

MANAGING THE SHARING ECONOMY IN TIMES OF CRISIS. THE CASE OF AIRBNB

Alina BĂDULESCU^{a*}, *Elena HERTE*^b, *Afrodita BORMA*^c

^{a, b, c} *University of Oradea, Romania*

ABSTRACT

Globalization, the rise of the internet and the online market, as well as the expansion of mobility, have contributed to the exponential growth of tourism, and Europe can claim global supremacy when it comes to international tourism. The rate of growth in the number of tourists has accelerated over the last ten years thanks to the flexibility of travelling modalities, the openness to tourism of many countries and, last but not least, the emergence of collaborative tourism, which is a worthwhile alternative to classic tourism. The coronavirus pandemic (COVID-19), which broke out in February 2020, has had a disastrous impact on the entire tourism industry. Due to this pandemic, domestic and international travel has been disrupted enough to have an immediate and fundamental impact on tourism and all related activities. The pandemic has changed the way people manifest themselves and paved the way for trends such as contactless technology, working from home, high standards of hygiene, domestic travel, and holidays with a small number of people. As a result, the trends already existing in the market before the outbreak of the pandemic, which were reshaping the idea of tourism, have been reinforced even more now. These include digitalization, durable and sustainable consumption, a growing demand for travel booked through platforms and, last but not least, the desire for personalized and original experiences. In this paper we aim to highlight the dimension of the Airbnb, one of the most successful sharing economy platforms, before and after the COVID-19 pandemic, highlighting in what manner the advances of the digital world have interacted with the challenges, restrictions and opportunities of the recent pandemic, economic and political crises.

KEYWORDS: *Airbnb, COVID-19 pandemic, tourism.*

DOI: 10.24818/IMC/2023/01.10

1. INTRODUCTION

The last decades have witnessed the constant and impressive growth of tourism, fuelled by the phenomenon of globalization and the increase in international mobility, the wide spread of the Internet and online markets, the continuous change in tastes and consumption behaviours. The expansion of the accommodation sector is a natural consequence of the above. The growth is mainly in the hotel industry, resorts and online platforms, which have seen an ascending curve in bookings between 2010 and 2023. Given that the tourism industry has seen increases in the pre-pandemic period, it is clear that this is also where the biggest declines are seen during the COVID-19 pandemic. Although the pandemic did not bring anything good for tourism, it may be that after this period people will be more eager to travel and live more authentically than before. Collaborative accommodation platforms should make the most of this opportunity and attract new customers.

* Corresponding author. E-mail address: abadulescu@uoradea.ro.

The accommodation industry is part of the hospitality industry. Accommodation means hotels, motels, guesthouses, cottages, holiday homes, camping services, short-term rentals, etc. The accommodation sector is intertwined with other sectors of the hospitality industry such as food services, wellness and spa services, leisure services and others. All these sectors are subject to transformation and follow different trends in terms of their manifestation in the market. It can be said that the trend (tacit or visible) accepted by all sectors is digitalization and the growth of online markets. These trends will definitely influence the hospitality industry picture, and it is not out of place to say that the effects of the pandemic boosted the digital components of tourism... Both the traditional and the collaborative accommodation industry had to adapt immediately to these restrictions in order to survive in the market, to faced travel restrictions, targeting local tourists and the advent of new travel perspectives and all could have major impact to the entire tourism industry (Badulescu & Bac, 2004; Trip et al., 2021).

In this paper we aim to analyse the pre- and post-pandemic evolution of one of the most important actors of the sharing economy in tourism, namely Airbnb, how its exceptional evolution in the period 2015-2019 was affected by the outbreak and spread of the pandemic COVID -19, but also its recovery from the years 2022-2023. Thus, the structure of the paper is as follows: after this introduction, we will continue with a brief presentation of the main contributions on the topic of sharing economy in tourism and Airbnb, followed by the analysis of the evolution of the main global indicators of this operator. The paper ends with the main conclusions and policy recommendations in the field.

2. THE SHARING ECONOMY IN TOURISM AND AIRBNB: THEORETICAL INSIGHTS

The sharing economy or the collaborative economy refers to the temporary more efficient use of physical assets by connecting to specialized online networks. It is based on trust and the ability to operate at close to zero marginal cost (Hawlitschek et al., 2018; Hati et al. 2021). Other authors complete this definition by considering the sharing economy as a socioeconomic system that allows peers to grant temporary access to underutilized physical and human assets through an online platform (Gerwe & Silva, 2020). However, we must note that the sharing economy offers both advantages and disadvantages to stakeholders. Among the advantages we mention greater flexibility, fair compensation, matching of expectations and desires, extended coverage, strengthening of trust and collaboration between actors (Hawlitschek et al., 2018; Sutherland & Jarrahi, 2018). Rifkin (2014) considers the sharing economy as a method of wealth redistribution that brings certain social benefits, and other authors see the sharing economy as an innovative system that decentralizes and disrupts existing socio-technical and economic regimes, but also a self-sustaining neoliberal challenge (Hati et al., 2021). Like most sectors where the sharing economy is gaining more and more significant percentages, tourism also has a number of negative aspects and externalities such as stimulating the excessive concentration of tourists and visitors in certain places, involving waste management problems, high carbon emissions, the deterioration of some natural sites or cultural heritage objectives, urban agglomeration, rising property costs, local animosity etc. (Cheng et al., 2020). Challenges for local and central authorities were also mentioned, through the disruption of the traditional tourism industry, taxation and discrimination, but also regulatory issues (Guttentag, 2015; Toca, 2013).

