Research Article

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Covid-19 and the Portuguese accommodation sector

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Abstract: According to organisational theories, performance can be explained by threats and opportunities generated in the external environment and the interplay between the macro and the microenvironment. This logic holds for tourism companies. This study aims to analyse the impact of a macro-environmental factor, the COVID-19 pandemic, on the accommodation sector in Portugal, studying differences across regional destinations and industries. A descriptive approach was made using secondary data from INE (the Portuguese Statistics Institute) for 2019 and 2020. Three performance indicators were analysed: number of overnight stays, number of guests, and total income. Results suggest that the impact of COVID-19 was relatively higher in the regions of Lisbon and the Azores and on the industry of short-term rentals. The region of Alentejo and the industry of rural tourism/manor houses were the least affected. Implications are both theoretical and practical. Theoretically, this study highlights the interplay between the macro and the microenvironment, translating to future crises. For managers, our research also highlights specific characteristics of regional destinations and industries, which might have been a source of competitive advantage during the pandemic, translating into less unfavourable outcomes in this context.

Keywords: COVID-19; accommodation sector; macroenvironment; microenvironment; pandemic

1 Introduction

The most devastating impact of COVID-19 has undoubtedly been the one on human health. However, the impact on the economy was also devastating. According to the UNWTO (2021b), the travel and tourism sectors were the most affected. International tourist arrivals dropped by 85% in January–May 2021 compared to the same period in 2019. Europe registered the second-largest decline (-85%), immediately after Asia and the Pacific (-95%) (UNWTO, 2021b). In the Southern European/Mediterranean countries, the drop in hotel bookings was 68% in 2020 compared to 2019 (UNWTO, 2021a). In Portugal, the total number of overnight stays in 2020 was 31,577,633 (PORDATA, 2021), corresponding to a drop of over 60% from 2019. Although statistical data show that virtually all tourism destinations globally were affected, they also reveal differences between global regions and nations.

Theoretically, from organisational theories and tourism models, one knows that performance and competitiveness are explained by destination-specific, industry-specific, and firm-specific factors (Molina-Azorin et al., 2010). In this study, we aim to assess the impact of a macro-environmental factor, the COVID-19 pandemic, on the accommodation sector in Portugal to answer the following research question: "What are the differences in the impact of COVID-19 in the Portuguese accommodation sector across regional destinations and industries?"

A descriptive approach, with a comparative analysis, was used based on secondary data from INE for 2019 (pre-pandemic period) and 2020 (peak of the pandemic period). Three indicators were analysed: the number of overnight stays, the number of guests and total income.

The main contribution of this study is a better understanding of the impact of COVID-19 on the accommodation sector, which is generally understood as very nega-

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tive. However, this is a very simplistic view since it hides diverse realities.

2 Literature Review

Open systems theory explains how organisations are affected by factors that originate in the external environment that will affect elements from the internal environment. The open systems concept expresses the transaction between a system and the environment. The system acts upon the environment (planning function), and the environment acts upon the system (the learning function) (Alvarez & Emery, 2000). Therefore, organisations are environmentally dependent and environment serving under an open systems perspective.

The external environment is one of the most significant factors determining business success. The external environment accounts for variation in corporate performance, either because it is a source of resources (munificence), as competition and change (dynamism and complexity), and/or as a market source (growth), among other aspects. Munificence has been defined as the abundance and availability of external resources supporting organisational growth (Andrevski et al., 2014). Dynamism refers to perceived instability and continuing changes in the firm's markets—it includes both the rate of change and the unpredictability of change in an organisation's environment (Heavey et al., 2009). When the environment is highly dynamic, uncertainty may suppress the organisation's ability to respond to the need for change. Complexity is normally defined as the degree of heterogeneity in the general business context (Dess & Beard, 1984).

