

# Collaborative Consumption Impact on Tourism Growth and Sustainable City Development

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**Abstract.** Collaborative consumption (CC) is discussed in terms of its role in the implementation of sustainable development goals. The objective of the paper is to present the role of collaborative consumption in tourism growth and the sustainable cities development. The purpose of the article was achieved as the result of review and critical analysis method application (especially in the course of the first and second stage of the study) and SALSA method application (at all stages). The deduction and research results synthesis methods were also applied. The paper presents the nature of collaborative consumption and the impact of CC platforms on the raise of tourism traffic (using the example of Airbnb as the biggest player on the accommodation sparing market). Further, the views of different researchers on the idea of sustainable city are presented as well as its interpretation in the light of Agenda 2030. Deliberating tasks of Agenda 2030 connected with sustainable cities, the paper attempts to describe directions of impact of CC in tourism on sustainable development of cities. The conclusion part offers the pack of the most important features of collaborative consumption in tourism for sustainable city development.

**Keywords:** Collaborative Consumption, Sustainable Development, Tourism, City.

## 1 Introduction

Collaborative consumption, also referred to as sharing economy, collaborative economy, hybrid economy and peer-to-peer [7, 8, 9 13, 18] represents one of the most important current megatrends [11] in tourism. The increasing number of tourist needs are satisfied within this particular formula. There are both strictly tourist needs (such as: transport, accommodation, food, sightseeing etc.) and the complementary ones (e.g. taking care of the house abandoned as a result of taking the trip, looking after the family members or pets left behind etc.) among them. A relatively rapid increase in collaborative consumption in tourism is forecasted predominantly in terms of accommodation in private houses and renting private cars [24]. PwC estimates that in Europe peer-to-peer accommodation is the largest sector of the collaborative economy with an estimated total transaction value of €15.1 million in 2015 [10].

More and more publications that discuss the problem of collaborative consumption refer to its multifaceted nature, manifold external effects as well as its multidimensional interactions. Collaborative consumption (CC) is also discussed in terms of its role in the implementation of sustainable development goals [3, 4, 5, 14, 20, 23, 26, 27, 33]. The aforementioned authors focus primarily on the positive impact of collaborative consumption on the formation of three sustainable development dimensions. The observation of tourism market, however, provides numerous examples of negative impact exerted on the overall economy by sharing economy, society and natural environment. However, both market practice as well as scientific debate also present several examples of negative impact caused by CC.

## 2 The Objective and Research Methodology of the Paper

The objective of the paper is to present the role of collaborative consumption in tourism growth and the sustainable cities development. The research process uses a three stages procedure, embracing:

1. The characteristic of collaborative consumption in tourism.
2. The changes in tourism traffic in cities through CC platforms – example of Airbnb.
3. The identification of Impacts of Collaborative Consumption on Sustainable City Development in the light of Agenda 2030.

The aim of the paper has been achieved as the result of use of review and critical analysis methods (especially in the course of the first and second stage of the study) and SALSA method application (at all stages). The deduction and research results synthesis methods were also applied.

Their selection was based on applying the above-mentioned SALSA analytical framework (Search, Appraisal, Synthesis and Analysis) [22]. *Search* – the analysis of terminology used in published literature, which resulted in determining such terminology, i.e. the key words, and next specifying the selection criteria for research publications analysis. The following key words were distinguished: collaborative consumption, sharing economy, tourism, CC platforms, sustainable city. The following criteria were adopted as fundamental for the selection of the underlying research works: the recognized scientific publishers (e.g. AMA, Collins, Elsevier, Emerald, Harvard, Routledge, Wiley), the availability of publications (physical or virtual), the positioning in search engines and the number of quotations. Within the next stage of SALSA (*Appraisal*) procedure the assessment of publications was conducted, in terms of the above-mentioned key words, based on their abstracts analysis. The performed synthesis allowed for choosing these literature references which met all the selection criteria and thus the analysis has taken into account 24 compact publications and research articles. Among the key ones the most important were Dolnicar's [9] and Botsman & Rogers' [5, 6, 7] publications. Another very important document is the 2030 Agenda for Sustainable Development, which points 17 goals which will stimulate action over the next fifteen years in areas of critical importance for humanity and the planet. Among them there are targets for sustainable cities.

