaren and Agyeman [2015, p. 28] underline, establishment of sharing norms and trust building online is a key condition for the multiplying of sharing behaviors. Using the same platform allows to "create a unique space" for the functioning of established communities. Sharing behaviors increasingly characterize younger generations, which constitute the major category of users of sharing practices. The younger generations appreciate the new features of sharing businesses, such as mobility, freedom of activity, variety of choice, and flexibility. Sharing behaviors are reflected in the new approach to ownership, expressed in the changing of attitudes and mind-sets from having to using.

In general, citizens who use sharing practices present a positive approach to the sharing economy companies. However, the characteristics of users of sharing platforms imply uneven access to the service. It is stressed that sharing companies such as Uber create selective income opportunities, which are favorable only for one group of citizens, namely, those who are young, single, the mobile, and able-bodied, whereas traditional transportation companies are left with the others (elderly people who are less digitalized, families with children, and so on), creating a gap in income and opportunity between the two types of services operating for different segments of the population [Norman, 2015].

Another questionable aspect associated with sharing practices, which arouses social concern and local protests of citizens, appears when they disturb the functioning of their local neighborhoods, which occurs in the case of rentals of apartments through Airbnb listings (e.g., in Spanish cities).

The city authorities, who favor a special status in the city growth machine, are engaged in a more multidimensional way in the conflicts arising on the urban scene. Their approach has to be more ambiguous and their position more balanced as they represent the general perspective of a city's socioeconomic interests. The activity of local governments with reference to the sharing economy is relatively pragmatically oriented toward sharing practices [Zwolska, 2017]. On the one hand, they observe the painful loss in tax payments due to the negative effect of the growing market of black economy on the city budget. Depending on the character and scale of the local impact of sharing businesses, the city authorities are under moderate-to-high pressure from dissatisfied traditional business entities, which are important contributors to current city budgets. On the other hand, the authorities realize that new peer-to-peer activities have huge social support as nourishing a new kind of entrepreneurship for various groups of people, resulting in both the earning and the saving of money by citizens, supported by the additional impact of new socialization. This part of local society, which is more attributed to younger generations, has to be also taken into consideration not only, from the perspective of fulfilling needs, which is the basic purpose of a city's development but also from the perspective of the voting power of those who treat the sharing economy as contributing to life betterment. The entrepreneurial and digital character of the sharing economy constitutes a crucial force for the betterment of living conditions for many citizens, including disadvantaged groups of people, helping to build trust and enable social inclusion of strangers [WEF, 2017]. The inclusive character of the impact of the sharing economy from the societal point of view is, however, weakened by the exclusion of other groups of citizens, who are not technologically capable of following the rules of the digital market of sharing services. However, some barriers for sharing are partially surmountable by increasing the trust of the community to this new category of services. This explanation can be addressed to the results of the BCG survey [Wallenstein and Shelat, 2017] devoted to this issue, which reveals that nonusers cited three main

reasons against the use of sharing platforms, namely, convenience of ownership, distrust of the sharing platforms that they have never used before, and unwillingness to share payment information.

One more perspective of the urban impact of sharing enterprises is resource oriented. The sharing economy highlights the environmental aspect of socioeconomic sharing behaviors due to the promotion of the usage of underused assets, resulting in reduction of pollution and consumption of media. Although environmental aspects are fundamental for a discussion about the sharing economy's potential, its basic three benefits, which attract consumers to sharing economy – as the BCG reports, are the following: variety, access to better products and services, and the ability to have a unique experience. The environmental dimensions, such as reducing the carbon footprint and societal relations, i.e., connecting with interesting people, are ranked lower [Wallenstein and Shelat, 2017]. It shows the high complexity of interests and expectations of the various stakeholders of a city. Local expression of these compound interactions is expressed in both unified and place-specific manners (Table 4).

