

ANALYSIS OF THE DIFFERENCE IN OCCUPANCY AND PROFITABILITY IN INTERNATIONAL BRAND HOTELS BEFORE AND AFTER THE PANDEMIC CAUSED BY COVID-19

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Abstract. Adjara is a distinguished tourist region in Georgia. Based on statistical data, the growth of tourists and visitors in the last decade is characterized by high rates. However, both in the world and in Adjara, the COVID-19 pandemic caused significant damage to the tourism sector, drastically reducing the number of visitors. Based on the fact that Batumi has become a place of operation for international branded hotels, it attracts visitors from different countries. The Russia-Ukraine war had a certain influence on the recovery of tourism, in particular, the exchange rate of the national currency strengthened, real estate prices increased, and apartment hotels were distinctly busy. The aim of this research was to study the occupancy and profitability indicators of branded hotels operating in Adjara before and after the pandemic (2019 and 2022). In this study, the authors have identified difference in hotel occupancy and profit indicators in the corresponding months of 2019-2022; characterized differences in financial indicators concerning national and foreign currency; found out is there a disproportionate change in occupancy and profit in surveyed hotels. Qualitative and quantitative research methods were used during the research. As a result of the survey, significant changes in hotel occupancy and profit ratio were revealed, which are related to exchange rate changes and other important factors.

Key words: tourism, hotel, occupancy, revenue, COVID-19.

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Introduction

The pandemic (officially declared by the World Health Organization on 12 March 2020) caused by the COVID-19 infection has affected life all over the world. Countless publications confirm the impact of the COVID-19 pandemic on every field, starting with healthcare, ending with social and economic processes (World Health Organization, 2023). The pandemic has affected public health in general as well its consequences in global economic, political, socio-cultural systems will be observed for a long time both in Europe, and globally throughout the world (World Health Organization, 2023; European Observatory on Health Systems and Policies, 2021; Sigala, 2020). Public health strategies and measures, like social distancing, travel and mobility bans, community lockdowns, stay at home campaigns, self and mandatory quarantine, have heavily affected tourism, travel and leisure (Fernandez et al., 2022; Sigala, 2020).

In Georgia, with its warm weather, resort places, rich natural and cultural resources, and biodiversity (Arghutashvili et al., 2018), tourism is one of the priority sectors of the national economy and one of the fastest-growing industries in Georgia (at least before COVID-19 pandemic) (Deutsche Gesellschaft für Internationale Zusammenarbeit, 2021). However, travel restrictions during the global pandemic have made tourism as one of the most affected economic sectors in Georgia.

One of the indicators that can be used for showing and analysing economic consequences of COVID-19 pandemic on tourism sector is hotel occupancy. This indicator is crucial in the hotel business and it depends on many factors - price policy, marketing strategy (e.g. correct promotion and gaining customer loyalty), accurate competitive strategies, and macro-environmental factors. Another indicator that reveals economic consequences of COVID-19 pandemic on tourism sector is revenues, that is more short-term oriented indicators (Wang, Bowie, 2009). These indicators were used for formulating research question for this study

- whether and to what extent there has been a decrease in occupancy and revenues in hotel industry in one of the most popular tourist destinations in Georgia - the Adjara region? Research question set the **aim of this study** - to analyse the load and profit ratio of branded hotels operating in Adjara in 2019 and 2022. Based on the aim of this research, the following research tasks were identified: 1. to identify difference in hotel occupancy and profit indicators in the corresponding months of 2019-2022; 2. to characterize differences in financial indicators concerning national and foreign currency; 3. to find out is there a disproportionate change in occupancy and profit in surveyed hotels.

In order to carry out this study three international brand hotels operating in Adjara were determined for survey, based on the selective method, whose financial data were acquired through maximum confidentiality disclosed anonymously as much as possible. The study was conducted using a cross-sectional study method based on data from only 2019 and 2022. The selection of 2019 is because this year is considered as the best year of tourism development in Georgia before the pandemic (International Trade Administration, 2022). Therefore, for this period, all hotels tried to maximize the load in different ways. In this study authors have collected and analysed such data as:

- number of hotel rooms;
- daily percentage of hotel occupancy;
- daily prices of hotel rooms considering seasonality and discounts;
- percentage share of the cost of rooms in the monthly average price of hotel rooms.