Statistics on the sharing economy show that it has had the biggest impact on the tourism industry. Collaborative economy models have been best applied to accommodation services, transport, leisure activities, all of which are under the dome of tourism. According to Hawksworth & Vaughan (2014), the categories and sectors of products and services that are included in the collaborative economy are generally incorporated in four broad categories: a. Hospitality and catering; b. Automotive and transport industry; c. Retail and consumer goods; d. Media and entertainment. As can be seen, the hospitality industry is also the most representative of the collaborative economy field.

According to a study carried out by the Hellenic Chamber of Hotels (Psarros et al, 2015), there are several main reasons why tourism sector is seen as an important part of the collaborative economy:

1. The dynamism and openness to the new of the tourism industry, the source of inspiration to create original businesses in accordance with the requirements of tourists and even surprise them. People have always been looking for a new tourism experience, and this has contributed enormously to the development of the concept of collaborative services in tourism.
2. Tourism represents a social activity practiced by the vast majority of people, and the concept of collaborative economy captures and integrates social aspects in the tourism activities;
3. Tourist activities frequently involve temporary access to goods or services. In other words, temporary access to services, instead of owning assets, is a principle of the new phenomenon, intensively exploited within the tourism sector;
4. The profile of tourists, who are looking for quality services that will offer them a unique stay, real experiences and the discovery of the authenticity of the place. Contemporary tourists want to integrate as well as possible into the atmosphere of the place, to actively interact with the locals, and the collaborative economy can fulfil these wishes to a greater extent than the traditional forms of accommodation.

Within a few years of its founding in 2009, Airbnb experienced explosive growth, becoming one of the most successful sharing economy platforms. The company has promoted the integration of economic benefits for tourists and residents in destination tourism areas through a trust-based market policy that allows the platform to expand and leverage its assets through the use of the network (Badulescu et al, 2022b; Cheng & Foley, 2019; Leoni, 2019).

For tourists (as customers), Airbnb accommodation is usually cheaper than traditional accommodation (Guttentag, 2015; Gyódi, 2019), to which are added the associated experiences - local authenticity (Bucher et al., 2018), the possibility to live like the locals in a listed flat or a house (Gurran & Phibbs, 2017). Conversely, Airbnb allows owners to maximize the use of their under-utilized properties during certain periods (Oskam & Boswijk, 2016). Finally, there are also advantages at the community level, by increasing economic and local business opportunities (Badulescu et al., 2014; Perkumienė et al., 2021). On the other hand, as we mentioned before, there are numerous studies that reveal the negative externalities that the growth of Airbnb has brought: the decrease in income of traditional forms of accommodation, environmental problems (Dogru et al., 2019; Zervas et al., 2017), regulatory difficulties, unfair competition, affecting the quality of life of residents (Guttentag, 2015; Forgacs & Dimanche, 2016; Roelofsen & Minca, 2018).

Regarding the analyzes at the peer-to-peer (P2P) accommodation level, we can note the studies by Belarmino et al., (2020) or Sainaghi (2020) and, in particular, those focused on the case of Airbnb (Badulescu et al, 2022a; Badulescu et al., 2022b; Guttentag, 2019; Medina - Hernandez et al., 2020; Hati et al., 2021), company that is also the subject of our present study.

3. AIRBNB'S GLOBAL AND EUROPEAN DIMENSIONS

The Airbnb platform offers accommodation in over 100,000 cities and 221 countries (Airbnb, 2021), meaning that the new form of accommodation has impressive potential to change the hospitality industry. There are studies (Guttentag, 2019; Dolnicar, 2019) that have underestimated the diversity of Airbnb accommodation, both in terms of geographical spread and types of accommodation offered.

3.1 Airbnb's worldwide value between 2015-2023

Airbnb has become a global phenomenon in recent years and, while not exempt from numerous controversies, debates and crises since its inception in 2008, it is still an extremely valuable company with a lot of potential. In December 2020, when launched for trading on the Nasdaq platform, Airbnb was valued at around US\$75 billion, up from an estimated value of around US\$35 billion in the previous year (Statista, 2020). As shown in Figure 1, Airbnb's market value growth has been (relatively) steady, from around US\$24 billion in 2015 to US\$30-31 billion in 2016 and 2017, US\$38 billion in 2018, and a decline to around US\$35 billion in 2019. In 2020, the company's market value increased to USD 87.7 billion, even though it was a period when the company's revenues were lower due to the COVID-19 pandemic, and in 2021 it reached a record high, exceeding USD 100 billion. However, the lack of investor confidence in this market led to a drop of almost 50 percent, with the market value reaching USD 54.1 billion in 2022. In the first quarter of 2023, an increase in market value can be seen.

