

Investigation of Veblen's Hypothesis in Albania: Price Elasticity of Overnight Stays

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Abstract

The purpose of the study was to test Veblen's hypothesis based on empirical evidence that people can consume goods and services because of their status value, and not because of their intrinsic value. The main scientific methods that were used during the study were analysis, deduction, modelling, etc. The study used data from 2017 to 2022 and focuses on the tourist regions of Albania. The data obtained indicates that demonstrative consumption of overnight stays exists in most regions of Albania, while Durrës and Vlora show substantial evidence of such behaviour during the peak season of 2022. This study highlights the importance of understanding the relationship between the pursuit of status and overnight stays in the tourist market of Albania. Hotel owners should consider the behaviour of tourists seeking status when developing pricing strategies, especially during economic downturns. The study also shows that price elasticity varies depending on the region and season, with tourists willing to pay higher prices at peak times. However, the elasticity value should be interpreted with caution, since peak seasons are short-lived. In general, this study contributes to the literature on conspicuous consumption and tourism, emphasising its existence in Albania. This underlines the importance of considering the behaviour of tourists seeking status in the management and planning of tourism. The results of this study are relevant not only for Albania but also for other tourist destinations seeking to attract tourists with high expenses.

Keywords: behavioural economics; tourism; hotel business; economic theory; entrepreneurship economics

Introduction

The tourism sector of the economy strongly depends on the number of tourists and the spending that they make inside the country when visiting certain institutions. This is the reason that hotels often use low-price strategies to attract more and more customers (Gao et al., 2021; Massidda et al., 2022). However, the strategy of high prices can also be used also if the place has a certain reputation among potential customers. The elasticity analysis was conducted very carefully to understand the specific features of price formation in this area, considering a large number of factors influencing the price. The role of such a study is caused by the influence of the price of tourist services when tourists choose opportunities for future places they visit (Buckley, 2022). Such a study has become especially relevant due to recent events related to the COVID-19 pandemic. It caused a decrease in hotel prices and a change in the structure of demand for tourist services (Peco-Torres et al., 2021). The pandemic has shown that not only prices are the main drivers of supply and demand in the market. All this makes it relevant to consider the current trends of modern pricing for tourist services in Albania. Although some studies have examined the cumulative effect of price changes on the competitiveness of tourist destinations (Komilova et al., 2021), however, there have been no studies examining the price elasticity of overnight stays in tourist regions of Albania. Within the framework of this study,

an alternative method for assessing price elasticity is proposed, which focuses on understanding regional trends.

The current state of the tourism sector was investigated by Burlea-Schiopoiu and Ozuni (2021). Researchers have shown that the number of tourists in the country is increasing every year, and efficiency in service is the most important indicator to ensure the highest quality of interaction with customers. This will ensure their return to the country again and again. The study of the tourism sector in Albania and the changes that have occurred in it due to the beginning of COVID-19 was conducted by Alshiqi and Sahiti (2022). They noted that the pandemic has indeed had a substantial impact on the global tourism industry, including in Albania, which is highly dependent on the well-being of this field. Therefore, to revive the industry, conducting more active state activity in this area is relevant to support local enterprises. Xhafaj and Vlachos (2022) also examined the opportunities and dangers for the development of tourism in Albania, forming recommendations on the future evolution of the field. A similar study was also conducted by Kapllani (2021), focusing on the impact of globalisation on this sector of the country. Analysing the hotel component of Albania Spaho and Sala (2017) conclude that hotel managers should pay more attention to existing opportunities regarding the placement of their hotels on online sites. In addition, it is important to encourage consumers to be active on them, in particular, writing comments or reviews. This has a positive effect on the demand and price of overnight stays in hotels. Thus, the purpose of the study was to assess the veracity of Veblen's hypothesis based on empirical data from Albania in the context of the price of hotel rooms. This will not only increase the theoretical basis for investigating this concept but also give an opportunity to take a different look at the current state of the tourism sector of the country.