### **3 Understanding Collaborative Consumption: Delimiting the Notion**

Sharing is an idea as old as time itself; still the sharing economy and collaborative consumption are phenomena popularized in the Internet era [4]. 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. Startups like Airbnb, Carpooling and Blablacar have enjoyed tremendous growth. They now operate on such a scale that they are catching mainstream hotels and transportation companies in convenience, and usually beating them on price. Now, the collaborative economy concept has emerged in the tourism marketplace and businesses based on the sharing economy concept continue to grow at a phenomenal pace [15]. Apart from using the collaborative consumption concept, this phenomenon is also referred to using terms from the set of IT terminology (the mesh, peer-to-peer consumption), sociological terminology (connected consumption, access-based consumption) and economic one (sharing economy, collaborative economy, owner-less economy, non-ownership economy, access-based economy) [7]. All metaphors used in the above mentioned terms have their own significant information load and emphasize the important differentiating aspects of the collaborative consumption phenomenon. IT specialists underline the relationship and strong dependence of its formation on the development of information and communication technology (ICT). Sociologists focus on consumption methods and their lasting as well as development oriented nature, approaching collaborative consumption as a technical and social trend. Economists, however, in their definitions notice the significant impact of collaborative consumption on other management processes, i.e. production, distribution and exchange. The sharing economy concept has created markets out of things that were not regarded as monetizable properties before [12]. The emergence of profit-based online platforms for the peer-to-peer (P2P) sharing of consumer goods and services provides new ways for end-users to generate income from their possessions. However, Geron stated that the role of P2P sharing in increasing personal profits as a wage market becomes stagnant is vanishing and it is being transformed into a disruptive economic force [12]. The development of profit-based online platforms for P2P sharing such as Airbnb, has influenced the way people travel and is of great importance to the traditional tourism industry [15].

When considering the 'sharing economy', a crude distinction can be drawn between two narratives employed by policy-makers, commentators, entrepreneurs, critics and activists [19]. First, there is a narrative that reflects the development of a market-based digital innovation with enough potential to disrupt established business models and generate economic activity, and, as a consequence, can result in incidental social and environmental benefits [24, 31]. This perspective has been strongly criticized as a form of "neo-liberalism on steroids" [21] due to the potential of technological innovations within the sharing economy to circumvent environmental and social regulation. For example, sharing economy platforms have been criticized for enabling tax avoidance

and eroding labor rights respectively. Alternative narratives have been constructed around the development of a social innovation, or even a social movement [28], searching to address the inequalities, unsustainability and injustices of free market. Heinrichs [14] has heralded the sharing economy as a potential new pathway to sustainability whilst Botsman and Rogers [6] argue that it will disrupt the unsustainable practices of hyper consumption that drive capitalist economies. Supporters of this point of view also justify such expectations 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 minimize the scale of economic activity and therefore yield environmental benefits. Furthermore, advocates also argue that sharing access to resources builds social capital (as citizens interact in the process of ‘sharing’), and allows for more equitable distribution of goods and services (as access costs are lower than ownership costs) [19].

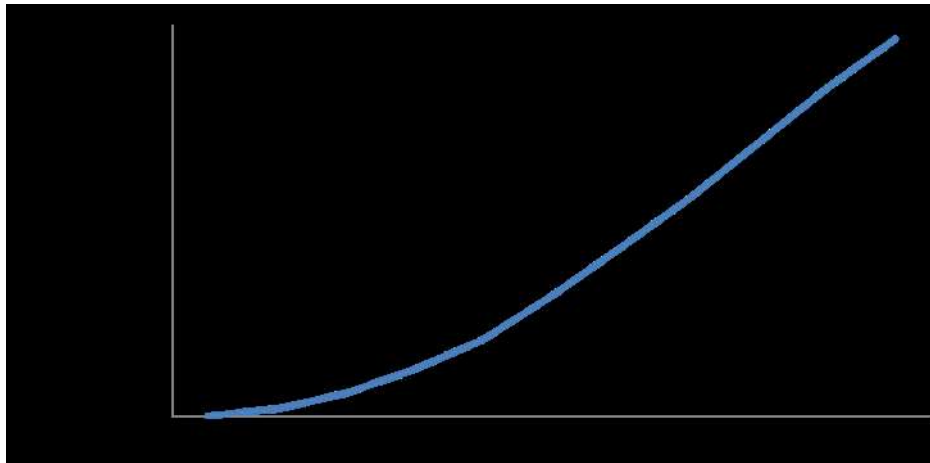
Tourism remains one of the most important areas of development of CC. Accommodation and transportation platform are among the most often researched and the biggest entities that grew up by offering direct combination of customers with suppliers in the sharing economy. The discussion on the essence of collaborative consumption in tourism should take into account the essence of collaborative consumption in general. Taking this approach and considering the most important attributes of collaborative consumption, along with having in mind the specific features of tourism, for the article purposes, collaborative consumption in tourism was defined as follows: the acts of satisfying tourist needs by consumers due to the collaborative usage of a good to which at least one of them is entitled. Currently, such acts are supported by digital platforms functioning as intermediaries in liaison with consumers, which results in negative, apart from positive, effects of CC formation from the perspective of sustainable development goals. Even though CC in tourism is a very big and diverse phenomenon, most of research and press releases are connected with the biggest platform enhancing peer-to-peer relations, i.e. Airbnb in hospitality sector. The size of its operations and the scale of its influence as well as legal controversies makes it very interesting topic of scientific debate.

