






Comparison of Hotel Room Prices Before and During COVID-19 Pandemic in Southeast Region of Turkey¹

1st Doç. Dr. Feridun DUMAN^{1*} , 2nd Doç. Dr. Gökhan AYAZLAR² , 3rd Dr. Öğr. Üyesi
Aytaç PEKMEZCİ³ 

¹ Department of Tourism and Hospitality Management, School of Tourism and Hospitality Management, Batman University, Turkey. feridun.duman@batman.edu.tr

² Department of Travel Management, Faculty of Tourism, Muğla Sıtkı Koçman University, Turkey. gokhanayazlar@gmail.com

³ Department of Statistics, Faculty of Science, Muğla Sıtkı Koçman University, Turkey. aytac0803@mu.edu.tr

A B S T R A C T

This study aimed to show the hotel room price discrepancies according quality rating and chain affiliation by comparing hotel room prices before and during COVID-19 pandemics in the Southeast Region of Turkey. The data were gathered through online travel agents (OTAs) from the Southeast Region of Turkey. Then, to analyse the data, the non-parametric Wilcoxon signed-ranks test was used for the variables of quality rating and chain affiliation in order to find out the room price discrepancies for the hotels. A significant and meaningful difference upon the room prices by quality rating (from 1 star to 5 star hotels), except the 2 star hotels, was found out. Moreover, the study produced a significant difference upon the room prices by chain affiliation. This study concluded that quality star rating is still considerable effect when the room prices are determined in the hotel market. Furthermore, this study showed that although the chain hotels are perceived to better survive through crises in the market, the independent hotels in this study were seen as more resilient toward the COVID-19 pandemics. This study suggested some insights to help managers to handle the crisis and prepare for the near future.

Keywords: *Hotels, COVID-19, quality rating, chain affiliation, Turkey*

1 Introduction

Tourism is an international activity in nature. Therefore, it is affected by all kinds of positive or negative events including national or international social, cultural, political, legal, economic, ecological and technological ones directly or indirectly related to tourism industry (Faulkner, 2001). Especially, tourism industry is highly sensitive to negative crises e.g. pandemics, economic and natural crises etc. When one of these crises occurs, all the tourism activities from transportation to accommodation are disrupted in a national level or international level. In the case of COVID-19 pandemics, all the tourism activities have been affected across the world since rescue packages have been provided, the tourism companies, especially hotels, had to create their own tactics and strategies to survive in the industry. Thus, the December 2019. Since then, the countries that have heavily been affected supported their national companies including the tourism ones. Although all the economic pricing tactics and policies are of utmost importance to compete with hotels offering similar products and services in the market.

¹ This paper was presented in in the 2nd International Congress of New Generations and New Trends in Tourism, 2021.

* Corresponding author e-mail: feridun.duman@batman.edu.tr

Therefore, hotel room prices vary greatly, even within the same or similar region/s. In the tourism and hospitality literature, a number of studies have investigated the hotel facilities and their prices e.g. Israeli (2002); Hung et al. (2010). To be more specific, the studies are mainly divided in two levels regarding pricing in hotels as being macro and micro levels. The macro level pricing focuses upon the factors such as costs, competition within a market, and legal/political constraints. On the other hand, the micro level pricing consists of the hotels features namely quality rating, chain affiliation, age and size of an hotel, services and facilities offered, and spatial factors.

2 Literature Review

2.1 Evaluating Price Discrepancies in Hotel Industry

“Quality star rating” is commonly used in classifying hotels in countries (Hung et al., 2010). Therefore, the quality classification for hotels is one of the main variables that elucidate the price discrepancies between hotels in a country (Israeli, 2002; Masiero et al., 2015). For instance, the Ministry of Culture and Tourism in Turkey sets the official standards of the quality star rating for hotels (from 1 star to 5 star). Within this quality rating, each star quality carries a certain set of this official classification. The requirements for the quality rating are dictated and inspected by the Ministry of Culture and Tourism in order to promote the minimum quality standards across the hotel industry in Turkey. Thus, the quality star rating reflects the price determinants in the hotel properties (Danziger et al., 2006). Thus, hotels try to differentiate themselves in order to reduce severe competition leading to a price reduction in the market place. In order to manage this, hotels choose to be a chain affiliated to improve their survival chances (Ingram and Baum, 1997). Chain affiliation is more popular in the city and airport hotels (Hung et al., 2010; Chen and Chiu, 2014). However, the peripheral and resort locations have lately chosen this as a competitive move in order to reflect better branding and values to their customers. However, the study conducted in Beijing showed that chain affiliation was not considered as a factor when the room prices were investigated (Zhang et al., 2011). To add more to this finding, O’Neill and Carlbäck’s (2011) study revealed that non-affiliated (independent) hotels showed a better performance in economic crises. This may be because, the non-affiliated hotels in economic crises do not calculate their brand value reduction in order to survive through economic crises. To support this, the study conducted in Taiwan displayed that chain affiliation did not produce any significant effect upon room rates (Hung et al., 2010).

