

Cirer i Costa, Joan-Carles

Article

Continuidad o cambio tras el Covid-19 en el turismo de Ibiza y Formentera

Revista de Métodos Cuantitativos para la Economía y la Empresa

Provided in Cooperation with:

Universidad Pablo de Olavide, Sevilla

Suggested Citation: Cirer i Costa, Joan-Carles (2024) : Continuidad o cambio tras el Covid-19 en el turismo de Ibiza y Formentera, Revista de Métodos Cuantitativos para la Economía y la Empresa, ISSN 1886-516X, Universidad Pablo de Olavide, Sevilla, Vol. 37, pp. 1-24, <https://doi.org/10.46661/rev.metodoscuant.econ.empresa.8115>

This Version is available at:

<https://hdl.handle.net/10419/312757>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by-sa/4.0/>

Continuidad o cambio tras el Covid-19 en el turismo de Ibiza y Formentera

Continuity or change after Covid-19 in tourism in Ibiza and Formentera

Joan Carles Cirer Costa

UOC

<https://orcid.org/0000-0002-7513-8763>

jcirerc@uoc.edu

RESUMEN

La pandemia provocada por el Covid-19 ha afectado gravemente a la industria turística pero no lo ha hecho por igual a todos sus segmentos ni en todos los espacios geográficos donde se desarrolla. Nuestro objetivo consiste en determinar si ha provocado cambios estructurales en uno de los grandes destinos turísticos de sol y playa del Mediterráneo: las islas de Ibiza y Formentera. Para responder a esa pregunta analizamos la evolución de los precios ofrecidos por los distintos tipos de alojamientos turísticos de estas islas en los años 2019, 2020 y 2021. Este análisis permite demostrar que el turismo prácticamente desapareció en esas islas en el año 2020, pero que al recuperarse parcialmente, en el año 2021, lo hizo con las mismas características existentes antes de la pandemia.

PALABRAS CLAVE

Impacto del COVID-19; recuperación turística; resiliencia; precios hoteleros; Ibiza y Formentera.

ABSTRACT

The pandemic caused by Covid-19 has severely affected the tourism industry, but it has not equally affected all its segments or all the geographical spaces where it is carried out. Our objective is to determine whether it has caused structural changes in one of the major sun and beach tourist destinations in the Mediterranean: the islands of Ibiza and Formentera. To answer this question, we analyse the evolution of the prices offered by the different types of tourist accommodation on these islands in 2019, 2020 and 2021. This analysis shows that tourism practically disappeared on these islands in 2020, but when it partially recovered, in 2021, it did so with the same characteristics that existed before the pandemic.

KEYWORDS

COVID-19 impacts; Tourism recovery; Resilience; Hotel pricing; Ibiza and Formentera.

Clasificación JEL: C12, D47, L11, L83.

MSC2010: 62M10, 62P20, 91B24

1. INTRODUCTION

Tourism is an economic sector in which any crisis or disaster leaves its effects felt with maximum intensity, to the point that there are authors who point out that “Crisis seems endemic in tourism” (Cheer, Lapointe, Mostafanezhad & Jamal, 2021: 292). The crisis caused by the Covid-19 pandemic was not just another in the history of tourism. In 2020, global tourism activity was reduced by less than half and in many destinations it disappeared completely for several months. Tourism was at the centre of the hurricane caused by the pandemic, as there was a clear correlation between the tourism flows received by a country or region and its exposure to Covid-19 (Ahlin 2022: 80; Farzanegan, Ghlipour, Feizi, Nunkoo & Andargoli, 2021: 689). There was no place in the world where Covid-19 did not affect the tourism business and their effects showed great variety and dispersion (Cheer, Lapointe, Mostafanezhad & Jamal, 2021: 295; Martinović, 2021: 2; Rasoolimanesh, Seyfi, Rastegar & Hall, 2021: 2).

Under these conditions, it is entirely legitimate for different authors to wonder to what extent a crisis of this level can have long-term consequences and become a turning point (Rogerson & Rogerson, 2022). In this line we find authors such as Peng, Chang, Ranjbar & Li, (2022); Rivera & Pastor, (2020); Sharma, Thomas & Paul, (2021) and Sigala (2020).

Other authors point out that the great resilience shown by tourism will lead it to a rapid recovery with few signs of reform (Cheng & Zhang, 2020; Pasquinelli & Trunfio, 2021; Psycharis, Kallioras & Pantazis, 2014). For them “Sentences like ‘things will never be the way they used to be’ are often heard after disasters and crises, but mostly proved wrong as we go back to our normal routines” Zenker & Kock (2020: 2).

The aim of this paper is to analyse the evolution of a central destination in the Mediterranean tourist world, the islands of Ibiza and Formentera, where “tourism is a vital cog in the local economy” (Cheer & Lew, 2018: 3). This analysis will be carried out by monitoring the prices offered by tourist establishments during the years 2019, 2020 and 2021.

Our work begins with a brief review of the existing scientific literature on the three central elements of this paper: the islands of Ibiza and Formentera, price formation in sun and beach tourist accommodation establishments, and the effects of the pandemic caused by Covid-19. Next, the origin of the data used and the analysis methodology used are described, then the hypotheses to be tested on the basis of these data are put forward. The results obtained are presented in two sections, the first of which analyses the effect of the pandemic on the tourism sector as a whole, estimating the fall in demand, the evolution of investments in improvements made, the presence in the network of tourist establishments and the variability of prices. In the second section of the results, the analysis is carried out according to the categories of the establishments. Finally, the corresponding conclusions appear.

2. THREE PRINCIPAL ACTORS THROUGH SCIENTIFIC LITERATURE

Three central elements appear in our work: the islands of Ibiza and Formentera as a tourist destination, the prices charged by hotel accommodation in this destination, and the impact of the Covid-19 pandemic.

The islands of Ibiza and Formentera are a typical large Mediterranean sun and beach destination, a core destination totally focused on international tourism (Papatheodorou, 2002; Sánchez & Sánchez, 2022). Consequently, demand is marked by a summer tourist profile which gives particular importance to the possibility of enjoying beaches and swimming pools (Ernst & Dolnicar, 2018; Hashemi, Kumarsi & Marzuki, 2017; Maestre & Obrador, 2019; Onofri & Nunes, 2013; Williams,

Micallef, Anfouso & Gallego, 2012). In second place, with regard to leisure preferences, we find visits to bars, nightclubs, restaurants and shopping centres (Alipour, Olya, Maleki & Dalir, 2020; Caletrío, 2009; Jacobsen & Dann, 2009; Obrador, Crang & Travlou, 2009; Valls, Gibert, Orellana & Anton, 2018). These are activities that have in common their link to hedonism and socialisation, with interpersonal contact and which take place in a very diverse environment, dominated by simultaneous relations of collaboration and competition between the different companies that offer their services to tourists in the destination (Cirer, 2014; Köseoglu, Yan & Okumus, 2021; Rogerson & Rogerson, 2020: 1084).

Finally, it should be noted that these are destinations characterised by a high repetition rate, which is associated with a reduction in the perception of risk on the part of the potential tourist, a particularly valuable characteristic in times of uncertainty (Alegre & Juaneda, 2006; Cladera, 2002; Rasoolimanesh, Seyfi, Rastegar & Hall, 2021).

Within this general context, the islands of Ibiza and Formentera have managed to individualise their image and build a well-accepted brand of their own that generates high customer loyalty (Alegre & Cladera, 2006: 290; Berrozpe, Campo & Yagüe, 2017: 1039; 2019: 246; Capellà, 2018: 115). It is a mature destination, characterized by a high level of internal competition and hosting the headquarters of different top international hotel companies. Some Ibizan companies are true multinationals that have management teams perfectly qualified to interpret the evolution of the markets and implement any innovative commercial technique or strategy (Cirer, 2020). It is a destination very dependent on the European markets, especially the British (27%), the Italian (15%) and the German (9%) (IBESTAT, 2022).

The second central element is the prices charged by hotel accommodation to their customers, a variable that indicates to potential tourists the expenditure that they will have to assume for their holidays and which is also an indicator of the quality of the chosen establishment (Cirer, 2013; Park, Yin & Son, 2019; Richards, Liaukonte & Streletskaia, 2016).

The islands of Ibiza and Formentera are visited by strictly leisure tourists, whose behaviour is totally different from that of professional travellers (Abrate, Fraquelli & Viglia, 2012: 167; Salanti, Malignetti & Redondi, 2012: 249). They are highly price-sensitive tourists who book in advance (Dresner, 2006; Falk & Vieru, 2019: 53; Haddad, Hallak & Assaker, 2015: 272; Martínez, Ferrer & Coenders, 2011). For many of these tourists, their summer holidays are their only opportunity to travel with their families or friends and they absorb a high proportion of their income, so they are highly risk averse (Liu & Ryzin 2008; Lu & Gursoy 2015; Neirotti, Raguseo & Paolucci, 2016).

From a business perspective, pricing is the only strategic variable that hotel managers can manage in the very short term (Lee & Jang, 2013: 56). Today's IT facilities have turned prices into a variable that can be managed in real time, which has led to the emergence of revenue management techniques that cause significant price fluctuations in hotels that apply them. However, such swings can have adverse effects in highly competitive markets where customers contract early and are able to adopt strategic behaviour (Calmon, Ciocan & Romero, 2020; Carreras, 2016; Chen & Farias, 2019; Selmi, 2010).

These potential adverse effects force managers of leisure hotels to manage their prices very carefully and to limit price fluctuations as much as possible (Ivanov & Ayas, 2017). In Ibiza and Formentera, it has been proven that most tourist accommodation establishments prefer to offer prices that are as stable as possible, and very few hotel managers are committed to intensive use of modern revenue management techniques (Cirer, 2022).

The interest in maintaining the stability of the prices offered leads some entrepreneurs to ignore market trends. Thus, in situations of high demand, some hoteliers prefer to overbook their lowest room category, to avoid making the price perceived by the customer more expensive. Others prefer not to reduce their prices, even when demand is low, to avoid the potential customer interpreting them as low-quality establishments (Abrate, Fraquelli & Viglia, 2012: 167; Alegre & Juaneda, 2006: 689).