Materials and methods

Within the framework of this paper, a study on the elasticity of demand is conducted in the context of the regions of Albania. This is also relevant because solutions in the context of the tourism sector are most often applied at the regional level, and not individual cities or towns. The approach indicated in the study compares regional average price elasticities based on hotel occupancy and income. It is quite simple and free of problems, which are noted in other studies. During the study, the following hypothesis was formed: H_1 – an increase in prices for tourist accommodation will lead to a corresponding increase in demand for overnight accommodation. Accordingly, if during the study it is not possible to find enough evidence to prove it, the hypothesis will be rejected. If the situation is reversed (that is, there will be enough evidence and facts), then the hypothesis can be considered accepted. In addition, a situation is not rejected when the facts will not be sufficient either to prove or to refute this thesis. Data on the number of guests staying in different regions of Albania provided by the INSTAT (2022) was used as a statistical base. The main variables in the study were “the number of overnight stays” and “income per occupied guest room”; the study period is from 2017 to 2022. While previous literature has extensively examined models analysing changes in demand and its sensitivity, only a few studies have transformed variables into elasticity indicators. Moreover, in some studies, the measurement of price elasticity has been considered difficult.

The following formula was used to calculate the regional price elasticity:

$$PED = \frac{Q\%}{P\%} \quad (1),$$

where: PED – price elasticity of demand; $Q\%$ – percentage change in the number of overnight stays; $P\%$ – percentage change in price. Thus, the percentage change in quantity refers to the change in the number of overnight stays, which can be calculated as follows:

$$Q\% = \frac{Q_1 - Q_0}{Q_0} \quad (2),$$

where: $Q\%$ – percentage change in quantity; Q_1 – quantity in period 1; Q_0 – quantity in period 0.

In the same way, the percentage change in price can be estimated:

$$P\% = \frac{P_1 - P_0}{P_0} \quad (3),$$

where: $P\%$ – percentage change in price; P_1 – price in period 1; P_0 – price in period 0. Some other methods were also used during the study. In particular, the analysis allowed considering various sources of information about the current state of the tourism industry in Albania. In addition, the historical method played an important role, which allowed considering certain factors in retrospect. Abstraction allowed distancing from certain unimportant factors that influenced the price elasticity for rooms in hotels in Albania, which increased the accuracy of the study. Modelling, in turn, allowed showing the relationship between various factors that could cause the formation of certain indicators of price elasticity in hotels in the country.

Results

The Veblen hypothesis itself was proposed by the American economist Thorstein Veblen at the end of the 19th century. It shows that the consumption of material goods in society is not based on their real usefulness, but on the social status symbolism that they acquire. According to the hypothesis, they seek to acquire and consume goods that will demonstrate their status, wealth, and prestige in society. He called it conspicuous consumption. According to Veblen's hypothesis, the consumer chooses goods based not only on their practical value but on how these goods can raise or lower their position in society in other people's eyes (Basmann et al., 1988). For example, if a person buys a very expensive bag, they can do it not because it protects their things better, but because it symbolises their wealth and prestige. Goods such as expensive cars, jewellery, and luxury homes are not necessary to meet the needs, but they are used to show their high status in society. Related to this concept is another, which was also introduced by Veblen, namely "technological equipment", which refers to technologically advanced products, such as cars, which can be used to demonstrate status in society. Therefore, such products are more valuable for people from the upper strata of society than for the poor. This hypothesis is of great importance for modern economics and for a better understanding of consumer behaviour; moreover, the higher the level of development society reaches, the more relevant this theory is due to changes in consumer behaviour caused by technological progress, and, in particular, the creation of social networks (Kussainova et al., 2018). It can be used for different purposes: as price management, which is mainly described in this study, the promotion of goods and services (for example, if the demand for goods is not very elastic, then the manager can pay more attention to branding and product quality, while if the demand for goods is very elastic, then the manager can pay more attention to price promotions and advertising campaigns) and inventory management (Nimani and Spahija, 2023).

The elasticity of demand in the tourism business has several features that need to be considered when conducting a study. The most important thing is that it may vary depending on what kind of tourism is being evaluated. Therefore, it is worth paying attention to this to obtain correct results. In addition, the breakdown by seasons and holidays is important since the demand for tourist services may be more elastic during the low season when prices are more affordable than in the high season. It is also interesting that the tourism industry of Albania is heavily dependent on the EU market, which makes it a relatively affordable place to travel. Nevertheless, European tourists are sensitive to price changes, which also makes competent pricing a very important task in Albania. The behaviour of tourists is also determined by social factors, such as the desire for status and prestige (Jamshidi et al., 2023).