By examining the literature more specifically, Bull (1994) investigated the factors determining the prices of the motel rooms in Australia. This study revealed that the motel room prices increased according to the quality rating of the motels. This study suggested that the higher quality rating of the motel properties charge higher prices for their motel rooms. The high prices also reflected the motels’ facilities better for their customers. Moreover, the location of the motels affected the room prices. Especially, the distance of the motels had a negative effect upon the room prices in Australia. This finding was also supported by the study of Monty and Skidmore (2003) reflecting that there was a negative relationship between distance of a hotel property to a city centre and room prices. Espinet et al. (2003) further studied the factors influencing hotel room prices, for which they examined the hedonic pricing for the hotels in Singapore. The findings showed that the larger hotels in size (number of rooms) had a negative effect upon the hotel room prices. In this study, the quality rating did not have any effect upon the room pricing. However, Anderson (2010) emphasized that the quality of facilities and servicing certifying the quality of the hotel properties had a positive effect on the room prices.

Moreover, Zhang et al. (2011) looked at the factors affecting the room prices in China. They investigated a number of factors in relation to the room prices including quality rating, size and age of the hotel properties and location of the hotels. The study showed that there was a positive relationship with the quality rating and the age of the hotel properties. The distance of hotel properties to city centres negatively affected the room prices. These findings reveal that the hotel customers in Beijing pay more attention to the quality services and the convenient location of the hotels. To support the study above, Agmapisarn (2014) also investigated the factors determining the room prices in a similar time in Bangkok. The study displayed that the quality of the bedrooms and the affiliation of the hotels meaning

belonging to a chain hotel had a positive effect upon the room prices. On the other hand, the size of the hotel properties did not have an effect upon the room prices.

A number of studies were researched regarding the factors affecting the room prices of the European hotels. For instance, the study carried out in Italy by Schamel (2012) revealed that the quality rating and customer rating the hotels had a positive effect in increasing the room prices in both weekdays and weekends. On the other hand, the distance to the city centre had a negative effect upon the room prices. In a similar study in Sweden, the quality rating and a chain affiliation had a significant relationship with the room prices. However, the study revealed an awry relationship with the location and size of the hotel properties with the room prices. Another study was conducted by Soler and Gémar (2017) in Seville, Spain. The study showed that quality rating and the room prices had a significant effect on the room prices. The study further supported the findings of Schamel (2012) on the distance of the hotel properties to the city centre as the customers want to stay close to the main attractions of the city. Thus, the distance to the city centre had a negative effect upon the room prices. Furthermore, the study conducted in Thessaly, Greece by Paschalis and Ioanna (2017) displayed that the quality rating and the hotel facilities positively influenced the room prices. To support the study mentioned above, Buiga et al. (2017) found out in their study conducted in Romania that the most effective factor affecting the room prices was the quality rating signaling how the interior design and service quality were reflected by the number of stars that the hotel properties had. However, the location effect of a hotel property was not found significant for the study. Moreover, Pawlicz and Napierala (2017) conducted a similar study in Warsaw, Poland and found out similar results as well.

Next, the study will explain the methodology used to gather the data for the study. Specifically, the sampling, data analysis and findings will be presented.

3 Methodology

3.1 Sampling

The sampling was purposefully selected to gather the data for this study. The study consisted of 74 hotels located in the Southeast Region of Turkey. The region as understood from its name is located in the Southeast of Turkey. This region has 9 cities named as Adıyaman, Batman, Diyarbakır, Gaziantep, Kilis, Mardin, Şanlıurfa, Şırnak and Siirt. This sample covered all the cities mentioned above. Moreover, the region is famous for cultural tourism including gastronomy tourism especially at the weekends. The cultural tours last from 3 days to 7 days, and business travelers stay at hotels during the weekdays.