As the tourist's check-in date approaches, most price managers abandon this conservative policy and proceed to raise prices significantly if demand is high or to make attractive last-minute offers otherwise.

The name of the hotel, its type and category, and the price per day are elements that appear in all offers relating to a destination on an OTA website. Among these, the price invariably stands out, given by web designers a prominent position on the screen with a typeface clearly visible in terms of color and size. All this shows the special sensitivity to hotel prices among prospective buyers of tourist holidays who use the Internet, a point underlined in the academic literature (Mohammed, Guillet, & Law, 2019; Neirotti, Raguseo & Paolucci, 2016).

It is now time to introduce the great protagonist of this paper: the Covid-19 pandemic, whose effects on tourism have been devastating worldwide. International tourism arrivals fell by 71% between 2019 and 2020 (UNWTO, 2022) and tourism's contribution to global GDP fell from 10.3% in 2019 to 5.3% in 2020 (WTTC, 2022). In Europe more than three quarters of hotels were closed and "on 1 June 2020 156 governments have completely closed their borders to international tourism" (OECD, 2020). In Spain, the government decreed the closure of the entire tourist plant in March 2020, with hotel occupancy falling to zero in April and a 57% drop in occupancy between March and December 2020 compared to the same months of the previous year (INE, 2022).

3. DATA USED AND METHODOLOGY APPLIED IN THE ANALYSIS

3.1 Internet main source of price data

Most of the data used consists of prices of tourist accommodation establishments obtained from the Internet. Statistics from the main entities that regularly publish data on tourism in Spain and the Balearic Islands have also been used: INE, IBESTAT, AETIB.

Any study of tourism in Ibiza and Formentera must take into account the strong seasonality that affects it. The tourist season runs from April to October, but in these two months the influx is very low and irregular. For this reason, data has been collected for stays made in the months of May, June, July, August and September. The price data uses the best available rate (BAR) as the central variable of analysis, an element common to most hotel price analyses (Mohammed, Guillet & Law, 2019: 13).

Price data collection was conducted over three years: 2019, 2020 and 2021, each year starting on March 15 and ending on September 3. Between these two dates, every Friday in the early hours, the current daily price was collected for a standardized stay consisting of a double room during the central week of each of the five reference months. In this way, a total of 82,338 prices were collected.

A single supplier was used, namely Atrápalo.com, which is common practice in studies of this nature, as it is the only way to guarantee homogeneity (Abrate et al., 2012; Chen & Rothschild, 2010; Fleischer, 2012). In our case, we chose the OTA Atrápalo.com because it was the one that offered the clearest differentiation in prices being charged according to different types of board regime.

The data collection covered 86% of hotels, 58% of apartment blocks and 48% of hostels. Consequently, our data is practically exhaustive, covering the entire offer available on the internet within the reach of any potential tourist interested in visiting Ibiza or Formentera.

Each hotel establishment is characterised, first of all, by its typology and category. The typology includes three possibilities: hostel, apartment and hotel. Regarding the category, the star rating continues to be the main source of information about quality available to potential clients and has a leading impact on prices (Abrate, Capriello & Fraquelli, 2011; Agusaj, Bazdan & Lujak, 2017; Xu, Wang, Li & Haghighi, 2017).

The combination of typology and category gives rise to a great variety of possibilities but some of them are quite similar, therefore, in this paper all island establishments have been grouped into seven types:

- Hostels (HS).
- 1 and 2 star apartments (A */**).
- 3-star apartments (A ***).
- 1 and 2 star hotels (H */**).
- 3-star hotels (H ***).
- 4-star hotels (H ****).
- 5-star hotels (H *****).

The groupings were made after finding that between one- and two-star hotels and between apartments of the same two categories the price differences were not statistically significant, a result already obtained in previous works (Abrate et al., 2012).

With regard to type of board, four were considered: Room Only (RO), Bed and Breakfast (BB), Half Board (HB) and All Inclusive (AI). The first two types of board: RO and BB, were offered by the seven types of establishments considered. The higher value-added packages, HB and AI, were only offered in sufficient numbers for statistical analysis by the three- and four-star hotels.

The combination of seven establishment types, five months and four board types resulted in 140 possibilities of which only 90 were taken into account, as those including less than 10 establishments were eliminated.

3.2 Methodology of the statistical analysis

Different statistical analysis tools have been used to validate or refute the hypotheses put forward. To assess the impact of the crisis in Ibiza and Formentera, the drop in occupancy was compared with other Spanish tourist regions. The evolution of internet use by Ibizan hotel companies was evaluated by counting the number of advertisements and advertising companies counted before, during and after the crisis caused by Covid-19. In the same way, the variations experienced by the official category of Ibizan hotel establishments were also analysed.

In order to analyse the dispersion of the price data, the Coefficient of Variation (CV) was used, which is defined as the quotient between the standard deviation (σ) and the arithmetic mean (μ) of the data. It is a relatively simple statistic, easy to interpret and applicable to a case such as ours in which the data are abundant, follow a numerical scale and have a prefixed zero value (Allison, 1978; Bendel, Higgins, Teberg & Pyke, 1989). Its main advantages when used for price analysis are its sensitivity to relative variation and its scale invariance (Naranjo, 2009; Sorensen, 2002). The main drawback of CV lies in the impossibility of constructing confidence intervals and hypothesis tests based on this statistic (Vangel, 1996).

The comparison of average prices has been carried out through the massive use of Welch's test. In our case, the availability of a large number of homogeneously obtained data allows us to use this instrument to test whether prices are the same in each of the three pairs of years considered (Ahad & Yahaya, 2014; West, 2021). It does not make sense to consider global analyses due to the extreme dependence of each price on three different variables: type of establishment, month of stay of the tourist and type of board. As 90 combinations of these three variables have been considered in each of the three years analysed, 270 tests have been carried out. Thanks to these tests, it has been possible to verify the possible equality of the value of the arithmetic mean of the price between each of the three pairs of years considered: 2019-2020; 2020-2021 and 2019-2021.

For three- and four-star hotels, the general analysis by categories is applied to the RO and BB regimes. The HB and AI regimes have been included in the section on family tourism.

4. HYPOTHESES

The analysis of the scientific literature devoted to the study of the impacts of Covid-19 on the tourism sector offers several sets of conclusions on the basis of which the hypotheses we wish to test have been constructed. These are as follows:

1. Demand falls were much larger among international customers than in domestic markets (Ahlin, 2022; Arbulú, Razumova, Rey & Sastre, 2021, Bulchand, 2022: 10; Duro, Pérez & Fernández, 2022: 4; Kuo, 2022: 7; Owuor, Hochmair & Paulus, 2022). Holiday resorts and cruise ships performed worse than urban destinations (Espinet, & Gassiot, 2022: 538; Ntacho & Muba, 2021: 36). In line with these findings we propose the following hypothesis:
H1. Ibiza and Formentera are a destination specialising in international leisure tourism, and as this is the business model most affected by the pandemic, losses must also be greater on these islands.
2. The forced closures of hotel establishments led many tourism companies to desperate financial situations that were only overcome thanks to the efforts of governments to provide liquidity to these companies and avoid bankruptcy (González, Rodríguez & Pelechano, 2021: 8; OECD, 2020). Additionally, establishments that remained open incurred exceptional hygiene and cleaning expenses that increased costs and thus operating losses (Papastathopoulos, Koritos, & Beneki, 2023: 242; Ugurlu, Akay & Demirel, 2022: 26).
H2. Faced with a lack of income, tourist accommodation establishments reduced their expenditure to a minimum, eliminated investments and carried out only essential maintenance works.
3. The pandemic caused by Covid-19 has systematically increased the use of social networks as a source of issuing and receiving tourist information (Matiza, 2020: 6; Pachucki, Grohs & Scholl, 2022):
H3. An increase in the flows of tourist information on the network is detected.
4. In large urban destinations, the covid-19 irruption caused drastic price drops in response to the unexpected reduction in demand (Guizzard, Ballestra & D'Innocenzo: 2022: 3; Martinović, 2021:10; Nikolić & Mitrović, 2021: 92; Piga, Abrate, Viglia & De Canio, 2022: 514; Poretti & Heo, 2022: 12; Wu, Zhang, Law & Zheng, 2020: 2). These prices were slow to stabilise and even slower to recover (Arabadzhyan, Figini & Zirulia, 2021: 2; Garrido, García & Martín, 2021: 9; Guillet & Chi, 2021: 622; Ntacho & Muba, 2021: 42; Zaki, 2022: 1784). Additionally, it was detected that bookings were systematically delayed and many of them were made under last-minute conditions (Deyá, Leoni & Ramos, 2022: 9).
H4. The pandemic has significantly increased the price variability of hotel establishments.
5. The effects of the pandemic have been very asymmetric. Among tourist accommodation establishments, the most affected have been high-end and small establishments (Noel, 2022: 21; Piriapornsiri, Channgam, Chanda, Kilaso & Chareanboon, 2022: 7195; Tobón, Urquía & Cano, 2022: 10). Accordingly, the following set of hypotheses is proposed:
H5a. Small establishments, in general, are included in the lower categories (Hostels, 1 and 2 star Apartments and 1 and 2 star Hotels). As this market segment has suffered a proportionally larger drop in demand, their prices have consequently fallen to a greater extent.
H5b. H5c. Medium and medium-high category establishments will show the most stable prices. This hypothesis has been divided into two due to the great importance of 3-star (H5b) and 4-star (H5c) establishments in Ibiza and Formentera.
H5d. As the luxury segment is one of the most affected at an international level, then the prices of five-star hotels will show greater variability and steeper falls.