This desire can be satisfied by choosing notable tourist destinations (Boc et al., 2022). Moreover, the perceived image of hotels plays a crucial role in this matter.

Hotel business managers often use different pricing strategies based on different factors, such as cost structure and competitors' prices. A more complex form of revenue management is the formation of pricing based on peak loads: this allows more accurately determining the number of rooms that can be sold for a lower price, based on the future probable demand for a certain date and price elasticity in various market segments (Idrysheva et al., 2019). This allows for maximising revenue by offering corporate-rated rooms during periods of high demand and discounted rooms during periods of low demand. Thus, elasticity plays a crucial role in segmenting demand across the booking horizon. In most studies, researchers have tried to estimate the elasticity of demand using demand functions. However, their final results could differ substantially, which is due to different approaches and models when modelling this function.

Pricing plays a crucial role in maximising revenue in the tourism industry due to demand characteristics (Bandalouski et al., 2021). Price fluctuations allow tourist facilities to serve different customer segments depending on their willingness to pay, product, and customer characteristics (Rodríguez-Díaz et al., 2019). Some features of the tourism business, in general, make a very important component of competent management of the number of available places in hotels, and the formation of prices for them. The availability of types of services that can replace hotels complicates this process even more: thus, pricing strategies in the tourism industry are diverse and depend on various factors such as location, seasonality, and competition (Ma et al., 2021). Therefore, managers often resort to the practice of changing the prices of hotels depending on the expected demand for them. So they often use low-price strategies to attract customers to new or emerging tourist destinations, while high-price strategies are used to turn territories for mass tourism into exclusive ones. Understanding price elasticity is crucial to determining a proper pricing strategy since the price is indeed an important factor when choosing tourist destinations (although not the main one, as mentioned above). Air transport, visits to national parks, and the demand for hotel rooms have been the focus of price elasticity studies.

Figure 1 below shows the calculated price elasticities of overnight stays in different regions.

