

STAFF PRODUCTIVITY IN HOTEL INDUSTRY IN TOURISM DESTINATION MAKARSKA

Marijana Jurišić Mustapić

PhD, senior lecturer, University of Applied Sciences Aspira, Split, Croatia;
marijana.juriscic@aspira.hr; ORCID ID: 0000-0001-9436-5788

Filipa Marušić

Mag.oec., lecturer, University of Applied Sciences Aspira, Split, Croatia;
filipa.marusic@aspira.hr; ORCID ID: 0000-0002-7854-4716

***Abstract:** The tourism market has been facing a labor crisis. This raises the question of the hotel operations and business processes as well as its business organization. The dynamic tourism environment faces the challenges of staff turnover and in the same time labour and their motivation to work. Work productivity is one of the basic indicators of a hotel's successful operation. The hotel guest is in contact with the employees during the service. Employees are the bearers of the tourist product in the provision of services for which the primary accommodation facilities are. The aim of the paper is to examine the staff productivity in the hotels of the city of Makarska. The analysis of labor productivity shows the development of the hotel where guidelines can be provided for the operation and improvement of business processes in order to achieve competitiveness. Methodology used in the paper is descriptive statistical analysis, as the data obtained comes from secondary data that is necessary for the calculation of indicators for the purposes of this paper. The paper presents the productivity coefficient of a four-star hotel in the city of Makarska. The work represents a significant contribution in the application sense for the hotel industry, so that the management makes the right decisions about the organization of work and number of staff because employees build a reputation in the competitive tourist market. During the pandemic Covid19, labor productivity was lower. The labor productivity coefficient shows that it has recovered after the pandemic Covid19, but has not yet reached its maximum.*

Keywords: hotel industry, four-star hotels, staff productivity, Makarska.

JEL: Z30.

INDTRODUCTION

One of the basic functions of tourism is the function of employment. Employment in tourism is often used to encourage the development of companies, and at the

same time, it is an additional challenge for managers. An increase in tourist traffic in a destination will lead to an increase in the demand for employees in tourism. In recent years, the importance of employment in tourism has taken an important place in discussions in the practice of service industries, especially hotels. The tourism labor market is quite dynamic and is facing a labor shortage crisis. Without human resources, there are no services provided. The need for employees in tourism staff is a growing trend that requires attention and a more detailed analysis. Labour productivity is one of the basic indicators of a hotel's successful operation. The hotel guest is in contact with the employees during the service. Employees are the bearers of the tourist product in the provision of services for which the primary accommodation facilities are. On the labor market, there was a struggle to win over every tourist employee.

Employee productivity is an important component in every business organization, particularly in the tourism industry, which is facing a workforce crisis. Hoteliers are constantly challenged by staff turnover, low wages, paid overtime, seasonality, fluctuating demand, and more. In business, managers strive to maintain high levels of employee productivity to meet the needs and desires of guests. The hotel industry is believed to have low employee productivity rates due to the nature of the business, which is labor-intensive for both the product and the service. Measuring productivity in services is challenging due to its service nature and the complexity of the work environment. Hu and Cai described the concept of labor productivity as "the hotel's ability to obtain maximum results from a given set of labor inputs or minimize its labor input to achieve the expected level of output." (Hu & Cai, 2004, str. 28)

The highest hotel costs are attributed to employee turnover. These are costs that both the industry and individual operators should consider carefully, as they significantly affect hotel operating costs and profitability (Davidson, Timo, & Wang, 2010). Studies have shown that labour turnover affects organizational performance, customer quality and employee productivity (Wambugu, 2019). Despite the adverse effect of labour turnover on growth, survival and sustainability of organizations in the hospitality industry, there is limited research on which productivity coefficients should be optimal and which elements can affect productivity.

The presented study consists of six parts: Introduction, Literature Overview, Methodology, Findings, Limitations and contribution of the work and Conclusion. In the Introduction, we specify the research area and explain and the authors explained why they chose said topic. The Literature Overview includes an overview of relevant literature in the researched area, based primarily on respected scientific journals and book publications. In Methodology, the authors explained how they received the necessary data to calculate the coefficient of labor productivity, how many hotels in the tourist destination Makarska. In findings, the results of the labor productivity coefficient from 2019 to 2022 are presented. The next section identifies the limitations and contribution of the paper. The conclusion shows the essential determinants of the paper.