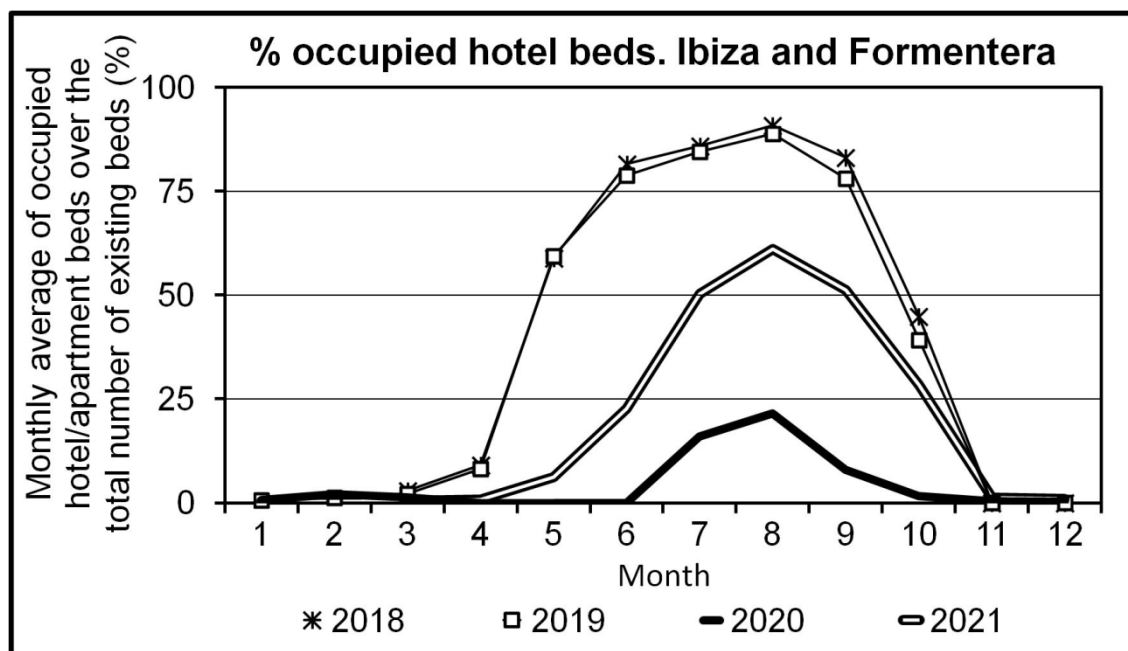
6. Another aspect of the asymmetry of the effects of the Covid-19 pandemic is that within international tourism flows, the most affected segment was family tourism (Park, Kim, Kim, Lee & Giroux, 2021: 13; Shi, Da, Weaver & Samaniego, 2021: 2899; Ye, Fu, Wang & Zhou, 2023: 6).

H6. Family tourism is one of the pillars of tourism on the islands of Ibiza and Formentera. Many establishments are dedicated exclusively to it, and their prices should have a greater impact.

5. RESULTS. GENERAL EFFECTS OF THE PANDEMIC ON THE TOURISM SECTOR OF IBIZA AND FORMENTERA

5.1 A dramatic fall

Figure 1. Percentage of occupied beds over the total number of beds in tourist accommodation in Ibiza and Formentera in 2018, 2019, 2020 and 2021.



Source: Institut d'Estadística de les Illes Balears (IBESTAT, 2022).

The data in Figure 1 show the extraordinary impact that the pandemic caused by Covid-19 has had on the tourism sector on the islands of Ibiza and Formentera. After two practically equal seasons in terms of occupancy, 2018 and 2019, in 2020 occupancy fell by 88%.

The collapse in 2020 was brutal and widespread, affecting all segments of the tourist accommodation and complementary offer equally and even, essential supplies such as drinking water (García, Deyà, Lorenzo, Morán, Rodríguez & Tirado, 2023). At that time, the summer season had not yet started and the entire island hotel complex island was closed. Under these conditions, the island's businessmen cancelled the reservations already made and refunded the amounts advanced by their clients when booking their rooms.

In practice, in July, August and September 2020, only small family-run establishments operated. The large chains, which own the larger hotels, opted to write off the season as lost. In reality, they had no other choice, it made no sense to open when their clients could not access Ibiza airport.

Hotel occupancy data from the INE (2023), allow us to compare the impact of the pandemic on the different Spanish tourist areas. Among a total of 40 registered tourist areas in Spain, Mallorca was the most affected region, losing 89% of overnight stays in 2020. The second most affected region was the islands of Ibiza and Formentera with a loss of 88%. The tourism crisis has been particularly severe on these islands, which fully confirms hypothesis H1: the pandemic has had more pronounced effects on Ibiza and Formentera.

The recovery in 2021 was not homogeneous, with a rapid return of domestic tourists, in line with what was observed in other destinations, but Spanish tourists were unable to occupy the market abandoned by international tourism (Arbulú, Razumova, Rey & Sastre, 2021: 6; Bulchand, 2022: 10). Within this international tourism, in 2021, only French and Benelux tourists showed similar or higher figures than those recorded in 2019, the remaining nationalities still experienced falls of over 50%.

5.2 Improvement investments

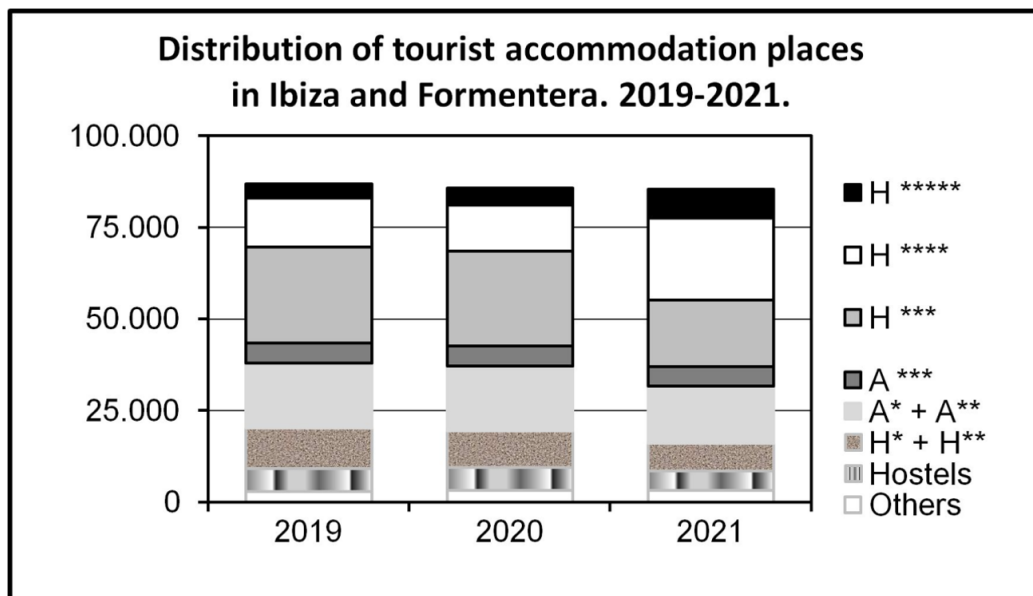
Table 1. Budget for construction and conversion projects approved on the islands of Ibiza and Formentera in the tourism sector (Millions of euros).

Year	Budget	Year	Budget
2010	3,7	2016	63,3
2011	11,2	2017	46,0
2012	11,6	2018	55,7
2013	21,8	2019	49,2
2014	29,7	2020	23,4
2015	45,4	2021	89,3

Source: IBESTAT (2023). Number, budget and surface area of projects approved per year.

Data provided by IBESTAT (2023) show that investment in tourism projects increased tenfold between 2009 and 2016. From that year onwards, there was a high rate of new construction projects and, above all, refurbishment of hotel establishments, which continued until 2021 (Table 1). Most of the projects consisted of the conversion of establishments by increasing the category and reducing their capacity. The same administrative difficulties caused by Covid-19 meant that the accounting of projects and upgrades was delayed. As a result, in 2021 there was a drastic increase in the budgets for upgrading works and in the number of hotel beds in four- and five-star hotel establishments. Figure 2 shows the systematic increase experienced by the category of the hotel plant, which demonstrates that Covid-19 did not stop the investments made to improve the quality of the establishments in Ibiza and Formentera.

Figure 2. Evolution of the distribution of available places by categories in Ibiza and Formentera.



Source: AETIB (2022).

With these results, there is no doubt that the hotel companies in Ibiza and Formentera maintained their previous high investment effort and even took advantage of the standstill caused by the pandemic to increase it, a business policy already known in other sun and beach destinations (Baum & Mudambi, 1995). With these results, Hypothesis H2 must be rejected.

5.3 Presence on the network

The analysis of the data obtained as a whole provides us a first interesting result: despite the spectacular drop in demand recorded in 2020 compared to the previous year, hoteliers significantly increased their online presence and maintained this momentum in 2021, as we can see in Table 2.

Table 2. Evolution over time of the number of offers and establishments present in the OTA analysed: Atrapalo.com

	2019	2020	2021
Total number of prices offered in Atrapalo.Com	23,188	26,953	32,197
Number of establishments present in Atrapalo.Com	361	415	414

Source: Own elaboration

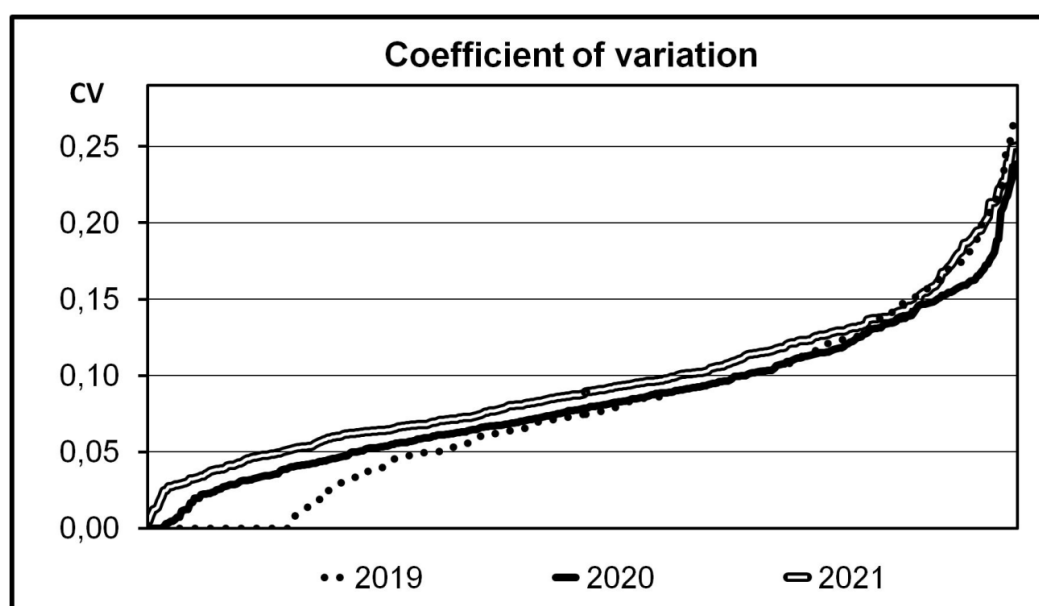
Not only did the number of bidders increase, but also the offer diversified. The number of HB and AI accommodation offers remained stable. BB offers increased significantly: by 10 % in 2020 and 15 % in 2021, both compared to 2019. RO offers increased dramatically by 32 % and 37 % respectively.