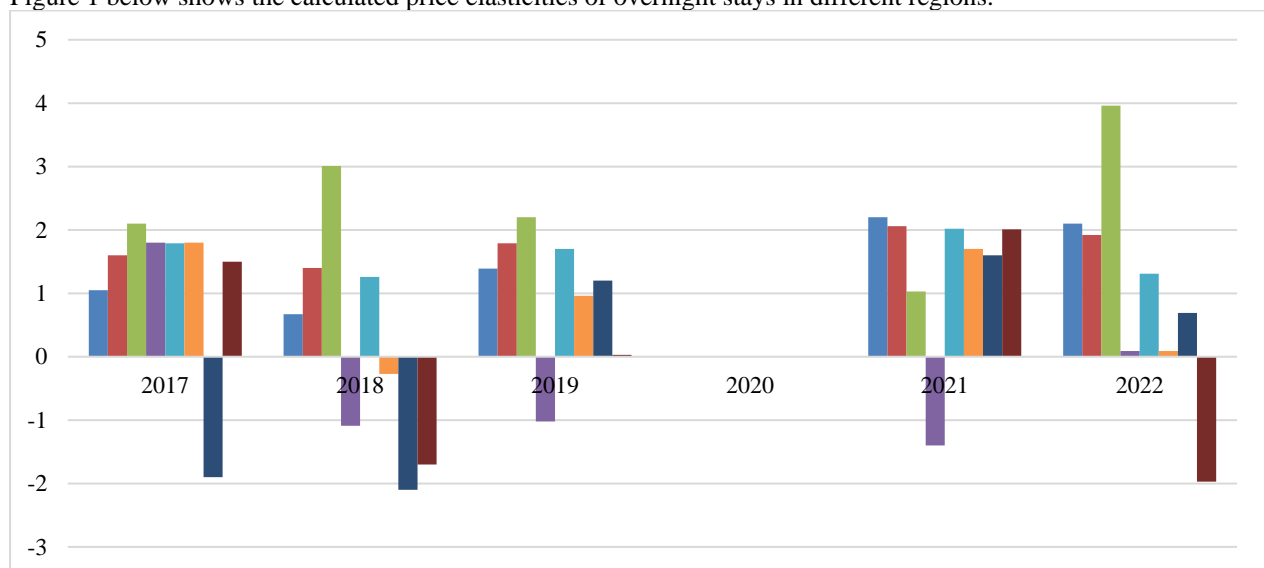


Figure 1. Price elasticity of overnight stays in different regions of Albania in the period from 2017 to 2022
 Source: Compiled by the authors based on data from INSTAT (2022)

More detailed information about the data can be seen below, in Table 1.

Table 1. Price elasticity of overnight stays in different regions of Albania in the period from 2017 to 2022

Year	Tirana	Vlora	Durres	Shkoder	Golem	Korche	Berat	Elbasan
2017	1.05	1.6	2.1	1.8	1.79	1.8	-1.9	1.5
2018	0.67	1.4	3.01	-1.09	1.26	-0.27	-2.1	-1.7
2019	1.39	1.79	2.2	-1.02	1.7	0.96	1.2	0.03
2020	x	x	x	x	x	x	x	x
2021	2.2	2.06	1.03	-1.4	2.02	1.7	1.6	2.01
2022	2.1	1.92	3.96	0.09	1.31	0.09	0.69	-1.97

Source: Compiled by the authors based on data from INSTAT (2022)

As can be seen from Table 1 and Figure 1, the average price elasticity in the period from 2017 to 2022 (with the exception of 2020 – the year of COVID-19) shows substantial fluctuations: from -1.97 in the Elbasan region to 3.96 in Durres. Durres and Vlora demonstrate higher elasticity of demand with an average elasticity of 2.46 and 1.75, respectively. This suggests that conspicuous consumption plays a substantial role in overnight stays in these regions. Durres, in particular, was a popular holiday destination for tourists from Poland, the Czech Republic, and Ukraine (although the number of tourists in 2022 decreased by more than 70,000 due to the outbreak of war (INSTAT, 2022)). Golem and Tyrant also show average elasticity at a price of 1.62 and 1.48, respectively, which indicates a similar model of demonstrative consumption. The Korcha region has an average price elasticity of 0.86 after Tirana and Golem, with different values for the period.

In August, one of the periods with a large number of tourists, the price elasticity of demand for overnight accommodation in Vlora, Durres, and Golem is positive, which indicates that tourists are willing to pay more for accommodation in these areas. However, elasticity is negative in Shkoder, Berat, and Elbasan, which suggests that tourists are less likely to pay higher prices in these regions. It is noteworthy that in places such as Vlora and Durres, tourists are willing to spend more money on overnight accommodation. On the other hand, in other regions, tourists are more price sensitive and may avoid destinations with higher prices. The Tirana region recorded the second-highest value of price elasticity in December 2021, while Vlora and Golem had the lowest value in February. When comparing overnight stays by region, substantial differences in consumption patterns are observed, which show differences in tourists' preferences, their income levels, and consumer habits.

Territories such as Durres and Tirana turned were the most popular regions for overnight stays, while Berat and Elbasan were less popular. As for the income in the context of each number, Tirana and Durres have the highest shares, while Berat and Elbasan – the lowest. Tourist sites can adjust their prices to attract different types of customers, considering their willingness to pay and the characteristics of products and customers (Tapak et al., 2019). The pricing strategy in the hospitality industry is influenced by many factors, including internal factors such as costs, organisation, and working conditions, although the cost only matters when determining the lowest possible price, and additional discounts may be offered during the off-season. External factors, such as the stage of the product life cycle, price elasticity, competition, and differentiation of products and services, have a more substantial impact on pricing due to the complex operation of the market (Mudrak et al., 2022).