LITERATURE OVERVIEW

In the theoretical review of the literature, the paper presents the aspect of productivity and which variables can have an impact on labor productivity. Investigated criteria that affect productivity in the hotel industry are: location, property size, hotel

design, ownership, business format, demand variability, level of repeat customers, average length of stay, market segment served, distribution channels, and share of temporary staff (Sigala, 2004). Among these criteria, only demand variability, hotel design, and ownership were found to significantly affect productivity in the hotel sector. The type of hotel room and different guest segments can also determine employee productivity. Some authors identified market segment as one of the variables that affect hotel efficiency. Research (Fernández & Becerra, 2015) has shown a strong relationship between quality level and efficiency, and that large hotels are more efficient than smaller ones because they have invested in intangible assets such as information systems, while quality has served as an incentive for mid-range hotels compared to “higher class” hotels. Small hotels have problems with organizing work and are misunderstood in that segment of business organization (Lee-Ross & Ingold, 1994). Small hotels use technology less and usually do not have the need to innovate in technology as they are “small”, but usually the lack of use of technology that leads to improvements in certain time movements, operations management, and self-service which is often associated with automation usually leads to increased labor productivity (Witt & Witt, 1989). According to the findings (Kilic & Okumus, 2005), in small hotels, staffing, staff training, meeting guest expectations, and service quality are the main factors affecting productivity in hotels, while crises, technology, marketing, and forecasting are ranked relatively low. Furthermore, the authors did not find significant differences in productivity factors related to stars, hotel ownership, and departments, but rather that the abilities, skills, knowledge, and experience of managers are the key factors in managing hotels and thus improving their productivity and service quality. Some authors (Jones & Siag, 2009) focused on the efficiency of housekeeping departments and examined the efficiency of room cleaning teams in hotels with different star ratings. The study concluded that there was no significant difference in productivity levels based on size, location, demand variability, or age of the hotel, refuting evidence from some previous studies. The authors (Jones & Siag, 2009) concluded that managers have much greater control over productivity and demonstrated that four-star hotels will have significantly fewer cleaned rooms per employee compared to one- or two-star hotels.

Brown & Dev (1999) found in their studies that productivity significantly increased regardless of the size of the hotel, with a greater number of employees. Additionally, it was found that an increase in the number of rooms available for sale had a positive impact on the productivity of larger hotels, and that the productivity of large hotels was increased when they were managed by a branded management company. However, these studies often overlook intangible issues such as quality, customer expectations, and other external factors. The intangible nature of services objectively makes it difficult to define and measure the output of the service provided (e.g., the number of nights compared to the number of satisfied guests), and measuring and managing service inputs and outputs is also complicated due to the simultaneous production and consumption of hospitality services, as well as their perishability and heterogeneity, as encounters with service are experienced differently by different people or even by the same people in different circumstances. Unlike physical objects, services and atmospheres are immeasurable. Reynolds (Reynolds, 2003) study discussed the mechanisms used to measure and analyze productivity, focusing on the technique of analyzing so-called DEA analysis. Author (Reynolds, 2003) demonstrated that Data

Envelopment Analysis (DEA) can be used to determine the efficiency of hotel resource utilization and identify factors that are beyond the control of managers. In hotel there are classified these factors as either environmental (external, such as economic, legal, and political, technological, and socio-cultural factors in the environment) or organizational (internal, such as administrative, operational, and individual factors) (Pickworth, 1994). It is evident that results are mostly observed in terms of quantitative measures such as room occupancy, rather than qualitative measures, as seen in previous studies. Improving productivity is crucial for achieving the goals of a hotel organization and enhancing its effectiveness (Reynolds, 2003).

It is worth mentioning how important is motivation, the quality of services/products and the guest's satisfaction associated with it. Motivating staff can be used a tool for increasing productivity. Problems such as absenteeism, low productivity, non-attachment to job, reluctance, high turnover rate, and low service quality can be overcome by motivation (Cetin, 2013). Not being the only factor in increasing the productivity, it is one of the important factors which has a direct impact on it. The adoption of quality standards and certifications increases or decreases labour productivity in hotels (Sánchez-Ollero, García-Pozo, & Marchante-Lara, 2015). The effects of quality on business competitiveness have been viewed from two different perspectives:

(1) External effects, which involve the impact on business competitiveness of changes in the quality perceived by the consumer, which mainly occur via the price the client is willing to pay (Choi & Chu, 2001),

(2) Internal effects, which are driven by the changes in the productivity of the factors and, therefore, in the firm's production costs (Hwang & Chang, 2003).