Consequently, Hypothesis H3 must be accepted.

5.4 Price variability

Let us now turn to the issue of price variability. As we have already indicated, hotels in Ibiza and Formentera are reluctant to use revenue management techniques, preferring to offer stable prices in order to encourage early booking, but adapting smoothly to the conditions of demand as the time of arrival of tourists approaches (Cirer, 2022). Therefore, in a situation in which early bookings were brutally reduced, one would expect a relatively accelerated fall in prices. Well, this did not happen, hoteliers maintained the usual sequence despite the fact that they knew that no tourists would occupy the rooms they put up for sale on the internet.

Figure 3. Coefficient of variation (CV) ranked from lowest to highest.



Source: Own elaboration

The instrument chosen to quantify the temporal dispersion of prices has been the coefficient of variation (CV), which allows us to carry out a joint analysis of all the data through its graphical representation. In our case, it has been used to measure the time dispersion of prices in each of the three seasons. The use of this instrument is based on previous studies that have found that in Ibiza and Formentera price variability is low and, moreover, disconnected from the category of the establishments (Cirer, 2022).

A CV has been constructed for each establishment and each type of stay it offers. For this purpose, the standard deviation and the arithmetic mean of prices have been calculated from the time when the first offer of the hotel for a specific type of stay appears, in March or April, until the time when the customer has to check-in. Once the individual CVs have been obtained, they have been ordered from lowest to highest in order to construct the three curves indicative of the annual dispersion of prices shown in Figure 3.

In Figure 3 we see that the price dispersion in 2020 was practically the same as in 2019 for most hotels. It is noteworthy to note that in 2020 the number of establishments using revenue Management techniques, which are those with a CV higher than 0.15, decreased significantly (Cirer, 2022). In 2021, the CV increased very moderately, practically in the same proportion as the number of quantified establishments, and no increase in the use of revenue management practices was detected.

We can therefore reject hypothesis H4. The pandemic has not led to a significant increase in price variability.

6. RESULTS. ANALYSIS OF PRICE TRENDS ACCORDING TO TYPE OF ESTABLISHMENT

6.1 Establishments of lower categories

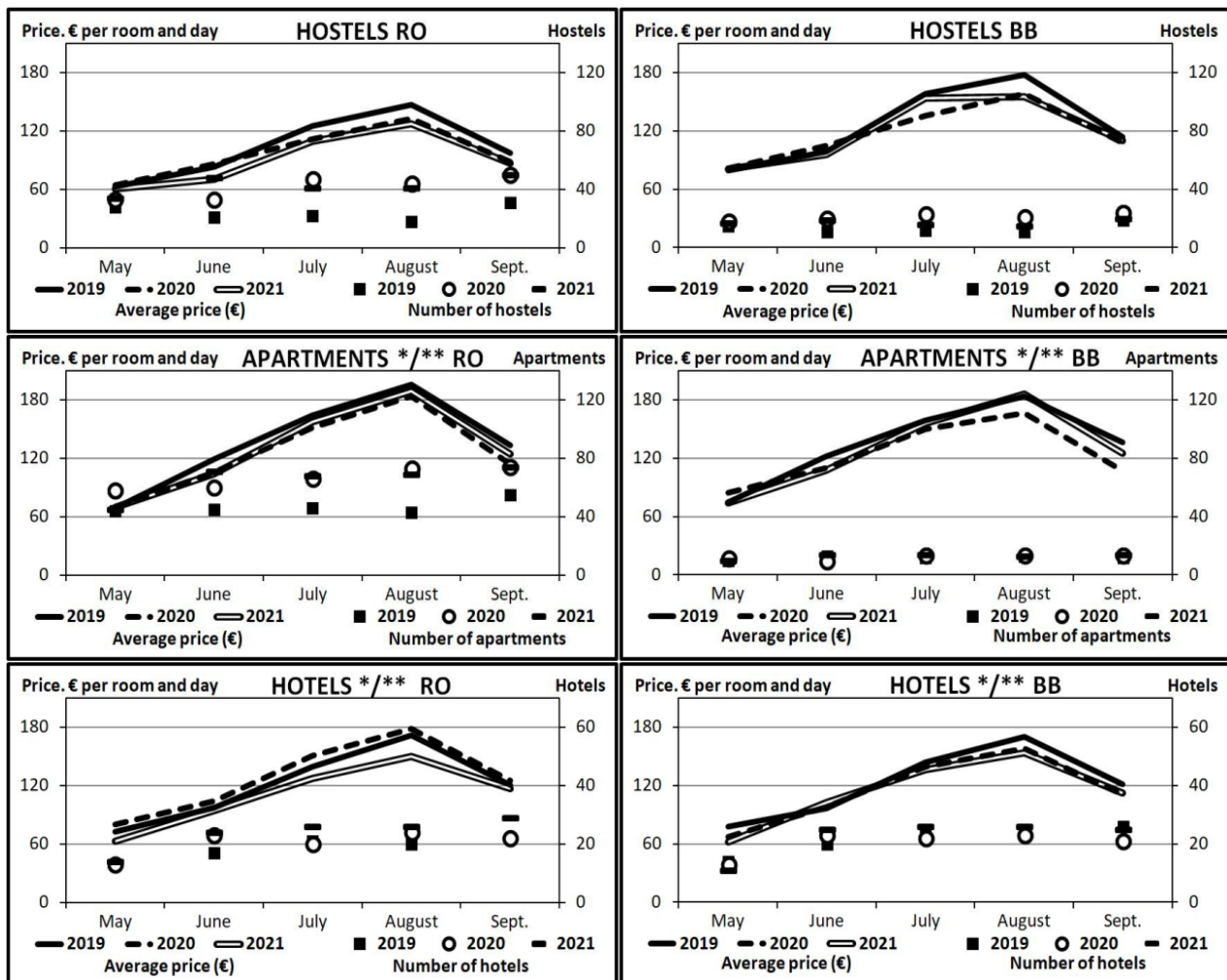
Table 3. Welch contrasts for the average price by type of establishment, month and board type by pairs of years: 2019-2020, 2020-2021 and 2019-2021. "X" values indicate that the equality of the average prices in the two years analysed is accepted with a statistical significance of 5 %. A blank cell indicates that the hypothesis of equal average prices for the two years is not accepted.

Table 3

		RO			BB		
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021	2019-2021
HS	May	X	X	X	X	X	X
HS	June	X			X	X	X
HS	July		X				X
HS	Aug.		X			X	
HS	Sep.		X		X	X	X
A */**	May	X	X	X			X
A */**	June		X		X	X	
A */**	July		X	X	X	X	X
A */**	Aug.		X	X			X
A */**	Sep.						
H */**	May	X		X			
H */**	June	X	X	X	X	X	X
H */**	July	X			X	X	X
H */**	Aug.	X				X	
H */**	Sep.	X	X	X		X	

Source: Own elaboration

Figure 4. Prices and number of establishments that made an offer in the category, month and type of board indicated.



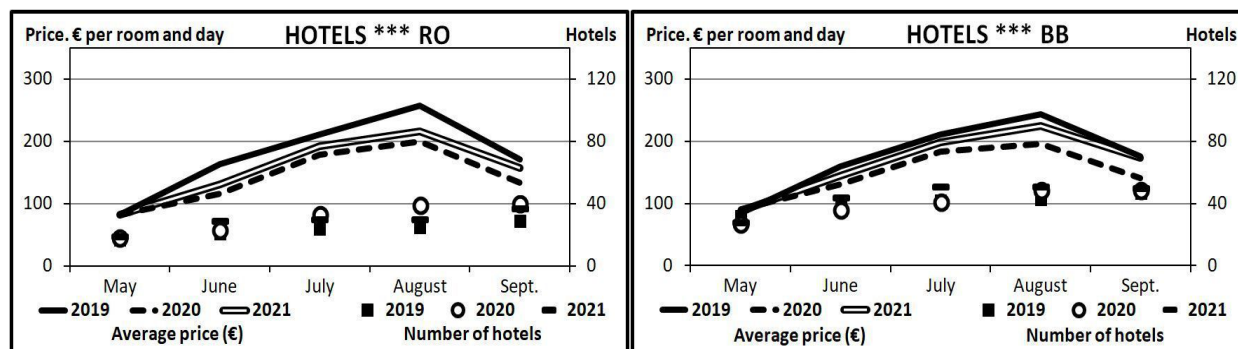
Source: Own elaboration

The data in the graphs above (Figure 4) and in Table 3 indicate that the prices of cheap establishments have experienced slight decreases which, in most cases, are not statistically significant. Consequently, we must reject hypothesis H5a.

The most striking finding is the increase in the number of RO offers. Many establishments that in 2019 only offered BB decided to also offer RO once the pandemic started. From 2020 onwards, almost all low-cost establishments offered both regimes simultaneously.

6.2 Three-star hotels

Figure 5. Three-star hotels. Prices and number of establishments offering the type of boarding regime indicated in each month.



Source: Own elaboration

Table 4. Three-star hotels. Welch's contrasts for the average price by pairs of years: 2019-2020, 2020-2021 and 2019-2021. "X" values indicate that the equality of average prices in the two years analysed is accepted with a statistical significance of 5%. A blank cell indicates that the hypothesis of equal average prices for the two years is not accepted.

