

The Effect of the COVID-19 Vaccination Certificates on Tourism Activities. Study Case – Romania

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Abstract: The SARS COV-19 outbreak has created a crisis unlike any other in the history of the tourism sector. Thus, an analysis of the effect of the COVID-19 vaccination certificates on tourism activities, is important.

The purpose of this study is to determine the impact of COVID-19 immunization certificates on Romanian tourism. We utilized data analysis as our study approach. We took a few dates from the vaccine status, the arrivals, departures situation, and some other travel agency activity figures.

Romanian tourism has also suffered a setback. Since the beginning of 2020, tourist arrivals have decreased substantially. People's movement has been limited by national-level restrictions, and the ambiguity of a trip's safety and security has discouraged tourist activities. Tourists have demonstrated a desire to travel when restrictions have been lifted, eventually engaging in various sorts of tourism dependent on the level of safety they give.

Worldwide population had had some sort of vaccine as of January 17, 2022. The progress made by certain nations in acquiring herd immunity has the potential to exacerbate global economic disparity. Several projects for giving health certification have been launched in response to the necessity to resume travel and economy following the massive impact of COVID-19.

Keywords: COVID-19 vaccine, tourism activity, vaccination certificates, travel hesitancy

1. INTRODUCTION

In an era where the Covid 19 pandemic and the imposed travel restrictions dictate the decisions one makes related to travel, it is important to analyze how issuing the Green Certificates, impacts the tourism area.

In early 2020, several groups proposed immunity passports, which might be considered as a predecessor to the vaccine passports outlined in this paper. One of the most major concerns to immunity passports a year ago was around an ethical question: Does the sheer availability of an immunity passport provide a strong enough incentive for certain people to actively coerce self-infection? This question has been well-received by several researchers. (Sun, Wandelt, & Zhang, 2021)

According to certain research, a person's previous international travel experience and their desire to travel abroad in the future, as well as vaccine willingness, are linked. However, because this link has most certainly already resulted in higher vaccination willingness within the relevant subgroup of the population, and vaccination willingness is predominantly driven by vaccine-related beliefs, it cannot be utilized to enhance vaccination willingness further (safety and efficacy).

The goal of this research is to see how COVID-19 immunization certificates affect Romanian tourism. Our research strategy was to use data analysis. We based our dates on the immunization status, arrivals and departures, and other travel agency activity information.

The paper joins the current knowledge on the matter and provides information on vaccine status, the arrivals, departures situation, and some other travel agency activity figures specific to Romania.

The importance of the paper's findings, the estimation of the effect of the COVID-19 vaccination certificates on tourism activities in Romania, presents a reality from which every actor in the tourism niche can lay the foundations of a best practices guide for similar crisis situations, in the future.

2. MATERIALS AND METHODS

The way individuals use their free time has become a more prominent topic of discourse in the last decade. People are more interested in traveling on weekends, during school vacations, and on special holidays because of the rigorous labor they undertake during the year.

The SARS COV-19 outbreak has created a crisis unlike any other in the history of the tourism sector. To begin with, it indicated a decline in tourism and the global hotel industry, not just in local areas. Second, the current economic crisis is much worse. Third, the SARS COV-19 outbreak has the potential to drastically alter the way many tourism industries operate. Last but not least, because the epidemic's end cannot be predicted, there is long-term uncertainty. (Collins-Kreiner & Ram, 2020)

COVID-19 caused chaos on global tourism, resulting in a 74% decline in international arrivals in 2020. The revival of the industry hinges on widespread immunization. In the first half of 2021, 21% of adults in the United States and Australia were hesitant to be vaccinated. Vaccine apprehension has a detrimental impact on public health, incurs societal expenses, and creates delays in unrestricted travel. Overcoming vaccination apprehension is critical to the tourist industry's recovery from the epidemic. (Zhu, Grun, & Dolnicar, 2022)

There is a link between a person's previous foreign travel experience and their want to travel overseas in the future, as well as vaccine willingness. This association, however, cannot be used to increase vaccination willingness further because it has most likely already resulted in higher vaccination willingness within the relevant subset of the population, and vaccination willingness is primarily driven by vaccine-related beliefs (safety and efficacy).

Policymakers should devise communication tactics directed at segments that worry about overseas travel and have a high vaccination willingness in order to encourage vaccine reluctant segments. High vaccination willingness segments with a strong interest in international travel have an inherent drive to vaccinate as many individuals as possible in order to eliminate international travel hurdles. The findings also imply that, at this late point in the pandemic, emphasizing travel-related concerns is unlikely to be effective, and that efforts to overcome vaccination hesitation should focus on strengthening belief in vaccine safety and efficacy.