It is worth noting that while Airbnb's rapid growth has received mixed reactions from experts and the media (ranging from strong enthusiasm to severe criticism due to the business model aggravating the housing crisis available to locals in tourist cities, the spread of illegal rentals and safety issues), the company has developed a consistent number of loyal users. The accommodation rental and sharing website has become increasingly popular worldwide, mainly due to the fact that the company offers more "authentic" and cheaper tourism and travel alternatives compared to traditional hotel deals. Given the high brand value, it is not surprising that the number of users of the Airbnb platform has seen significant growth over the past five years in the US and Europe, two of the company's key markets.

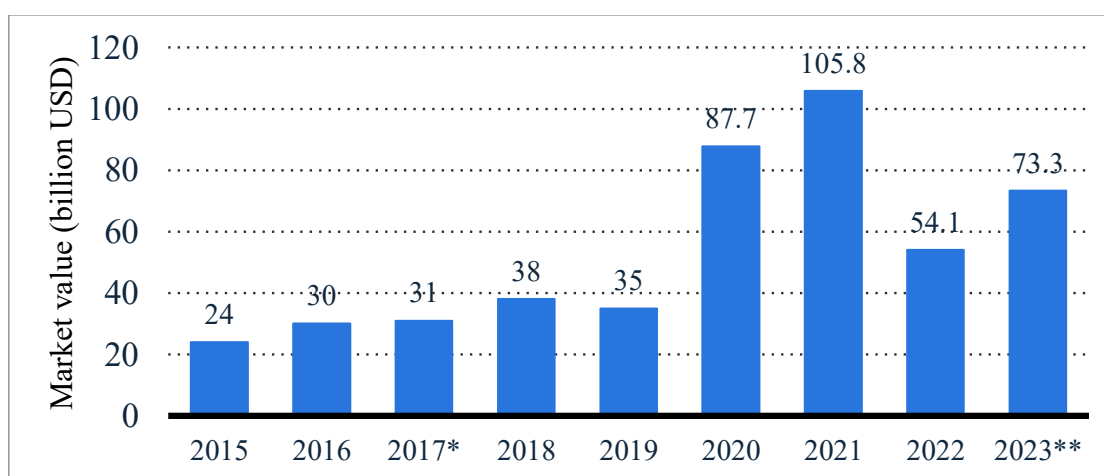


Figure 1. Airbnb's global market value evolution 2015-2023

Legend: * March 2017 estimate, ** April 2023 estimate

Source: <https://companiesmarketcap.com/airbnb/marketcap/>, Statista (2020) and Airbnb study_id24578_airbnb-statista-dossier

3.2 Airbnb revenues worldwide from 2014 to 2023

As expected, Airbnb's total revenue, worldwide, reached US\$3.38 billion in 2020, a steep decline after at least 6 years of sustained growth, no doubt also due to the impact of the coronavirus pandemic, which caused disruptions and travel restrictions across the globe.

In evolution, however, the pace of growth in Airbnb revenue over the 2014-2023 period is impressive (see Figure 2), from US\$0.42 billion in 2014, the value doubles the following year (2015) to almost US\$1 billion, and then steadily increases to a peak of around US\$4.81 billion in 2019. Also, compared to 2020, revenues increase in 2021 by about 77%. The upward trend continued in 2022, with revenues reaching \$8.39 billion, an increase of 40% over 2021.

When breaking down Airbnb revenue by region, North America (where Airbnb was actually founded) brought in the most revenue in 2019, followed by Europe, the Middle East, and Africa (EMEA), taken together. Thus, the question arises - where are Airbnb's biggest markets? Although the question is somewhat posed from a traditional perspective, Airbnb being an economic home-sharing platform operating in many countries around the world, the answer can be outlined fairly precisely. The company's largest market remained North America, where Airbnb's gross booking value per night was the highest, at nearly US\$240.3 in 2022 (Securities and Exchange Commission, 2022). At the same time, Latin America had the cheapest gross booking value per night, but travellers in that region preferred to have longer stays (rent more nights) through Airbnb, on average, than any other region.

The COVID-19 pandemic has impacted the domestic and international tourism industry, with many countries taking domestic travel restrictions in 2020 and 2021, and international travel bans often being drastic to prevent the spread of the virus. At the Airbnb level, in addition to a drop in revenue in 2020 compared to 2019 by around 30%, the company also saw a reduction in the number of Airbnb nights and experiences booked. Thus, bookings in 2020 fell to a low of under 150 million in 2020, a figure that is less than 50% of the total number of bookings in the previous year, 2019 (Statista, 2020).

