

Article

Sharing the Economy in Tourism and Sustainable City Development in the Light of Agenda 2030

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Abstract: The dynamic development of the sharing economy is clearly seen in particular, in the area of tourism in large cities. There is, therefore, an increasingly urgent need to study its impact on the functioning of cities, especially when they implement a sustainable development policy. Therefore, the need to study its impact on cities' performances is more and more urgent, particularly, when they implement a sustainable development policy. This study discussed the influence of a sharing economy in tourism on city sustainability from the perspective of the Agenda 2030 goals. The main objective of the paper was achieved, thanks to in-depth analysis of the content of secondary sources. Results of the analysis were subjected to the synthesis process, using the tabular method. In Agenda 2030, when diagnosing the importance of this issue, one of 17 goals, i.e., goal 11, and 10 tasks within it, were devoted to the sustainable development of cities. The results of this study showed that sharing economy in tourism has an impact on the implementation of seven of them, but the direction of the impact is diversified. The domination of positive sharing economy (SE) effects was observed in the following areas: providing access to safe, affordable, accessible and sustainable transport systems for all (Target 11.2) and upgrading slums (Target 11.1), while the negative effects were noticed particularly clearly in implementing Targets 11.6 (reducing the adverse per capita environmental impact of cities) and 11.7 (providing universal access to safe, inclusive and accessible, green and public spaces).

Keywords: sharing economy; sustainable development; tourism; sustainable city; Agenda 2030; D12; D22; E21; L83

1. Introduction

The sharing economy (SE) is one of the most important current megatrends (Frost and Sullivan 2018), and a new phenomenon in urban space. Due to the dynamic development of SE, numerous cities of the world have to face new challenges, which may disrupt making cities more sustainable. Previous research suggests that SE supports the growth of tourism traffic, which leads to growing urbanization, but also creates changes in areas of competition, entrepreneurship and each citizen's quality of life.

The issue of the notion of the sharing economy has been undertaken in scientific debate more and more often lately (Botsman and Rogers 2010a, 2010b; Botsman 2013; Belk 2014; Dredge and Gyimóthy 2015; Breidbach and Brodie 2017; Görög 2018). The phenomenon is deliberated in the context of diverse problems: economic (Palgan et al. 2017), legal (Santolli 2017) or cultural ones (Light and Miskelly 2015). Similarly, the topic of a sharing economy in tourism is presented more often (Cheng 2016; Heo 2016; Dolnicar 2018). This includes, among the others, the impact of Airbnb-type platforms on hospitality sector (Katsoni 2018; Zervas et al. 2017). The issues of mutual relations between sharing economy and sustainability (Heinrichs 2013; Leismann et al. 2013; Martin 2016; Ertz and Leblanc-Proulx 2018;

Ranjbari et al. 2018; Curtis and Lehner 2019) and between sharing economy and cities development (Dredge et al. 2016) are other important directions of contemporary research. However, studies of the relationships between a sharing economy and a sustainable city are undertaken relatively rarely by the members of academia. An analysis of scientific papers published so far, made in this paper, revealed just one paper (Wu and Zhi 2016) relevant to this topic, and Katsoni (2018) merely mentioned the coexistence of sharing economy, land use and sustainable urban development. Additionally, particular examples of relationships between sustainable city development and a sharing economy are presented in few other papers, and they are usually connected with several cities like Barcelona (Garcia-Ayllon 2018) or countries like Greece (Katsoni 2018). They are usually very general review papers. Considering the sustainable development economy paradigm (Rogall 2012), the researchers of issues of the sharing economy and sustainability (including city sustainability) often follow the notion of three orders: the economic one, the social one and the environmental one.

This paper discusses the potential influence of a sharing economy in tourism on city sustainability from the perspective of Agenda 2030 goals. It is worth noticing that the review of earlier papers did not reveal any papers dealing directly with a sharing economy and the sustainability of cities, and taking into account, the perspective of sustainable development goals stated in Agenda 2030. This document signed by 193 countries of the world, sets tasks necessary to complete in order to meet the challenges for contemporary inhabitants of the world, if they are still to live in the environment which does not only not threaten human existence, but also supports human-beings' further development. Out of 169 tasks specified in the Agenda, ten deal with sustainable city development (Goal 11; i.e., "Make cities and human settlements inclusive, safe, resilient and sustainable") and they are intended to support facing challenges of rapid urbanization. The key significance of Goal 11 has been further highlighted in the records of the *New Urban Agenda* created in 2016, which is expected to contribute to the better and more sustainable future of cities. It is worth taking a closer look into how SE development may influence realization of tasks of Agenda 2030, especially within the scope of the Goal 11 labelled as "Sustainable Cities and Communities." This topic is of great importance for policy makers, who are responsible for selection of proper policies, tools and measures of realization of tasks within the mentioned goal. Considering this, they are to be aware of potential effects of new phenomena of social or economic nature, and the SE is among of examples of such phenomena.