Hotel business operation successes will not just merely rely on the number of employees but depends on the efficiency of each (Simpao, 2018). More so, an inverse-ly proportional finding versus labor productivity efficiency ratios means that the more the hotel increases the number of its employee the greater the labor cost and lesser labor output an employee can produce (Simpao, 2018). Some of the factors that affect work productivity are: employee selection, employee morale and satisfaction, training of employees and managers, employee motivation, organizational structure, leadership and management, employee reward system, compliance with international work standards, customer perception and satisfaction, service and product quality and etc. (Črnjar, 2005). Therefore, there is a need to determine measures of labor productivity and control standards for hotels to help hotel managers increase work productivity while effectively meeting company goals.

Overall, prior research in the hotel context has revealed that knowledge of hotel managers and owners about productivity is relatively low (Baker & Riley, 1994). One study conducted by (Prais, Jarvis, & Wagner, 1989) investigated the extent to which education and training contribute to work productivity. The authors found that hotels in Germany had a higher percentage of employees with qualifications relevant to their jobs than in England, and progress to higher job levels was facilitated by individuals with a broader education and greater flexibility across departments, who also knew multiple languages.

Significant for labor productivity are indicators of fluctuation and change (turn-over) of employees, indicators of absence from work, indicators of motivation, indicators of working conditions (safety and health), indicators of education and ad-

vancement (training, courses, improvement, guidance), indicators of rewarding work (salaries and other income), etc. (Avelini Holjevac & Vrtodušić Hrgović, 2012). At the hotel level, the following indicators can be used to measure and evaluate labour productivity: - global indicators of labour productivity at the hotel level, - partial indicators of productivity at the level of hotel departments, - indicators of labour productivity for individual professions in hospitality (Avelini Holjevac & Vrtodušić Hrgović, 2012). Partial labor productivity indicators are (Črnjar, 2005):

- income from food service (in constant prices)/ average number of employees in the kitchen
- total number of meals issued / average number of employees in the kitchen
- income from food and beverage services (in constant prices)/ average number waiter
- number of meals served (number of couvert)/ average number of waiters
- income from accommodation services (in constant prices)/ average number of employees per reception floors
- number of overnight stays/ average number of employees at the reception and floors
- number of guests/ average number of employees s at the reception and floors
- income from non-boarding services (at constant prices).

In this paper, only one indicator was taken for data processing, namely the ratio of the number of overnight stays and total employees in the hotel, also during the months of the season. If the occupancy of the hotel and the percentage of utilization of accommodation capacities is lower in business, there will be a lower productivity of work. No matter how full the hotel is, hotels need employees. It is necessary to continuously monitor the productivity of employees in hotels in order to see the possibility for development and progress. In order to increase the productivity of work, it is necessary to determine the elements and measures used to achieve this. This paper does not show the factors that affect labor productivity, which is presented in the literature review. The labor productivity coefficient is important for managers in order to recognize motivated employees for work because they will contribute to a higher level of productivity. Therefore, it is very important to know what the coefficient of labor productivity is.

METHODOLOGY

The research is based on secondary data, specifically internal data from hotels that were willing to participate in the study. The survey with the requested data, which is necessary for the calculation of the labor productivity coefficient, was sent by email to the addresses of all hotels in the city of Makarska. Only one hotel answered. On the basis of acquaintance, the data of the mentioned hotels in the research were collected. Due to the specificity of the data, average ratings were used in calculating the performance coefficient for hotels in the city of Makarska. There are 18 hotels in Makarska of which there are five three-star hotels, twelve four-star hotels and one five-star hotel. Of the twelve four-star hotels, one hotel was opened last year, and the other two years ago, and could not be taken into account due to lack of data. So, out of ten hotels, data was collected from seven hotels in the destination. Private acquaintances were used to obtain data for certain hotels, but only seven hotels agreed to provide the data.