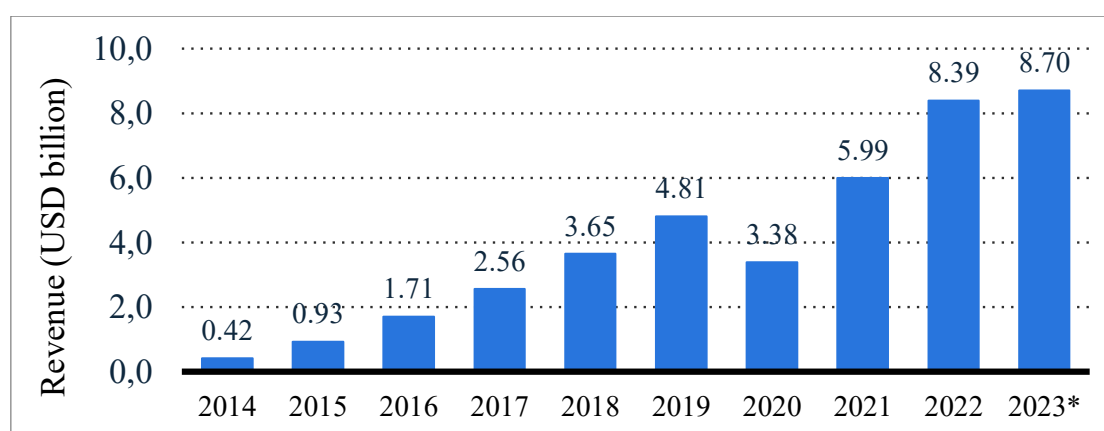


Figure 2. Airbnb global revenue evolution from 2014 to 2023 (in billions of US dollars)

Legend: * Revenue reported for 12 months to 31.03.2023 (USD 1.82 billion in Q1 2023)

Source: <https://www.financecharts.com/stocks/ABNB/income-statement>, Statista (2020), and <https://news.airbnb.com/airbnb-second-quarter-2021-financial-results/>

3.3 Airbnb worldwide net operating revenue, costs and expenses from 2017 to 2022

From 2017 to 2020, Airbnb mainly reported losses from revenue from operations, with losses reaching USD 4585 million in 2020 and declining to USD 352 million in 2021 (see Figure 3). In 2022, with the lifting of restrictions imposed during the COVID-19 pandemic, Airbnb recorded a profit, achieving a net revenue of USD 1893 million.

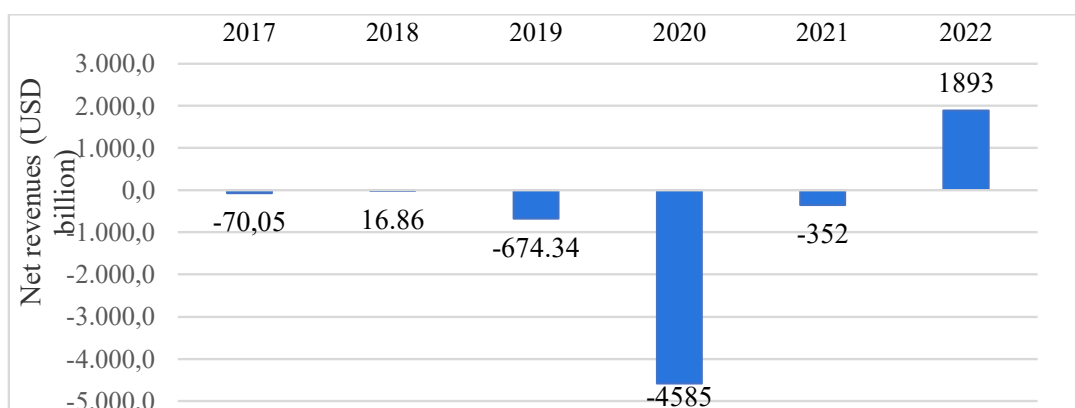


Figure 3. Evolution of net revenue from Airbnb operations worldwide between 2017 and 2021 (USD million)

Source: <https://stockanalysis.com/stocks/abnb/financials/>

3.4 Airbnb's total assets between 2015-2022

From 2015 to 2022, Airbnb reported a year-on-year increase in total assets worldwide (Figure 4). Thus, from a level of about \$3.11 billion in 2015, the value of total assets reached \$16.04 billion in 2022, a compound annual growth rate of 26%. The value of assets has registered a remarkable growth considering the difficult context of the travel and tourism industry.

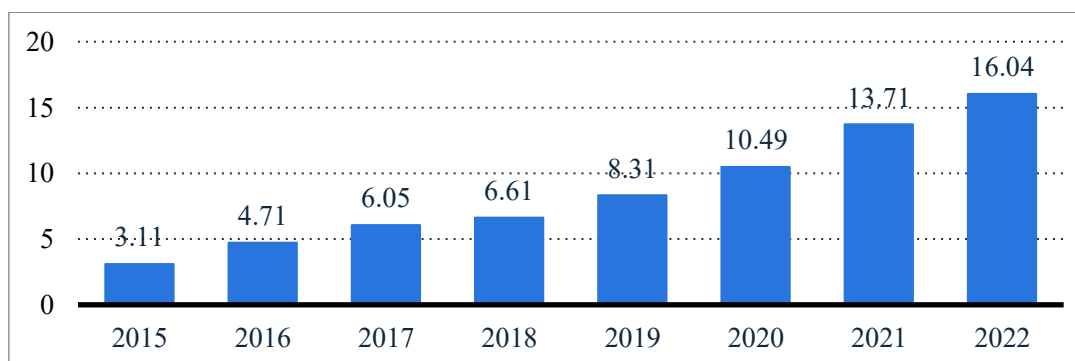


Figure 4. Evolution of Airbnb's total assets between 2015 and 2021 (USD billion)

Source: <https://stockanalysis.com/stocks/abnb/financials/balance-sheet/>

Airbnb has strengthened its position in the market with acquisitions such as Luxury Retreats in 2017 for \$200 million, followed by a \$400 million acquisition of Hotel Tonight in 2019. Even with these acquisitions, Airbnb is still considered a relatively "asset-light" company compared to its main rivals, Expedia and Bookings.com (WSJ Markets, 2020).