Tourism is susceptible to external shocks (Richter, 2003), which may cause an unexpected downturn in tourism demand (Blake et al., 2003). In tourism, the external environment incorporates macro-level forces relevant across different locations, such as technological breakthroughs or global socioeconomic trends. However, it also includes destination-specific factors, such as natural and cultural resources. External environmental factors significantly impact the hospitality industry (Oparanma et al., 2009), and previous studies have demonstrated how destination effects are relevant in explaining competitiveness and firm performance in hospitality (Barros, 2005; Cracolici et al., 2008). At a destination level, competitiveness depends on seven aspects: (a) global (macro) environment; (b) competitive (micro-) environment; (c) core resources and attractions; (d) supporting factors and resources; (e) qualifying and amplifying determinants; (f) destination policy, planning and development; and (g) destination management (Ritchie & Crouch, 2003). One might argue that a mutual influence exists between the competitiveness of a destination and that of the firms located in it.

These theoretical underpinnings support our approach to studying how accommodation firms in different locations suffered unequally from the consequences of the COVID-19 pandemic. COVID-19 is an infectious disease and was declared a pandemic by the World Health Organization on March 11th, 2020. It has caused millions of deaths and illnesses worldwide (Wu & Wu, 2021), as well as economic consequences, namely in hospitality. "The decision to shut down hotels, restaurants, theme parks, and most attractions, as well as the travel ecosystem's full disruptive effect, caused a considerable impact on worldwide tourism" (Costa et al., 2021, pp. 1-2).

Although the pandemic of COVID-19 is a factor of the global macro environment, which, generally speaking, explains the significant decrease in tourism demand across the globe, tourism literature suggests that there might exist differences across destinations. These differences might result from the competitive microenvironment, the resources and attractions available, and other factors (Crouch & Ritchie, 1999; Ritchie & Crouch, 2003), even at the regional level. During the pandemic's peak, tourists preferred destinations with fewer confirmed cases and away from a high agglomeration of people. According to Li et al. (2021), this preference may be attributed to tourists' perceptions of infection risk, and some destinations were generally perceived to be more unsafe than others. Additionally, the strategic management literature suggests that these differences might be explained by the industry's characteristics (Porter, 1989) and the intrinsic factors/resources of the firms (Barney, 2001). Smaller accommodation establishments (fewer rooms) located outside urban areas may have been perceived as safer.

3 Methodology

This study follows a descriptive approach. Descriptive research is a purposive process of gathering, analysing, classifying, and tabulating data and then making an adequate and accurate interpretation of such data, sometimes with minimal aid of statistical methods (Calderon, 2006). The advantage of descriptive research is that it provides visual aids to better understand raw data—in our case, raw data available from three different INE databases.

We focused our analysis on three indicators used for organisational performance assessment in the accommodation sector and also commonly used in T&H research (e.g., Attila, 2016)—number of overnight stays, number of guests, and total income. Data was collected for 2019 (pre-pandemic) and 2020 (peak of the pandemic).

The three most relevant accommodation typologies in Portugal were analysed. These were: hotels and similar establishments (e.g., hotel-apartment, inns, holiday villages); short-term rentals; and rural tourism units/manor houses (MH) in the seven NUTS II[1] regions of the country (North, Centre, Lisbon Metropolitan Area (MA), Alentejo, Algarve, Azores and Madeira). Data for these were analysed, and annual data were obtained from the sum of the monthly data.

Firstly, the percentage weight of each region on the national total was computed for each indicator per year. Secondly, maximum and minimum annual values (for 2019 and 2020) were identified by regions, for each of the three indicators and by accommodation typology. Thirdly, considering the two years under analysis, the percentage variations were calculated for the three indicators by typology and region.

4 Findings and Discussion

Regarding the weight of each region in the national total (Figure 1) for the three indicators, one can observe that in 2019 (pre-pandemic), Lisbon MA had the highest percentages of guests (30% of the national total) and total income (32%). However, the Algarve had the most significant weight in terms of overnight stays (30%).

In 2020 (pandemic), the North region presents the highest weight in terms of the number of guests (24%), and the Algarve has the highest weight on total income (32%) and overnight stays (31%).

