

Article

Determinants of Hotel Business Success in Rural Areas of the Western Balkan Countries

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Abstract: This paper examines the impact of ten microeconomic factors on hotel business success. This research encompassed a sample of 115 small, family-operated hotels situated in rural regions of the Western Balkan countries (WBC). This research was based on the assumption that factors such as the size of the hotel, age, solvency, liquidity, labour productivity, capital productivity, CSR, and reduction of CO₂ emissions exhibit a positive influence on business success, whereas leverage, indebtedness, and energy consumption have a negative effect on the business success of hotels. The findings revealed that business success from the previous period, size, liquidity, and CSR exhibit a positive influence on business success, whereas leverage, capital productivity, and indebtedness demonstrate a negative effect. Conversely, the age of the hotel and labour productivity were not found to significantly influence business success, as did energy consumption. In the context of sustainable development, a positive CSR impact means that tourists value this behaviour of the hotel, while a lack of a statistically significant impact of energy consumption implies either that hotels do not implement efficient measures of energy efficiency or that energy efficiency may not be a crucial factor in attracting guests or influencing their loyalty. The findings also show that labour productivity expressed conventionally does not have a statistically significant impact on hotel business success. However, when expressed in a way that respects the concept of sustainable development and CSR, workforce productivity is a significant factor in hotel business success. Due to the problem of multicollinearity, the influence of CO₂ emissions was not examined. The findings suggest the following two groups of key measures: 1. Policymakers must work on ensuring more favourable conditions under which hotels can borrow, as well as on ensuring adequate infrastructure; 2. They must work on improving the strategy for maintaining liquidity to avoid the high costs of short-term loans and increasing size in order to further utilise economies of scale. These two microeconomic factors have the greatest impact on the business success of hotels.

Keywords: microeconomic factors; hotel industry; Western Balkan countries; business success; rural area



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1. Introduction

There is great interest of the public in studying the hotel's way of doing business and the factors that influence the success of the hotel business. The significance of this matter becomes particularly pronounced when one considers the endeavours of social policymakers aiming to leverage the benefits of tourism for the amelioration of rural and marginalised regions. Given that the efficacy of this undertaking hinges upon the achievements of all stakeholders involved in the process of formulating the tourist offerings

at the destination, encompassing hotels, it is imperative to comprehend factors that exert influence on the functioning of hotels within such circumstances. It is especially important to analyse the impact of factors that can contribute to sustainable development, such as corporate social responsibility (CSR), energy efficiency, and reduction of CO₂ emissions.

It is a fact that no studies have been conducted to explore this issue in the context of hotels operating in rural areas of Western Balkan countries, making the examination of this topic imperative. The specific business conditions of these hotels arise from unique legislation regulating specific macroeconomic conditions, ongoing privatisation processes, a lack of qualified hotel and tourism managers, and the need for the development of appropriate educational institutions. Namely, the sector is characterised by difficult working conditions and excessively long working hours of employees, which leads to high workloads and low job satisfaction [1]. When we add to this that the exposure to some form of dysfunctional guest behaviour is above the world average of 82% [2], the consequence is a high turnover of the workforce. The low standard of living of the rural population [3] affects large migrations from these areas so that hoteliers face a lack of skilled labour. The problem of a professional workforce is further aggravated by the lack of quality educational institutions. The seasonal nature and price elasticity of tourist demand affect the maintenance of current liquidity, while limited access to sources of financing as a result of the dominance of the bank-centric system affects extremely high costs of borrowed capital [4]. On the other hand, policymakers have shown an inclination to support the development of these areas through rural tourism, recognising its potential [5]. The aim is to reduce rural areas' dependency on extractive sectors of the economy, which rely on the exploitation of natural resources and raw materials [6] while respecting the principles of sustainable development. Namely, the great potential of this area is reflected in the fact that rural areas make up about 85% and that they have about 40% of the total population [1], as well as the fact of the growing trend of increasing the number of arrivals and overnight stays in these areas. The increasing trend is more significant than in rural areas of developed and touristic countries, such as Spain and Italy [3]. However, since about 71% of the entities that offer overnight accommodation services achieve from 100 to 300 overnight stays per year, it is considered that this sector is still underdeveloped but with huge potential [7,8]. Pristine nature, rich flora and fauna, favourable climate and hydrography, gastronomy, and unique cultural and historical heritage are key resources that influence the increase in the number of visitors and overnight stays in these areas [9].