Table 4. City as an arena of contrasting interests, represented by different stakeholders

City's stakeholders	Approach + for – against	Characteristics of approach
Sharing economy companies	+	<ul style="list-style-type: none"> • Connect citizens: drivers–riders and landlords–guests to generate revenues (gain loyalty) • Successfully attack the market position of incumbent companies • Have low entry barriers • Gain profits from platforms: revenues from users and advertisers, selling databases, etc. • Create new jobs for contractors/employees, including people who were not previously employed • Generate additional demand • Contribute to new socialization by creation of a community • Lower transaction costs
	–	<ul style="list-style-type: none"> • Face fierce competition in sharing economy sector • Face increasing resistance of incumbents and rising (governmental, municipal) restrictions on sharing services
Incumbents	+	<ul style="list-style-type: none"> • Face competitiveness, which leads to higher standard of services
	–	<ul style="list-style-type: none"> • Are under disruptive impact of sharing companies with reference to revenue and profits • Question legality, price policy, and tax policy of ridesharing and lodging, because of their status as unlicensed (Uber, Blablacar) and lower-priced competitors (Uber, Blablacar, and Airbnb) using peer-to-peer low-cost service practices with low capital entry with reference to possession (Blablacar carpooling, Airbnb) • Suffer decline in standard of living due to lower wages
RESIDENTS		<ul style="list-style-type: none"> • Save money by getting cheap access to goods and services offered by sharing companies
Users (consumers)	+	<ul style="list-style-type: none"> • Save money by getting cheaper access to traditional services being under competitive pressure • Benefiting from improved standard of living
	–	<ul style="list-style-type: none"> • Become less dependent on ownership • Are exposed to risk (quality of goods and services)
Contractors (peers)	+	<ul style="list-style-type: none"> • Earn money paid for peer-to-peer jobs • Earn money paid for assets owned by them • Have more flexibility • Appreciate participation in communities created by users of platforms • Benefiting from improved standard of living
	–	<ul style="list-style-type: none"> • Are exposed to risk of lack of payments, poor working conditions, etc.

(Continued)

Table 4. (Continued)

City's stakeholders	Approach + for – against	Characteristics of approach
Nonusers	+	• Use tourist-driven demand to earn money
	–	• Complain about tourists behavior in neighborhood areas
All residents	+	• Favor better quality of life (environmental aspects)
	–	• Have unequal access to sharing services operating for different segments of population (ridesharing)
Local authorities	+	<ul style="list-style-type: none"> • Sharing businesses contribute to jobs and local economic growth induced by increasing demand (total and sectorial, e.g., tourism) • Help to solve transportation problems (urban planners are provided with data, which helps design cities in a way that would reduce congestion and reduce car usage) • Offer alternative possibilities of services, such as commuting and apartment renting • Favor social inclusion (particularly for disadvantaged groups of citizens and strangers) • Shape sociocultural features desirable for entrepreneurial attitudes, such as openness and innovativeness • Contribute to the creation of sharing communities • Help to develop new functions in cities (cultural, tourist activities) • Ease environmental problems due to better use of underused assets: e.g., cars, apartments; and help to create more environmentally friendly urban environment for all citizens • Help to enhance quality of life in the city • Change possibilities of city and intercity transportation (additional alternatives, more frequent traveling, lower cost of travel) • Totally change future of urban transportation (self-driving cars, vertical-take-off-and-landing planes)
	–	<ul style="list-style-type: none"> • Concern about tax losses associated with growing “black” economy are aroused • Problems in local labor market are induced (e.g., massive protests of incumbent companies threatened by the risk of decreasing revenues and even bankruptcy) • Position of traditional urban transportation (taxis, buses, trams, and trains) is threatened • Stability of local real estate markets is threatened due to increases in real estate prices • Problems of overtourism might arouse and be increased

Source: Own elaboration.

Taking the above considerations into account, local governments (supported also by national governments) act as regulators by limiting the scale of activity of the selected sharing start-ups (cases of Uber and Airbnb) by the imposition of laws and regulations for sharing platforms, to ensure the rights of all participants and other city users such as incumbents and opposing groups of citizens. They also play the role of facilitators and collaborators participating in innovation programs and acting as partners with Uber, BlaBlaCar, and Airbnb by promoting ridesharing (e.g., BlaBlaLines, Mytaximatch) and by cooperating with Uber concerning betterment of the existing urban transportation (Uber Movement) and implementation of new modes of transport (self-driving cars, electric flying vehicles). Generally speaking, local governments can act as promoters or inhibitors and fulfill selective urban policies, which is evidenced well in London. Although the city declares [The Sharing Economy in London] the promotion of urban sharing organizations (USOs), such as support for a pioneer nationwide trade association of nonprofit and for-profit sharing organizations (SOs) or support to mobility organizations or the platform JustPark (by the Mayor of London), the authorities underline the necessity of control over some large SOs, which is reflected in the restrictions imposed on Uber and Airbnb, conditioned by public safety and security implications and the necessity for counteracting the exacerbation of the city's housing crisis [The Sharing Economy in London,; WEF, 2017]. It is symptomatic that