3.2 Data Gathering and Analysis

The data were gathered from 74 hotels located in the Southeast of Turkey. The secondary data regarding the quality star rating were obtained from the Turkish Ministry of Culture and Tourism as the Ministry has a quality classification system for hotels (from 1 star hotels to 5 star hotels). The variable of chain affiliation was recognized by the hotels' brand names reflecting hotels belonging to a chain hotel group. Afterwards, the pricing data were collected through online travel agents (OTAs). The OTAs were chosen among the most popular ones in order to collect the data adequately. In order to standardise the comparisons, the single and double room prices including breakfast were collected before (from December 2018 to February 2019) and during the COVID-19 pandemics (from January 2021 to March 2021). Therefore, the data were collected in order to find out the discrepancies in the room prices before and during the COVID-19 pandemics.

To analyse the data, first, the data were controlled by One-Sample Kolmogorov-Smirnov Test in order to see a normal distribution of the data. According to the analysis results, $p:.000 < 0.05$ for all variables so It was determined that the data were not suitable for normal distribution. Thus, the non-parametric Wilcoxon signed-ranks test was applied to analyze the data obtained from the hotels in the Southeast Region of Turkey. The Wilcoxon Test is the non-parametric equivalent of the dependent (paired) sample t-test.

4 Findings and Discussion

4.1 Profiles of the Sample Hotels

The study hotels in the Southeast Region of Turkey were categorised under two sub-headings as being quality star rating and chain affiliation of the hotels. Table 1 below displayed the profiles of the study hotels. As seen in Table 1, the majority of the hotel were categorized under 3 and 4 star hotels. On the other hand, the chain-affiliated hotels were only registered from 4 and 5 star hotels.

Table 1: Profiles of study sample hotels.

Quality category / % (Star)	1 Star	%	2 Stars	%	3 Stars	%	4 Stars	%	5 Stars	%
No of Hotels	10	14	5	7	27	36	25	34	7	9
Chain Affiliation (Yes)	0	0	0	0	0	0	6	8	3	4

4.2 Findings of Quality Rating and Room Prices before and during COVID-19 Pandemics

The Wilcoxon signed-ranks test was used to compare the quality rating and chain affiliation with the room prices for this study. Specifically, The Wilcoxon test produced the findings displayed in Table 2 below. The findings showed that the quality rating from 1star to 5 star hotels, except the 2 star hotels, had a significantly meaningful difference upon the room prices. To reflect upon the findings in Table 2, 1 star hotels had a significant difference when compared to before and during the COVID-19 pandemics as the p value was found at ,028. The average room prices of both single and double rooms increased dramatically. However, the Wilcoxon test did not produce a significant and meaningful difference between the 2 star hotels and their prices as the p value was ,225. The 3, 4 and 5 star hotels had significant differences with the room prices. The findings are consistent with the study of Faulkner (2001) stating that disaster can be a trigger or catalyst for a robust and more adaptable hotel industry. Furthermore, a number of the studies in the literature supported this study's finding regarding the relationship between quality rating and room prices (Espinet et al., 2003; Schamel, 2012; Buiga et al., 2017; Soler and G emar, 2017).

To sum up, the findings showed that all the hotels, except the 2 star hotels, had significant and meaningful differences with the room prices including the single and double room prices in the Southeast Region of Turkey before and during the COVID-19 pandemics. This suggested that when the coronavirus pandemics spread across Turkey as well as across the world, the room prices should have dropped dramatically. However, the Southeast Region of Turkey showed the awry findings reflecting both single and double room prices increased even though the state of Turkey had multiple full closures for people and shops. Against this adversity, the hotels quickly adjusted themselves to the pandemics and the safety regulations adapted by the hotels made them go back to the business as usual situation as this was suggested by the room price increases before and during the pandemic periods. Moreover, the hotels generally have to increase their room prices annually according to the Turkish national inflation rates. The inflation rates were realized as being 11,84% in 2019 and 14,60% in 2020. This also contributed toward the increase in the room prices. To add to this, the state coronavirus regulations allowed the hotels to sell only 50% of their room capacities during the pandemics. This further increased the hotels' running costs, which had to be reflected upon the room prices.

Table 2: Findings of quality rating and room prices before and during Covid-19 pandemics.