Several groups raised the notion of immunity passports in early 2020, which may be seen as a precursor to the vaccination passports described in this study. One of the most serious objections to immunity passports a year ago revolved on an ethical question: Does the mere availability of an immunity passport create a strong enough incentive for certain people to purposefully compel self-infection? Several researchers have given good responses to this question. (Sun, Wandelt, & Zhang, 2021)

Relating to a study realized by Zun, Grun and Donicar in 2022, the use of expressed vaccination willingness as a dependent variable and the specific Australian vaccination setting during data collection are both limitations of the study. Future research should examine the relationship between real travel-related behaviors and actual vaccination utilizing behavioral data for both domains, such as flight movements and vaccination status, as soon as such data become available. (Zhu, Grun, & Dolnicar, 2022)

The decision tree depicts the relationship between travel-related attitudes and behaviors and vaccination willingness. Only two components, faith in vaccine safety and trust in vaccination efficacy, divided respondents into five unique segments (labeled nodes in with distinctly varying vaccination willingness). The primary criterion for splitting is vaccination safety, followed by vaccine effectiveness. People on the far right are quite keen to be vaccinated and believe the vaccine is safe and effective. The far-left portion is the polar opposite.

The two groups with the most vaccination apprehension had a much-reduced desire to go globally. The two low vaccination willingness parts have traveled internationally less frequently in the past. Vaccine apprehension is linked to age and the presence of autonomous children.

While vaccine safety and efficacy are the key determinants of vaccination willingness, there is a strong link between vaccination willingness and a history of foreign travel and a desire to travel abroad in the future, according to the tree analysis. (Zhu, Grun, & Dolnicar, 2022)

The COVID-19 pandemic, which wreaked havoc on the worldwide tourism sector, will pass; nevertheless, it is unknown if travelers' real-time on-site emotional experiences at reopened tourism areas are higher or lower than in the period prior to the pandemic breakout. This study empirically examines the impact of the COVID-19 outbreak on tourists' real-time on-site emotional experience using geo-tagged check-in user-generated content data in China's National 5A scenic spots from November 7, 2019 to April 8, 2020, as this is an important basis for managers to design tourist win-back strategies.

Although the COVID-19 pandemic does not destroy tourist attractions, the results show that tourists' real-time on-site emotional experience after the outbreak of COVID-19 is significantly lower than before the outbreak, implying that tourism destinations should not only focus on the recovery of tourist arrivals, but also on the recovery of tourist experience during the tourism recovery stage. The findings also give empirical data and practical implications for tourism experience management during and after the COVID-19 epidemic for locations. 2021. (Yang, Ruan, Huang, Lan, & Wang, 2021)

In the second year of the pandemic, the international tourist sector rested its hopes on the discovery of vaccinations or treatment, while bringing and delivering on the prospect of a vaccine, the return to tourism normality proved to be plagued with several problems). (Kaewkitipong, Chen, & Ractham, 2021)

Due to supply capacity constraints, it was initially difficult to ensure that every worldwide citizen had access to the vaccine due to the pandemic's global reach. As a result, wealthier countries were the first to receive the vaccination, negatively impacting underdeveloped countries, which were forced to undergo ongoing lockdowns that hampered tourism activities as well. (Yu, Aviso, Santos, & Tan, 2020)

While there was hope that the vaccination rollout would result in the service industry opening up and the lockdowns ending, with travelers receiving COVID-19 vaccination certificates that could be used as a form of travel passport, the situation turned out to be far more complicated than anticipated, according to the study.(Pavli & Maltezou, 2021)

Vaccinated people did not get as much relief as they expected since nations that had some success with vaccine dissemination continued to apply some type of travel restriction against other countries, notably industrialized countries. The tourism and travel industry's effective reopening were impeded by a lack of global unity and insufficient coordination, which harmed travel confidence. (Dube, 2022)

According to the report, little more than a quarter (60,1%) of the worldwide population had had some sort of vaccine as of January 17, 2022. Vaccination rates in developing nations remained low, with only 9.6% having gotten at least one shot as of MidJanuary 2022. However, vaccine access has not been equal over the world, with underdeveloped countries having the lowest immunization rates (low-income counties). (Dube, 2022)

This development is worrying because it jeopardizes global recovery and returns to normalcy. The development verifies suspicions and allegations about immunization access barriers harming underdeveloped countries. The number of vaccinated people is highest in upper middle-income and high-income nations. The number of dosages given out in low-income nations is still alarmingly low. Countries with higher vaccination rates have a better possibility of resuming normal operations and allowing social and economic activities to take place without the need of draconian lockdowns. Vaccines help to prevent serious disease and death. (Paltiel & Swartz, 2021)

Countries that have achieved herd immunity have a greater chance of regaining some semblance of normalcy in their economy. Only a few nations, mostly in the North, are on the verge of acquiring herd immunity. Due to unequal distribution and what might be deemed vaccine hoarding by the developed world, poor and emerging nations are struggling to roll out their immunization programs.