3.5 Gross Airbnb bookings and their structure by region worldwide

Airbnb, a home-sharing platform, offers users an alternative to traditional (hotel-like) accommodation by allowing them to rent accommodation from people who are willing to share or make their homes available. From 2014 to 2019, Airbnb reported a year-on-year increase in gross global booking value (see Figure 5), peaking in 2019 at \$38 billion. In 2020, the gross booking value was reported at \$24 billion. Due to the COVID-19 pandemic, there is a decrease of USD 14 billion from the previous year. In 2021, the gross value of bookings recorded increases in all regions (USD 46.9 billion), which continued in 2022 reaching a value of USD 63.1 billion.

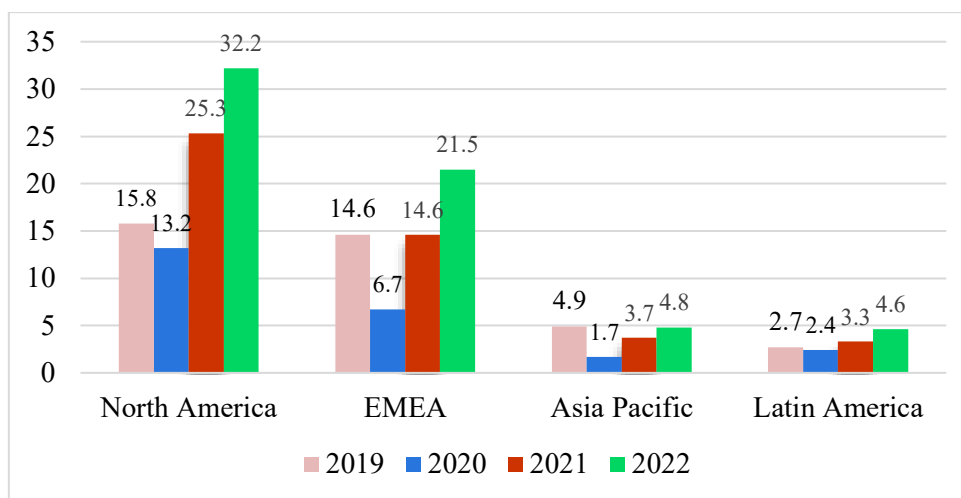


Figure 5. Gross value of bookings between 2019 and 2022 in major world regions (USD billion)

Source: Securities and Exchange Commission, 2021, 2022. Registration Statement under the Securities Act of 1933, Airbnb, Inc.,
<https://www.sec.gov/Archives/edgar/data/1559720/000155972022000006/abnb-20211231.htm>,
<https://www.sec.gov/Archives/edgar/data/1559720/000155972023000003/abnb-20221231.htm>

In Figure 6 below we have shown the comparative percentage distribution of Airbnb gross bookings by major regions of the world between 2020 and 2022. It can be seen that the increase in the share of EMEA (Europe, Middle East and Africa) in 2022 (by 7% compared to 2020) was at the expense of North America (a decrease of around 4%) and Latin America. However, the massive drop in bookings in 2020 is the most obvious event in this context, so that any re-positioning matters little in the overall analysis.

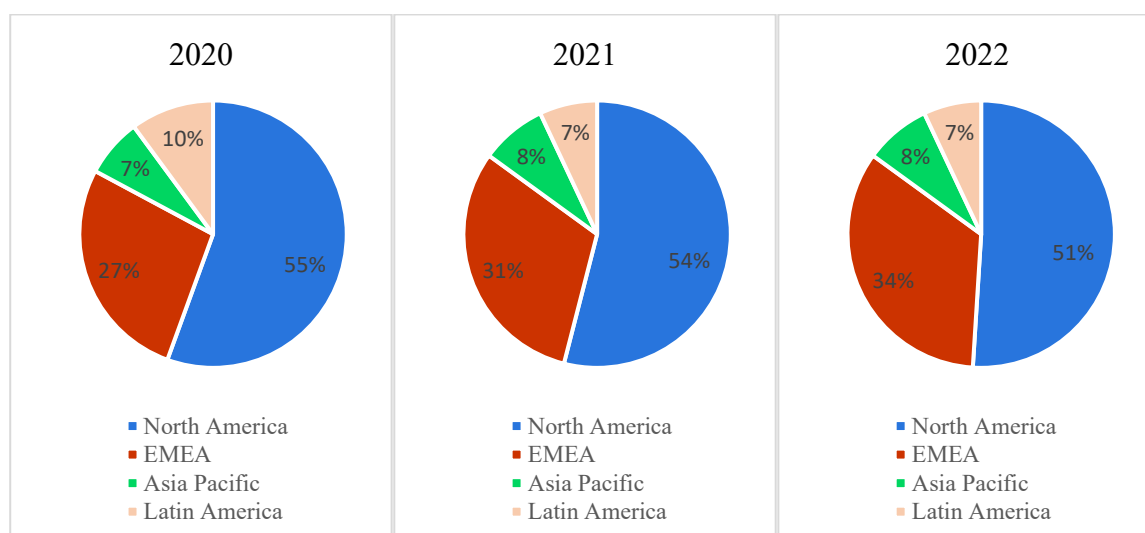


Figure 6. Airbnb's gross booking structure by major world regions in 2020, 2021 and 2022 (in %)