The paper is organized into four parts. The first part presents the research methodology. The second part provides theoretical background for understanding the two main notions referring to the research problem. This part defines the sharing economy and a sustainable city; additionally, the sustainable development goals in Agenda 2030 are presented in brief. In the third part, based on the Airbnb example, the authors present empirical results referring to indicate impacts of SE on tourism and on city sustainability in selected European cities. Finally, discussion, conclusions and limitations of the research were highlighted.

2. Methodology

The main objective of the paper was to present the role of a sharing economy in tourism in sustainable cities' development in the light of Agenda 2030. As tourism traffic impacts cities' sustainability and the size and growth of this traffic needs proper accommodation facilities, the authors of this paper supposed that the case study method of Airbnb—the biggest platform in the world offering tourists accommodation, as well as the most often researched by academia members (e.g., Geron 2013; Gutiérrez et al. 2017; Zervas et al. 2017; Garcia-Ayllon 2018), is the proper method of analysis of the topic. Selecting Airbnb as the object of analysis is also justified by data availability on the corporate websites: www.airbnb.com and www.airdna.co.

Apart from the main objective, the research allowed reaching three specific goals:

1. The explanation of notions: a sharing economy in tourism and sustainable cities.
2. The recognition of impacts of SE platforms' development on tourism in cities; for example, of Airbnb.

3. The indication of potential positive and negative impacts of a sharing economy on sustainable cities' developments in the light of Agenda 2030.

Those three specific goals of the paper were achieved in the following way:

1. The notions of sharing economy and sustainable city were defined based on previous review papers.
2. The impact of SE on tourism traffic in selected European cities was described thanks to data on Airbnb originated from www.airdna.co. The basic criterion of particular cities selection was the service potential of Airbnb in a city. The paper presents cities with the highest numbers of active rentals.
3. As the result of using of in-depth analysis of studies presented in previous scientific articles, the authors of this paper indicated the potential impacts of SE (on the example of Airbnb) on the possibilities of achieving the goals of city sustainability in the light of Goal 11 of Agenda 2030. Our analysis included examining the content of various messages registered by previous researchers and published in the scientific articles on the topic of SE and city sustainability, and comparing these messages with content of particular tasks of Goal 11 in Agenda 2030. Relevant papers from scientific bases of esteemed publishers (AMA, Collins, Elsevier, Emerald, Harvard, Routledge and Wiley) were selected to further analysis.

In this study, the deduction and research results synthesis methods were applied. It was not just a researcher's simple deduction based on the analyzed data, and it was not just reading the content of the sources by the authors and their interpretation of this content. Actually, what we are dealing here with is a multidimensional interaction between the author's knowledge collection and the researcher's knowledge, experiences and beliefs in a specific socio-cultural context (Szczepaniak 2012).

3. Theoretical Framework

3.1. Understanding the Sharing Economy: Defining the Notion

Sharing is the most universal form of human economic behavior, and it is distinct from and more fundamental than reciprocity (Price 1975). In economics, the term of sharing economy was primarily explained by Weitzman in 1984 in his book titled: "The Share Economy: Conquering Stagflation," and still, the sharing economy and collaborative consumption are phenomena popularized in the Internet era (Belk 2014). Internet services based on user-generated content, such as Facebook and Instagram, encourage individuals to share in differentiated ways. Consumer-to-consumer vacation rentals and ride share bulletin boards have been around for years, but efficient online payments and trust in e-commerce have made sharing a viable alternative for the mainstream. Platforms like HomeAway, Uber and Bikeshare have recorded enormous increases. They now operate on such a scale that they are able to catch up to the mainstream hotels and transportation companies in terms of convenience, and they usually beat them in terms of price. Now, the collaborative economy concept has emerged in the tourism marketplace and in businesses based on the sharing economy concept, and it continues to grow extraordinarily fast. The development of profit-based online platforms for P2P sharing, such as Airbnb, has influenced the way people travel and is of great importance for the traditional tourism industry (Heo 2016). The phenomenon of sharing economy is also named by using IT terminology (digital economy, collaborative consumption 2.0, the mesh, peer-to-peer consumption), sociological terms (collaborative consumption, social sharing, connected consumption, access-based consumption) and an economic one (sharing economy, collaborative economy, owner-less economy, non-ownership economy, access-based economy, hybrid consumption) (Botsman 2013; Breidbach and Brodie 2017; Dolnicar 2018; Hamari et al. 2015; Lessig 2008). Görög (2018) identified 30 synonymous names for the term 'sharing economy.' All metaphors used in the terms mentioned above have their own significant information load and emphasize the important differentiating aspects of the sharing economy phenomenon. IT specialists underline the relationship and strong dependence of