The focus is on studying ten microeconomic factors that different authors have identified as crucial for hotel business success but for which there are conflicting findings regarding the direction of their influence between authors or the findings are contrary to the dominant theoretical corpus. Specifically, the analysis examines the influence of hotel size, age, solvency, liquidity, leverage, productivity, CSR, energy consumption, and CO₂ emissions. To encompass all material and immaterial factors influencing hotel productivity, the impact of productivity is analysed through labour productivity and capital productivity. According to the resource-based view (RBV) [10], the selected factors possess characteristics that resources must possess to have the ability to improve hotel business [11]. The absence of a unified position regarding the influence and importance of these factors makes it impossible to draw a universal conclusion and indicates the need to highlight them on a case-by-case basis. Since there were no similar findings on the example of the WBC and the aspirations of the creators of social issues to try to economically revive rural areas and prevent migration through the process of tourism, these topics deserve attention.

2. Literature Review

Many authors were engaged in studying the impact of microeconomic factors on hotel business success. The result is that there is no unity in the literature regarding the number, direction, and influence of these factors on the success of the hotel business [12]. There is disagreement in the literature regarding the impact of hotel size on business success. The prevailing view is that hotel size has a positive impact on business success [13]. Tan

(2017) [14] justifies this by the existence of economies of scale. However, there are studies indicating a negative impact of hotel size on business success [15–17]. Considering the findings of Santoro’s research (2015) [18] and other authors [4,19–24], that larger hotels achieve better performance due to their size allowing them to leverage economies of scale, the following hypothesis can be put forward:

H1: *Hotel size has a positive impact on the success of hotels operating in rural areas of the WBC region.*

There is no uniform opinion regarding the impact of the hotel’s age on the hotel’s business success, either. Several studies have suggested that hotel business success increases with age due to the influence of accumulated “learning by doing”, reputation, and loyalty [13,23,25–29]. However, there are studies that have found a negative impact of hotel age on business success [16,30]. Dimitric et al. (2019) [31] state the expectation that younger hotels should be more successful because they are usually more modern and more inclined to apply new technologies and services that can easily attract a larger number of guests, especially those with greater purchasing power. Considering the specific business conditions of hotels in rural areas of the Western Balkan region [32], which result, among other things, from the lack of internationally qualified hotel and tourism managers, on the one hand, and the fact that the effect of knowledge accumulation is positively related to the age of the hotel, the following hypothesis can be put forward:

H2: *The age of the hotel has a positive influence on the success of the hotel business.*

Hotel solvency has also been the subject of interest by numerous authors [14,31,33–36]. Common to the mentioned research is that it points out the following: (1) There is a negative correlation between the rate of indebtedness of the hotel and the success of the business. This is explained by the fact that with the increase in the indebtedness rate of the hotel, the borrowing costs increase, which results in a decrease in the profitability rate. (2) Small, family-operated, and independent hotels are more indebted than large hotel chains. (3) The rate of indebtedness of hotels is correlated with the difficulties that hotels have in accessing different sources of financing and the price of borrowed capital. This is especially evident in the case of small, family-operated, and independent hotels, which are exposed to higher borrowing costs due to their low bargaining power, as well as the conditions of economic crises, such as the one caused by the COVID-19 pandemic [37–40]. Considering the lack of capital and high costs of borrowed capital, the following hypothesis can be defined:

H3: *Hotel solvency has a positive influence on the success of the hotel business.*