In some cases, the price elasticity of demand may be positive, which means that more expensive or exclusive destinations may attract more tourists due to the Veblen effect or the snob effect. The results of this study confirm the (H_1) hypothesis that the described effects are present in the tourism sector of Albania. As a result, local authorities are recommended to encourage the development of 5-star luxury hotels to attract travellers seeking status and

prestige, since data from the Booking website (Booking, 2023) as of December 2022 show that only 3% and 7% of all hotels in the respective regions were 5-star. All the data provided above prove the relevance of Veblen's theory. In addition, such information can be used to more effectively price rooms in the context of seasons, weekdays or weekends, etc. In this case, the negative elasticity of demand in most cases suggests that the relevant strategy for enterprises is to increase the price of prestigious hotels to maximise profits. Therewith, for other types of establishments, it will be relevant to keep the price low enough since for them the Veblen effect is not relevant and applicable.

Discussion

As noted above, the demand for tourism can be both elastic and inelastic, depending on the destination and purpose of the trip. For example, business travellers may be less sensitive to price changes because they have fewer alternatives compared to tourists the goal of which, for example, is to visit certain attractions (Mykola et al., 2020). In addition, since tourism as such includes several products, it is difficult to obtain an accurate price measure to calculate price elasticity. In a large number of papers, researchers have tried to determine the best pricing strategy both in general and in the hotel sector in particular. Thus, Bandalouski et al. (2018) conducted an analysis of price formation based on the type of guest based on different price elasticity for different market segments, and Dieguez et al. (2022) considered the approach of measuring individual demand to assess the market reaction to price changes. Nevertheless, the simplest and most common method for assessing the elasticity of demand is its formation based on the demand function (which, in fact, shows how the desired consumption of economic entities for a particular product will change depending on its price). However, most studies in which the elasticity is estimated using this method show very different results due to the use of other mathematical approaches to the construction of the function (Ostapenko et al., 2023; Jawabreh et al., 2023).

The review of 481 hotels and 22 metropolitan markets in the framework of his study was conducted by R. Macdonald (2000). For this purpose, the least squares method was used to estimate the parameters of the model, identifying that demand is inelastic in price. A similar study was conducted by Zhang et al. (2019). They used a hotel revenue management model based on dynamic pricing using an elasticity calibration algorithm at the Plaza Hotel in Alexandria (Egypt) from 2008 to 2010 and identified that prices generally decrease as demand for premises decreases and vice versa. A similar study was conducted by Bayoumi et al. (2013). They proposed a new approach to dynamic pricing to solve the problem of managing hotel revenues, namely based on “price multipliers” as functions of individual variables. Researchers used the Monte Carlo method to determine the multiplier parameter to maximise income, considering the current situation in the interaction between supply and demand. Having calculated the price elasticity using the Probit function, they conclude about the inelasticity of demand, which, moreover, was identified to be quite static. In turn, Wang et al. (2021) also attempted to solve the price optimisation problem based on various mathematical-statistical methods. Using a linear demand model, the researchers tried to estimate the minimum rate for price optimisation in 28 US hotels. They also concluded about the inelasticity of demand. However, while the paper of Petricek et al. (2021) showed that elasticity in the peak season is mostly inelastic, the study of Surugiu et al. (2011) showed that the distribution of elasticity over the booking horizon cannot explain fluctuations in prices and the number of bookings, which indicates the need for additional research on this subject. A sufficiently detailed consideration of the elasticity of demand for the price is considered in the study of Petricek et al. (2020). The authors also tried to achieve this by constructing a demand curve, which, in their opinion, is one of the most important components for building a pricing approach.

Researchers place special emphasis on resort hotels with temporary demand, where the formation of hotel prices plays a key role.

Fleissig (2020) confirmed that hotel accommodation can be treated as a luxury item. The researcher noted that the service of renting a hotel is elastic in terms of costs; in other words, in some periods such a service can be presented as a “luxury item”. In addition, Fleissig noted the relationship between the incomes of citizens and the level of such elasticity in terms of hotel prices. Notably, the confirmation of Veblen's hypothesis in the hotel field was noted in the study above, especially in more expensive hotels and in certain seasons. The change in the elasticity of demand depending on the season was noted in the paper of Marsden and Sibly (2017). Researchers have noted that the elasticity of demand mainly increases in winter and decreases as the quality of services provided increases. In other words, they showed that consumers are willing to pay a higher price for the same services provided only under certain conditions, namely when these services are already considered high-quality and “elite”, and when there is a season for these services (Kotsenko et al., 2023). Similar conclusions are obtained by Canina and Carvell (2005), describing how the effect of improving quality and price elasticity on demand is reduced.