Table 4. Three-star hotels

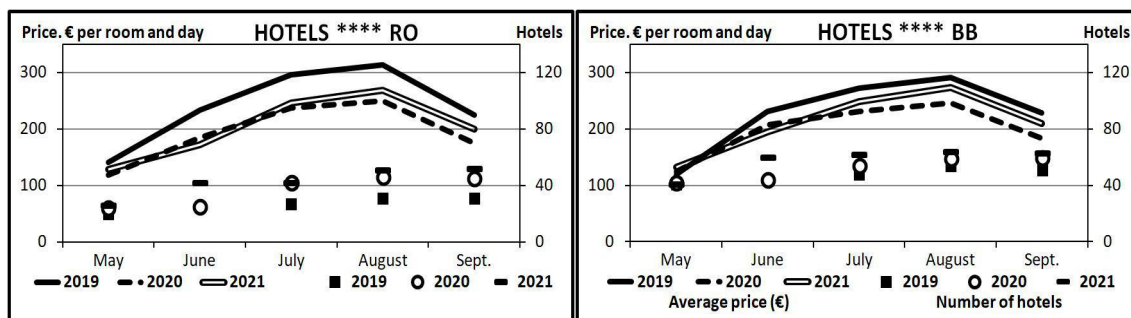
		RO			BB		
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021	2019-2021
H ***	May	X	X	X	X	X	X
H ***	June		X			X	X
H ***	July		X	X		X	X
H ***	Aug.		X				
H ***	Sep.			X			X

Source: Own elaboration

This is the most common and generalist category in the island market. In this case, in the RO and BB regimes, prices experienced a slight drop in 2020 that practically recovered in 2021. The contrasts indicate that prices are fully comparable between 2019 and 2021 and that variations have been insignificant (Table 4). Consequently, Hypothesis H5b is accepted, mid-range hotels have shown remarkable price stability.

6.3 Four-star hotels

Figure 6. Four-star hotels. Prices and number of establishments offering the indicated type of boarding in each month.



Source: Own elaboration

Table 5. Four-star hotels. Welch's contrasts for the average price by pairs of years: 2019-2020, 2020-2021 and 2019-2021. "X" values indicate that equality of average prices in the two years analysed is accepted with a statistical significance of 5%. A blank cell indicates that the hypothesis of equal average prices for the two years is not accepted.

Table 5. Four-star hotels.

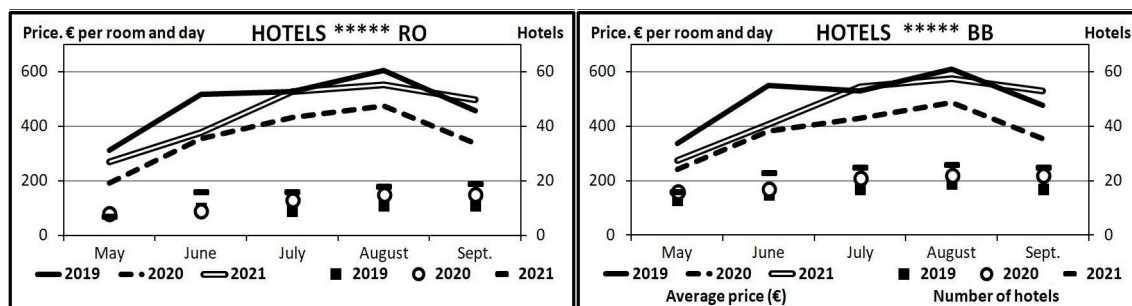
		RO			BB		
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021	2019-2021
H ****	May		X	X	X	X	X
H ****	June		X				
H ****	July		X				
H ****	Aug.						
H ****	Sep.						

Source: Own elaboration

In the case of 4-star hotels, significant price falls are recorded in the two regimes considered. We must therefore reject hypothesis H5c, in upper-middle category hotels prices fell as a result of falling demand. The reduction was pronounced in 2020 compared to the previous year and an appreciable recovery started in 2021, which, however, was not able to match the prices existing before the outbreak of the Covid-19 pandemic.

6.4 Five-star hotels

Figure 7. Five-star hotels. Prices and number of establishments offering the indicated type of boarding in each month.



Source: Own elaboration

Table 6. Five-star hotels. Welch's contrasts for the average price by pairs of years: 2019-2020, 2020-2021 and 2019-2021. "X" values indicate that the equality of average prices in the two years analysed is accepted with a statistical significance of 5%. A blank cell indicates that the hypothesis of equal average prices for the two years is not accepted.

Table 6. Five-star hotels.

		RO			BB		
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021	2019-2021
H*****	May						
H*****	June		X			X	
H*****	July			X			X
H*****	Aug.						X
H*****	Sep.			X			

Source: Own elaboration

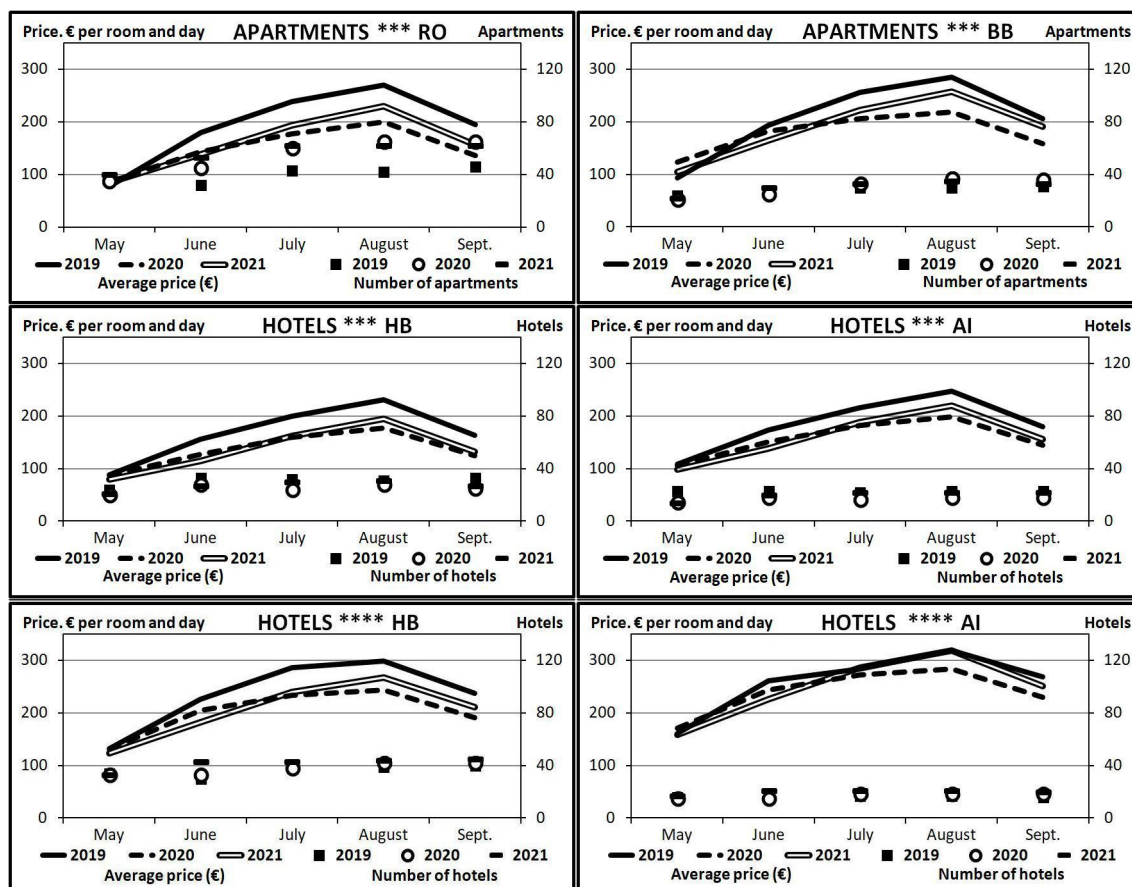
Prices of luxury hotels show the most positive evolution. Consequently, hypothesis H5d, which proposed a fall in prices in the higher category hotels, is rejected. These data show that, in Ibiza and Formentera, the crisis has affected luxury holiday tourism to a lesser extent, a fact already proven in previous crises.

6.5 Family tourism

"Mediterranean mass tourism is a world of families, children and play" (Obrador 2009: 101). In Ibiza and Formentera, family tourism is also one of the most important segments, but on these islands it coexists with a large number of tourists attracted by nightlife (Berrozpe, Campo & Yagüe, 2017: 1040; 2019: 246). In general, it has been proven that family tourism tends to hire the most complete stay regimes, such as HB and especially AI (Alegre & Sard, 2015; García, Juaneda, Raya & Sastre, 2015; Jacobsen, Skogheims & Dann, 2015). In line with these trends, the HB and AI regimes have been separated from three and four star hotels and three star apartments have been

added to separate establishments focused on family tourism. In all cases, it has been found that the establishments included in this section emphasise in their advertising their specialisation towards family tourism: offer of extra beds and triple and quadruple rooms, entertainers, water parks and other attractions for children.

Figure 8. Prices and number of establishments that made offers in the indicated category, month and type of pension.



Source: Own elaboration

Table 7a, 7b, 7c. Welch's contrasts for average price by type of establishment, category, month and board type by pairs of years: 2019–2020, 2020–2021 and 2019–2021. "X" values indicate that equality of average prices in the two years analysed is accepted with a statistical significance of 5%. A blank cell indicates that the hypothesis of equal average prices for the two years is not accepted.

Table 7a

			RO			BB		
			2019–2020	2020–2021	2019–2021	2019–2020	2020–2021	2019–2021
A ***	May		X	X				
A ***	June			X		X		

		RO			BB	
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021
A ***	July					
A ***	Aug.					
A ***	Sep.					

Table 7b

		HB			AI	
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021
H ***	May	X			X	X
H ***	June					
H ***	July		X			X
H ***	Aug.					
H ***	Sep.					

Table 7c

		HB			AI	
		2019-2020	2020-2021	2019-2021	2019-2020	2020-2021
H ****	May	X		X	X	X
H ****	June				X	
H ****	July		X		X	X
H ****	Aug.					X
H ****	Sep.					