Source: Securities and Exchange Commission, 2021, 2022. Registration Statement under the Securities Act of 1933, Airbnb, Inc.

3.6 Nights and experiences booked with Airbnb between 2017-2020

Airbnb, beyond the alternative accommodation offer, allows consumers to book so-called "experiences" in the regions they visit. Between 2017 and 2019, Airbnb reported year-on-year growth in the number of nights and experiences booked worldwide, from 185.8 million in 2017 to 250.3 million in 2018 and nearly 327 million in 2019. In 2020, the number of nights and experiences booked by September 30 was reported at 146.9 million, a decrease of 180 million from the previous year, this decrease was mainly due to travel restrictions caused by the coronavirus pandemic (Statista, 2020).

In 2022, the region with the most Airbnb nights and experiences booked worldwide was Europe, Middle East and Africa (EMEA) with 168 million bookings, followed by North America (133 million bookings) and Asia Pacific (over 53 million). Latin America reported the lowest number of bookings that year (40 million), see Figure 7. Asia Pacific had the lowest average number of nights per Airbnb booking in 2022 (3.2 nights), while the rest of the regions (EMEA, North America and Latin America) had 4.2 nights of accommodation/stay booked (Figure 7).

The impact of COVID-19 on Airbnb bookings was considerable, many countries limited international and domestic travel in 2020 to prevent the spread of COVID-19, and the tourism industry was most affected by this change as fewer travellers were able to take trips for either leisure or business. Given that Airbnb's business model relies heavily on the travel industry, the company saw a reduction in bookings in 2020; in the first quarter of 2020, Airbnb bookings fell rapidly to around 90% of the previous period, gradually recovering in the following period.

On the other hand, looking at 2022, the average gross booking value per night is highest in North America (\$240.3/Airbnb night), followed by EMEA with \$128/night, and then Asia Pacific (\$117.4/Airbnb night) and Latin America (\$92.9/Airbnb night). This further explains the very important position in terms of efficiency and profitability of North America for Airbnb which, compared to its main "competitor" (EMEA) generates much higher value per booking night, even if the number of nights and experiences booked is lower (Figure 7).

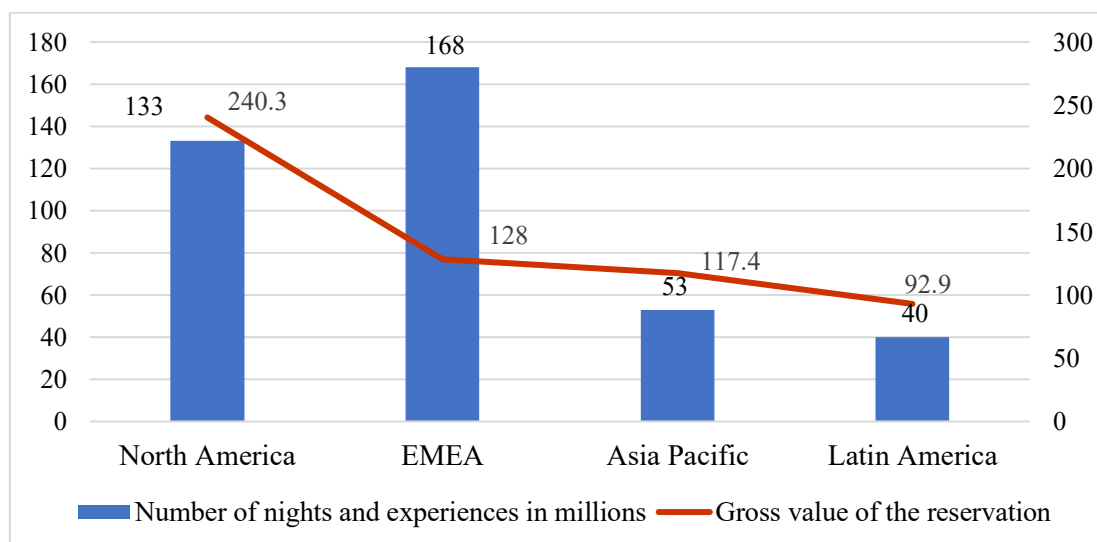


Figure 7. Number of nights and experiences booked on Airbnb worldwide in 2022, by region (in millions), respectively gross booking value (per night)

Source: Securities and Exchange Commission, 2022. Registration Statement under the Securities Act of 1933, Airbnb, Inc.