Quality Rating	Type of Room	Period	No of Hotels	Average Room Price (TL)	Z	p
1 Star	Single Room	Before Pandemics	10	176,36	- 2,191	,028
		During Pandemics	10	330,43		
	Double Room	Before Pandemics	10	232,67	- 2,599	,009
		During Pandemics	10	404,05		
2 Stars	Single Room	Before Pandemics	5	85,18	- 1,214	,225
		During Pandemics	5	101,75		
	Double Room	Before Pandemics	5	137,22	- 1,214	,225
		During Pandemics	5	181,70		
3 Stars	Single Room	Before Pandemics	27	121,62	- 3,328	,001
		During Pandemics	27	158,25		
	Double Room	Before Pandemics	27	184,60	- 2,451	,014
		During Pandemics	27	222,04		
4 Stars	Single Room	Before Pandemics	25	162,03	- 2,960	,003
		During Pandemics	25	197,12		
	Double Room	Before Pandemics	25	234,19	- 2,731	,006
		During Pandemics	25	289,12		
5 Stars	Single Room	Before Pandemics	7	181,76	- 2,197	,028
		During Pandemics	7	300,07		
	Double Room	Before Pandemics	7	262,79	- 2,366	,018
		During Pandemics	7	357,79		

4.3 Findings of Chain Affiliation and Room Prices Before and During COVID-19 Pandemics

The Wilcoxon test reported the findings that there was a significant difference between chain and independent hotels with the room prices. To reflect the findings in detail, the chain hotels had a significant and meaningful difference for both single and double rooms before and during the COVID-19 pandemics. As for the independent hotels, they had a significant and meaningful difference for both single and double rooms before and during the COVID-19 coronavirus pandemics too. Thus, the findings of the chain affiliated hotels were consistent with the literature (Ingram and Baum, 1997; Hung et al., 2010; Chen and Chiu, 2014). On the other hand, the independent hotels too showed a significant

difference in the room prices. This finding suggested that the independent hotels are more resilient in crises. This finding is also consistent with the studies of Hung et al. (2010) and Zhang et al. (2011).

Table 3: Findings of chain affiliation and room prices before and during covid-19 pandemics.

Chain Affiliation	Type of Room	Period	No of Hotels	Average Room Price (TL)	Z	p
Chain Hotels	Single Room	Before Pandemics	9	181,28	- 2,666	,008
		During Pandemics	9	279,46		
	Double Room	Before Pandemics	9	237,52	- 2,666	,008
		During Pandemics	9	343,87		
Independent Hotels	Single Room	Before Pandemics	65	141,00	- 4,833	,000
		During Pandemics	65	193,83		
	Double Room	Before Pandemics	65	208,51	- 4,535	,000
		During Pandemics	65	271,74		

5 Conclusion and Suggestions

The unprecedented crisis of the COVID-19 pandemics has caused serious and complex challenges for the hotel industry nationally and internationally (Gursoy and Chi, 2020) since 2019. Given the current situation, the hotel industry should identify main recovery strategies (Heredia-Colago and Rodrigues, 2021). This study finding yielded that quality rating had a significant difference with the room prices, except the 2 star hotels. This study also showed that both chain and independent hotels had a significant difference with the room prices. With these findings in hand, this study suggests that quality star rating is still considerable effect when the room prices are determined in the hotel market. Furthermore, this study showed that although the chain hotels are perceived to survive better through crises in the market, the independent hotels in this study were seen as more resilient toward the COVID-19 pandemics. Bear in mind that one should look at a regional level effect upon the room prices as some regions might have less affected from of the COVID-19 pandemics. So, these findings provide some insights to help managers to handle the crisis and prepare for the near future.

The main limitation of this study is the generalizability of the findings as the study sample only covered the Southeast Region of Turkey. Thus, the future study should cover all the hotels across Turkey.

References

- Agmapisarn, C. (2014), A Hedonic Pricing Analysis of Hotel Room Rates in Bangkok, *ABAC Journal*, 34(2), 1-17.
- Andersson, D. E. (2010), Hotel Attributes and Hedonic Prices: An Analysis of Internet Based Transactions in Singapore's Market for Hotel Rooms, *The Annals of Regional Science*, 44(2), 229-240.
- Arbel, A., and Pizam, A. (1977), Some Determinants of Urban Hotel Location: The Tourists' Inclinations, *Journal of Travel Research*, 15(3), 18-22.