This information was collected from the hotels based on the respective hotel management programs of bookings and occupancy. Survey data were processed using special tables created in Microsoft Office Microsoft Excel. Based on the collected data, authors calculated the number of available hotel rooms every month, using the average monthly occupancy rate; the average number of occupied hotel rooms every month; the average rate of income obtained from the occupancy of hotel rooms every month.

In addition to the survey data, in this study authors used also secondary information – data from the Ministry of Finance and Economy of Adjara, the reports published by the Department of Tourism and Resorts of Adjara, the portal of the payers of the Revenue Service of the Ministry of Finance of Georgia, the financial statements posted on the official website of hotels and others.

Research results and discussion

1. Role of Adjara region in Georgia tourism sector

Georgia is a tourist country, and tourism is a highly crucial sector of the country's economy. According to the data for the third quarter of 2022 (Georgian National Tourism Administration, 2023), the share of tourism in the country's GDP is 7.2%. In 2022, revenues from international tourism reached 3.5 mln. USD, if we compare this indicator with the indicator before the pandemic caused by COVID-19, in 2019, the income from international tourism was 3.3 mln. USD. This proves that in terms of income, tourism in Georgia was able to fully recover. The picture is different in terms of the number of visitors in 2022. The number of international visitors in 2022 was 4.7 million. Compared to 2019 this number has decreased (-39.1%), but compared to 2021, there is a significant increase (+137.3%).

The majority of visitors to Georgia come from Russia, Turkey, Armenia, Ukraine, Israel, Ukraine, Azerbaijan, Belarus, Kazakhstan, Saudi Arabia, and Iran. In 2021, compared to 2020, international visits increased from the following countries: Russia (+2.1%), Ukraine (+241.6%), Israel (+291.3%), Kazakhstan (+384.7%), Belarus (+ 274.5), Saudi Arabia (+1179.0%).

According to STR Global, the occupancy rate of hotels in Georgia in 2021 was 45.7%. The increase compared to previous years amounted to +106.8%. Occupancy rate has seasonal character were the highest occupancy can be observed in July (73.1%), August (65%) and June (58.4%), but the lowest occupancy can be observed in January (16.1%), February (18.8%) and March (23.9%).

According to the data of TBC Capital, in July 2022 compared to July 2019, hotel occupancy increased significantly, i.e. by 11%. The average occupancy of large branded hotels in 2022 were higher by 12% if compared with 2019.

According to the popularity of regions visited by foreign visitors in Georgia, Adjara region ranks second after the capital (Georgian National Tourism Administration, 2023). As of 2021, 424 hotels were operating in the Autonomous Republic of Adjara. Compared to 2010, the number of hotels increased by 289%. In general, the number of accommodation facilities is 1058, which, in addition to hotels, includes apart-hotels, family houses, cottages, hostels, and campsites. According to the data for 2021, the number of accommodations in Adjara reached 81 thousand - 30% of them are hotels, and 51% are apartment hotels. 73% of accommodation facilities are situated in Batumi.

In 2019, before the COVID-19 pandemic, the number of visitors officially registered with accommodations in Adjara exceeded one million, while the share of foreign tourists was much higher than domestic tourists. However, this picture has been changed a lot by the COVID-19 pandemic, visits from abroad have decreased and domestic tourism has increased. At the end of the pandemic, in 2021, the situation improved and recorded 585 000 visitors, where the ratio of domestic and foreign visitors was almost 50/50, while in 2020 this ratio was 80/20. Adjara is a region distinguished by its tourist and recreational potential, and the government is actively working on diversifying tourism products and markets. Tourists in Adjara have the opportunity to be interested in marine, cultural, mountain, mountain-ski, adventure, eco and rural tourism. According to official statistics, the main purpose of the arrival of tourists in Adjara is recreation and relaxation (90%), and a small part comes from a business visit and treatment.