Source: Own elaboration

The graphs and tables above (Figure 8, table 7a, 7b 7c) show that family tourism suffered a significant deterioration due to the Covid-19 pandemic, prices dropped significantly in 2020 and did not recover in 2021. However, a notable exception is the AI stay regime in four-star hotels. More affluent European families quickly recovered their holiday habits and prices for luxury family stays easily maintained their pre-pandemic level. Leaving aside this clear exception, Hypothesis H6 must be accepted, family tourism was one of the segments whose demand recorded the largest reductions due to the pandemic.

7. CONCLUSIONS

The data provided in this article show that the pandemic caused by Covid-19 had a great impact on tourism on the islands of Ibiza and Formentera, but that it recovered extraordinarily quickly. In 2021, the island's tourism business had not yet fully recovered, but it was already in good health and showed exactly the same characteristics as two years earlier. The interruption caused by the pandemic accelerated different processes that had been fully consolidated beforehand, but did not bring about any structural changes.

In the case of Ibiza and Formentera, the closure came at a time when most island companies had completed a long and powerful investment cycle combined with several previous seasons of high occupancy, and consequently, enjoyed an excellent financial situation. As regards the commercial approach, the island hoteliers had a particularly loyal clientele.

It was these initial conditions that determined the response of the island's tourism system to the impact of the pandemic; if they had been different, then the effects would also have been different. Consequently, we found that the effects of the Covid-19 pandemic on tourism cannot be analysed from a global perspective; there are no universally applicable conclusions. Each destination was shaken at a particular moment in its evolution and that particular position, together with the specific characteristics of the market they were targeting, are two critical conditioning factors for understanding their response.

Despite the dramatic impact of the pandemic on tourism in the Islands, island hoteliers maintained an external image in which it appeared that Covid-19 did not exist. Their websites gave a clear sense of continuity to potential guests who visited them, even though they were unable to travel anywhere. In 2020, the tourist establishments of Ibiza and Formentera closed their doors but offered their best image online, kept their prices unchanged, increased their communication efforts and even, accelerated the improvement works currently underway.

In 2021, the entire tourist world registered a clear overcapacity, also in Ibiza and Formentera, where only half of the demand was recovered, most of the hotels had many empty rooms during the whole summer. Despite this, there was no suicidal price war to compete for the few available customers and try to steal tourists from other destinations. Prices fell only moderately in the only market segment whose recovery was comparatively slower: family tourism with medium purchasing power.

In Ibiza and Formentera, the crisis caused by Covid-19 has not brought about any structural change, it has not marked a before and after, it has been a parenthesis, not a turning point.

REFERENCES

- Abrate, G., Capriello, A., & Fraquelli, G. (2011). When quality signals talk: Evidence from the Turin hotel industry. *Tourism Management*, 32, 912–921. <https://doi.org/10.1016/j.tourman.2010.08.006>.
- Abrate, G., Fraquelli, G., & Viglia, G. (2012). Dynamic pricing strategies: Evidence from European hotels. *International Journal of Hospitality Management*, 31, 160–168. <https://doi.org/10.1016/j.ijhm.2011.06.003>.
- Agència d'estratègia turística Illes Balears (AETIB) (2023) El turisme a les Illes Balears. *Anuari 2022*. http://www.caib.es/sites/estadistiquesdelturisme/ca/anuaris_de_turisme-22816/
- Agusaj, B., Bazdan, V., & Lujak, D. (2017). The relationship between online rating, hotel star category and room pricing power. *Ekonomika Misao i Praksa*, 1, 189–204. <https://doi.org/https://hrcak.srce.hr/183556>.
- Ahad, N. A. & Yahaya, S. S. S. (2014). Sensitivity Analysis of Welch's t-Test. *Proceedings of the 21st National Symposium on Mathematical Sciences*, 888–893. <https://doi.org/10.1063/1.4887707>.
- Ahlin, L. (2022). "Stop the ferry". *A qualitative Study on Residents' Attitudes During The COVID-19 Pandemic*. Linnaeus University. Kalmar.
- Alegre, J., & Cladera, M. (2006). Repeat Visitation in Mature Sun and Sand Holiday Destinations. *Journal of Travel Research*, 44, 288–297. <https://doi.org/10.1177/0047287505279005>.

- Alegre, J. & Juaneda, C. (2006). Destination Loyalty. Consumers' Economic Behavior. *Annals of Tourism Research*, 3, 684–706. <https://doi.org/10.1016/j.annals.2006.03.014>.
- Alegre, J. & Sard, M. (2015). When demand drops and prices rise. Tourist packages in the Balearic Islands during the economic crisis. *Tourism Management*, 46, 375–385. <https://doi.org/10.1016/j.tourman.2014.07.016>.
- Alipour, H., Olya, H., Maleki, P. & Dalir, S. (2020). Behavioral responses of 3S tourism visitors: Evidence from a Mediterranean Island destination. *Tourism Management Perspectives*, 33, 1–10. <https://doi.org/10.1016/j.tmp.2019.100624>.
- Allison, P. D. (1978). Measures of Inequality. *American Sociological Review*, 43(6), 865–880. <http://www.statisticalhorizons.com/wp-content/uploads/Inequality.pdf>.
- Arabadzhyan, A., Figini, P. & Zirulia, L. (2021). Hotels, prices and risk premium in exceptional times: The case of Milan hotels during the first COVID-19 outbreak. *Annals of Tourism Research Empirical Insights*, 2, 100023. <https://doi.org/10.1016/j.annale.2021.100023>.
- Arbulú, I., Razumova, M., Rey, J., & Sastre, F. (2021). Can domestic tourism relieve the COVID-19 tourist industry crisis? The case of Spain. *Journal of Destination Marketing & Management*, 20, 100568. <https://doi.org/10.1016/j.jdmm.2021.100568>.
- Baum, T., & Mudambi, R. (1995). An empirical análisis of oligopolistic hotel pricing. *Annals of Tourism Research*, 22(3), 501–516. [https://doi.org/10.1016/0160-7383\(94\)00066-2](https://doi.org/10.1016/0160-7383(94)00066-2).
- Bendel, R. B.; Higgins, S. S.; Teberg, J. E. & Pyke, D. A. (1989). Comparison of skewness coefficient, coefficient of variation, and Gini coefficient as inequality measures within populations. *Oecologia*, 78(3), 394–400. <https://doi.org/10.1007/BF00379115>.
- Berrozpe, A., Campo, S., & Yagüe, M. J. (2017). Understanding the identity of Ibiza, Spain. *Journal of Travel & Tourism Marketing*, 34(8), 1033–1046. <https://doi.org/10.1080/10548408.2016.1272525>.
- Berrozpe, A., Campo, S., & Yagüe, M. J. (2019). Am I Ibiza? Measuring brand identification in the tourism context. *Journal of Destination Marketing & Management*, 11, 240–250. <https://doi.org/10.1016/j.jdmm.2018.04.005>.
- Bulchand, J. (2022). Post-COVID-19 recovery of island tourism using a smart tourism destination framework. *Journal of Destination Marketing & Management*, 23, 100689. <https://doi.org/10.1016/j.jdmm.2022.100689>.
- Caletrió, J. (2009). De Veraneo en la Playa. In P. Obrador, M. Crang, & P. Travlou, (Eds.), *Cultures of Mas Tourism* (pp. 111–128). Farnham: Ashgate Publishing Limited.
- Calmon, A. P., Ciocan, F. D., & Romero, G. (2020). Revenue Management with Repeated Customer Interactions. *Management Science*, 67(5), 2944–2963. <https://doi.org/10.1287/mnsc.2020.3677>.
- Capellà, H. (2018). The Ibiza's Nightlife as a Bend from Marginalization to Tourism Centrality In S. Pelc, & M. Koderman (Eds.), *Nature, Tourism and Ethnicity as Drivers of (De) Marginalization: Insights to Marginality from Perspective of Sustainability and Development* (pp. 109–118). Cham: Springer International Publishing AG.
- Carreras, M. (2016). Advanced sales and competition in a service industry. *International Journal of Revenue Management*, 9(1), 1–16. <https://doi.org/10.1504/IJRM.2016.076142>.
- Cheer, J. M., Lapointe, D., Mostafanezhad, M., & Jamal, T. (2021). Global tourism in crisis: conceptual frameworks for research and practice. *Journal of Tourism Futures*, 7(3), 278–294. <https://doi.org/10.1108/JTF-09-2021-227>.
- Cheer, J. M., & Lew, A. A. (2018). Understanding tourism resilience. Adapting to social, political, and economic change. In J. M. Cheer, & A. A. Lew (Eds.), *Tourism, Resilience and Sustainability* (pp. 1–18). Oxon: Routledge.
- Chen, C. F., & Rothschild, R. (2010). An application of hedonic pricing analysis to the case of hotel rooms in Taipei. *Tourism Economics*, 16(3), 685–694. <https://doi.org/10.5367/000000010792278310>.
- Chen, Y., & Farias, V. (2019). *On the Efficacy of Static Prices for Revenue Management in the Face of Strategic Customers*. Maastricht: ACM Press.