Notably, in the modern economic literature, in the context of assessing the impact of price elasticity on demand in the hotel sector, the emphasis is mainly on one segment of the market, namely individual travel. However, other segments are completely or partially ignored, as stated in the paper by Dolasinski et al. (2019). They also note that conducting this kind of examination will maximise revenues from certain segments of the hotel sector, which will have a positive impact on the development of tourism sectors in all countries, especially in Albania. The impact of the emergence of social networks in the business environment on various kinds of companies that are associated with the tourism industry was examined by Jamshidi et al. (2023). Using empirical data, researchers have concluded that the added value of information in social networks about places where tourists often come has a positive effect on their development. Interestingly, they introduce the concept of “coolness” in their paper. Thus, they stated that, due to the appearance of a particular place on social networks, it becomes “cooler”, which positively affects the impressions that later remain from visiting such places (Ostapenko and Bryantsev, 2023). This completely coincides with the conclusions that were obtained in the study above about the elasticity of price demand in Albania, especially for more popular tourist areas. Thus, the price elasticity of demand for a large number of hotels in Albania is low. This indicates that managers, depending on the level of prestige of their hotels, can make appropriate decisions about what their policy should be in the context of price formation. Such pricing optimisation will substantially increase the profits of such companies, which will have a positive impact not only on the industry but also on the economic development of the country in general, which is in great need of a revival of tourism after the events of the COVID-19 pandemic.

Conclusions

In this study, it was investigated whether the desire to obtain status affects behaviour in the context of choosing a hotel when spending the night in Albania. An alternative approach was proposed to calculate the price elasticity, which used regional data on the number of overnight stays and income per occupied guest room. It allowed for avoiding problems that arise during econometric analyses, which are identified in some studies. The results show that there is a noticeable consumption of overnight stays in most regions of Albania, especially in the peak seasons of 2022 and in Durres, Vlora, and Tirana. In addition, in the Durres region, there are signs of noticeable consumption during overnight stays in the period from 2017 to 2022. However, since peak seasons are short, conclusions about the amount of elasticity should be

treated with caution. The conclusions described in the paper are relevant for tourism management and planning at the regional level for the formation of the pricing strategy and policy. Local authorities should focus on promoting luxury hotels to attract visitors seeking status and prestige. Thus, the study in general confirms Veblen's hypothesis due to the fact that the data obtained indicates the existing negative price elasticity in the context of the dependence of demand on price in the country. However, this study was quite generalised: in other words, the elasticity index may differ for both individual types of hotels and individual groups of tourists, which is also worth considering while conducting business. Relevant in the context of future research is the construction of a logarithmic demand function to assess the impact of certain factors on the elasticity of demand. Further research is needed to investigate the impact of other factors on conspicuous consumption in the Albanian tourism market, including cultural differences and changing tourist preferences.