its formation on the development of information and communication technology (ICT). Sociologists indicate consumption methods and their solid as well as process-oriented nature, and consider collaborative consumption as a technical and social trend. Economists, however, in their definitions, notice the significant impact of the sharing economy on other management processes; i.e., production, distribution and exchange. The sharing economy, in prioritizing sharing, is an alternative to purchasing.

Since 2008, as Airbnb came into being—the first platform that made sharing in tourism easier, the phenomenon of a sharing economy has risen to a new dimension and became the object the of research of scientists, which, in consequence, has made the number of its definitions rapidly increase. Table 1 presents a chronological overview of the sharing economy definition, taking into account different metaphors used to define it.

Table 1. Selected definitions of the sharing economy in chronological order.

Year	Definition	Term	Author/article
2008	<i>„The Internet has exploded the range of and thickness of sharing economies too“. As Yochai Benkler puts it, in commercial economies “prices are the primary source of information about, and incentive for, resource allocation”; in sharing economies, “non-price-based social relations play those roles.”</i>	Sharing economy	(Lessig 2008, pp. 143–76)
2010	<i>“Traditional sharing, bartering, lending, trading, renting, gifting, and swapping.” “Exchange less tangible assets such as time, space, skills, and money.”</i>	Collaborative consumption	(Botsman and Rogers 2010b, pp. xv, 73)
2010	<i>“Digital technologies of Web 2.0 provide full interconnectedness among people to access and distribute goods and services at the exact moment they need them, without the burden and expense of owning them.”</i>	The mesh	(Gansky 2010, Introduction)
2012	<i>“Transactions that may be market mediated in which no transfer of ownership takes place.”</i>	Access-Based Consumption	(Bardhi and Eckhardt 2012, pp. 881–98)
2012	<i>“P2P business models allow direct exchanges among peers and entail a variety of platforms on which citizens rent, sell and share things without the involvement of shops, banks, agencies and other intermediaries.”</i>	Peer-to-Peer Economy	(P2Pfoundation.net 2018)
2013	<i>“The concept and practice of a “sharing economy” and “collaborative consumption” suggest making use of market intelligence to foster a more collaborative and sustainable society.”</i>	Sharing economy & Collaborative consumption	(Heinrichs 2013, pp. 228–31)
2014	<i>“People coordinating the acquisition and distribution of a resource for a fee or other compensation”</i>	Collaborative consumption	(Belk 2014, pp. 1595–1600)
2015	<i>“The peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services”</i>	Collaborative consumption	(Hamari et al. 2015, pp. 2047–59)
2015	<i>“Economic activity that is Peer-to-Peer or person to person, facilitated by digital platforms”</i>	Sharing economy	(Schor et al. 2015, pp. 12–19)
2015	<i>“Web platforms that bring together individuals who have underutilized assets with people who would like to rent those assets short-term”</i>	Sharing economy	(Cusumano 2015, pp. 32–34)
2016	<i>“... involves access-based consumption of products or services that can be online or offline”</i>	Collaborative consumption	(Barnes and Mattsson 2016, pp. 200–11)
2016	<i>“... describes the phenomenon as peer to peer sharing of access to under-utilized goods and services, which prioritizes utilization and accessibility over ownership, either for free or for a fee”</i>	Sharing economy	(Cheng 2016, pp. 111–14)
2017	<i>“initiatives based on horizontal networks and participation of a community. It is built on “distributed power and trust within communities as opposed to centralized institutions ... blurring the lines between producer and consumer. These communities often meet and interact on online networks and peer-to-peer platforms, as well as in shared spaces such as Fablabs and co-working spaces.”</i>	Collaborative economy	(Hult and Bradley 2017, pp. 597–615)