The city of Makarska was selected for the purpose of this study. Makarska is a coastal town in Split-Dalmatia County located below Biokovo mountain on the Adriatic coast. Makarska is central town of Makarska rivijera which is a popular tourist destination, and it is well visited by tourists from different emissive tourists' markets. According to the latest census in 2021, Makarska has a population of approximately 14,000 people. However, during the summer season, the town's population significantly increases due to the high influx of tourists. According to a study by (Marušić, Prebežac, & Antunović, 2018) tourists were highly satisfied with the destination's cultural and historical heritage and with the destination's natural attractions, which included hiking trails, beaches, and outdoor activities. Some authors (Prpić & Baričević, 2017) say that the quality of the water and the beach infrastructure were among the key factors influencing tourists' satisfaction with the destination. Makarska offers a wide range of accommodation options, from luxury hotels to budget-friendly apartments. The quality of the accommodation was an important factor influencing tourists' satisfaction with the destination (Prpić & Baričević, 2017). The tourism destination Makarska was chosen for this paper as it's clearly well visited tourism destination but just during main summer season. The main focus is to see how number of overnight stays fluctuated during peak season months – from May to October. The period considered was 2019, 2020, 2021, 2022. It is important to note from the selected hotels, only hotel Park and Biokovo work throughout whole year, and other hotels open during May and close in October, and that's why for this research months May, June, July, August, September, October were taken into account.

The paper considers the average number of employees per month, which consists of those who are permanently employed and employed only during the season and without students. If the employee proves himself to be a good hotel, at the end of the season he is offered a contract for the future. During the pandemic Covid19, the number of workers decreased significantly due to fewer overnight stays, so the volume of work fell. The hotels retained workers throughout the year because the state financed and gave subsi

dies to pay only workers who had an indefinite contract because the hotels were not able to be liquid. The last four years were taken into consideration because the work indicates changes in the labor productivity coefficient after the pandemic Covid 19. Staff productivity is the ratio of overnight stays to the number of employees. A hotel with a higher coefficient means that it also has a higher employee productivity. The hotel's goal is to have a higher coefficient, therefore, to achieve as many overnight stays as possible with as few workers as possible. Workers need to cover their jobs and often work several jobs. The question arises as to what coefficient is optimal in order to achieve as many overnight stays as possible and for employees to be productive.

FINDINGS

In order to obtain a comprehensive overview of the tourist destination, Table 1 displays the number of existing accommodation capacities in Makarska during the period from 2019 to 2022.

Table 1: Number of different accommodation types in Makarska for 2019, 2020, 2021, 2022

	2019.						2020.					
	5	6	7	8	9	10	5	6	7	8	9	10
Apartments*	450	1533	2070	2110	1525	312	65	716	1697	1800	817	153
Hotels	15	16	16	16	16	14	3	12	13	14	12	6
Camps	3	3	3	3	3	2	1	3	3	3	3	1
	2021						2022					
	5	6	7	8	9	10	5	6	7	8	9	10
Apartments*	307	1103	1941	1966	1446	354	501	1558	2054	2055	1591	324
Hotels	8	17	17	17	17	11	17	18	18	19	19	18
Camps	3	3	3	3	3	2	3	3	3	3	3	1

* Apartmentmants include Rooms, apartments, studio-apartments, holiday homes

Source: DZS, Makarska Tourist Board

The indicator of the city's development as a tourist destination shows that the share of campsites in accommodation capacities remains in average the same, while the growth of hotels, rooms, apartments, and others increases proportionally. This is due to the increase in the construction of villas and holiday homes, while it is important for the city to recognize the need to increase the number of hotels as they push forward the overall economy. During the pandemic Covid19, it is understandable that some apartments, rooms, and even hotels remained closed due to insufficient demand in the market. The number of overnight stays and arrivals follows the ratio of existing different accommodation types. Makarska has a significant share in Split/Dalmatia county related to number of overnight stays and arrivals. The ratio of all overnight stays compared to Split-Dalmatia County is following 8,6% for 2019, 8% for 2020, 8,5% for 2021.

Table 2: Number of arrivals and overnight stays in Makarska in hotels during peak season; pre and post pandemic Covid19; 2019, 2020, 2021, 2022

	2019.					
	May	June	July	August	September	October
Arrivals	9.397,00	12.004,00	12.324,00	13.187,00	9.870,00	10.083,00
Overnight stays	43.250,00	59.392,00	75.971,00	77.425,00	59.030,00	38.188,00
	2020.					
	May	June	July	August	September	October
Arrivals	154,00	1.320,00	5.549,00	6.979,00	2.385,00	830,00
Overnight stays	316,00	5.107,00	29.608,00	38.215,00	13.586,00	3.351,00