#### **4 Collaborative Consumption and the Growth of Tourism Traffic in Cities – Example of Airbnb**

Airbnb company was officially registered as a company on August 1, 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 that associates the exchange parties using an Internet communication link that can be used via stationary and mobile digital devices (e.g. computers, tablets, 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’. As the Airbnb website communicates, the supply of accommodation is available on all continents, in almost all countries of the world and 65,000 cities which are

dominated by metropolitan areas (e.g. San Francisco, New York, Sydney, Barcelona, Paris).

It is estimated that in the first eight years of the company's operation the average annual growth rate of the value analysed varied around 290%. On the other hand, it is anticipated that in the following periods by 2020, these indications will vary around 30% annually, far above the average annual growth rate of the number of rooms booked in the facilities of the largest hotel brands. This high growth rate of the number of reservations can be achieved mainly due to the fast growth rate of cumulative capacity and service capacity of suppliers that sell accommodation via Airbnb. In 2009, 100,000 reservations were made via the Airbnb platform. Two years later, as much as 4 million reservations were made, and forecasts indicate that in 2020, this number may approach 193 million.



**Fig. 1.** The number of room nights booked and estimated to be booked via Airbnb 2010-2020 [8].

The rapidly increasing high growth of number of rooms rented presented above is a result of the rapid growth of Airbnb service potential which is significantly larger than that of the largest competitor, i.e. HomeAway.com, and the largest hotel groups (Marriott, Hilton, 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% [29].

A study conducted between 2012 and 2014 by Airbnb indicates crucial impact on tourism traffic in cities, e.g. [2]:

- 61 percent of Airbnb guests were visiting Barcelona for the first time,
- 63 percent of Airbnb guests say that Airbnb makes them more likely to return to Sydney,
- 27 percent of guests said they would not have come to Paris or stayed as long without Airbnb.

- Additionally, visitors who choose Airbnb accommodations spend more days traveling compared to hotel guests, e.g. (<http://blog.airbnb.com/economic-impact-airbnb/>):
- the average San Francisco hotel guest visits for 3.5 days, while the average Airbnb guest - for 5.5 days,
- in New York City, Airbnb visitors stay on average for 6.4 nights (compared to 3.9 for hotel guests),
- in Paris, on average Airbnb guests stay for 2.9 nights longer compared to hotels,
- Airbnb guests stayed on average for 3.9 nights, while hotel guests who stay on average for 1.9 nights in Amsterdam,
- in Berlin, on average Airbnb guests stay for 6.3 nights compared to hotel guests who stay on average for 2.3 nights.

These data might indicate that the tourism traffic increases and the increased number of visitors would enhance all economic benefits for a destinations connected with employment and income of public budgets as well as private companies and households. Still, higher overall demand for tourist goods and services in tourist cities and regions could result in exceeding the carrying capacity of a destination. The significantly increased tourist traffic poses a threat on natural environment due to significant increase in pollution emission and waste production, water and energy consumption. Also, the uncontrolled increase in the number of tourists makes monitoring of tourist capacity difficult.

An important research issue related to CC development is spatial distribution of its impact in cities. It is clear that tourist traffic is wider dispersed across the city as a result of spatial dispersion of peer-to-peer accommodation. P2P accommodation is more concentrated in the inner city neighborhood and those closest to tourist precincts and this accommodation type become more dispersed further away from the city centers. There is some merit in the argument that tourists staying outside city centers might spend their time in local grocery stores and cafes and so they distribute the economic impacts of tourism more broadly across the city [10]. Discussing impact of collaborative consumption on the sustainable development of it is necessary though to considerate both positive and negative consequences.