- Buiga, A., Stegorean, R., Chis, A., and Lazăr, D. (2017), Pricing of The Tourism Product: A Tool for Entrepreneurs to Adapt to a Flexible Market”, *Ekonomie a Management*, 20(1), 172-186.
- Bull, A. O. (1994), Pricing Motel’s Location, *International Journal of Contemporary Hospitality Management*, 6(6), 10-15.
- Chen, C.M., and Chiu, H.H. (2014), Market Disequilibrium Effect on Hotel Prices, *Tourism Economics*, 20(4), 901-909.
- Danziger, S., Israeli, A., and Bekerman, M. (2006), The Relative Role of Strategic Assets in Determining Customer Perceptions of Hotel Room Price, *International Journal of Hospitality Management*, 25(1), 129-145.
- Espinete, J. M., Saez, M., Coenders, G., and Fluvia, M. (2003), Effect on prices of the attributes of holiday hotels: a hedonic prices approach, *Tourism Economics*, 9(2), 165-177.
- Faulkner, B. (2001), Towards a Framework for Tourism Disaster Management, *Tourism Management*, 22(2), 135-147.
- Gursoy D., and Chi C.G. (2020), Effects of COVID-19 Pandemic on Hospitality Industry: Review of the Current Situations and a Research Agenda, *Journal of Hospitality Marketing & Management*, 29(5), 527-529.
- Heredia-Colaço, V., and Rodrigues, H. (2021), Hosting in turbulent times: hoteliers’ perceptions and strategies to recover from the Covid-19 pandemic. *Int. J. Hosp. Manag.* 94 (102835), 1-12.
- Hung, W., Shang, J., and Wang, F. (2010), Pricing Determinants in the Hotel Industry: Quantile Regression Analysis, *International Journal of Hospitality Management*, 29(3), 378-384.
- Israeli, A. A. (2002), Star Rating and Corporate Affiliation: Their Influence On Room Price & Performance of Hotels in Israel, *Hospitality Management*, 21(4), 405-424.
- Kefela, M. S. (2014), Determinants of Hotel Room Rates in Stockholm: A Hedonic Pricing Approach, Unpublished Master Thesis, Södertörn University, Institution of Social Sciences, Sweden.
- Masiero, L., Nicolau, J.L., and Law, R. (2015), A Demand-Driven Analysis of Tourist Accommodation Price: A Quantile Regression of Room Bookings, *International Journal of Hospitality Management*, 50, 1-8.
- Monty, B., and Skidmore, M. (2003), Hedonic Pricing and Willingness to Pay for Bed and Breakfast Amenities in Southeast Wisconsin, *Journal of Travel Research*, 42(2), 195-199.
- Ollero, J. L. S., Pozo, A. G., and Mera, A. M. (2014), How Does Respect For the Environment Affect Final Prices in The Hospitality Sector? A Hedonic Pricing Approach, *Cornell Hospitality Quarterly*, 55(1), 31-39.
- O’Neill, J.W., and Carlback, M. (2011), Do Brands Matter? A Comparison of Branded and independent Hotels’ Performance During a Full Economic Cycle, *International Journal of Hospitality Management*, 30(3), 515-521.
- Paschalis, A., and Ioanna, A. (2017), The Contribution of View to the Price of Tourist Accommodation: A Hedonic Pricing Model, Cities and Regions in a Changing Europe: Challenges and Prospects, Panteion University, Athens, Greece.
- Pawlicz, A., and Napierala, T. (2017), The Determinants of Hotel Room Rates: an Analysis of the Hotel Industry in Warsaw, Poland, *International Journal of Contemporary Hospitality Management*, 29(1), 571-588.
- Rosen, S. (1974), Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition, *The Journal of Political Economy*, 82(1), 34-55.
- Schamel, G. (2012), Weekend vs. Midweek Stays: Modelling Hotel Room Rates in a Small Market, *International Journal of Hospitality Management*, 31(4), 1113-1118.

Soler, I. P., and Gémar, G. (2017), Impact of the April Fair on Seville Hotel Room Prices: Measurement Through a Hedonic Approach, *Tourism & Management Studies*, 13 (2), 7-12.

Zhang, H., Zhang, J., Lu, S., Cheng, S., and Zhang, J. (2011), Modelling Hotel Room Price with Geographically Weighted Regression, *International Journal of Hospitality Management*, 30(4), 1036-1043.



© 2020 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).