	2021.					
	May	June	July	August	September	October
Arrivals	2.515,00	5.846,00	12.367,00	13.393,00	8.336,00	5.339,00
Overnight stays	7.668,00	26.743,00	64.698,00	77.206,00	47.337,00	19.516,00
	2022.					
	May	June	July	August	September	October
Arrivals	10.292,00	13.616,00	18.172,00	18.307,00	12.863,00	10.360,00
Overnight stays	36.893,00	69.222,00	98.663,00	106.198,00	73.327,00	39.999,00

Source: DZS

Over time, it is possible to observe on the table the percentage of changes that occurred in the market during the pandemic Covid19 and after it. The fact remains that the year 2022 has not yet achieved the results that were attained in 2019. Before pandemic Covid19 peak tourist season was in July, but after pandemic Covid19 the peak is in August and stretches to September which generates more overnight stays and arrivals which means the destination works on expanding its tourism season. Seasonality is still present but September is resulted in higher number of arrivals and overnight stays.

Table 3: Attributes per each year 2019, 2020, 2021, 2022 for each hotel

Hotels in Makarska	Number of rooms	Capacity	Company size	Guest rating Trip Advisor 2019-2022
Aparthotel Milenij	21	48	Small	4,50
Apartel Miramare	75	200	Medium	4,50
Boutique Hotel Mirjam	48	96	Micro	4,50
Hotel Osejava	52	105	Small	4,50
Hotel Biokovo	52	110	Medium	4,00
Hotel Park	113	250	Small	4,50
Hotel Valamar Meteor	286	600	Large	4,00

Source: Own Processing

The table 3. Shows The hotel rating on Trip Advisor remains the same average for all years regardless of work productivity and calculated coefficient. Since the mentioned hotels are of different sizes, it cannot be determined with certainty how much the size affects this, or whether some other factor is in question.

Table 4: Staff productivity coefficient in selected hotels during peak season in Makarska (2019-2022)

Month/Year		2019						Average per hotel for season
Hotel	May	June	July	August	September	October		
Aparthotel Milenij	56,29	76,29	69,05	72,35	53,05	44,79	61,97	
Apartel Miramare	65,61	106,06	160,36	152,82	100,85	73,09	109,80	
Boutique Hotel Mirjam	8,08	106,95	117,61	124,09	90,96	15,38	77,18	
Hotel Osejava	112,00	100,57	96,45	87,11	88,53	86,08	95,12	
Hotel Biokovo	37,37	40,38	56,66	58,80	47,18	164,70	67,52	
Hotel Park	79,17	90,50	113,00	119,75	101,33	73,50	96,21	
Hotel Valamar Meteor	113,48	116,26	127,21	129,50	115,57	87,20	114,87	
Average per month	67,43	91,00	105,76	106,34	85,35	77,82		
		2020						Average per hotel for season
Hotel	May	June	July	August	September	October		
Aparthotel Milenij	-	2,36	37,95	50,65	7,80	-	16,46	
Apartel Miramare	-	-	0,40	217,60	-	-	36,33	
Boutique Hotel Mirjam	-	7,00	114,91	145,00	17,09	-	47,33	
Hotel Osejava	12,83	25,19	103,61	127,28	56,08	27,00	58,67	
Hotel Biokovo	2,90	13,15	66,10	66,85	33,90	15,58	33,08	
Hotel Park	1,25	23,60	77,50	88,50	17,50	34,40	40,46	
Hotel Valamar Meteor	-	-	-	-	-	-	-	
Average per month	2,43	10,18	57,21	99,41	18,91	11,00		
		2021						Average per hotel for season
Hotel	May	June	July	August	September	October		
Aparthotel Milenij	-	11,29	46,55	63,30	27,75	-	24,81	
Apartel Miramare	-	41,18	95,55	147,24	70,09	11,03	60,85	
Boutique Hotel Mirjam	0,91	40,38	150,38	193,25	96,06	18,00	83,16	
Hotel Osejava	19,61	56,77	73,65	85,75	78,15	57,09	61,84	
Hotel Biokovo	18,75	7,88	38,12	64,22	37,38	23,69	31,67	
Hotel Park	18,33	46,92	94,83	122,50	93,33	52,50	71,40	
Hotel Valamar Meteor	47,58	85,38	104,31	101,43	102,49	84,80	87,66	
Average per month	15,03	41,40	86,20	111,10	72,18	35,30		
		2022						Average per hotel for season
Hotel	May	June	July	August	September	October		