- Cheng, L. & Zhang, J. (2020). Is tourism development a catalyst of economic recovery following natural disaster? An analysis of economic resilience and spatial variability, *Current Issues in Tourism*, 23(20): 2602–2623. <https://doi.org/10.1080/13683500.2019.1711029>.
- Cirer, J. C. (2013). Price formation and market segmentation in seaside accommodations, *International Journal of Hospitality Management*, 33, 446–455. <http://dx.doi.org/10.1016/j.ijhm.2012.11.004>.
- Cirer, J. C. (2014). The explosive expansion and consolidation of the balearic hotel sector, 1964–2010, *Historia Industrial*, 56, 189–216.
- Cirer, J. C. (2020). Building Multinationals in the Mediterranean: Balearic Island Hotels in the 1990s. *Management & Organizational History*, 15(4), 338–359. <https://doi.org/10.1080/17449359.2021.1896368>.
- Cirer, J. C. (2022). Qualitative revenue management in sunandbeach hotels. *Journal of Revenue and Pricing Management*, 21(4), 462–469. <https://doi.org/10.1057/s41272-021-00361-8>.
- Cladera, M. (2002). La repetició de la visita al mercat turístic balear. *Estudis sobre Turisme a Eivissa i Formentera*, 3, 51–64.
- Deyá, B., Leoni, V., & Ramos, V. (2022). COVID-led consumption displacement: A longitudinal analysis of hotel booking patterns. *International Journal of Hospitality Management*, 107, 103343. <https://doi.org/10.1016/j.ijhm.2022.103343>.
- Dresner, M. (2006). Leisure versus business passengers: Similarities, differences, and implications. *Transport Management*, 12, 28–32. <https://doi.org/10.1016/j.jairtraman.2005.09.006>.
- Duro, J. A., Perez, A., & Fernandez, M. (2022). Territorial tourism resilience in the COVID-19 summer. *Annals of Tourism Research Empirical Insights*, 3, 100039. <https://doi.org/10.1016/j.annale.2022.100039>.
- Ernst, D., & Dolnicar, S. (2018). How to Avoid Random Market Segmentation Solutions. *Journal of Travel Research*, 57(1), 69–82. <https://doi.org/10.1177/0047287516684978>.
- Espinet, J. M., & Gassiot, A. (2022). Has COVID19 had an impact on prices? The case of the cruise industry. *Journal of Revenue and Pricing Management*, 21, 538–552. <https://doi.org/10.1057/s41272-021-00362-7>.
- Falk, M., & Vieru, M. (2019). Myth of early booking gains. *Journal of Revenue and Pricing Management*, 18, 52–64. <https://doi.org/10.1057/s41272-017-0134-9>.
- Farzanegan, M. R., Gholipour, H. F., Feizi, M., Nunkoo, R. & Andargoli, A. E. (2021). International Tourism and Outbreak of Coronavirus (COVID-19): A Cross-Country Analysis, *Journal of Travel Research*, 60(3), 687–692. <http://dx.doi.org/10.1177/0047287520931593>.
- Fleischer, A. (2012). A room with a view – A valuation of the Mediterranean Sea view. *Tourism Management*, 33, 598–602. <https://doi.org/10.1016/j.tourman.2011.06.016>.
- García, C., Deyà, B., Lorenzo, J., Morán, E., Rodríguez, P. & Tirado, D. (2023). Zero tourism due to COVID-19: an opportunity to assess water consumption associated to tourism. *Journal of Sustainable Tourism*, 31(8), 1869–1884. <https://doi.org/10.1080/09669582.2022.2079652>.
- García, J., Juaneda, C., Raya, J. M. & Sastre, F. (2015). A study of traveller decision-making determinants: prioritizing destination or travel mode? *Tourism Economics*, 21(6), 1149–1167. <https://doi.org/10.5367/te.2015.0517>.
- Garrido, A., García, V. J., & Martín, R. (2021). Going beyond the curve: Strategic measures to recover hotel activity in times of COVID-19. *International Journal of Hospitality Management*, 96, 102928. <https://doi.org/10.1016/j.ijhm.2021.102928>.
- González, T., Rodríguez, J. L., & Pelechano, E. (2021). Managing relationships in the Tourism Supply Chain to overcome epidemic outbreaks: The case of COVID-19 and the hospitality industry in Spain. *International Journal of Hospitality Management*, 92, 102733. <https://doi.org/10.1016/j.ijhm.2020.102733>.
- Guillet, B. D., & Chi, A. M. (2021). Managing hotel revenue amid the COVID-19 crisis. *International Journal of Contemporary Hospitality Management*, 33(2), 604–627. <https://doi.org/10.1108/IJCHM-06-2020-0623>.
- Guizzard, A., Ballestra, L. V., & D’Innocenzo, E. (2022). Hotel dynamic pricing, stochastic demand and covid-19. *Annals of Tourism Research*, 91, 103495. <https://doi.org/10.1016/j.annals.2022.103495>.
- Haddad, R. E., Hallak, R., & Assaker, G. (2015). Price fairness perceptions and hotel customers’ behavioral intentions. *Journal of Vacation Marketing*, 21(3), 262–276. <https://doi.org/10.1177/1356766715573651>.

- Hashemi, S., Kumarsi, S., & Marzuki, A. (2017). Tourist's motivation and behavioural intention between sun and sand destinations. *International Journal of Leisure and Tourism Marketing*, 5(4), 319–337. <https://doi.org/10.1504/IJLTM.2017.087509>.
- Institut d'Estadística de les Illes Balears (IBESTAT) (2022). *Estadístiques de turisme*. <https://ibestat.caib.es/ibestat/estadistiques/economia/turisme/>
- Institut d'Estadística de les Illes Balears (IBESTAT) (2023). *Projectes visats*. <https://ibestat.caib.es/ibestat/estadistiques/economia/construccio-habitatge/visats-licencies-certificacions-obra/ac409f21-2ec9-4de1-a198-534336cc0964>.
- Instituto Nacional de Estadística (INE) (2022). *Encuesta de ocupación Hotelera. Viajeros y pernoctaciones por zonas turísticas*. <https://www.ine.es/jaxiT3/Tabla.htm?t=2039&L=0>.
- Ivanov, S., & Ayas, Ç. (2017). Investigation of the revenue management practices of accommodation establishments in Turkey: An exploratory study. *Tourism Management Perspectives*, 22, 137–149. <https://doi.org/10.1016/j.tmp.2017.03.007>.
- Jacobsen, J. K. S., & Dann, G. M. (2009). Summer Holidaymaking in Greece and Spain: Exploring Visitor Motive Patters. *Anatolia*, 20(1), 5–17. <https://doi.org/10.1080/13032917.2009.10518891>.
- Jacobsen, J. K. S., Skogheims, R. & Dann, G. M. (2015). Sun, sea, sociability, and sightseeing: Mediterranean summer holidaymaking revisited. *Anatolia*, 26(2), 186–189. <https://doi.org/10.1080/13032917.2014.931288>.
- Köseoglu, M. A., Yan, M., & Okumus, F. (2021). Coopetition strategies for competitive intelligence practices-evidence from full-service hotels. *International Journal of Hospitality Management*, 99, 1–16. <http://dx.doi.org/10.1016/j.ijhm.2021.103049>.
- Kuo, F. C. (2022). *The Impact of COVID-19: Turbulence for Tourist Hotels in Taiwan*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4098990.
- Lee, S. K., & Jang, S. (2013). Asymmetry of Price Competition in the Lodging Market. *Journal of Travel Research*, 52(1), 56–67. <https://doi.org/10.1177/0047287512457268>.
- Liu, Q., & Ryzin, G. (2008). Strategic Capacity Rationing to Induce Early Purchases. *Management Science*, 54(6), 1115–1131. <https://doi.org/10.1287/mnsc.1070.0832>.
- Lu, A. C., & Gursoy, D. (2015). A conceptual model of consumers' online tourism confusion. *International Journal of Contemporary Hospitality Management*, 27(6), 1320–1342. <https://doi.org/10.1108/IJCHM-04-2014-0171>.
- Maestre, T., & Obrador, P. (2019). Queer Desires, the Beach and Catalan Cinema, *Critical Tourism Studies Proceedings*. <https://digitalcommons.library.tru.ca/cts-proceedings/vol2019/iss1/80>.
- Martínez, E., Ferrer, B., & Coenders, G. (2011). Profile of business and leisure travelers on low-cost carriers in Europe. *Journal of Air Transport Management*, 20, 12–14. <https://doi.org/10.1016/j.jairtraman.2011.09.002>.
- Martinović, M. (2021). *Price Determinants in Upscale Hotels During Covid-19 Crisis*. Dubrovnik: RIT Croatia.
- Matiza, T. (2020). Post-COVID-19 crisis travel behaviour: towards mitigating the effects of perceived risk. *Journal of Tourism Futures*, 8(1), 99–108. <https://doi.org/10.1108/JTF-04-2020-0063>.
- Mohammed, I., Guillet, B., & Law, R. (2019). Last-minute hotel-booking and frequency of dynamic price adjustments of hotel rooms in a cosmopolitan tourism city. *Journal of Hospitality and Tourism Management*, 41, 12–18. <https://doi.org/10.1016/j.jhtm.2019.08.005>.
- Naranjo, D. (2009). Management information systems and strategic performances: The role of top team composition. *International Journal of Information Management*, 29, 104–110. <https://doi.org/10.1016/j.ijinfomgt.2008.05.009>.
- Neirotti, P., Raguseo, E., & Paolucci, E. (2016). Are customers' reviews creating value in the hospitality industry? Exploring the moderating effects of market positioning. *International Journal of Information Management*, 36(6), 1133–1143. <https://doi.org/10.1016/j.ijinfomgt.2016.02.010>.
- Nikolić, D., & Mitrović, A. (2021). How Guest Delight Affected Hotel Pricing before and during Covid-19 Pandemic. *International Journal of Management, Knowledge and Learning*, 10, 85–96. <https://doi.org/10.53615/2232-5697.10.85-96>.
- Noel, M. D. (2022). Competitive survival in a devastated industry: Evidence from hotels during COVID-19. *Journal of Economics & Management Strategy*, 31(1), 3–24. <https://doi.org/10.1111/jems.12446>.