References

- Alshiqi, S. & Sahiti, A. (2022). The Impact of COVID-19 on Albanian Tourism. *Emerging Science Journal*, 6, 33-41.
- Bandalouski, A. M., Egorova, N. G., Kovalyov, M. Y., Pesch, E. & Tarim, S. A. (2021). Dynamic Pricing with Demand Disaggregation for Hotel Revenue Management. *Journal of Heuristics*, 27, 869-885.
- Bandalouski, A. M., Kovalyov, M. Y., Pesch, E. & Tarim, A. (2018). An Overview of Revenue Management and Dynamic Pricing Models in Hotel Business. *RAIRO-Operations Research*, 52(1), 119-141.
- Basman, R. L., Molina, D. J. & Slottje, D. J. (1988). A Note on Measuring Veblen's Theory of Conspicuous Consumption. *The Review of Economics and Statistics*, 70(3), 531-535.
- Bayoumi, A. E.-M., Saleh, M., Atiya, A. F. & Aziz, H. A. (2013). Dynamic Pricing for Hotel Revenue Management Using Price Multipliers. *Journal of Revenue and Pricing Management*, 12(3), 271-285.
- Boc, E., Filimon, A. L., Mancia, M.-S., Mancia, C. A., Josan, I., Herman, M. L., Filimon, A. C. & Herman, G. V. (2022). Tourism and Cultural Heritage in Beius, Land, Romania. *Heritage*, 5(3), 1734-1751.
- Booking. (2023). About. Available at <https://www.booking.com/> [Retrieved 10 October 2023].
- Buckley, R. (2022). Economic Value of Tourism Through Human Capital Gains. *Journal of Travel Research*. DOI: <https://doi.org/10.1177/00472875221146782>
- Burlea-Schiopoiu, A. & Ozuni, F. (2021). The Potential of Albanian Tourism Sector. *Sustainability*, 13(7), 3928.
- Canina, L. & Carvell, S. (2005). Lodging Demand for Urban Hotels in Major Metropolitan Markets. *Journal of Hospitality & Tourism Research*, 29(3), 291-311.
- Diegues, T., Castro, C., Ferreira, L. P. & Silva, F. J. G. (2022). Revenue Management Within COVID-19. In: *Advances in Tourism, Technology and Systems. Smart Innovation, Systems and Technologies*, 293 (pp. 1-11). Singapore: Springer.
- Dolasinski, M. J., Roberts, C. & Zheng, T. (2019). Measuring Hotel Channel Mix: A DEA-BSC Model. *Journal of Hospitality & Tourism Research*, 43(2), 188-209.
- Fleissig, A. R. (2020). Habit Persistence in Tourist Sub-Industries. *Journal of Applied Economics*, 24(1), 103-113.
- Gao, Y. L., Guillet, B. D. & Wang, P. (2021). Effect of Price Change Alert on Perceptions of Hotel Attribute-based Room Pricing (ABP) versus Traditional Room Pricing (TRP). *International Journal of Hospitality Management*, 92, 102725.

- Idrysheva, Z., Tovma, N., Abisheva, K.-Z., Murzagulova, M. & Mergenbay, N. (2019). Marketing communications in the digital age. *E3S Web of Conferences*, 135, 04044.
- INSTAT. (2022). *Home*. Available at <https://www.instat.gov.al/en/> [Retrieved 15 June 2023].
- Jamshidi, D., Rousta, A. & Shafei, R. (2023). Social Media Destination Information Features and Destination Loyalty: Does Perceived Coolness and Memorable Tourism Experiences Matter? *Current Issues in Tourism*, 26(3), 407-428.
- Jawabreh, O., Qader, A. A., Salah, J., Al Mashrafi, K., AL Fahmawee, E. A. D. & Ali, B. J. A. (2023). Fractional Calculus Analysis of Tourism Mathematical Model. *Progress in Fractional Differentiation and Applications*, 9, 1-11.
- Kapllani, O. (2021). Globalization and Tourism Industry in Albania. *International Journal of Economics, Commerce and Management*, 9(5), 36-44.
- Komilova, N. K., Matchanova, A. E., Safarova, N. I., Usmanov, M. R. & Makhmudov, M. M. (2021). Some Socio-Economic Aspects of Gastronomic Tourism Study. *Estudios de Economia Aplicada*, 39(6).
- Kotsenko, M., Tkachuk, V., Kilnitska, O., Lysytsia, N. & Shaposhnikova, I. (2023). Development of a Competitive Strategy of An Organic Production Enterprise Based on Discriminant Analysis. *Scientific Horizons*, 26(6), 121-133.
- Kussainova, A., Rakhimberdinova, M., Denissova, O., Taspenova, G. & Konyrbekov, M. (2018). Improvement of Technological Modernization Using Behavioral Economics. *Journal of Environmental Management and Tourism*, 9(7), 1470-1478.
- Ma, S., He, Y. & Gu, R. (2021). Joint Service, Pricing and Advertising Strategies with Tourists' Green Tourism Experience in a Tourism Supply Chain. *Journal of Retailing and Consumer Services*, 61, 102563.
- Macdonald, R. (2000). Urban Hotel: Evolution of a Hybrid Typology. *Built Environment*, 26(2), 142-151.
- Marsden, A. & Sibly, H. (2017). Third-Degree Price Discrimination in a Short-stay Accommodation Industry. *Applied Economics*, 49(51), 5166-5182.
- Massidda, C., Piras, R. & Seetaram, N. (2022). Analysing the Drivers of Itemised Tourism Expenditure from the UK Using Survey Data. *Annals of Tourism Research Empirical Insights*, 3(1), 100037.
- Mudrak, R., Lagodiienko, V. & Kordzaia, N. (2022). Industry Structure of Agri-Food Production and Consumer Food Price Index. *Scientific Horizons*, 25(7), 90-100.
- Mykola, I., Vadym, A., Anatoliy, P., Yurii, H. & Nataliia, R. (2020). Features of the Content and Implementation of Innovation and Investment Projects for the Development of Enterprises in the Field of Rural Green Tourism. *International Journal of Management*, 11(3), 304-315.
- Nimani, A. & Spahija, D. (2023). Financial Markets and Price Increases in Europe after the Russian-Ukrainian War. *Scientific Horizons*, 26(3), 135-145.
<https://doi.org/10.48077/scihor3.2023.135>
- Ostapenko, I. & Bryantsev, A. (2023). Theoretical Aspects of the Territorial-functional Organization of Agro-ecotourism in Kazakhstan. *International Journal of GEOMATE*, 25(109), 109-116.
- Ostapenko, I., Kozbagarova, N. & Bryantsev, A. (2023). Potentials of Using Container Buildings for Producing Facilities for the Agro-Ecological Tourism Complexes in Kazakhstan. *ISVS E-Journal*, 10(6), 351-364.
- Peco-Torres, F., Polo-Pena, A. I. & Frias-Jamilena, D. M. (2021). Revenue Management and CRM Via Online Media: The Effect of Their Simultaneous Implementation on Hospitality Firm Performance. *Journal of Hospitality and Tourism Management*, 47, 46-57.



