**Using COVID-19 Vaccination as a Resilience Strategy for the Tourism Sector – Evidence from Serbia**

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**Abstract:** This short communication discusses the inflow of foreign tourists during the current pandemic and its interplay with the wide-scale administration of COVID-19 vaccines in Serbia. It focuses on the country’s provision of free-of-charge vaccines to inbound tourists (primarily from Bosnia and Herzegovina, Montenegro, North Macedonia, Albania, and Croatia). As a result, the tourism sector experienced a boost in tourist arrivals and overnight stays across the country, which contradicts the trend in the tourism industry and is, potentially, an effective resilience strategy. Nevertheless, it remains to be seen how long the given effect will last and what the major benefits for stakeholders will be.

**Keywords:** Serbia, COVID-19, vaccination, overnight stays, inbound tourists, resilience strategies

**Disclosure Statement**

Authors certify that they do not have affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers’ bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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# **Introduction**

COVID-19 has severely disrupted the tourism industry throughout the world and called into question the sector’s resilience to extreme events. Not only have the most renowned tourist destinations been affected, but the tourism sectors of emerging economies have reported a sharp decline in inbound tourist arrivals and overnight stays. A post-pandemic upturn is to be expected, but it is hard to predict what the sector will look like afterwards or what kind of resilience strategies are likely to be employed (Khan et al., 2021). Industry considers a resilience strategy a crisis management tool implying activities that lead to the emergence of stronger entities effectively able to respond to extreme events, in which the whole array of stakeholders is involved in terms of their composition, execution, and evaluation (Traskevich & Fontanari, 2021). Given the uncertain nature of the current pandemic and its overall impact, it remains to be seen how individual authorities and affected stakeholders will respond.

The first signs of recovery appeared with the initial attempts to administer wide-scale vaccination of populations (Wang et al., 2021). In this respect, some countries performed better than others, in that they succeeded in vaccinating a substantial proportion of their citizens, whereas others were confronted with acute problems. In this regard, Serbia emerged with credit. It performed better than most of the EU and neighboring countries and was among the top three countries in the world in terms of percentage of population vaccinated (Our World in Data, 2021). It offered its citizens four vaccines (Pfizer-BioNTech, Oxford-AstraZeneca, Sinopharm, and Sputnik V). At a certain point, there was a lack of interest on the part of its citizens to have the vaccination (Holt, 2021). Generous invitations were made to neighboring countries[[2]](#footnote-2), whose citizens were not subject to travel restrictions. While some countries were struggling to secure enough doses of vaccines, the Serbian government was struggling to increase the vaccination rate among the population. Therefore, in an official address, the Serbian prime minister invited foreign citizens to be vaccinated in Serbia, which, intentionally or not, triggered a series of events that led to a partial and temporary stabilization of the tourism sector and an increase in the inflow of tourists.

This unexpected invitation culminated in five weeks in March and April with the arrival of an estimated 60,000 *vaccine-tourists*[[3]](#footnote-3) to receive their first dose of vaccine (Associated Press, 2021; CNN, 2021). On average, they spent two and a half days in various cities close to their vaccination centers and probably spent an average of 35 EUR per day (Statistical Office of the Republic of Serbia, 2021), thereby making a significant contribution to the country’s struggling tourism sector. Moreover, this indicated a potential way out of the difficult situation.

This short communication reflects on the impact of the provision of free-of-charge COVID-19 vaccines to overnight and inbound tourists in the context of the government’s proactive measure to stabilize the tourism sector. We follow up on still open questions to investigate the factors that may contribute to a more resilient tourism sector in the post-COVID-19 era (Sharma et al., 2021) and to explore how the experience of the current pandemic may be put to good use in the future (Ioannides & Gyim´othy, 2020).

# **Methodology**

This is essentially an archival study, as the analyses and conclusions are largely based on secondary data sources (i.e., the Statistical Office of the Republic of Serbia, press portals, and open data portals (ourworldindata.org; data.gov.rs). The retrieved data are in the form of news releases, datasets, and statistical reports. The monthly reported data that was subject to analyses are for the period between February and June of 2021 (five observations in total). To examine the interplay between the independent variable (free-of-charge vaccination – VAC), and the dependent variables (foreign arrivals – FOR, and overnight stays – OVE), we used regression analyses. To ensure that data was suitable for regression analyses and the necessary assumptions were valid (e.g., normality, multicollinearity, collinearity, linear relation between variables), we performed a sequence of pre-checks, as suggested by Field (2013).

We focused on the case of Serbia, as, at that time, it was the only country in the world that was offering excess logistical capacity and COVID-19 vaccines to foreign nationals. It was therefore a unique environment for observing the adverse COVID-19 influence on the tourism sector and the influence of a resilience strategy. During the observed months, no “stay-at-home” orders or movement restrictions were in force in Serbia.

# **Findings and Discussion**

The consolidated data (Figure 1) indicate a heavy reliance on tourists from the observed countries with regard to the total number of tourists who visited Serbia in the period February to June 2021. In March and April, almost all tourist visits and overnight stays were related to vaccine tourism (98% and 95%). For comparison, in the corresponding period in 2019 (we excluded 2020 due to the huge decrease in numbers caused by COVID-19), the proportions stood at a modest 25-30%.

Figure 1 goes about here.