The first of the 2008 definitions cited in Table 1 clearly stresses the fact that the large-scale increase of the sharing economy phenomenon is related to the development of the Internet and the widespread use of it. The second important feature of the SE, according to Lessig (2008), is its social nature and its very likely non-cash dimension. The sharing economy is an alternative form of access to goods (without the need to own them) and services, carried out outside the market understood in traditional way; for example, the hotel market or transport services market. Operation is based on the need to be a part of social groups and social networks where their members take on the roles of consumers/bidders and consumers/users in the sharing process. In subsequent years, the authors stressed the diversity of exchange forms (sharing, bartering, lending, trading, etc.) and noticed the intangible nature of its subject matter, and as Geron (2013) noted, the sharing economy has created markets out of things that were not regarded as monetizable properties before. ‘No transfer of ownership’ became an important component in the definition of SE, and then, the thread of relationships between SE and sustainability was noticed. In the second decade of the 21st century, attention was paid to a change in the motivation to participate in a sharing economy towards economic motives and to the key role of digital platforms in exchanging. The emergence of profit-based online platforms for the peer-to-peer distribution of consumer goods and services provides new ways for end-users to generate income from their possessions. The sharing economy is growing on a large scale thanks to new ICT technologies, developing digital intermediary platforms (the most frequently mentioned are: Uber and Airbnb). In the last definitions quoted, the problem of trust between the exchanging parties as an important factor for the expansion of the SE was also indicated. It is also worth noting that in the period analyzed, the authors often indicate the non-institutional nature of sharing.

When considering the “sharing economy,” a crude distinction can be drawn between two narratives employed by policy-makers, commentators, entrepreneurs, critics and activists (Martin et al. 2015). The first narrative has been constructed around the development of a social innovation, or even a social movement (Schor and Fitzmaurice 2015), searching to address the inequalities, unsustainability and injustices of the free market. Botsman and Rogers (2010b) argue that it will disrupt the unsustainable practices of hyperconsumption that drive capitalist economies while Heinrichs (2013) has heralded the sharing economy as a potential new pathway to sustainability. Supporters of this point of view justify these expectations by stating that sharing access to services and goods gives the opportunity for much more efficient utilization of resources (from cars to accommodation), which, in turn, will reduce the scale of economic activity, and hence, yield environmental benefits. Furthermore, the advocates of this point of view also argue that sharing access to resources builds social capital (as citizens interact in the process of ‘sharing’), and that it allows for the distribution of goods and services more equitably (as access costs are lower than ownership costs) (Martin et al. 2015). The second narrative reflects the development of a market-based digital innovation with enough potential to disrupt established business models and to generate economic activity, and, as a consequence, it can result in incidental social and environmental benefits (PwC 2015; Woskko 2014). This perspective has been strongly criticized as a form of “neo-liberalism on steroids” (Morozov 2013) due to the potential technological innovations within the sharing economy to circumvent the environmental and social regulations. For example, sharing economy platforms have been criticized for enabling tax avoidance and eroding labor rights, respectively.

Tourism remains one of the most important areas of development of sharing economy. The accommodation and transportation platforms are among the most often researched ones and the biggest entities grew by offering direct combinations of customers with suppliers in the sharing economy. The discussion on the essence of a sharing economy in tourism should take into account the essence of a sharing economy in general. Adopting this approach and in regard to the most important attributes of the sharing economy, as well as keeping in mind the specific features of tourism, for the purpose of this article, the sharing economy in tourism is defined as follows: acts of satisfying tourist needs by peer-to-peer exchange of goods and services. Currently, these acts are supported by digital platforms that operate as intermediaries in liaison with consumers.

3.2. A Sustainable City

The sustainable development of a city is described in many ways. The most common understanding is a vision of a city that is able to meet the needs of the present without compromising the ability of the future generations to meet their own needs. Two ideas are essential for this vision: cities should meet social needs, especially of the poor, and should not exceed the ability of the global environment to meet the future needs (Hodson and Marvin 2014). According to Hoornweg (2016), a city's approach to sustainability would need to rally all urban actors around practical problem solving to address specific challenges of access to services, to promote integrated and innovative infrastructure design and to ensure resilience to the climate change. This is why the member states of the United Nations have adopted a dedicated goal to make cities and human settlements inclusive, safe, resilient and sustainable as part of the Agenda 2030.