Karanović (2023) [23] and Dimitric et al. (2018) [33] have identified a positive relationship between liquidity and hotel profitability. They attribute this to the fact that hotels with higher cash reserves are better equipped to handle financial uncertainties. On the other hand, the research results of Lucas and Ramires (2022) [41] show that under the conditions of COVID-19, there is no significant relationship between liquidity and business success. Depending on this, Lima et al. (2021) [42] state that it is a good indicator and is useful since it provides relevant information not only for managers but also for banks, lenders, and investors. Due to the seasonal nature and price sensitivity of tourist demand, small, family-operated, and independent hotels often encounter challenges in preserving sufficient liquidity, as evidenced by research results [43,44]. Consequently, high borrowing costs can have a detrimental effect on their business success, which is particularly important for the hotel business in WBC. Because of the bank-centric system, the hotel business in WBC is characterised by access to fresh capital at high interest rates and a limited number of financing instruments. In this regard, the following hypothesis can be defined:

H4: *Hotel liquidity has a positive impact on the hotel’s business success.*

Leverage has been identified as an important factor in hotel business success [34,45]. Dominated by research results that indicate that leverage harms hotel business success [4,13,14,46,47]. However, the results of research by Tang and Jang (2009) [48] show that leverage can have a positive impact on the success of the hotel business. More precisely, the results of their research show that the relationship between leverage and hotel profitability can be represented by a U curve. This implies that the influence of leverage on hotel business success changes over time, deviating from the assumptions of the capital structure theory. Considering the limited access to financing sources, primarily due to the dominance of a bank-centric system in the WBC region and the relatively low number of hotels listed on the stock exchange, it is expected that leverage will hurt hotel business success. This expectation is to the theory of the hierarchy of financial choice, according to which, in a situation where own funds are lacking, decision-makers prefer obtaining funds from short-term financing sources. However, excessive engagement of short-term sources for financing investments can lead to excessive financial burden [48], which increases the risk of bankruptcy and liquidation of the hotel. For this reason, it is important to take a special look at the impact of short-term debt on the hotel's business success. In this regard, leverage must be expressed through the ratio between short-term debt and total assets of the hotel. As financing from short-term sources is characteristic for these hotels, it was expected that:

H5: *Leverage has a negative impact on the hotel's business success.*

Most research that has studied the impact of productivity on business success has indicated that there is a strong impact of productivity on business success [49–53]. This is explained by the fact that companies that achieve higher levels of total productivity have a greater chance of achieving higher profits because they manage their costs better as a result of accumulated knowledge and experience. However, the findings of Dimitric et al. (2019) [31] are not fully compatible with these research results. Despite their findings, it has been established that both types of productivity have a positive impact on hotel business success. Hence, we define the following two hypotheses:

H6: *Labour productivity has a positive impact on the hotel's business success; and*

H7: *Capital productivity has a positive impact on the hotel's business success.*

Strengthening competition, rapid technological innovations, migration, and ageing of the population as social phenomena, on the one hand, but also the change and unification of preferences and increasing ecological awareness of tourists have influenced the need for hotels to deal with issues from the domain of sustainable behaviour in addition to economic interests. A positive impact of CSR implementation on the financial performance of companies, resulting from a good company image and increased customer loyalty, has been well documented by numerous authors [54–61]. Opponents of the implementation of CSR, as the main argument against this concept, argue that companies have only one responsibility, which is to maximise profit for their shareholders. The increasing awareness of tourists regarding environmental issues and sustainable development, coupled with the unification of behaviour and preferences across different market segments [58,60,62], implies that CSR should have a positive impact on hotel business success, achieved through strengthening the image and loyalty. Modern tourists pay more attention to environmental issues. Hotels implementing sustainability practices, such as reducing carbon emissions, using renewable energy sources, and waste reduction, attract tourists who appreciate environmental responsibility, adding value to their travel experience, considered the most significant factor in creating loyal tourists [61,63]. Additionally, contemporary tourists are increasingly interested in social justice and local support [60]. Hotels supporting the local community through employing local residents, supporting small businesses, and participating in local initiatives attract tourists who want to contribute to a positive impact on the destination they visit. However, considering the structure of hotels operating in

rural areas in WBC, their size, financial power, and the purchasing power of their guests, the question arises whether they are willing to pay a higher price for services due to respect for the principles of sustainable development. Hence, the question of the impact of CSR implementation on the success of hotel businesses in rural areas in WBC is raised. The following hypothesis can be put forward:

H8: *Corporate social responsibility has a positive impact on the hotel's business success.*