4. CONCLUSIONS

In the conditions of a remarkable growth of tourism in the 2017-2019 period, the outbreak of the COVID-19 pandemic at the beginning of 2020 was catastrophic for this sector. Travel restrictions and controls across the globe as well as public fears have hit the travel industry hard. After more than three years since the outbreak of the pandemic crisis, but in a not very encouraging context due to the recent economic and political-military crises, the tourism industry is still on an upward slope, recovering a large part of the enormous losses of the 2020 – 2022 interval. The present paper tries to empirically quantify the extent to which the sharing tourism sector has been affected by this crisis, but also the chances of recovery, analysing one of the most important and suggestive actors of this sector, namely Airbnb, whose global business reflects, in general, different main components of the tourism industry.

We found that all tourism sectors are subject to transformation and follow different trends in terms of their manifestation in the market. Even though they follow different paths to reach customers, it can be said that the tacit trend accepted by all sectors is digitalization and the growth of online markets. These trends will definitely influence the hospitality industry picture, all the more so as the impact of the pandemic has led to digitization. The long-term consequences of the pandemic will reshape the way accommodation is provided in the coming years. From the collective, large-group, social, very open way of living and manifesting themselves before the pandemic, people in general and tourists in particular have moved to social distancing, unusual hygiene measures, non-human contact services, very small group travel and other conditions for travelling and booking accommodation. Both the traditional and the collaborative accommodation industry had to adapt immediately to these restrictions in order to survive in the market. The limited period considered in this analysis and the focus on a single actor (representative, nevertheless) of the sharing economy in tourism are main limitations of this research, planned to be overcome in future research on this topic.

ACKNOWLEDGMENT

This work was supported by the University of Oradea, within the Grants Competition "Scientific Research of Excellence Related to Priority Areas with Capitalization through Technology Transfer: INO-TRANSFER-UO II" project no. 234/2022.

REFERENCES

- Airbnb. (2021). *Airbnb second quarter 2021 financial results*, Retrieved May 11, 2023, from Airbnb second quarter 2021 financial results.
- Badulescu, A., & Bac, D. (2004). *Economia turismului*. Oradea: Editura Universitatii din Oradea.
- Badulescu, A., Badulescu, D., & Borma, A. (2014). Enhancing Cross-Border Cooperation through Local Actors' Involvement. The Case of Tourism Cooperation in Bihor (Romania)-Hajdú-Bihar (Hungary) Euroregion. *Lex Localis-Journal of Local Self-Government*, 12(3).
- Badulescu, A., Badulescu, D., Simut, R., Herte, E., Borma, A., & Pandelica, I. (2022a). Digitalisation and the sharing economy. A survey-based research on Airbnb in Romania. *International Journal of Computers Communications & Control*, 17(6).
- Badulescu, A., Stiubea, E., Simut, R., & Badulescu, D. (2022b). The use of the Airbnb collaborative platform in Romania: a survey-based research. *Proceedings of the 5th International Conference on Tourism Research, Hosted by The School of Hospitality and Tourism*, 19-20 May, 2022, Porto, 15(1). <https://doi.org/10.34190/ictr.15.1.175>.