Aparthotel Milenij	27,64	58,21	66,50	74,25	58,50	44,21	54,89
Apartel Miramare	59,91	85,40	144,63	146,49	87,86	40,36	94,11
Boutique Hotel Mirjam	123,44	193,36	186,73	224,93	147,13	107,73	147,06
Hotel Osejava	48,86	61,93	57,41	60,00	45,90	61,19	55,88
Hotel Biokovo	33,38	26,04	53,04	59,22	41,86	34,76	41,38
Hotel Park	53,17	82,18	113,67	116,83	99,17	72,50	89,59
Hotel Valamar Meteor	81,93	93,14	100,50	106,46	92,42	97,12	95,26
Average per month	61,19	85,75	103,21	112,60	81,83	65,41	

Source: Own Processing

In the analysis of labor productivity, all the hotels that participated in this study are categorized as 4-star hotels according to the standard and level of service they are required to provide. Additionally, all of them belong to the category of hotels in terms of accommodation capacities. Table 3 displays the labor productivity coefficient for selected hotels during the six-month tourist season, as well as for the tourist destination by month and year. Looking at the table, the staff productivity varies significantly across the different hotels and months. The staff productivity of most hotels seems to vary from month to month, indicating that there may be seasonal fluctuations in demand for hotel services. In general, productivity coefficient tends to be higher during the peak season months of June, July, August, and September, and lower during the other months.

Respectively, hotels have approximately the same number of employees during the pre-season and peak season, with workers having to work more during the season and less before the peak in comparison to the overall business operation. From the perspective of the tourist destination, hotels employ workers earlier in order to have enough staff later on, but the peak season requires more staff.

Observing the coefficient of the hotels across the years, it can be noted that some hotels consistently have a higher productivity coefficient than others, such as Hotel Park, Hotel Valamar Meteor and Boutique Hotel Mirjam, while Aparthotel Milenij and Hotel Biokovo have the lowest labor productivity coefficient. All hotels experienced lower productivity during the pandemic Covid19 in 2020, and productivity in 2022 has not yet reached the figures from 2019. Hotel Valamar Meteor was closed in 2020 all the time (, but they redirected the workers to another hotel owned by them.) but some of them only open the peak of the season. Hotel Park and Hotel Valamar Meteor consistently has a higher coefficient, while Boutique Hotel Mirjam has very low productivity in most months and years, particularly during the pre-season.

LIMITATIONS AND CONTRIBUTION OF THE WORK

The limitations of the work are the difficulty of obtaining data, the insufficient number of hotels responding to the survey, and due to the longer wait for data, it is likely that some hotels will provide insight into the data, but too late for the deadlines. The main limitation of this research can be seen in the small sample. The research should be conducted in a city that has more hotels. The recommendation for future research is

to conduct the research on a larger sample and also to make two studies in cities with similar characteristics through comparative analysis.

The contribution of this paper lies in conducting a literature review on defining and measuring productivity, which is a complex research area where it is recognized that there are various interrelated factors that affect its measurement and management. This paper can enhance our understanding in attempting to identify productivity factors and guidelines for improving productivity at the destination level and hotel competitiveness. A holistic approach is necessary in determining the determinants that are more significant and have a higher impact on work productivity.

CONCLUSION

Overall, this paper highlights the importance of considering various determinants to improve productivity outcomes in hotels. It is important for hotels to monitor staff productivity regularly to ensure efficient use of resources and optimize their operations. It is important to note that staff productivity can be influenced by a wide range of factors, including the number of guests, staff training, and management practices. Therefore, it is important to analyze this data in conjunction with other relevant information to gain a more complete understanding of the factors that may have influenced staff productivity in years that were included in this paper. The theoretical part of the paper contributes to the scientific knowledge by discussing the complexity of the coefficient of labor productivity. The review of literature leads to the conclusion that various determinants can influence the realization of maximum productivity potential, and it is difficult to measure which factors contribute the most to productivity. The coefficient of labor productivity for the city of Makarska during a specific period is expressed quantitatively. In the tourism industry, it is not enough to have the number of employees for each workplace, but the issue of service quality, work organization, education, employee motivation and all factors that can have an impact on work productivity arises. Tourism, as an important economic branch, is also looking for quality managers. In order for managers to make more correct decisions that contribute to more efficient hotel operations, they need proactive access to new knowledge about labour productivity in hotels.