- Petricek, M., Chalupa, S. & Chadt, K. (2020). Identification of Consumer Behavior Based on Price Elasticity: A Case Study of the Prague Market of Accommodation Services. *Sustainability*, 12(22), 9452.
- Petricek, M., Chalupa, S. & Melas, D. (2021). Model of Price Optimization as a Part of Hotel Revenue Management-Stochastic Approach. *Mathematics*, 9(13), 1552.
- Rodríguez-Díaz, M., Rodríguez-Voltes, C. I. & Rodríguez-Voltes, A. C. (2019). Determining the Relationships between Price and Online Reputation in Lodgings. *Administrative Sciences*, 9(3), 53
- Spaho, A. B. & Sala, E. (2017). An Econometric Analysis of Online Ratings of Hotels in Albania. In: *13th International Conference of ASECU: Social and Economic Challenges in Europe 2016-2020* (pp. 296-304). Durres: “Aleksander Moisiu” University of Durres.
- Surugiu, C., Leitao, N. C. & Surugiu, M. R. (2011). A Panel Data Modelling of International Tourism Demand: Evidences for Romania. *Economic Research-Ekonomska Istraživanja*, 24(1), 134-145.
- Tapak, L., Abbasi, H. & Mirhashemi, H. (2019). Assessment of Factors Affecting Tourism Satisfaction Using K-Nearest Neighborhood and Random Forest Models. *BMC Research Notes*, 12, 749.
- Wang, X., Huang, H.-C., Han, L. & Lim, A. (2021). Price Optimization with Practical Constraints. *ArXiv*. <https://doi.org/10.48550/arXiv.2104.09597>
- Khafaj, K. & Vlachos, P. (2022). Planning and Development of Gastronomic Tourism in Albania: An Exploratory Study of Visitor Perceptions, Experiences and Destination Image. In: *Tourism Planning and Development in Eastern Europe* (pp. 64-79). Wallingford: CABI Publishing.
- Zhang, Q., Qiu, L., Wu, H., Wang, J. & Luo, H. (2019). Deep Learning Based Dynamic Pricing Model for Hotel Revenue Management. In: *2019 International Conference on Data Mining Workshops (ICDMW)* (pp. 370-375). Beijing: IEEE.