Closely linked to the previous discussion is the reduced consumption of resources, waste, and pollutants, which can mitigate the environmental impact. The European Union's Corporate Social Responsibility Green Book emphasises that proper environmental management has become practically obligatory for any organisation seeking excellent economic results [64]. Adhering to this directive is particularly crucial in the context where economic entities in WBC strive to align their operations with EU rules and requirements as they aim to become equal EU members. Therefore, it is important to consider hotel management in accordance with standards such as ISO5001, ISO14000, or the Eco-Management and Audit Scheme. More specifically, examining the impact of managerial decisions related to the implementation of energy efficiency on the success of hotel businesses is crucial. While adhering to sustainable behaviour principles leads to savings and enhances company image [65], it also demands significant investment costs and a lengthy payback period [66]. The results of numerous studies show that the implementation of these measures has negative consequences on the success of the hotel's business, as it requires the investment of significant funds [67,68], which the guests are forced to constantly enter [69–72]. The high difficulties of new technology implementation [73] mean that hotels rarely report positive effects from this [45]. Therefore, it is important to assess the effects of decisions to implement measures and actions that have led or will lead to improvements in energy efficiency. This is especially vital in the conditions prevalent in WBC, where hotels face a lack of liquid and investment funds [74] and extremely unfavourable conditions for capital acquisition. On the other hand, heating and cooling systems primarily represent significant consumers of electrical and thermal energy, requiring rationalisation in line with ISO50001 standards. Additionally, the consumption of water and fuel, important energy sources in hotel operations, should not be overlooked. The following hypothesis can be put forward:

H9: *Energy consumption has a negative impact on the hotel's business success.*

Closely connected to these aspects is the issue of CO₂ emissions [75]. In the context of CSR implementation, CO₂ emissions pose a significant challenge because hotels hold a share of 21% in this carbon footprint [76]. Although the reduction of CO₂ emissions can be interpreted as a consequence of reducing the overall hotel activity or as a result of increased energy efficiency, considering limited financial resources for implementing energy efficiency measures, it is essential to highlight both the positive effects on cost reduction and the enhancement of the hotel's image and reputation. The following hypothesis can be put forward:

H10: *Reduction of CO₂ emissions has a positive impact on the hotel's business success.*

3. Materials and Methods

This study was conducted on a sample of 115 family-operated hotels, with a capacity ranging from 20 to 125 accommodation units, categorised from 1 to 4 stars, operating in rural areas, primarily around spa resorts in the Western Balkan countries, namely Serbia, Montenegro, North Macedonia, and Bosnia and Herzegovina. Adequate sample size is determined by the size of the population, the level of 95% confidence, and the allowable sampling error of 5%, which appears as standard in research in the field of tourism [77]. The research period spans from 2012 to 2022. Data were collected from the Amadeus database and chambers of commerce. The selected duration of the observation period covers a sufficient time interval to capture all heterogeneities in the structure of the observed units

and their changes over time using a dynamic panel analysis model [78]. The choice of indicators used to describe the selected microeconomic factors of the hotel business is consistent with the previously analysed literature (Table 1).

Table 1. Key microeconomic factors of hotel business success.

| Name of the Factor | Indicator |
|---------------------------------|---|
| Hotel size | Natural logarithm of total sales |
| Hotel age | Number of years since establishment |
| Hotel solvency | Debt ratio = total liabilities/total assets |
| Liquidity of the hotel | Cash ratio = cash/current liabilities |
| Capital structure (leverage) | Leverage ratio = short-term liabilities/total assets |
| Labour productivity | The ratio between net sales revenue and the total number of employees |
| Capital productivity | Turnover ratio of total business assets = Net sales revenue/average total business assets |
| Corporate Social Responsibility | In accordance with the recommendations of the ISO26000 standard |
| Energy consumption | Rate of change energy consumption |
| CO ₂ emissions | Rate of change CO ₂ emissions |

Source: Authors.