- Belarmino, A., Whalen, E., Koh, Y., & Bowen, J. T. (2019). Comparing guests' key attributes of peer-to-peer accommodations and hotels: mixed-methods approach. *Current Issues in Tourism*, 22(1), 1-7. <https://doi.org/10.1080/13683500.2017.1293623>.
- Bucher, E., Fieseler, C., Fleck, M., & Lutz, C. (2018). Authenticity and the sharing economy. *Academy of Management Discoveries*, 4(3), 294-313. <https://doi.org/10.5465/amd.2016.0161>.
- Cheng, M., Chen, G., Wiedmann, T., Hadjidakou, M., Xu, L., & Wang, Y. (2020). The sharing economy and sustainability—assessing Airbnb's direct, indirect and induced carbon footprint in Sydney. *Journal of Sustainable Tourism*, 28(8), 1083-1099. <https://doi.org/10.1080/09669582.2020.1720698>.
- Cheng, M., & Foley, C. (2019). Algorithmic management: The case of Airbnb. *International Journal of Hospitality Management*, 83, 33-36. <https://doi.org/10.1016/j.ijhm.2019.04.009>.
- Companiesmarketcap.com (2023). *Market capitalization of Airbnb (ABNB)*, Retrieved June 09, 2023, from <https://companiesmarketcap.com/airbnb/marketcap/>.
- Dogru, T., Mody, M., & Suess, C. (2019). Adding evidence to the debate: Quantifying Airbnb's disruptive impact on ten key hotel markets. *Tourism Management*, 72, 27-38.
- Dolnicar, S. (2019). A review of research into paid online peer-to-peer accommodation. *Annals of Tourism Research*, 75, 248–264.
- FinanceChart. (2023). *Airbnb (ABNB) Income Statement*, Retrieved June 10, 2023, from Airbnb (ABNB) Financials - Income Statement - Get Financial Reports for ABNB (NASDAQ: ABNB), (financecharts.com)
- Forgacs, G., & Dimanche, F. (2016). Revenue challenges for hotels in the sharing economy: facing the Airbnb menace. *Journal of Revenue and Pricing Management*, 15, 509-515. <https://doi.org/10.1057/s41272-016-0071-z>.
- Gerwe, O., & Silva, R. (2020). Clarifying the sharing economy: Conceptualization, typology, antecedents, and effects. *Academy of Management Perspectives*, 34(1), 65-96. <https://doi.org/10.5465/amp.2017.0010>.
- Gurran, N., & Phibbs, P. (2017). When tourists move in: how should urban planners respond to Airbnb?. *Journal of the American Planning Association*, 83(1), 80-92.
- Guttentag, D. (2015). Airbnb: disruptive innovation and the rise of an informal tourism accommodation sector. *Current Issues Tourism*, 18, 1192–1217.
- Guttentag, D. (2019). Progress on Airbnb: a literature review. *Journal of Hospitality and Tourism Technology*, 10(4), 814–844. <https://doi.org/10.1108/JHTT-08-2018-0075>.
- Gyódi, K. (2019). Airbnb in European cities: Business as usual or true sharing economy?. *Journal of Cleaner Production*, 221, 536-551.
- Hati, S., R., H., Balqiah, T., E., Hananto, A. & Yuliati, E. (2021). A decade of systematic literature review on Airbnb: The sharing economy from a multiple stakeholder perspective. *Heliyon*, 7(10), e08222. <https://doi.org/10.1016/j.heliyon.2021.e08222>.
- Hawlitsek, F., Notheisen, B., & Teubner, T. (2018). The limits of trust-free systems: A literature review on blockchain technology and trust in the sharing economy. *Electronic commerce research and applications*, 29, 50-63. <https://doi.org/10.1016/j.elerap.2018.03.005>.
- Hawksworth, J., & Vaughan, R. (2014). *The sharing economy – sizing the revenue opportunity*. Available at: <http://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/the-sharing-economysizing-the-revenue-opportunity.html>.
- Leoni, G., & Parker, L. D. (2019). Governance and control of sharing economy platforms: Hosting on Airbnb. *The British Accounting Review*, 51(6), 100814.
- Medina-Hernandez, V. C., Marine-Roig, E., & Ferrer-Rosell, B. (2020). Accommodation sharing: a look beyond Airbnb's literature. *International Journal of Culture, Tourism and Hospitality Research*, 14(1), 21-33.

- Oskam, J., & Boswijk, A. (2016). Airbnb: the future of networked hospitality businesses. *Journal of Tourism Futures*, 2(1), 22-42.
- Perkumienė, D., Vienažindienė, M., & Švagždienė, B. (2021). The sharing economy towards sustainable tourism: An example of an online transport-sharing platform. *Sustainability*, 13(19), 10955. <https://doi.org/10.3390/su131910955>.
- Psarros, M., Rinne, A., Jordan, P., & Pastras, P. (2015). *Sharing Economy and the Tourism and Hospitality Sector in Greece*. Hellenic Chamber of Hotels. Available at: <http://www.grhotels.gr/GR/BussinessInfo/News/Lists/List/Attachments/538/Sharing%20Economy%20GRHOTELS%20ENG.pdf>.
- Rifkin, J. (2014). *The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons, and the Eclipse of Capitalism*. Palgrave Macmillan, New York.
- Roelofsen, M., & Minca, C. (2018). The Superhost. Biopolitics, home and community in the Airbnb dream-world of global hospitality. *Geoforum*, 91, 170–181.
- Sainaghi, R., & Baggio, R. (2020). Substitution threat between Airbnb and hotels: Myth or reality?. *Annals of Tourism Research*, 83, 102959.
- Securities and Exchange Commission (2022), Retrieved June 2023, from: <https://www.sec.gov/Archives/edgar/data/1559720/000155972023000003/abnb-20221231.htm>.
- Statista (2020). *Airbnb study*. Retrieved November 21, 2021, from www.statista.com.
- Stock Analysis (2021). *Airbnb (ABNB)*, Retrieved May 12, 2023, from Airbnb (ABNB) Financial Statements: Income - Stock Analysis.
- Sutherland, W., & Jarrahi, M. H. (2018). The sharing economy and digital platforms: A review and research agenda. *International Journal of Information Management*, 43, 328-341.
- Toca, C., V. (2013). Different Territorial Levels of Romanian-Hungarian Cross-Border Cooperation. October 18-20, 2012, *International Conference The frontier worker – new perspectives on the labor market in the border regions*, Available at SSRN: <https://ssrn.com/abstract=2560776>.
- Trip, D., T., Fagadar, C., F., Badulescu, D., & Badulescu, A. (2021). Entrepreneurship and Tourism Through the Lens of Sustainability. Charting The Knowledge Base Through Bibliometric Analysis. *GeoJournal of Tourism and Geosites*, 34(1), 140-146.
- WSJ Markets. (2020). *Airbnb Inc*. Retrieved July 10, 2020, from: <https://www.wsj.com/marketdata/quotes/ABNB/financials>.
- Zervas, G., Proserpio, D., & Byers, J. W. (2017). The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry. *Journal of marketing research*, 54(5), 687-705. <https://doi.org/10.1509/jmr.15.0204>.