The progress made by certain nations in acquiring herd immunity has the potential to exacerbate global economic disparity. The virus continues to besiege underdeveloped nations, which frequently resort to severe lockdowns to combat the pandemic, which is wreaking havoc on people's lives. On the other hand, most evolved more relaxed people's movement (especially domestic travel), which triggered economic and social activities. For businesses like travel and tourism, which rely on a complex global network with supply and destination nodes that must remain operating, such a setup is unsustainable. (Dube, 2022)

Cross-comparisons to previous outbreaks are allowed under the International Health Regulations. The International Certificate of Vaccination or Prophylaxis, often known as the yellow vaccination card or Card Jaune, is a standard, worldwide recognized paper credential provided to parents to monitor their child's immunizations. The card details a person's vaccinations, including dates and the signature of a medical expert. This might be utilized as a template not just for the design of COVID-19 vaccination passports, but also for tackling the inherent problems of such a large-scale project. (Sun, Wandelt, & Zhang, 2021)

COVID-19 has been a huge setback for air travel; several airlines have had to seek bailouts, and international flight connections are just slowly resuming. As a result, many aviation stakeholders are placing their expectations in the continuing vaccination procedure, hoping that a high level of immunization would push the boundaries for a return to normalcy. The provision of verification credentials, commonly known as "vaccine passports," is one requirement for resuming international aviation connections.

These passports, on the other hand, present a number of hurdles that must be solved in order for them to be recovered. We propose a framework in this study that covers five important aspects and policy challenges related to the introduction of vaccination passports for the return of aviation, including competition, epidemiology, technology, ethics, and politics. Failure to adequately address these difficulties would most certainly not only delay recovery, but also miss an essential chance before new catastrophic occurrences occur. (Sun, Wandelt, & Zhang, 2021)

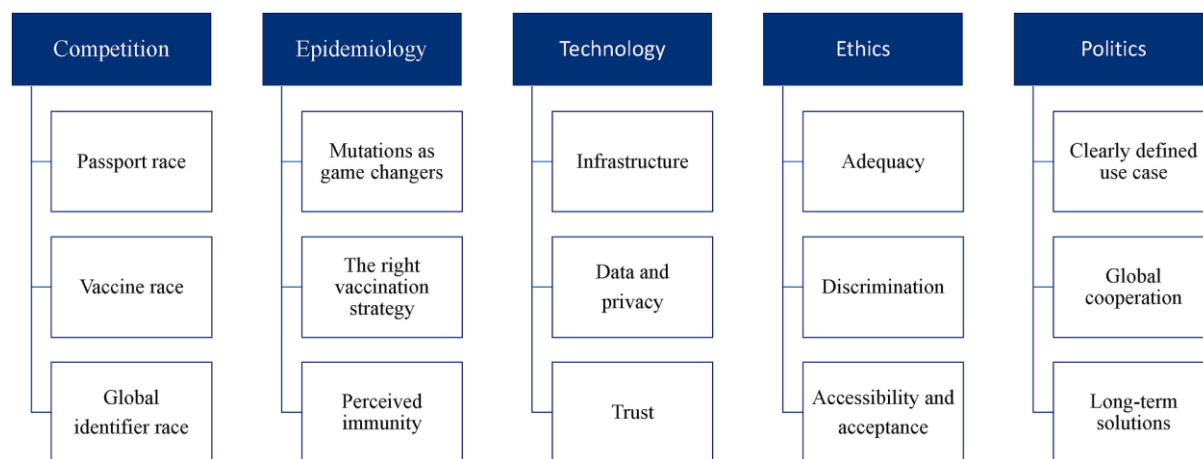


Fig1. Framework of problems for the coordinated and successful use of vaccination passports in air travel. (Sun, Wandelt, & Zhang, 2021)