When sustainable development is considered in the literature, the relationship between tourism and the environment in tourism resorts is often in focus. When it comes to SE in tourism, a total approach should be taken as this phenomena is mainly connected with urban areas, and in particular, with big global cities. In an analysis like this, a much different balance of sustainable development pillars should be applied. In urban areas, which include anthropogenic landscapes and whole ecosystems, the essence of the ecological impact is much different and is not in the heart of analysis anymore; instead of it, economic and social consequences should be considered first.

The goals of sustainable cities' developments can be met when the sharing economy in tourism remains (Januszewska et al. 2013):

- Focused on the continuous life quality improvement of both the current and the future generations by developing proper proportions between the three types of capital: economic, human and natural;
- Quality rather than quantity oriented in terms of the goods consumed and services;
- Available for all who wish to travel for touristic reasons, regardless of their economic, social or health status (the so-called "tourism for all");
- Driven by high ecological awareness of tourists and their respect for nature protection principles in the process of minimizing the natural environment pressures;
- Focused on spiritual experiences, health condition improvement, domestic products and the products created as a result of sustainable processes in production and supply;
- Adjusted to individual needs;
- Consumer expenditure optimization oriented;
- Circular (based on the multiple circulation of resources).

3.3. Sustainable Development Goals in Agenda 2030

In 2015, countries adopted the Agenda 2030 for Sustainable Development. Over the next fifteen years, with 17 new Sustainable Development Goals (Table 2) and 169 targets, countries will make all efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind (Agenda 2030).

Table 2. Sustainable Development Goals in Agenda 2030.

No.	Goals	Number of Targets
Goal 1.	End poverty in all its forms everywhere	7
Goal 2.	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	8
Goal 3.	Ensure healthy lives and promote well-being for all at all ages	13
Goal 4.	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	10
Goal 5.	Achieve gender equality and empower all women and girls	9
Goal 6.	Ensure availability and sustainable management of water and sanitation for all	8
Goal 7.	Ensure access to affordable, reliable, sustainable and modern energy for all	5
Goal 8.	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	12
Goal 9.	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	8
Goal 10.	Reduce inequality within and among countries	10
Goal 11.	Make cities and human settlements inclusive, safe, resilient and sustainable	10
Goal 12.	Ensure sustainable consumption and production patterns	11
Goal 13.	Take urgent action to combat climate change and its impacts	5
Goal 14.	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	10
Goal 15.	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	12
Goal 16.	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	12
Goal 17.	Strengthen the means of implementation and revitalize the global partnership for sustainable development	19

Source: own compilation based on Agenda 2030.

The goals were divided into the three dimensions of sustainable development: economic growth, social inclusion and environmental protection. They cover many fields, such as inequalities, economic growth, decent jobs, cities and human settlements, industrialization, oceans, ecosystems, energy, climate change, sustainable consumption and production, peace and justice. It should be noted that the objectives listed in Table 1 are not separable and they are often mutually conditional. For example, it is impossible to make cities and human settlements inclusive, safe, resilient and sustainable (goal 11) without reaching the goal 8 (to promote sustained, inclusive and sustainable economic growth; full and productive employment; and decent work for all). Ten targets were assigned to the target that we find interesting ([Agenda 2030](#)):

- By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums (Target 11.1);
- By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons (Target 11.2);
- By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries (Target 11.3);

- Strengthen efforts to protect and safeguard the world's cultural and natural heritage (Target 11.4);
- By 2030, significantly reduce the number of deaths and the number of people affected, and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations (Target 11.5);
- By 2030, reduce the adverse per capita environmental impact of cities, among other things, by paying special attention to air quality, as well as municipal and other waste management (Target 11.6);
- By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular, for women and children, older persons and persons with disabilities (Target 11.7);
- Support positive economic, social and environmental links between urban, sub-urban and rural areas by strengthening national and regional development planning (Target 11.A);
- By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, and resilience to disasters; and develop and implement, in line with the Sendai Framework for Disaster Risk reduction 2015–2030, holistic disaster risk management at all levels (Target 11.B);
- Support the least developed countries, among other things, through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials (Target 11.C).