ACKNOWLEDGEMENTS

We would like to thank all the hotels and other establishments which worked with us to make possible the data collection which forms the backbone of this paper.

LITERATURE

- Avelini Holjevac, I., & Vrtodušić Hrgović, A. (2012). Dugoročna analiza produktivnosti rada u hotelijerstvu u Hrvatskoj. *Acta turistica*, 24 (1), 39-59.
- Baker, M., & Riley, M. (1994). New perspectives on productivity in hotels: some advances and new directions. *International Journal of Hospitality Management*, Vol. 13 No. 4., 297-311.
- Brown, J., & Dev, C. (1999). Looking beyond RevPar: productivity consequences of hotel strategies. *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 40 No. 2, 23-33.
- Cetin, I. (2013). Motivation and its impact on labour productivity at hotel business "a concep-

- tual study. *International Journal of New Trends in Arts, Sports & Science Education (IJTASE)*, 2(1).
- Choi, T., & Chu, R. (2001). Determinants of hotel guests' satisfaction and repeat patronage in the Hong Kong hotel industry. *International journal of hospitality management*, 20(3), 277-297.
- Črnjar, K. (2005). Faktori produktivnosti rada u hotelskoj industriji Hrvatske. *Tourism and hospitality management*, 11 (1), 251-262.
- Davidson, M., Timo, N., & Wang, Y. (2010). How much does labour turnover cost? A case study of Australian four-and five-star hotels. *International journal of contemporary hospitality management*, 22(4), 451-466.
- Fernández, M., & Becerra, R. (2015). An analysis of Spanish hotel efficiency. *Cornell hospitality Quarterly*, 56(3), 248-257.
- Hu, B., & Cai, L. (2004). Hotel labor productivity assessment: A data envelopment analysis. *Journal of Travel & Tourism Marketing*, 16(2/3), 27-38.
- Hwang, S., & Chang, T. (2003). Using data envelopment analysis to measure hotel managerial efficiency change in Taiwan. *Tourism management*, 24(4), 357-369.
- Jones, P., & Siag, A. (2009). A re-examination of the factors that influence productivity in hotels: A study of the housekeeping function. *Tourism and Hospitality Research*, 9(3), 224-234.
- Kilic, H., & Okumus, F. (2005). Factors influencing productivity in small island hotels: evidence from Northern Cyprus,.. *International Journal of Contemporary Hospitality Management*, 17(4), 315-331.
- Lee-Ross, D., & Ingold, T. (1994). Increasing productivity in small hotels: are academic proposals realistic?. *International Journal of Hospitality Management*, 13(3), 201-207.
- Marušić, M., Prebežac, D., & Antunović, M. (2018). Tourist satisfaction in small-scale tourist destinations: The case of Makarska Riviera. *Tourism and Hospitality Management*, 24(2), 151-164.
- Pickworth, J. (1994). Productivity improvement. In B. a. in Davies, *Food and Beverage Management*, ., Oxford: Butterworth-Heinemann.
- Prais, S., Jarvis, V., & Wagner, K. (1989). Productivity and vocational skills in services in Britain and Germany: hotels. *National Institute Economic Review*, 130, 52-74.
- Prpić, K., & Baričević, A. (2017). Tourist satisfaction in the city of Makarska. *Journal of Business and Management*, 23(1), 107-122.
- Reynolds, D. (2003). Hospitality-productivity assessment-using data envelopment analysis. *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 44 No. 2, 130-7.
- Sánchez-Ollero, J., García-Pozo, A., & Marchante-Lara, M. (2015). Measuring the effects of quality certification on labour productivity: An analysis of the hospitality sector. *International Journal of Contemporary Hospitality Management*, 27(6), 1100-1116.
- Sigala, M. (2004). Using data envelopment analysis for measuring and benchmarking productivity in the hotel sector. *Journal of travel & tourism marketing*, 16(2-3), 39-60.
- Simpao, K. (2018). Labour productivity measurement and control standards for hotel. *Journal of Service Science Research*, 10, 25-76.
- Wambugu, A. (2019, May 18). *How much does labour turnover cost? A case study of Kenyan Small and Medium Tour*. Retrieved from <http://197.136.134.32/handle/12345678>
- Witt, C., & Witt, S. (1989). Why productivity in the hotel sector is low. International. *Journal of Contemporary Hospitality Management*, 1(2).

