

The impact of events on key performance indicators in the hotel industry: The case of Lisbon

Carla Isabel Santos de Sousa Bento ^{1*}

¹ Leiria Polytechnic, CiTUR Leiria, Portugal. Email: carla.s.bento@ipleiria.pt

* Corresponding author

Supervisors: Professor José Luis Jiménez Caballero, Professor Paulo Jorge dos Santos Almeida

Institution awarding the Ph. D. Degree: Universidad de Sevilla, Spain

Date of defence: 24th of March 2023

Citation: Santos de Sousa Bento, C.I. (2024). The impact of events on key performance indicators in the hotel industry: The case of Lisbon. *European Journal of Tourism Research* 38, 3820. <https://doi.org/10.54055/ejtr.v38i.3668>

Publication history:

Received: 26/02/2024; Revised: 06/05/2024, 09/05/2024, 19/05/2024; Accepted: 21/06/2024; Published online: 01/08/2024; Volume date: 01/10/2024

Coordinating editor: Marcello Atzeni



© 2024 The Author(s)

This work is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0). To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>

Goal and objectives of the dissertation

Goal

The main goal of the thesis is to investigate the impact that events have on the Key Performance Indicators of hotels in Lisbon.

Objectives

Three major objectives were defined to pursue the investigation:

- Assess the extent to which events influence the performance of Lisbon hotels' KPIs.
- Identify evidence of pricing dynamics in the city of Lisbon.
- Determine which type of events impact the most on Lisbon hotel's KPIs.

Another underlying objective is to understand if a major event, such as the Web Summit, has a long-term effect on a destination, making it, or not, a valuable investment.

Methodology

To develop the investigation two datasets were used: the events data set and the hotel KPIs' data set, both referring to the city of Lisbon, and combined into one. Events daily data and hotel KPIs from 2013 to 2019 were used. Quantitative data regarding the events was provided by the ATL, and by STR regarding hotels' KPIs. The objective is to assess the difference between the period before and after the Web Summit, determining the real impact of this event in the city.

Hotel KPIs, descriptive statistics, correlations, and the analysis of variance (ANOVA) were the main data analysis tools used. The hotel KPIs used were Occupancy Rates, the Average Daily Rates, and the RevPAR. The descriptive statistics used were the Mean, the Median, the Standard deviation, and the Interquartile Range (IQR). The Mean Absolute Deviation (MAD) was used to further understand variation. The ANOVA was additionally performed to assess statistically significant differences between means of the data.

Results

The number of events occurring in Lisbon increased throughout the analysed period and so have the hotels' KPIs. There is a clear strategy of dynamizing the prices to increase revenues and profits and an indication that prices increased, with the most significant differences found after the Web Summit's first year (2016). These results are supported by MAD analysis. The scope and type of the events also generate different levels of performance. The ANOVA results confirm that the most impactful events are Management and Social Sciences Events, Medical Sciences and Sciences as well as the Information and Communication Technologies, followed by General Events. These impact on occupancy, ADR and RevPAR. Events play a major role in occupancy and revenue performance. There is a positive impact in all the key performance indicators subject to analysis. Overall, the Web Summit impacted positively on the destination by bringing more events and increased KPIs.

Theoretical conclusions

The main conclusion is that there is a relationship between events and hotels' RevPAR, ADR and Occupancy levels. The diverse typology of events combined in one research is relatively new, opening a way to explore the overall impact events have on a destination and specifically on hotels' KPIs. This analysis leads to the conclusion that the different types of events yield different levels of performance. The continuous data assessment mingled with different types of events is also a better way of analysis, instead of one event or one point in time analysis. Destinations benefit more from this comprehensive type of analysis when deciding on which events to accommodate or events' related investments. Events

happen in late spring and the fall, which seems to contribute to lessening the seasonality effects. Major events do have an impact on destinations' overall and long-term performance. Price dynamics are also beneficial for the hotels.

Practical application of the dissertation

This model of impact assessment is useful for both academics as well as hotel managers and revenue managers, as it provides a framework to develop more studies and practical analysis. Descriptive analytics should be used to examine prices and events and to help predict levels of demand related to events. These analyses allow prescriptive analytics to come into play by recommending the best rates or the best events to attract to a destination.

One way to do this might be to focus on analysing the average variations in the KPIs and using more measures of central tendency such as the median and measures of dispersion when examining occupancy, ADR and RevPAR. Also, using and understanding other measures of central tendency will help practitioners to analyse the KPIs. Furthermore, the relationship between the type and scope of events and the industry KPIs will assist hoteliers in better shaping their revenue management strategies. Destinations benefit from this type of analysis because it provides a comparison allowing more informed decisions on what types of events to support and invest in.