4. Empirical Results

4.1. *Sharing Economy Development and Tourism in Cities: Example of Airbnb*

4.1.1. Genesis and Development of Airbnb

Airbnb company was officially registered as a company on 1 August 2008, in San Francisco, USA. From the point of view of the functions it performs on the accommodation services market, it can be assumed that the Airbnb platform is a trading agent in booking and selling mainly accommodation services, which associates the exchange parties using an Internet communication link and it can be used via stationary and mobile digital devices (e.g., computers, tablets and smartphones). The company describes itself as a 'trusted community marketplace for people to list, discover and book unique accommodation around the world—online or from a mobile phone or tablet.' It is estimated that in 2015, Airbnb was the third most valuable venture-capital backed company in the world with a valuation of USD 25.5 billion (OECD 2016). The company's market value in 2016 was \$30 billion USD, due to massive round of Google Capital funding, and it increased up to \$38 billion USD in April 2019 (Airbnb 2019a). In 5 years, the growth rate of Airbnb's market value was 49%. In 2017, Airbnb reached \$93 million in profit on \$2.6 billion in revenue (Zaleski 2018).

The development of the Airbnb platform can be characterized by very rapid growth. The number of reservations made via the platform was about 100 thousands in 2009, while two years later, the same index reached 4 million and it is expected to approach to 193 million by 2020 (Skift Report 2015a). It is estimated that average yearly dynamic of growth of the number of reservations via Airbnb was about 290% and is expected be about 30% yearly in the near future, those numbers being by far bigger than similar numbers observed in the biggest hotel brands. Currently, Airbnb's potential is 1.9 million listings available through the mobile app or via the website, at any given time (Airbnb 2019b). The growth of the Airbnb service's potential is now significantly larger than that of the largest competitor, i.e., HomeAway.com, and the largest hotel groups (Marriott, Hilton and Accor). For example, in 2015, as compared to 2014, this increase for Airbnb was 118%, and for the hotel groups it did not exceed 7% (Skift Report 2015b).

The accommodation services portfolio of Airbnb embraces three kinds of accommodation: (1) entire home/apartment (the host absent during the stay of guests); (2) private room (the host may be

present during the stay of guests, who have for their own disposal separate room, but share spaces like kitchen, corridor and bathroom); and (3) shared room (accommodation in a room shared with the host or with other).

4.1.2. The Impact of Airbnb on Tourist Traffic in Cities

From Airbnb's launch in 2008 until 2019, there have been more than 500,000 million people who have booked their accommodation via the company platform (Airbnb 2019b). As the Airbnb website communicates in 2019, the supply of accommodation is available on all continents, in almost all countries of the world and 81,000 cities, which are dominated by metropolitan areas. Year by year, their number is growing rapidly; in 2017, the platform offered accommodation in 65,000 locations (an increase by 25%). The largest service potentials of Airbnb in Europe are recorded in Paris, London, Rome and Barcelona (Table 3).

Table 3. Airbnb's Service Potential in Selected European Cities (as of 15 February 2017).

City	Active Hosts	Active Rentals
Amsterdam	10,951	13,498
Barcelona	9507	16,574
Berlin	11,709	13,992
Copenhagen	11,309	12,295
Lisbon	5424	10,989
London	30,963	47,578
Paris	37,668	46,247
Prague	5235	10,671
Rome	12,555	23,776

Source: own study based on (Airbnb 2018) data.

A significant impact of Airbnb in the volume of tourist traffic in individual locations is observable (Table 4). In 2015, most travels with accommodation booked through Airbnb were carried out to Paris, Barcelona and Rome. This influence is also confirmed by the results of research carried out by Airbnb (2018) in 2012–2014. According to this research, 61% of visitors to Barcelona with accommodation in rooms and apartments booked through the Airbnb platform came to the city for the first time. In Paris, on the other hand, 27% of visitors to Paris said that thanks to using the Airbnb offer, their stay in the city could have been extended. Airbnb guests stay in cities longer than hotel guests. For example, in Paris, an average of 2.9 nights more, in Amsterdam 2.0 nights more, and in Berlin 4.0 more.

Table 4. The volume of tourist traffic generated by Airbnb in selected European cities in 2015.

City	Volume of Trips via Airbnb (in Thousands)
Amsterdam	575.0
Barcelona	889.0
Berlin	568.0
Copenhagen	280.0
Lisbon	433.0
London	NDA
Paris	1600.0
Prague	338.0
Rome	758.0

Source: own study based on (Airbnb 2018) data.

Data presented in Tables 3 and 4 confirm that the phenomenon of sharing in tourism develops in the cities. It entails numerous and diverse consequences for their sustainable development. Their identification will be discussed in the next section.