Table 1 shows the maximum and minimum values for each region in the two years under analysis for the three typologies of accommodation studied. In 2019 Lisbon MA was the region with the highest number of guests, considering the three types of accommodation. In 2020, however, the North stood out. The Azores had the lowest overall results in both years when considering the totals for all types of accommodation. However, regarding rural tourism/manor houses, Lisbon MA in 2019 had the lowest results.

The North presented the highest values in the rural tourism/manor houses typology for the three indicators in 2019. However, in 2020, it has been displaced by Alentejo in total income.

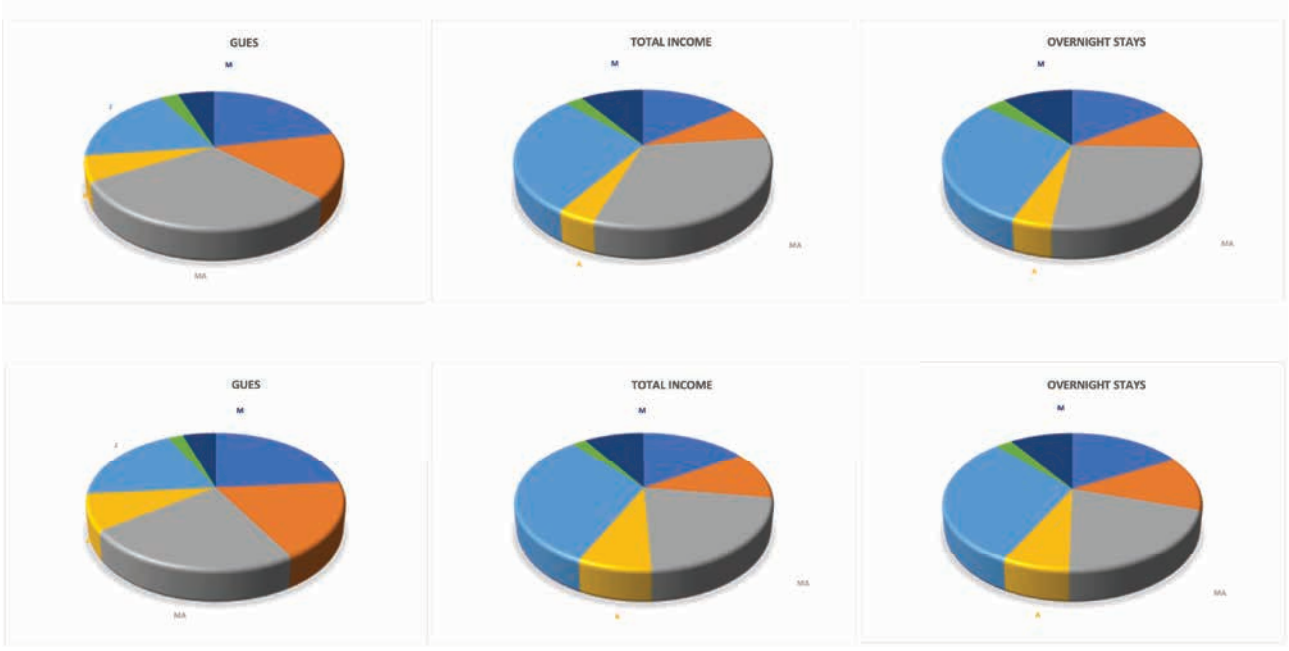

Figure 1: Weight of indicators per region and year (2019–2020)
Source: the authors, based on data from INE (2021a; 2021b; 2021c)

1 Nomenclature of Territorial Units for Statistics

Table 1: Maximum and minimum values of the indicators for 2019 and 2020, by accommodation typology