The city of Batumi stands out for the number of hotels in Adjara. The entry of such brands as the Sheraton, the Radisson-Blue, the Hilton, and the Marriott contributed to the positioning of Batumi in the international tourist market. The first of the above-mentioned hotels was Sheraton, which opened in 2011 and was followed by other international brands. 58% of the hotels operating in Adjara are situated in Batumi. In the next section of this study authors have analysed the most important indicators that characterizes performance of branded hotels in Adjara region before and after COVID-19 pandemics.

2. Analysis of the load and profit ratio of branded hotels operating in Adjara

In this study authors have analysed data representing performance of three international brand hotels – Hotel "A", Hotel "B" and Hotel "C" – operating in Adjara region. Based on the survey results, the difference in occupancy and profit were analysed in the monthly section, where January was selected as the most inactive month in the tourism season, and August – as the most active month in tourism season. According to the survey data in all three hotels, the number of rooms in each hotel is within 150-250, which are classified in different hotels with different types and prices: Standard Room, Sea View Room, City View Room, Premium Room, Deluxe Room, Presidential Room, Family Room, Terrace Room, Penthouse Room, Luxury Room, etc. Therefore, for the purpose of this study, authors used the total number of hotel rooms, the number of which was unchanged in 2019-2022, and authors calculated the price per unit room using the weighted average method.

In Table 1 authors have summarized different indicators characterizing performance of surveyed hotels in January in 2019 and 2022. Obtained results show that Hotel „A” occupancy during surveyed period has increased by 1%, Hotel „B” occupancy has reduced by 3%, but Hotel „C” occupancy has increased by 7%. Slight differences can be observed when analysing profit of surveyed hotels - the profit of Hotel „A” has decreased by 3%, the profit of Hotel „B” has increased by 7%, the profit of Hotel „C” has decreased by 14%.

Table 1

Occupancy and profit analysis of international branded hotels operating in Adjara in January, 2019 and 2022

Indicator	HOTEL „A”			HOTEL „B”			HOTEL „C”		
	2019	2022	Difference	2019	2022	Difference	2019	2022	Difference
Occupancy	30%	31%	1%	48%	45%	-3%	33%	40%	7%
Total occupied rooms	2297	2374	77	2500	2344	-156	2092	2500	408
ADR	180	180	0	176	211	35	224	256	32
Room cost, %	32%	35%	3%	27%	20%	-7%	26%	40%	14%
Total rooms operating profit, %	68%	65%	-3%	73%	80%	7%	74%	60%	-14%

Source: author’s calculations based on survey results

The indicator – Total rooms operating profit, % - in January 2019 and 2022 turned out to be especially negative in the case of Hotel „C” (-14%). The factors affecting the mentioned financial result were studied and authors have discovered that Hotel „C” increased its operating expenses to attract customers after the removal of regulations due to the COVID-19 pandemic, which was reflected in the occupancy rate, which in the case of Hotel „C” was the highest (7%).

The determining factor of a 7% increase in profit in Hotel „B” was also investigated. The analysis of this case showed that the 3% occupancy reduction compared to 2019 is partly due to the impact of the pandemic, as the recovery process was proceeding at a corresponding pace, however, the increase in prices by 35 GEL played a certain role, and in the end, January was reflected by a 3% decrease in occupancy and a 7% profit.

In addition to the price policy, branded hotels are very sensitive to the national currency exchange rate and inflation. In 2022, compared to 2019, the average exchange rate of the dollar for January against the national currency - GEL depreciated by 0.22 GEL, which in general had an immense impact on the formation of revenues, while the rate of growth of expenses due to inflation did not slow down.

This analysis was based on the so-called most passive period of January 2019-2022 and the initial period of the end of the pandemic, so the research figures are heterogeneous and sharply different and characterized by sharp differences.