Given that technical efficiency represents a comprehensive measure of hotel business success as it takes into account all inputs and outputs [79], in this study, the technical efficiency gap is used as an indicator of hotel business success:

$$\hat{\delta}_i = \max_{\hat{\delta}_i, \lambda} \left\{ \delta > 0 \mid \hat{\delta}_i, y_i \leq \sum_{i=1}^n y_i \lambda : x_i \geq \sum_{i=1}^n x_i \lambda; \sum_{i=1}^n \lambda = 1; \lambda \geq 0 \right\} \quad (1)$$

where $\hat{\delta}_i$ is the technical efficiency indicator of the i th hotel; y_i is the output vector of the i th hotel; x_i is the input vector of the i th hotel; and λ is the $n \times 1$ vector of model constants. The parameter estimation of the model was conducted using a data envelopment analysis method.

In accordance with the recommendations of the ISO26000 standard, CSR is expressed through five dimensions: environmental responsibility, responsibility towards employees, responsibility towards the local community, responsibility towards the basic principles of behaviour, and corporate responsibility. In accordance with the indicators of the ISO26000 standard for different dimensions of CSR, the data on the dimensions of CSR were collected by applying content analysis based on the annual reports of the hotels. The collected qualitative data were then transformed into a dichotomous variable (1) if there is information in the hotel reports regarding the implementation of activities relating to one of the five dimensions of CSR, or (0) otherwise, using the coding technique. Then, the average for each hotel for each year was calculated, and, in this way, the CSR coefficient was obtained.

Since energy consumption results from all hotel activities, influenced by the volume of services provided, the efficiency of human capital, the financial strength of the hotel, and technical capacities, the calculation of energy consumption can be approached using the modified Cobb–Douglas production function (Y) [80]:

$$EC = v(F(Y_t)) \quad (2)$$

where v represents the rate with which the hotel activities energy consumption, Y is a modified Cobb–Douglas production function, $Y_t = F(K_t, AL_t)$, in which technology factor as endogenously defined by financial development (FD) and represented by Equation (3) as follows:

$$A_t = \sigma FD_t^{\beta_3} \quad (3)$$

where

- Y_t - rate of change in the total volume of services in period t is calculated as the difference between the hotel's income in period t and $t-1$.
- EC_t - rate of change energy consumption.
- A_t - effective technology.
- K_t - effective capital.
- L_t - effective labour.
- FD_t - financial development, expressed as the relationship between account balance and total assets.
- β_i - elasticity coefficient.
- σ - parameter.

The inclusion of financial development (FD) makes it possible to see the financial strength of the hotel, which enables the implementation of innovations and measures to improve energy efficiency. Since all the capital of the hotel does not consume energy, energy consumption can be expressed as follows:

$$EC = \varnothing K_{EC}(Y) \quad (4)$$

where K_{EC} presents capital that uses energy sources (electricity and heat from non-renewable sources, fuel, and water). For the purpose of this paper, energy efficiency is expressed as the rate of change of energy consumption in periods t and $t-1$, with a note that the conversion was expressed in kW/h according to the conversion coefficients presented by Asonja and Vukovic (2018) [81].

Since CO_2 emissions are also the result of all the hotel's activities, they can be determined by the same principle as energy consumption, as follows:

$$CO_2 = \varnothing K_{CO_2}(Y) \quad (5)$$

where K_{CO_2} presents capital emitting CO_2 and that the rate of change of CO_2 emissions from periods t and $t-1$ is used for the purpose of this paper.

The understanding that business success from the previous period significantly influences the business success of hotels in the current period [31] impacted the examination of the impact of selected factors on hotel business success to be carried out using a dynamic panel data model (6), with the note that the dynamic model was estimated with the one-step Generalised Method of Moments (one-step GMM). Justification for the application of a one-stage GMM estimator can be found in the paper of Radivojevic et al. (2019) [78]:

$$\Delta \hat{\delta}_{i,t} = \alpha + \beta_1 \Delta \hat{\delta}_{i,t-1} + \beta_2 \Delta Size_{i,t} + \beta_3 \Delta Age_{i,t} + \beta_4 \Delta Sol_{i,t} + \beta_5 \Delta CF_{i,t} + \beta_6 \Delta BMR_t + \beta_7 \Delta LPC_{i,t} + \beta_8 \Delta PSP_{i,t} + \beta_9 \Delta SCE_{i,t} + \beta_{10} \Delta QS_{i,t} + \beta_{11} \Delta SAT_{i,t} + \beta_{12} \Delta LOY_{i,t} + \beta_{13} \Delta CSR_{i,t} + \beta_{14} \Delta EC_{i,t} + \beta_{15} \Delta CO_{2i,t} + \Delta u_{i,t} \quad (6)$$