Several projects for giving health certification have been launched in response to the necessity to resume travel and economy following the massive impact of COVID-19. Some of these initiatives are summarized in Table 1. Various institutions, including global policymakers like the International Air Transport Association (IATA) and the World Health Organization (WHO), continental agglomerations, and individual nations, consider or adopt archetypal implementations. The location of issue, date of issue, kind of vaccination used, and maybe other information on the verification procedure will all be required in such passports. Opening the Pandora's box of stigmatization and discrimination with this sort of knowledge, continual competition, and hurried adoption of diverse ways might be equated to opening the Pandora's box of discrimination and stigmatization. (Sun, Wandelt, & Zhang, 2021)

Table1. Overview on selected passport initiatives currently under development in 2021

Name	Description
Travel Pass	IATA developed a system to track passengers' medical and immunization records. Emirates, Korean Air, Quantas, Singapore Airlines and other carriers are undergoing trials.
Common Pass	The Commons Project and the World Economic Forum collaborated on a health data app that intends to make cross-border travel easier.
Digital Green Certificate	A proposal for a system that allows people to validate their test/recovery/vaccination status, with a focus on applicability and uniform treatment within the European Union.
Smart Vaccination Certificate	The World Health Organization produced a set of standards and guidelines for a framework. They underline the project's specified emphasis.
My COVID Pass	The African Union Commission and the Africa Centres for Disease Control and Prevention are working together on an initiative to make traveling throughout Africa easier.
Green Pass	The Israeli Ministry of Health issues a vaccination certificate verifying that a person has received a second dose of a vaccine.

Source: (Sun, Wandelt, & Zhang, 2021)

The purpose of this study is to determine the impact of COVID-19 immunization certificates on Romanian tourism. We utilized data analysis as our study approach. We took a few dates from the vaccine status, the arrivals, departures situation, and some other travel agency activity figures.

3. RESULTS AND DISCUSSIONS

The aim of this paper is to estimate the effect of the COVID-19 vaccination certificates on tourism activities in Romania. We have used a few dates about the vaccination situation, the arrivals and departures situation and some other statistics about travel agencies activity.

We had a lockdown period in Romania from March to May 14, under a state of emergency that began on March 14. From May 15 to September 13, Romania was on high alert, and certain relaxation measures were implemented, including the reopening of malls, museums, and terraces. Restaurants, bars, and cafés within buildings reopened on September 1st, although with a limited menu. The National Committee for Emergency Situations then developed three scenarios (green, yellow, and red) based on the cumulative incidence rate per 1000 people over the previous 14 days. Each scenario has its own set of constraints. Romania was in a partial lockdown from November 6 to February, with a curfew between 23:00PM and 5:00AM, eateries, and restaurant business restrictions.

Another concern is how specialized testing regimens were able to consistently discriminate between prior SARS-CoV-2 infections and other known human coronavirus infections. Furthermore, with only a few documented and proved cases of reinfections globally, the issue of how many reinfections can occur is not adequately resolved in the scientific literature. (Sun, Wandelt, & Zhang, 2021)

COVID-19 wreaked havoc on global tourism, resulting in a 74% decline in foreign arrivals (by 2020). The resurgence of the industry is contingent on widespread immunization.

For example, in the first half of 2021, 21% of adults in the United States and Australia resisted vaccination. Vaccine apprehension has a severe impact on public health, results in societal expenses, and creates delays in unrestricted travel. Overcoming vaccination apprehension is critical for the tourism industry's revival following the epidemic. (Sun, Wandelt, & Zhang, 2021)

According to statistics, on April 9, 2022, the Romanian government reported that 16751382 doses of vaccine from Johnson & Johnson, Moderna, Oxford/AstraZeneca, and Pfizer/BioNTech were used in Romania. As a result, just 42.29 percent of the Romanian population (191277772) has a complete vaccination schedule (8088980). As a result, just 42.29 percent of Romania's population had the ability to travel without any further documents than the Green Certificate. (See Table 2)

Table2. Vaccination situation – Romania

Last Reported Date	Reported Doses	Source	Vaccine(s) used	Population	Completed Vaccinations / % of Population
Apr 9, 2022	16,751,382	Government of Romania via datelazi.ro	Johnson & Johnson, Moderna, Oxford/AstraZeneca, Pfizer/Bio NTech	19,127,772	8,088,980 / 42.29%

Source: (Covidvax.live, 2022)

The global situation was not dissimilar, with 42,59 percent (3,341,317,950) of the population possessing a complete vaccination schedule as well as a health certificate to use while travel if necessary. Taking into account those who were required to refuse vaccination or simply refused a dose of rabies, the total number of people who have been vaccinated is 3,651,618,816, or 46.54 percent. (See Table 3)