the processes for regulation of sharing companies' activity start to be the subject of continuous revision based on empirical evidence, which is exemplified with regard to London's urban policy related to Uber. Although this ridesharing company temporarily lost its license to operate in London, which took place in September 2017, the renewal of its activity with London's transport authorities was possible under new terms, such as, for example, obtaining medical certificates for its drivers and carrying out criminal background checks to reduce physical risk to users and service providers [The Sharing Economy in London; WEF, 2017].

The complexity and differentiation of sharing practices embrace a whole city's economy and spread across selected sectors such as transportation, the activity of which is not limited to traditional modes of transport but also involves new vehicles such as shared scooters designed initially for "last mile" commuting. Even such nonrevolutionary vehicles such as shared scooters, which were implemented in 2017 (Uber also acts as one of the operators on the e-scooter market), have been arousing such controversies (for security reasons) that San Francisco, which has a particular status on the sharing market, tried to impose a total ban on their services, and other American cities, such as Nashville and Portland, are planning to ban or limit the activity of its operators [Garriy, 2019].

5 Conclusions

The sharing economy uses the attributes of cities in terms of being "platforms for innovations", where innovations can thrive, leading to change, novelty, and transformation toward more "sharing cities". The fast development of sharing practices is possible due to new, flexible business models offering great economic value, quality, and variety, which have unexpectedly quickly overcome the barriers of social distrust, which is seen in the market response showing rising investments of venture funding in new sharing start-ups, in particular, in ridesharing and homesharing, since 2010. The economic benefits of sharing, combined with increasing protections of their users, and the gathering trust in terms of user reviews contributed to the growth of communities of users of sharing services, leading to fast transformation and unification of values making sharing a social norm.

The analyzed for-profit sharing start-ups (Uber, BlaBlaCar, and Airbnb) used the potential created by the sharing economy, such as quickly rising societal support and starting operations in a favorable period for such a business offer, namely, in the period of the world crisis. The huge support of venture funds, the right choice of the operating field, and a far-reaching strategy, including a policy of continuous innovation and global expansion, allowed these three start-ups to become global players with tremendous impact at both global and local levels.

The urban context of the above influence caused the cities to become a special arena for the sharing economy's takeoff. Over time, the disruptive character of these for-profit sharing start-ups, called "large sharing vanguards", started to create unprecedented challenges for urban authorities in the quickly transforming urban scene. Deep inner-city expansion by the new participants of the city's economic and social life revealed conflicting interests of the different stakeholders in the city (Table 4). Their disruptive visibility in many cities around the world diversified the emerging array of urban sharing organizations, somehow disturbing the simplicity of the positive picture of sharing as enabling the transformation of the urban economy from excess to access in the environmental spirit of changes, resulting in increasing prosperity of urban inhabitants. Rapidly escalating processes related to the sharing economy forced adaptive regulative processes at the national and local levels, contributing to locally specific forms of legislative regulations, subject to processes of constant changes based on empirical evidence. Such activities are aimed at maintaining a balance between the creative freedom for businesses and the necessary regulations protecting the interests of all stakeholders of the city.

The conducted analysis gives the basis for understanding the importance of the impact of sharing companies on the city and on each group of a city's stakeholders. The adopted approach focused on the analysis of global sharing economy companies, representing for-profit business models in two economy sectors (ridesharing, homesharing), acting formerly as sharing economy innovative start-ups enabled to follow the pace and scale of changes imposed by their activity. The findings should be treated as the basis

for a better pragmatic approach referring to regulations of activities of such companies, first, because their products are often ahead of the existing legal environment and, second, because the scale of the disturbing impact of some of them is too heavy for local markets.