Content of the dissertation

Abstract of Chapter 1

Chapter 1, the Introduction, starts by offering a brief overview of what hospitality means and the similarities between the past and present, namely that there has always been a concern with earnings or revenues that could come from providing hospitality services. Events have also been an integral part of civilisation for thousands of years, from political assemblies to sports competitions, feasts, and partying to religious celebrations (Getz, 2007) and cover different sizes (Müller, 2015). This chapter continues by providing an opening insight into the background, aim, objectives and scope of the study, additionally, the overall structure of the thesis is also outlined.

Abstract of Chapter 2

Chapter 2 reviews the existing literature relating to Revenue Management (RM), the concept evolution, its applicability in different fields and the implementation of RM tools. An analysis of the publications in the field is performed to understand when the expression was first used in the literature, the level of academic interest and how it has evolved. This includes a section dedicated to the applicability of RM, ranging from hotels to ski resorts, restaurants, railways, and the airline industry, where its application started. A subchapter is dedicated to strategies and tools used in RM practices. The strategies can be price-related and nonrelated to pricing (Guillet & Mohammed, 2015). Nonrelated to pricing strategies include inventory management, forecasting demand levels, length of stay controls and distribution channels among others.

Abstract of Chapter 3

This chapter clarifies the concept of price. The principles of pricing and pricing strategies are discussed in detail followed by an explanation of the application of pricing strategies and tactics, a section on dynamic pricing and another on price setting. The role of demand on pricing and value-based pricing are discussed as important and key features when price is at the heart of a strategy in a company. Customer knowledge and segmentation are also debated. Seasonality and distribution channels' role in the definition of pricing policies are also discussed in this chapter. There is a section dedicated to the pricing for events, to highlight the importance of the buyers' diverse view of value, especially when

participating in events. Pricing analytics is presented as an essential component in the analysis of any strategy, critical in any business analytics and overall RM practice in hotels.

Abstract of Chapter 4

This chapter is dedicated to the most important hotel Key Performance Indicators (KPIs) and those used in Revenue Management analysis, why they are used and their purposes. The notions of result indicators and performance indicators are clarified. Differences between RevPAR and GOPPAR are discussed as well as other indicators like net RevPAR and the classic Yield formula. The strengths and weaknesses of KPIs are also presented in this Chapter.

Abstract of Chapter 5

Chapter 5 expands on the theme of events as demand generators and as impact factors on hotels' Key Performance Indicators. It explains in what way events are important demand generators. Types and sizes of events are considered, the types of venues necessary, and the importance of accommodation providers in the success of event planning. A section is dedicated to the measurement of the impact of events.

Abstract of Chapter 6

The hotel industry in Portugal, its evolution and growth in the past years, and the progress of occupancy rates, revenues and RevPAR are described in Chapter 6. It points out the importance of tourism to the Portuguese economy. It measures the Hospitality KPIs in Lisbon and compares them to Portugal as a whole to understand the specifics of the capital city.

Abstract of Chapter 7

The second part of the thesis starts in Chapter 7 dedicated to the methodology used in this research. The sample, the data preparation, how the missing values in the data were dealt with, and the main variables are presented. Then the data analysis, the descriptive statistics focusing on events; the relationship between events and hotel KPIs and the correlation and ANOVA are discussed.

Abstract of Chapter 8

Chapter 8 presents the case study - the impact of the Web Summit on Lisbon hotels. The results show that occupancy, ADR and RevPAR saw significant increases, thus improving the performance and decreasing seasonality. The RevPAR is the KPI that performs the best, particularly on the days the event occurs.

Abstract of Chapter 9

This is the final point of the thesis with the conclusions, major contributions as well as limitations and recommendations. The results demonstrate the positive impact of the Web Summit on the hotel performance in Lisbon. The number of events occurring has significantly increased. Dynamic pricing has proven to have intensified after this major event, showing that hoteliers look at demand drivers in a more proactive way. Practitioners can look at the measures of descriptive statistics, particularly those not affected by extreme values and use them to improve their pricing and revenue management strategies.

References

Getz, D. (2007). *Event studies: theory, research and policy for planned events*. Boston: Butterworth-Heinemann.

- Guillet, B. D., & Mohammed, I. (2015). Revenue management research in hospitality and tourism: A critical review of current literature and suggestions for future research. *International Journal of Contemporary Hospitality Management*, 27(4), 526–560. <https://doi.org/10.1108/IJCHM-06-2014-0295>
- Müller, M. (2015). What makes an event a mega-event? Definitions and sizes. *Leisure Studies*, 34(6), 627–642. <https://doi.org/10.1080/02614367.2014.993333>