## **5 Impacts of Collaborative Consumption on Sustainable City Development in the Light of Agenda 2030**

A sustainable city has been defined 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 future generations to meet their own needs. Two ideas are crucial for this vision: cities should meet social needs, especially the needs of the poor, and they should not exceed the ability of the global environment to meet the future needs [16]. According to Hoornweg [17], a city approach to sustainability would require all urban actors to rally around practical problem solving to address the specific challenges of access to services, to promote integrated and innovative infrastructure design and to

make them resilient to 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 2030 Agenda [1]. Achieving of that aim should be supported by realization of 10 tasks.

Considering the literature presented in the paper, it possible to state that CC may both enhance and influence negatively on sustainable city development (tab. 1).

**Tab. 1.** Exemplification of positive (+) and negative (-) impact of collaborative consumption in tourism on sustainable development of cities, regarding Agenda 2030 [1].

Targets	Impact of CC in tourism
By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	<ul style="list-style-type: none"> <li>• Additional source of citizens' incomes (+)</li> <li>• Enhances increase of apartments' prices (-)</li> </ul>
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	<ul style="list-style-type: none"> <li>• Leads to decrease in level of prices in hotel sector (+)</li> <li>• Decrease in safety in road traffic (-)</li> </ul>
By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	<ul style="list-style-type: none"> <li>• Enhances in revitalization of city quarters (+)</li> <li>• Enhances over urbanization of quarters attractive for tourists (-)</li> </ul>
Strengthen efforts to protect and safeguard the world's cultural and natural heritage	<ul style="list-style-type: none"> <li>• Increased spending of tourists on culture (+)</li> <li>• Intensification of tourism traffic in cultural heritage sites (-)</li> </ul>
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	<ul style="list-style-type: none"> <li>• Increased number of tourists influences negatively the environment (-)</li> </ul>
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	<ul style="list-style-type: none"> <li>• Increased number of tourists leads to intensification of green area and public space exploitation which may lead awakening of not desired behavior of tourists and/or citizens. (-)</li> </ul>
Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	<ul style="list-style-type: none"> <li>• Tourists are often interested not only in city centers but also in attractions located nearby, which requires local authorities creating integrated tourism offer. (+)</li> </ul>

## 6 Conclusions

Among the most important trends that shape the contemporary tourism in cities which is not conspicuous in other tourism destinations are rapid development of CC in tourism and establishment of huge global companies like Airbnb, Homeaway and Couchsurfing as platforms to offer tourism services for collaborative consumption. The issue of CC in tourism gains a lot of interest from the academia still our scientific knowledge about the phenomenon is not grounded, scattered and not following the pace of the development of CC [7, 29]. The topic of sustainability occurs rather often in the context of sharing economy researches which is mirrored in sharing economy's definitions [26]. Still, works that analyze its impact on sustainable development of cities [3, 10, 14, 23, 32] are very rare. However, presented paper represents an original approach to the researching of relations between sharing economy and sustainable city development and statements of Agenda 2030 are used as a benchmark to analyse the goals.

By definition, collaborative consumption in tourism is neither a sustainable option nor an unsustainable option [6, 31]. The results presented in the paper allow to conclude that CC – similarly to mass tourism – can be of either more or less sustainable nature. In the light of sustainable development concept, CC can be sustainable when it is:

- focused on the lifespan quality improvement of both current and future generations by developing proper balance among 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 tourist 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,
- natural environment pressure on minimum level,
- focused on spiritual experiences, health condition improvement, domestic products and the ones created as a result of sustainable processes in production and supply,
- adjusted to individual needs,
- consumer expenditure optimization oriented,
- circular (based on multiple circulation of resources).

Conducted literature review suggests two important issues. First, the development of CC in cities should be monitored and managed locally and nationally to enhance its positive impacts and to reduce the negative ones. This extremely important taking into consideration Martin's [20] statement that if the collaborative consumption continues along this current development model, it is probably not going to drive a transition to sustainability as after establishment of companies like Airbnb, Uber and the others from limited startups to big global corporations, CC in tourism is nowadays mainly just a business. Additionally, this kind of a necessary management is very difficult as it is hard to show an example of a city where the sufficient system of monitoring of CC in tourism and its impact was implemented. Second, further scientific research of the issue



is necessary. From contemporary research [6, 14, 15] we know what may happen rather than what to expect really when CC grows in a particular city.

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