4.2. The Impacts of the Sharing Economy in Tourism on Sustainable City Development

The growth of both the demand and supply of tourism services generated via Airbnb is not without impact on cities' sustainable development, where the additional influx of tourism traffic is observed. A significant increase of tourism traffic influences all spheres of city functions, starting from hospitality and gastronomy industries, and the public transportation system, and ending with public security and waste management. Changes inside those spheres may support or threaten the realization of goals of sustainable development by cities. The authors of the paper made an attempt to identify a potential role of the sharing economy in tourism on Sustainable City Development from the perspective of Agenda's 2030 Goal 11: "Make cities and human settlements inclusive, safe, resilient and sustainable" and 10 detailed tasks. Based on previous studies and conducting an in-depth analysis of the content of the selected scientific articles, it is possible to highlight potential areas of the impact and its direction. The results are presented in Table 5.

Table 5. Potential areas and directions of the influence of the tourist traffic via Airbnb on the sustainable development of cities, Regarding 11 Goals of Agenda 2030.

“+”	“-”
<i>Target 11.1. By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums</i>	
Additional source of citizens' incomes by stimulating entrepreneurship Modernization of the damaged housing resources for renting in the sharing formula More effective usage of the resources owned by citizens Increase in tourism revenues from other districts outside tourist centres	Increase of apartments' prices
<i>Target 11.2. By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons</i>	
Leads to decrease in the level of prices in the transportation sector Transport services for residents and tourists better accessible, with no additional expenditure from local budgets necessary for the development of public transport More sustainable communication network	Decrease in road traffic safety In particular, it does not take into account the needs of people of poorer economic and social status (the disabled, the elderly)
<i>Target 11.3. By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries</i>	
Enhances revitalization of city quarters	Enhances urbanization of quarters attractive for tourists
<i>Target 11.4. To strengthen efforts to protect and safeguard the world's cultural and natural heritage</i>	
Increased expenditures of tourists on culture Increased tourism revenues can be spent for the revitalization and protection of historic buildings	Intensification of tourism traffic in cultural heritage sites
<i>Target 11.6. By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</i>	
	Increased number of tourists influences negatively the environment (significant increase in pollution emission and waste production, water and energy consumption) Higher overall demand for tourist goods and services in tourist cities, which could result in exceeding the absorptive capacity of a tourist area
<i>Target 11.7. By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities</i>	
	Increased number of tourists leads to making green area and public space exploitation more intense which may lead to waking tourists of undesired behavior of tourists and/or citizens.
<i>Target 11.A. Support positive economic, social and environmental links between urban, sub-urban and rural areas by strengthening national and regional development planning</i>	
Tourists are often interested not only in city centers but also in attractions located nearby, which requires local authorities create integrated tourism offer, which is also used by residents.	

Source: own compilation based on Agenda 2030 (2030), Heo (2016), Breidbach and Brodie (2017), Dolnicar (2018), Cusumano (2015), Dredge et al. (2016), Geron (2013), Heinrichs (2013), Hoorweg (2016), Hult and Bradley (2017), Wu and Zhi (2016), Martin (2016), Morozov (2013), Postma et al. (2017), Wachsmuth and Weisler (2018); Garcia-Ayllon (2018); Frenken and Schor (2017); Palgan et al. (2017)Palgan et al.

In Table 5, three of the 10 specific goals, 11.5, 11.B and 11.C, have not been referred to because the sharing economy in tourism is not directly related to them. It should also be noted that the SE affects the achievement of other goals, among the 17 goals outlined in Agenda 2030, but this was not the subject of consideration in the article, which focused only on goal 11.

5. Discussion, Conclusions and Limitations

Rapid development of the SE in tourism and establishing huge global companies like Airbnb, Homeaway and Couchsurfing as platforms to offer tourism services for collaborative consumption are among the most important trends that shape the contemporary tourism in cities which is not conspicuous in other tourism destinations. The issue of SE in tourism gains a lot of interest from the academia; however, our scientific knowledge about the phenomenon is not grounded; it is scattered and does not keep up with the development of SE (Botsman 2013; Skift Report 2015a).