where

- $\hat{\delta}$ - The technical efficiency indicator;
- $Size$ - Hotel size;
- Age - Hotel age;
- Sol - Hotel solvency;
- CF - Hotel liquidity;
- Lev - Leverage ratio;
- LP - Labour productivity;
- CP - Capital productivity;
- CSR - Corporate Social Responsibility;

| | | |
|-----------|---|----------------------------------|
| EC | - | <i>Energy consumption;</i> |
| CO_2 | - | <i>CO₂ emissions;</i> |
| $u_{i,t}$ | - | <i>Model term error.</i> |

Note: Subscript t corresponds to the examined period, and subscript i corresponds to the examined hotel.

4. Results and Discussion

4.1. Results

Table 2 gives a summary of the descriptive statistics of the dataset. As can be seen from Table 2, technical efficiency is around 0.503, which, in combination with a standard deviation of 0.284, indicates uniformity in hotel business results. Data for hotel size indicate a relatively large range in terms of hotel size. The average age of the hotels is about 14 years, with a note that the skewness value indicates a slightly larger number of older hotels compared to younger hotels. A large value of the standard deviation indicates a wide range regarding this factor among the selected hotels. The relatively high value of the debt ratio, which is used in this paper to represent the hotel's solvency, indicates the indebtedness of the hotel. The high value of this indicator indicates an increased financial risk, but it also indicates that hotels predominantly base their business on borrowed capital, which, in the conditions of the bank-centric system as it is in these countries, is a very significant business factor. A relatively high cash ratio indicates that hotels have sufficient liquid assets, which gives them some financial flexibility for investments in new projects, business expansion, or debt reduction. This should be emphasised in the context of a relatively high leverage ratio, which for this paper expresses the share of short-term debt in the total capital structure. As far as labour productivity is concerned, the hotels are relatively uniform, while in the case of capital productivity, there are significant differences. These data, in the context of the finding that hotels predominantly rely on borrowed funds, indicate an increased risk of failure. The fact that in the case of all variables, except for CP, the skewness is around zero, indicates a relatively symmetrical distribution in the analysed data. The positive mean value of the CSR variable (0.511) indicates an average increase in the hotel's social responsibility, while the negative kurtosis suggests lower variability in extreme changes. More precisely, a negative kurtosis value (-1.225) points to relatively mild extreme values in the rate of changes, meaning most hotels exhibit moderate changes towards sustainable development. The lesser impact of extreme changes implies stability in the hotel's behaviour towards sustainability. Skewness close to zero (-0.029) suggests a relatively symmetric distribution of change rates. Asymmetric distribution implies hotels tend to balance their approaches to sustainable development without pronounced inclinations towards changes in such behaviour. Overall, negative kurtosis and a tendency towards symmetry may suggest a general inclination among hotels to behave in line with sustainable development, with less pronounced extremes in their changes. For the EC variable, the mean value (0.002) suggests a slight increase in energy consumption, likely due to the growth in the overall service volume. However, a standard deviation of 0.046 indicates significant variability in energy consumption change rates among hotels. Considering the increased energy consumption, an increase in CO₂ emissions is expected, as confirmed by the mean value of 0.001. A standard deviation of 0.026 indicates notable variability in CO₂ emission change rates among hotels, implying different trends. This could result from both an increase in service volume and the effects of implementing appropriate energy efficiency measures.

When it comes to an analysis of time series, the first thing that has to be checked is whether the panel is stationary by using a unit root test for stationary. For this reason, the Choi meta-test is applied to every single variable.

It has been found that there is no problem of non-stationarity. The correlation matrix is presented in Tables 3 and 4.