Although there was a marked negative trend in overall foreign arrivals and overnight stays, a positive factor was the significant number of inbound tourists visiting from the surrounding countries (Bosnia and Herzegovina, Albania, Croatia, North Macedonia, and Montenegro) (Al Jazeera, 2021; CNN, 2021). This can be explained by the visiting friends and relatives (VFR) segment that is considered a strong demand generator (González-Gómez & Otero-Giráldez, 2020). Moreover, the VFR segment was the first to respond to the invitation for free-of-charge vaccination. An additional fact that potentially contributed to this short-term inflow of tourists is the liberal entry conditions,[[4]](#footnote-4) with no restrictions for citizens of the neighboring countries (Ministry of Foreign Affairs, 2021).

In statistical terms, the results indicate that both variables are positively influenced and predicted by the free provision of vaccines (models’ statistics: adjusted R2: 55.12/34.89, Standard Error: 1.24/1.57; Durbin-Watson: 2.13/1.89). We found statistical evidence that the free-of-charge provision of vaccines (VAC) had a considerably positive influence on foreign tourist arrivals (FOR) in the observed period (β=+3.66; p<0.001). This indicates that the opportunity to receive a needed vaccine was the major and strong motivation to visit Serbia in the observed period. In addition, the outputs indicate that the VAC variable also influenced overnight stays during the given time window (β=+1.89; p<0.001). Although the predictive power is somewhat weaker than in the case of foreign arrivals, vaccination also undeniably influenced the number of overnight stays in Serbia. This can be attributed to the fact that some of those who took up the offer of vaccination made one-day journeys to vaccination sites in Serbia. This is practically possible given the size of the VFR segment, the geographical proximity, and the good traffic connections to most of the neighboring countries. We may therefore conclude that the proactive resilience measure taken by authorities had a positive impact on short-run developments in terms of foreign tourist arrivals and overnight stays.

Whilst it had a significant effect on tourist arrivals and overnight stays, in a broader strategic sense, free-of-charge vaccination can be seen as an example of a resilience measure to sustain the wellbeing of the tourism sector in the short term (while composing various measures to deal with the extreme event (Alonso et al., 2020)). Given the negative consequences of COVID-19 (Lew, 2020), the tool to stop the disease can be seen as a means of increasing resource inflow (Bartik et al., 2020) and generating security in the tourism sector, which gradually leads to a regional restart of tourism. This also indicates future sectoral transformation opportunities (e.g., medical tourism). Moreover, it has provided some invaluable lessons. Firstly, this risky approach proved to be an effective resilience measure that turned around the outlook for the tourism sector in the first half of 2021. With this anchoring, scenario-based approaches (with various levels of risk-taking) can be developed to mitigate the effects of extreme non-recurring events in the future. Historically, the tourism sector has been rather quick to normalize after similar events (e.g., Ebola, MERS, SARS, etc.), but the major difference with COVID-19 has been the scale and duration of the crisis. Secondly, this measure has had a positive promotional impact and has positively influenced the destination image and reputation of the country. The government can leverage this to conceptualize promotional campaigns around the idea of solidarity, flexibility, agility, and the “good-neighbor” mantra.

In addressing the limitations of this short communication, we make three recommendations for future studies: (1) given the variance explained by the model, it can be expected that other factors also influenced the short-term increase in the observed variables (e.g. VFR, liberal entry conditions, fear, etc.), (2) a longer time-series should be used as a base for the analyses and more advanced statistical approaches (e.g. cointegration analysis) should be employed to avoid spurious conclusions, (3) a quantitative or qualitative study should be performed to empirically verify the motives of incoming tourists (e.g. a survey, semi-structured interviews, web-scraping, etc.) and their perception of the image of the destination (pre and post COVID-19).

# **Conclusion**

All kinds of industries have sought government support during the COVID-19 pandemic and tourism has been no exception. Normally, external governmental measures are in form of tax relief, consultation, subsidies, etc. (Sharma et al., 2021). The decision to offer free COVID-19 vaccines to the citizens of its neighbors led to a short-term boost in tourist arrivals and overnight stays. While this was a unique attempt to increase the sector’s short-term resilience to the crisis, this strategy has revealed promising development opportunities for the future and has assisted the tourism sector during this volatile period (Pappas, 2021). By harvesting the benefits of this proactive resilience measure, stakeholders can attempt to position Serbia as an agile, credible, and competent service provider in the health tourism domain in the post-COVID-19 era. This would require a strategic shift that involves all stakeholders (e.g., local authorities, health care service providers, local businesses, etc.). It is important to note that the authorities executed this strategy without any major complications, thereby demonstrating their ability to deal with similar extreme events in the future and reassuring stakeholders of their ability to compose effective resilience measures to ensure stability.

Although the findings do not directly address the influence of vaccination in the long run, they indicate a set of potential implications with regard to the destination image, changes in tourist perceptions, and the transformative potential of the tourism sector.

In conclusion, a better understanding of the primary motivations for visiting Serbia in the observed period is necessary in order to fully comprehend the effect of the resilience approach taken by the Serbian government.

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Figure 1 Inbound tourists from the observed countries as a proportion of total number of foreign arrivals and overnight stays for 2019 and 2021 (Source: Statistical Office of the Republic of Serbia, 2021)

1. Corresponding author. [↑](#footnote-ref-1)
2. This was reported by Al Jazeera, New York Times, CNN, AP, and others. [↑](#footnote-ref-2)
3. This term was used by the local media. [↑](#footnote-ref-3)
4. One example is that thousands of Indian nationals travelled to Serbia to spend two weeks of mandatory quarantine before proceeding to their final destinations in Western countries. [↑](#footnote-ref-4)