As for the peak period of the season, August, the data is calculated concerning both national (GEL) and foreign currency (USD) (see Table 2). The purpose of this calculation was to see the impact of exchange rates on profits. Authors highlights some interesting findings from this analysis:

- For Hotel „A” in August 2022 compared to the corresponding month of 2019, the profit rate did not increase, and its share in the price was equal to 90%. The reason for this was the maintenance of the current price for August 2019 and the drop in the dollar exchange rate. Although inflation in the cost part is still relevant because the part of the costs tied to the dollar did not decrease, considering the drop in the exchange rate. (August 2019: 1 dollar = 3.12 GEL; August 2022: 1 dollar = 2.76 GEL)

- For Hotel „B” in August 2022, compared to the corresponding month of 2019, the profit rate decreased by 2% in the conditions of a 4% increase in occupancy. Although the average price of hotel rooms has increased from 400 to 479 GEL, which cannot be compensated for increased costs due to inflation.
- For Hotel „C” similarly increased the load compared to August 2019, increasing the prices from 397 to 503 GEL. However, the rate of profit also decreased in this case.

Here it is seen that the decisions of the hotel management do not coincide with a single strategy for occupancy growth. Therefore, this study reveals that in surveyed hotels there can be observed uneven, disproportionate, and different changes in load and profit.

Table 2

Occupancy and profit analysis of international branded hotels operating in Adjara in August, 2019 and 2022

Indicator		In national currency (GEL)			In foreign currency (USD)		
		2019	2022	Difference	2019	2022	Difference
					2,93*	2,78*	
HOTEL „A”	Total occupied rooms	90%	95%	5%	90%	95%	5%
		6 891	7 274	383	6 891	7 274	383
	ADR	420	420	-	143	151	8
	REVENUE FROM total occupied rooms	2 604 911	2 749 629	144 717	889 048	989 075	100 027
	Room cost	10%	10%	-	10%	10%	-
		260 491	274 963	14 472	88 905	98 908	10 003
PROFIT	90%	90%	-	90%	90%	-	
	2 344 420	2 474 666	130 246	800 143	890 168	90 024	
HOTEL „B”	Total occupied rooms	87%	91%	4%	87%	91%	4%
		4 531	4 739	208	4 531	4 739	208
	ADR	400	479	79	137	172	36
	REVENUE FROM total occupied rooms	1 522 403	1 952 299	429 896	519 591	702 266	182 675
	Room cost	14%	16%	2%	14%	16%	2%
		213 136	312 368	99 231	72 743	112 363	39 620
PROFIT	86%	84%	-2%	86%	84%	-2%	
	1 309 266	1 639 931	330 665	446 849	589 903	143 055	
HOTEL „C”	Total occupied rooms	90%	92%	2%	90%	92%	2%
		5 621	5 730	109	5 621	5 730	109
	ADR	397	504	107	135	181	46
	REVENUE FROM total occupied rooms	2 030 616	2 596 427	565 811	693 043	933 967	240 924
	Room cost %	9%	10%	1%	9%	10%	1%
		182 755	259 643	76 887	97 026	149 435	52 409
PROFIT	91%	90%	-1%	91%	90%	-1%	
	1 847 861	2 336 784	488 924	596 017	784 532	188 515	

* USD exchange rate in certain year

Source: Author's created based on the results of the survey

For the overall analysis of the load and profit ratio of branded hotels, authors did not limit themselves to the study of seasonal and non-seasonal load and its results, so it was calculated the annual average indicators of load and profit for 2019 and 2022 (see Table 3).

For Hotel „A” in 2022 compared to 2019, the occupancy difference was -4% and the profit difference was -1.2%. For Hotel „B” in 2022 compared to 2019, the occupancy difference was -1%, which is directly proportional to the decrease in profit. Despite a 4% increase in occupancy in 2022 compared to 2019, the annual profit for Hotel „C” was 2% lower.