Guests		**2019**		**2020**	
Total	Min	771 688	Azores	238 271	Azores
	Max	8 216 681	Lisbon MA	2 469 917	North
Hotels and similar	Min	643 634	Azores	199 198	Azores
	Max	6 459 771	Lisbon MA	1 934 954	Lisbon MA
Short-term rentals	Min	100 814	Azores	27 645	Azores
	Max	1 741 007	Lisbon MA	462 416	Lisbon MA
Rural tourism/MH	Min	15 903	Lisbon MA	6 500	Azores
	Max	317 381	North	199 853	North
Total Income ('000 €)		**2019**		**2020**	
Total	Min	117 116	Azores	30 048	Azores
	Max	1 372 192	Lisbon MA	461 565	Algarve
Hotels and similar	Min	104 512	Azores	26 369	Azores
	Max	1 216 794	Lisbon MA	429 647	Algarve
Short-term rentals	Min	8 409	Azores	2 015	Azores
	Max	153 362	Lisbon MA	34 374	Lisbon MA
Rural tourism/MH	Min	2 036	Lisbon MA	1 087	Lisbon MA
	Max	35 485	North	25 532	Alentejo
Overnight Stays		**2019**		**2020**	
Total	Min	2 277 805	Azores	654 376	Azores
	Max	20 900 495	Algarve	7 890 711	Algarve
Hotels and similar	Min	1 896 055	Azores	536 363	Azores
	Max	19 211 815	Algarve	7 248 050	Algarve
Short-term rentals	Min	286 423	Azores	81 301	Azores
	Max	3 988 105	Lisbon MA	1 117 714	Lisbon MA
Rural tourism/MH	Min	34 555	Lisbon MA	20 233	Azores
	Max	589 796	North	402 411	North

Source: the authors, based on data from INE (2021a; 2021b; 2021c)

Lisbon MA presented the highest values for the number of guests and total income in 2019. In 2020, Lisbon MA was displaced by the North in terms of guests and by Algarve in total income. The Algarve maintained its leadership in terms of the number of overnight stays.

Table 2 gives a clearer vision of the impact of the pandemic in the sector, presenting the percentage of drop for all indicators across accommodation industries and regions. A chromatic scale was used to easily highlight the lower (green) and higher (red) percentages.

In global terms, for Portugal, we can observe heavy drops in the values of the three indicators, with the most significant impact on total income (-66%). Considering the three typologies of accommodation, we also note that rural tourism/manor houses were the ones that had the smallest percentage drop with emphasis on total income (-30%).

Considering the overall drop in the three indicators studied, the most penalised regions, in descending order, were: Lisbon MA, Azores, Madeira, Algarve, North, Centre, and lastly, the Alentejo.

The drops for the three indicators in Lisbon MA and the Azores were almost always greater than 70% (see the red cells in Table 2). As for Alentejo, the drops in the three indicators were never higher than 45% (see the green cells in Table 2).

These results confirm the impact of the external environment on the sector's performance (Oparanma et al., 2009), namely through the dimension of environmental dynamism (Heavey et al., 2009). Results also suggest

Table 2: Comparison of the three indicators by typology and by NUTS II regions (2019-2020)

		Var.% (2019-2020)		
		Guests	**Total Income**	**Overnight Stays**
Portugal	Total	-62%	-66%	-63%
	Hotels and similar	-62%	-67%	-64%
	Short-term rentals	-66%	-68%	-65%
	Rural tourism/MH	-37%	-30%	-34%
North	Total	-58%	-64%	-60%
	Hotels and similar	-56%	-65%	-59%
	Short-term rentals	-71%	-70%	-69%
	Rural tourism/MH	-37%	-31%	-32%
Centre	Total	-54%	-54%	-53%
	Hotels and similar	-56%	-56%	-55%
	Short-term rentals	-53%	-52%	-52%
	Rural tourism/MH	-33%	-26%	-29%
Lisbon MA	Total	-70%	-77%	-72%
	Hotels and similar	-70%	-77%	-72%
	Short-term rentals	-73%	-78%	-72%
	Rural tourism/MH	-39%	-47%	-39%
Alentejo	Total	-45%	-36%	-38%
	Hotels and similar	-48%	-39%	-41%
	Short-term rentals	-45%	-40%	-38%
	Rural tourism/MH	-32%	-21%	-23%
Algarve	Total	-61%	-62%	-62%
	Hotels and similar	-60%	-63%	-62%
	Short-term rentals	-65%	-63%	-65%
	Rural tourism/MH	-47%	-19%	-39%
Azores	Total	-69%	-74%	-71%
	Hotels and similar	-69%	-75%	-72%
	Short-term rentals	-73%	-76%	-72%
	Rural Tourism/MH	-76%	-73%	-79%
Madeira	Total	-65%	-68%	-67%
	Hotels and similar	-66%	-68%	-68%
	Short-term rentals	-63%	-70%	-66%
	Rural tourism/MH	-62%	-66%	-66%