Table3. Vaccination situation – Worldwide

Last Reported Date	Total Doses / per 100	Completed Vaccinations / % of Population	People Vaccinated / % of Population
Apr 9, 2022	11,460,095,983 / 146.06	3,341,317,950 / 42.59%	3,651,618,816 / 46.54%

Source: (Covidvax.live, 2022)

In the fourth table, you can record the vaccination situation in the European Union. It should be noted that the requirement of a Verde Certificate or a Test Certificate was required throughout the European Union not only as a travel document, but also for entry into commercial centers, magazines, and other public spaces. As a result, 75.22 percent (336,374,747 people) of the European Union's population has been vaccinated, with 73.16 percent (327,166,868 people) having a complete vaccination schedule. In all, 861,104,959 doses of vaccine were administered. (Table 4)

Table4. Vaccination situation – European Union

Last Reported Date	Total Doses / per 100	People Vaccinated / % of Population	Completed Vaccinations / % of Population
Apr 9, 2022	861,104,959/ 192.55	336,374,747 / 75.22%	327,166,868 / 73.16%

Source: (Covidvax.live, 2022)

Given the preceding situation, the introduction of the Verde Certificate appears to have been beneficial, with tourist numbers in Romanian hotels increasing significantly in 2021 compared to 2020, when travel was nearly impossible. (Table 5)

Table5. Tourist arrivals in tourist structures with hotel functions, comfort categories, and tourist types

Sosiri ale turistilor in structuri de primire turistica cu functiuni de cazare turistica, categorii de confort si tipuri de turisti	
2020	2021
Numar persoane	Numar persoane
6398642	9370232

Source: (National Institute of Statistics Romania, 2022)

As shown in the data provided in the table 6, agencies with planning responsibilities, have the largest number of tourists and of course the biggest increase. In the case of agencies with an intermediary role, a noticeable increase can also be observed.

Table6. The number of tourists who took part in tourism-related activities organized by travel agencies

Type of travel activity	Type of travel agency	2020	2021
		People	
Incoming activity	Tourism agencies with planning responsibilities	9175	9449
	Tourism agencies with an intermediary role	653	799
Internal tourism activity	Tourism agencies with planning responsibilities	521475	793858
	Tourism agencies with an intermediary role	39464	58085
Outgoing activity	Tourism agencies with planning responsibilities	276922	681916
	Tourism agencies with an intermediary role	52652	64097

Source: (National Institute of Statistics Romania, 2022)

In all the situations mentioned in the previous table, the travel agencies with organizing activity (travel agencies specialized in organizing tourist programs and actions, which they sell directly or through other travel agencies, based on contracts and conventions) reported an increase in the number of tourists in 2021, compared to those reported in 2020.

Intermediate travel agencies (which sell programs and travel actions of travel agencies) have also seen an increase in the number of tourists in 2021 compared to 2020.

Therefore, it can be said that the introduction of the need for vaccination did not affect the tourist activity, but was beneficial, the number of participants in this type of activity (incoming, internal tourism and outgoing tourism) being increasing in 2021 compared to 2020.

4. CONCLUSIONS

Romanian tourism has also suffered a setback. Since the beginning of 2020, tourist arrivals have decreased substantially. People's movement has been limited by national-level restrictions, and the ambiguity of a trip's safety and security has discouraged tourist activities. Tourists have demonstrated a desire to travel when restrictions have been lifted, eventually engaging in various sorts of tourism dependent on the level of safety they give.

As a result, destination managers and local operators may continue to perceive the pandemic as an opportunity in the future since visitors may use their services for both recuperation and leisure following the COVID outbreak. Finally, the resumption of spa activities can be a means of recuperation for both tourists and the local economy.

The importance of the paper's findings, the estimation of the effect of the COVID-19 vaccination certificates on tourism activities in Romania, shows a greater interest to be vaccinated of those who were particularly interested in travel even before the pandemic. With the introduction of the Green Certificates in 2021, an increase of tourist arrivals in different accommodation unit is noticeable. Practically, the number of tourists is almost doubled in 2021 compared to 2020.

As the Green Certificates have been released, they have served both the Tourists and those in the hotel and hospitality industry.

This paper aims to open the door to future research related to this matter as there are many unexplored but important data and situations on this subject.

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Citation: Adrian-Bogdan Curteanu et al. "The Effect of the COVID-19 Vaccination Certificates on Tourism Activities. Study Case – Romania" *International Journal of Humanities Social Sciences and Education (IJHSSE)*, vol 9, no. 5, 2022, pp.98-105. DOI: <https://doi.org/10.20431/2349-0381.0905010>.

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