Forecasting is a key stage in the revenue management process as forecasts feed and determine the decision-making process. Hotel revenue management bases on two main topics: forecasting demand (Lim, Chan, 2011; Song et al., 2009) and forecasting revenue management (RM) metrics and operational data (El Gayar et al., 2011; Haensel, Koole, 2011). This is justified since volume, structure and characteristics of demand and forecasts for occupancy rate, number of arrivals, cancellations, no shows, RevPAR, ADR and other operational statistics are of most importance to a hotel.

Table 3

The difference in monthly occupancy and profit of international branded hotels operating in Adjara, 2019 and 2022

Indicator	HOTEL „A”			HOTEL „B”			HOTEL „C”		
	2019	2022	Difference	2019	2022	Difference	2019	2022	Difference
Occupancy	66%	62%	-4%	71%	70%	-1%	66%	70%	4%
Total occupied rooms	4984	4691	-293	3650	3574	-76	4064	4320	255
ADR	244	243	0	238	280	42	268	316	49
Room cost %	19%	20%	1%	19%	18%	-1%	15%	17%	2%
Total rooms operating profit	81%	80%	-1%	81%	82%	1%	83%	81%	-2%

Source: author’s calculations based on survey results

The calculations allowed authors to determine the break-even level to calculate the minimum number of guest rooms at which revenues and expenses are equal. When determining the level of break-even, the income received from the occupancy of hotel rooms during the year and the expenses caused by their occupancy should be calculated. For this, authors used the Formula 1:

$$\frac{TR \times 365 \times O \times ADR}{RC \times (TR \times 365) \times O} = 1 \quad (1)$$

Where:

TR (Total Rooms) - the total number of rooms in the hotel;

O (Occupancy) - occupancy during the year %;

ADR - average daily room rate;

RC (Room Cost) - room cost.

The ratio is equal to 1 when the price is equal to the cost, therefore, when the ratio is greater than 1, it shows an increase in profit, and when it is less, it shows a loss.

Using the mentioned formula, Hotel „B” can conditionally calculate the minimum rate of „occupancy” or „price” for the year 2023, based on the data of 2022, considering which it will be at zero profit. Under the conditions of the same annual occupancy rate, 61 320 rooms (70% of the hotel room fund) will be

required to be occupied, at a price of at least 51 GEL, if we convert the percentage of the cost into GEL, so as not to have a loss, ($168 \times 365 \times 70\% \times 51 = 2\,189\,124$), that is, each additional room occupancy is an indicator of profit.

The 2 189 124 GEL costs under the average price of 2022 will be distributed according to the price of 280 GEL, i.e., $2\,189\,124/280 = 7\,818$ hotel rooms. That is, by maintaining the average price of a hotel room in 2022, the load of 7818 rooms will be enough to break even.

Based on all the above, it can be said that when developing an optimal strategy for revenue growth, it is important to make the right decision whether to increase the load or the price.

Conclusions, proposals, recommendations

Throughout the analysis of the difference in the occupancy and profit of international branded hotels operating in Adjara in 2019 and 2022, the hypotheses outlined in the research were confirmed, and the factors affecting the difference in the occupancy and profit were studied:

- During the analysis, it was established that based on the data of 2019-2022, the strategy of hotel revenue growth is not uniform, and on average, the change in their annual occupancy figures ranges from -4% to +4%, and the average monthly load difference ranges from -27% to +18% in the respective years.
- The difference between the monthly average profit rates of 2019 and 2022 ranges from -14% to +7% in the respective years, while the same rate varies from -1.2% to +2% on an average annual basis.
- In fact, the expectations regarding the recovery of tourism development in 2022 compared to 2019, in terms of occupancy, the average occupancy of all three hotels is characterized by a 7% increase.
- 2022 profit rate compared to 2019, the average profit rate for all three hotels has decreased by 4%.

Thus, uneven and disproportionate changes in profit and occupancy indicators are affected by the following main factors:

- In the conditions of the regulations of the pandemic caused by COVID-19, the hotels suffered from incorrect forecasting in the process, which harmed the pricing policy and load. The wrong strategy of the hotel in terms of revenue and load growth.
- Compared to 2019, the strengthening of the national currency against the US dollar in 2022 and a high rate of inflation.

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