Source: the authors, based on data from INE (2021a; 2021b; 2021c)

how destinations with different characteristics (Ritchie & Crouch, 2003) and firms with different resources (Barney, 2001) might have been diversely impacted by the external environment. Results are similar to other studies on the consequences of the pandemic across regions (Li et al., 2021).

5 Conclusion

The objective of this study was to assess the impact of a macro-environmental factor, the COVID-19 pandemic, on the accommodation sector in Portugal, across different accommodation industries and regions. We concluded that there were significant differences between types of accommodation and regions.

Results suggest that globally, in Portugal, the type of accommodation that suffered the least impact from the pandemic in the three indicators analysed was rural tourism, and short-term rentals were the most affected. On the other hand, the regions with the most negative results during the pandemic's peak on the three indicators analysed were: firstly, Lisbon; secondly, the Azores; and thirdly, Madeira.

Although all industries still had a significant loss across all indicators studied (number of guests, overnight stays, and income), rural tourism/manor houses were the

least affected industry, and Alentejo was the least affected region.

5.1 Implications

The main contribution of this study is a better understanding of the impact of COVID-19 in the accommodation sector, namely in Portugal, which is generally understood as very negative. However, this is a very simplistic view since it hides diverse realities.

This study yields theoretical and practical implications. Theoretically, we contribute to the literature by highlighting that the impact of macro-environmental factors is contingent on destination-specific and industry-specific factors. Our results are also relevant for destination managers and entrepreneurs. Using this easy-to-interpret information, managers can now compare their region and type of accommodation to others. Managers should consider the importance of stressing their destinations' competitive advantages and their products' unique selling propositions, since these, in some cases, might have minimised the impact of the pandemic.

5.2 Limitations and future research

The main limitations of the study are that only two years were compared (before, and the peak of, the COVID-19 period) and that, hypothetically, other variables could have influenced the results.

Future research should be focused on the possible causes of these results, especially consumer risk perception. During the pandemic, there might have been a shift in the behaviour of tourists so that they preferred types of lodgings where the perceived risk of contracting COVID was lower (e.g., rural tourism) over city destinations or sun and beach options. Usually, rural tourism units/manor houses are located in remote areas, away from mass tourism destinations, and have fewer rooms than other establishments, facilitating physical distancing between tourists. There might also be differences related to the origin of the tourist—different institutional arrangements might also contribute to understanding demand during the pandemic's peak. Since this paper was based on secondary data, new studies must be developed based on primary data.

Bionotes

Victor Alves Afonso holds an MBA from ISEG-University of Lisbon and a Specialist Title in Administration and Management from the Polytechnic Institute of Castelo Branco. He is an Assistant Professor at the Estoril Higher Institute for Tourism and Hotel Studies, where is the coordinator of the Executive Master in Rural Tourism Management and coordinator of the Centre for Entrepreneurship and Business Development. He has published articles, book chapters, and has attended several international conferences as a speaker in the field of management and tourism. His research interests are strategic management, marketing, innovation and entrepreneurship, business plans, tourism, and hospitality. He is co-founder and partner of an accounting and management consulting firm.
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