Sharing city is a phenomenon difficult to grasp in its entirety, not only because of its complexity but also its variability. Even limiting the perspective for analyzing the impact of for-profit corporations in this sector on the functioning of cities allows one to notice not only the scale of influence but also the heterogeneity of consequences for individual groups of stakeholders. Moreover, the identified consequences are not constant over time but are subject to change due to the multilateral interaction between different players – the results are altered with changes in the strategies of the corporations themselves, as well as with the adaptive actions of other stakeholders. An example would be the changing rules of the game of local and state authorities, which attempt to introduce regulations aimed at limiting the negative impact of sharing economy enterprises on the city's stakeholders, e.g., tax regime, licensing, and insurance legislation related to Airbnb in Prague (and other Czech cities), new license law for Uber in London, restrictions on renting flats in Barcelona, and ban on e-scooters in San Francisco.

The analysis also shows that externalities occur at every stage of the life cycle of the sector's enterprises – start-up, growth, and decline. Given the dynamics of the sector, the process of adjusting regulations to protect the most vulnerable groups of stakeholders is a continuous process – problems cannot be solved once and for all – the changing paradigm requires constant attention from governmental bodies to reduce market failure.

Sharing companies are changing not only present-day life in cities but also the future of the cities, contributing to irreversible and revolutionary changes, and, as such, they should be intentionally included in the smart cities' model of development. However, the impact of sharing economy should be locally shaped and regulated by the cities' authorities who represent the "general city interest", to ensure environmentally friendly, sustainable, smart development linking all city's stakeholders and strengthening social participation as a result of access to the underused assets or services, better resource availability, and improvement in living conditions. The research shows that the expansion of sharing services, with the inherent complexity of interactions, transforms cities into more sharing spaces, with increasing peer-to-peer architecture, resulting in more collective social coexistence and more sustainable background for development, however with some uncertainty related to wealth stratification due to the complexity of the conflicting interests of a city's stakeholders.

The ongoing processes related to sharing economy in cities, as the analysis confirms, are complex and multidimensional in character and affect the economy and society, which justifies the need for further in-depth research and studies. Following the discussed topic, it is worthwhile to study the impact of the analyzed sharing start-ups on selected cities more in depth, taking into consideration the economic or sociocultural and/or environmental dimension. Analyzing the impact of sharing start-ups, the issue of collaboration among cities is also worth noting. Considering the analyzed topic, the following questions arise:

- (1) If and how to regulate the activity of sharing start-ups at the city level, particularly those, such as Uber, BlaBlaCar, and Airbnb, whose activity is very expansive and reshaping the existing cities' socioeconomic structures?
- (2) How to offset the impact of such companies as Uber, whose basic activity is controversial in the categories of pure sharing but whose other activities contribute to benefits for the city?
- (3) Should the cities work out partially common, universal patterns of policy toward particularly "disturbing" sharing start-ups acting at the global scale?
- (4) To what extent do the practices of sharing start-ups contribute to the transformation of the cities into "sharing cities"?
- (5) How to coordinate the development of the cities into smart cities and "sharing cities"?
- (6) Should some areas of urban activity be excluded from sharing for the general benefit of a city's development?

The sharing economy arouses many expectations but also fears and objections. The question is how to include sharing organizations in the city's growth machine for the general benefit of the city's economy and the lives of its citizens. Despite the fact that it is difficult to foresee long-term trends on the market, it

is likely that the sharing economy will escalate its economic influence in various urban market segments and that it will strengthen its local social impact. However, legislative regulations tend to diminish the inappropriate business advantage of sharing start-ups such as Uber and Airbnb, which grew on the supply–demand gap and the ability to function over the existing regulatory system. Obeying rules prepared for this category of new companies could change their global position as well as their local manifestation on the global urban scene in the medium- or long-term run. Another issue that is being observed is the start of the process of the gradual partial inclusion of incumbent businesses into the so-called new sharing economy in sectors experiencing the highest business risk such as the hotel industry. One thing seems certain: sharing economy is on the way to transform cities around the world. This transformation should be included in the cities' strategies and not left out of continuous supervision.

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