- Ntacho, G. A., & Muba, S. (2021). COVID 19 The pandemic and Price Volatility: An Analysis of Hospitality Industry in Emerging Market Economy – Case Study of Tanzania. *East African Journal of Business and Economics*, 4(1), 34–45. <https://doi.org/10.37284/eajbe.4.1.479>.
- Obrador, P. (2009). The Mediterranean Pool: Cultivating Hospitality in the Coastal Hotel. In P. Obrador, M. Crang, & P. Travlou, (Eds.), *Cultures of Mass tourism* (pp. 91–110). Farnham: Ashgate Publishing Limited.
- Obrador, P., Crang, M., & Travlou, P. (2009). Corrupted Seas: the Mediterranean in the Age of Mass Mobility. In P. Obrador, M. Crang, & P. Travlou, (Eds.), *Cultures of Mass tourism* (pp. 157–174). Farnham: Ashgate Publishing Limited.
- Onofri, L., & Nunes, P. (2013). Beach ‘lovers’ and ‘greens’: A worldwide empirical analysis of coastal tourism. *Ecological Economics*, 88, 49–56. <https://doi.org/10.1016/j.ecolecon.2013.01.003>.
- Organisation for Economic Co-operation and Development (OECD) (2020) *Tourism Policy Responses to the coronavirus (COVID-19)*. https://read.oecd-ilibrary.org/view/?ref=124_124984-7uf8nm95se&title=Covid-19_Tourism_Policy_Responses.
- Owuor, I., Hochmair, H. H. & Paulus, G. (2022). The Effect of COVID-19 on the Origins of Florida State Park Visitors and Online Reviewers, *AGILE: GIScience Series*, 3(50), 1–7. <http://dx.doi.org/10.5194/agile-giss-3-50-2022>.
- Pachucki, C., Grohs, R., & Scholl, U. (2022). Is nothing like before? COVID-19-evoked changes to tourism destination social media communication. *Journal of Destination Marketing & Management*, 23, 100692. <https://doi.org/10.1016/j.jdmm.2022.100692>.
- Papastathopoulos, A., Koritos, C., & Beneki, C. (2023). Effects of COVID-19 induced non-pharmaceutical interventions on hotel room prices: A comprehensive hedonic pricing study across nine countries. *Journal of Hospitality and Tourism Management*, 54, 240–245. <https://doi.org/10.1016/j.jhttm.2022.12.018>.
- Papatheodorou, A. (2002). Exploring competitiveness in Mediterranean resorts, *Tourism Economics*, 8(2), 133–150. <https://doi.org/10.5367/000000002101298034>.
- Park, I. J., Kim, J., Kim, S., Lee, J. C., & Giroux, M. (2021). Impact of the COVID-19 pandemic on travelers’ preference for crowded versus non-crowded options. *Tourism Management*, 87, 104398. <https://doi.org/10.1016/j.tourman.2021.104398>.
- Park, S., Yin, Y. & Son, B. (2019). Understanding of online hotel booking process: A multiple method approach, *Journal of Vacation Marketing*, 25(3), 334–348. <http://dx.doi.org/10.1177/1356766718778879>.
- Pasquinelli, C., & Trunfio, M. (2021). The missing link between overtourism and post-pandemic tourism. Framing Twitter debate on the Italian tourism crisis. *Journal of Place Management and Development*, 15(3), 229–247. <https://doi.org/10.1108/JPM-07-2020-0073>.
- Peng, Y. T., Chang, T., Ranjbar, O., & Li, F. (2022). Measuring the persistence degree of shocks to the US tourism markets: new evidence for COVID-19 pandemic period. *Applied Economics Letters*, 2138254. <https://doi.org/10.1080/13504851.2022.2138254>.
- Piga, C. A., Abrate, G., Viglia, G., & De Canio, F. (2022). How the hospitality industry reacts to COVID19: structural, managerial and tactical factors. *Journal of Revenue and Pricing Management*, 21, 503–516. <https://doi.org/10.1057/s41272-021-00359-2>.
- Piriyapornsiri, J., Channgam, S., Chanda, K., Kilaso, S., & Chareanboon, P. (2022). Adaptation in Technology and Marketing of Hotel Business Survival in Thailand during the Covid-19 Pandemic. *Journal of Positive School Psychology*, 6(3), 7194–7207. <https://journalppw.com/index.php/jpsp/article/view/4431>.
- Poretti, C., & Heo, C. Y. (2022). COVID-19 and firm value drivers in the tourism industry. *Annals of Tourism Research*, 95, 103433. <https://doi.org/10.1016/j.annals.2022.103433>.
- Psycharis, Y., Kallioras, D. & Pantazis, P. (2014) Economic crisis and regional resilience: detecting the ‘geographical footprint’ of economic crisis in Greece, *Regional Science. Policy and Practice*, 6(2), 121–141. <http://dx.doi.org/10.1111/rsp3.12032>.
- Rasoolimanesh, S. M., Seyfi, S., Rastegar, R., & Hall, M. (2021). Destination image during the COVID-19 pandemic and future travel behavior: The moderating role of past experience. *Journal of Destination Marketing & Management*, 21, 100620. <https://doi.org/10.1016/j.jdmm.2021.100620>.
- Richards, T. Liaukonyte, J. & Streletskaya, N. A. (2016). Personalized pricing and price fairness. *International Journal of Industrial Organization*, 44, 138–153. <https://doi.org/10.1016/j.ijindorg.2015.11.004>.

- Rivera, J. & Pastor, R. (2020). ¿Hacia un turismo más sostenible tras el Covid-19? Percepción de las agencias de viajes españolas, *Gran Tour. Revista de Investigaciones Turísticas*, 21, 206–229.
- Rogerson, C. M. & Rogerson, J. M. (2020). Covid-19 tourism impacts in South Africa: Government and industry responses, *GeoJournal of Tourism and Geosites*, 31(3), 1083–1091. <http://dx.doi.org/10.30892/gtg.31321-544>.
- Rogerson, C. M. & Rogerson, J. M. (2022). Historical turning points in tourism: The establishment of the Hotel Board in South Africa, *Tourism Review International*, 26, 41–55. <http://dx.doi.org/10.3727/154427221X16245632411917>.
- Salanti, A., Malighetti, P., & Redondi, R. (2012). Low-cost pricing strategies in leisure markets. *Tourism Management*, 33, 249–256. <https://doi.org/10.1016/j.tourman.2011.03.003>.
- Sánchez, F. J., & Sánchez, A. M. (2022). Segmentación y caracterización regional de destinos turísticos en España: enfoque del turismo local y extranjero. *Journal of Tourism Analysis: Revista de Análisis Turístico*, 29(2), 156–193. <https://doi.org/10.53596/jta.v29i2.426>.
- Selmi, N. (2010). Effects of Culture and Service Sector on Customers' Perceptions of the Practice of Yield Management. *International Journal of Marketing Studies*, 2(1), 245–253. <https://doi.org/10.5539/ijms.v2n1p245>.
- Sharma, G. D., Thomas, A., & Paul, J. (2021). Reviving tourism industry post-COVID-19: A resilience-based framework. *Tourism Management Perspectives*, 37, 100786. <https://doi.org/10.1016/j.tmp.2020.100786>.
- Shi, F., Da Shi, D., Weaver, D., & Samaniego, C. E. (2021). Adapt to not just survive but thrive: resilience strategies of five-star hotels at difficult times. *International Journal of Contemporary Hospitality Management*, 33(9), 2886–2906. <https://doi.org/10.1108/IJCHM-10-2020-1194>.
- Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312–321. <https://doi.org/10.1016/j.jbusres.2020.06.015>.
- Sorensen, J. B. (2002). The Use and Misuse of the Coefficient of Variation in Organizational Demography Research. *Sociological Methods & Research*, 30(4), 475–491. <https://doi.org/10.1177/0049124102030004001>.
- Tobón, L. N., Urquía, E., & Cano, E. I. (2022). Economic and Organizational Impact of COVID-19 on Colombia's Tourism Sector. *Sustainability*, 14(20), 1–21. <https://doi.org/10.3390/su142013350>.
- Ugurlu, K., Akay, B., & Demirel, S. (2022). The effect of COVID-19 on operating costs: the perspective of hotel managers in Antalya, Turkey, *Tourism & Management Studies*, 18(1), 17–27. <https://doi.org/10.18089/tms.2022.180102>.
- Valls, A., Gibert, K., Orellana, A., & Anton, S. (2018). Using ontology-based clustering to understand the push and pull factors for British tourists visiting a Mediterranean coastal destination. *Information & Management*, 55, 145–149. <https://doi.org/10.1016/j.im.2017.05.002>.
- Vangel, M. G. (1996). Confidence intervals for a normal coefficient of variation. *The American Statistician*, 50(1), 21–26. <https://doi.org/10.2307/2685039>.
- West, R. M. (2021). Best practice in statistics: Use the Welch t-test when testing the difference between two groups. *Annals of Clinical Biochemistry*, 58(4), 267–269. <https://doi.org/10.1177/0004563221992088>.
- Williams, A. T., Micallef, A., Anfuso, G., & Gallego, J. (2012). Andalusia, Spain: An Assessment of Coastal Scenery. *Landscape Research*, 37(3), 327–349. <https://doi.org/10.1080/01426397.2011.590586>.
- World Travel & Tourism Council (WTTTC) (2022) *Economic Impact Reports*. <https://wtcc.org/research/economic-impact>.
- World Tourism Organization (UNWTO) (2022). *UNWTO Tourism Dashboard. International Tourist Arrivals*. <https://www.unwto.org/tourism-data/international-tourism-and-covid-19>.
- Wu, F., Zhang, Q., Law, R., & Zheng, T. (2020). Fluctuations in Hong Kong Hotel Industry Room Rates under the 2019 Novel Coronavirus (COVID-19) Outbreak: Evidence from Big Data on OTA Channels. *Sustainability*, 12(18), 1–17. <https://doi.org/10.3390/su12187709>.
- Xu, X., Wang, X., Li, Y., & Haghighi, M. (2017). Business intelligence in online customer textual reviews: Understanding consumer perceptions and influential factors. *International Journal of Information Management*, 37, 673–683. <https://doi.org/10.1016/j.ijinfomgt.2017.06.004>.

- Ye, X., Fu, Y. K., Wang, H., & Zhou, J. (2023). Information asymmetry evaluation in hotel E-commerce market: Dynamics and pricing strategy under pandemic. *Information Processing and Management*, 60, 103117. <https://doi.org/10.1016/j.ipm.2022.103117>.
- Zaki, K. (2022). Implementing dynamic revenue management in hotels during Covid-19: value stream and wavelet coherence perspectives, *International Journal of Contemporary Hospitality Management*, 34(5), 1768–1795. <https://doi.org/10.1108/IJCHM-08-2021-1043>.
- Zenker, S., & Kock, F. (2020). The coronavirus pandemic – A critical discussion of a tourism research agenda. *Tourism Management*, 81, 104164. <https://doi.org/10.1016/j.tourman.2020.104164>.