The sharing economy phenomenon is a continuously developing phenomenon. Hence, new names and definitions continuously come into being in the research. Dredge and Gyimóthy (2015) identified 18 different names present in the literature to describe economics based on co-distribution of goods, while Görög (2018) supplemented this list with another 12 items. Certainly, that author did not identify all the terms, because the authors of this article came across the next name, i.e., liquid consumption, used by Bardhi and Eckhardt (2017). In this study, an analysis was made of the content of dozens of definitions that took into account how they have been changing over time. This was the first application of a dynamic approach to analyzing the definition of sharing economy. A brief review of the definitions shows that the sharing economy is a diverse and dynamic phenomenon and is based on: Internet and ICT; the mutual provision of services and an exchange of the less tangible assets (such as time, space and skills); savings and improvements of the efficiency of resource use; the intermediation of online platforms and social networks; and trust. It should be emphasized that in the initial phase of research on the SE, the researchers' efforts were focused on the technical aspects of this phenomenon (Internet technologies and forms of exchange), while at present, its social dimension (interpersonal relations) is emphasized. In the context of the research problem of this study, it is also worth paying attention to the fact that by definition, the sharing economy in tourism is neither a sustainable option nor an unsustainable option and the results presented in the paper allow one to conclude that SE—like mass tourism—can be of either a more or less sustainable nature. Botsman and Rogers (2010a), as well as Woskowiak (2014) are of the same opinion.

This article presents an original approach to examining the relationship between the sharing economy in tourism and sustainable urban development. It consisted of adopting the Agenda 2030 goals perspective. It allowed us conduct analyses tailored to the current needs and problems that occur in cities, which so far has not been the subject of the scientific research. The review articles analyzed for the study show that the sustainability issue is raised. Using the bibliometric analysis, Ertz and Leblanc-Proulx (2018), made a query of 132 articles devoted to sharing economy published in the period 2010–2017, where in 19 articles, the sustainability issues were considered. While analyzing the content of 67 SE definitions from the period 2013–2017, Ranjbari et al. (2018) found that the sustainability issue was considered in 15 of them. Therefore, the sharing economy is more and more often discussed in terms of its role in the implementation of sustainable development goals (Albinsson and Perera 2012; Belk 2014; Botsman and Rogers 2010a; Heinrichs 2013; Martin 2016; Prothero et al. 2011; Richardson 2015; Sacks 2011; Young et al. 2010). The work by Wu and Zhi (2016) devoted to the issue of the impact of the sharing economy in tourism on sustainable urban development should be noted here. The article is of overview and the analysis is carried out on three typical areas: ecological, social and economic. In the summary, the authors point out that shared economy influences urban sustainability both optimistically and pessimistically (Wu and Zhi 2016).

This article is not only a part of sharing economy issues in tourism, but also a part of city tourism issues; thus, supplementing the academic debate that is still claimed to be fragmented in this area and is an incipient field of research and practice (Postma et al. 2017). According to Ashworth and Page

(2011): “Those studying tourism neglect cities while those studying cities neglect tourism,” confirming this observation.

In the article, the momentum of the sharing economy phenomenon and its scale in nine cities, which are popular tourist destinations in Europe, was shown using the example of Airbnb. The data confirms its significant impact on the growth of tourism, which has implications for urban ecosystems. Therefore, the sharing economy has its significant contribution to achieving the goals of Agenda 2030 in the areas of cities. In order to accomplish them, cooperation between stakeholders will be required; i.e., residents (including hosts), platforms, city authorities and entities from various business sectors (e.g., transport, hotels, finances, urban cleaning), as well as seeking agreement and a compromise between their differentiated interests. A special position in this cooperation is assigned to platforms that are an important factor in deciding where and how powerfully the sharing economy is influencing the environmental, economic and social spheres of cities through their business strategies. In view of the goal 11 of Agenda 2030, in order to decide where and how powerfully sharing economy will be developing, not only a coordinated urban policy is required, but also exchanging experience and good practices between cities in this regard.

Although the research has significant implications and contributions to the empirical literature in the context of sharing economy in tourism and sustainable city development, the authors are aware of their limitations. They mainly result from the weaknesses of the methods used, including their weak codification, and consequently, the fluctuation of the study structure itself. They are also subjective and they highly depend on the results on the researchers’ knowledge and experience. In addition, it is difficult for the research to remain objective, because ‘reading’ the content is never free from his/her interpretation.

Two important issues resulted from the research. First of all, in order to strengthen its positive impact and reduce the negative ones, the development of a sharing economy in cities should be monitored and managed both locally and at the national level. Taking into account Martin’s (2016) claim, it is extremely important that if cooperative consumption is to be continued according to the current development model, it probably will not lead to a shift to sustainable development. Secondly, further research on this issue is necessary. At present, we can only guess what can happen in cities and what can be expected if the SE grows at the current rate.

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