Table 2. Summary of descriptive statistics from the dataset.

| | $\hat{\delta}$ | Size | Age | Sol | CF | Lev | LP | CP | CSR | EC | CO ₂ |
|--------------------|----------------|-------|--------|--------|--------|--------|-------|-------|--------|--------|-----------------|
| Mean | 0.503 | 9.265 | 14.238 | 2.417 | 4.212 | 3.494 | 3.743 | 2.732 | 0.511 | 0.002 | 0.001 |
| Standard Deviation | 0.284 | 0.701 | 7.704 | 1.416 | 2.096 | 2.023 | 0.526 | 2.306 | 0.310 | 0.046 | 0.026 |
| Kurtosis | −1.166 | 4.178 | 2.762 | −1.161 | −0.694 | −1.194 | 0.163 | 0.303 | −1.225 | −0.127 | 2.282 |
| Skewness | −0.042 | 0.679 | 1.313 | 0.034 | −0.032 | 0.018 | 0.365 | 1.003 | −0.029 | 0.026 | 0.169 |
| Minimum | 0.001 | 4.608 | 1.000 | 0.000 | 0.010 | 0.004 | 1.446 | 0.002 | 0.000 | −0.100 | −0.099 |
| Maximum | 1.000 | 12.97 | 52.00 | 4.987 | 8.957 | 6.993 | 6.127 | 9.951 | 1.000 | 0.100 | 0.095 |
| Count | 1150 | 1150 | 1149 | 1150 | 1150 | 1150 | 1150 | 1150 | 1150 | 1150 | 1150 |

Source: Author's calculations.

Table 3. Choi meta-test.

| Variable | Inverse Chi-Square (20) | p-Value |
|-----------------|-------------------------|---------|
| $\hat{\delta}$ | 529.022 | 0.000 |
| Size | 478.217 | 0.000 |
| Age | N/a | 0.000 |
| Sol | 459.428 | 0.000 |
| CF | 458.47 | 0.000 |
| Lev | 577.841 | 0.000 |
| LP | 512.181 | 0.000 |
| CP | 464.195 | 0.000 |
| CSR | N/a | 0.000 |
| EC | 453.2 | 0.000 |
| CO ₂ | 267.9 | 0.000 |

Source: Author's calculations.

Since there is no significant correlation between the variables, the research was continued with all variables because there is no danger of multicollinearity. The exception is only in the case of EC and CO₂, and for that reason, the CO₂ variable was excluded from further analysis.

Table 4. The correlation matrix.

| | δ | Size | Age | Sol | CF | Lev | LP | CP | CSR | EC | CO ₂ |
|-----------------|----------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-----------------|
| δ | 1.000 | | | | | | | | | | |
| Size | 0.011 | 1.000 | | | | | | | | | |
| Age | 0.006 | −0.037 | 1.000 | | | | | | | | |
| Sol | −0.025 | 0.007 | −0.028 | 1.000 | | | | | | | |
| CF | −0.033 | −0.034 | 0.033 | 0.607 | 1.000 | | | | | | |
| Lev | −0.015 | 0.001 | 0.033 | 0.023 | 0.011 | 1.000 | | | | | |
| LP | −0.011 | 0.409 | 0.023 | −0.001 | −0.014 | −0.003 | 1.000 | | | | |
| CP | −0.041 | −0.017 | −0.004 | −0.015 | −0.016 | 0.030 | −0.030 | 1.000 | | | |
| CSR | −0.008 | −0.019 | −0.022 | 0.024 | 0.049 | −0.013 | −0.042 | −0.003 | 1.000 | | |
| EC | −0.032 | −0.017 | 0.008 | −0.026 | −0.025 | −0.048 | −0.012 | 0.017 | 0.008 | 1.000 | |
| CO ₂ | −0.015 | −0.015 | −0.016 | −0.028 | −0.036 | −0.046 | −0.009 | −0.012 | 0.024 | 0.847 | 1.000 |

Note: All correlation coefficients are significant at the 5% significance level. Source: Author's calculations.

4.2. Findings and Discussion

The results of the GMM panel data estimation are presented in Table 5.

As can be seen from Table 5, the model meets all the conditions for valid application of the one-step GMM estimator. The results indicate the following:

The success of business from the previous period has a positive impact on the success of business in the current period because the coefficient $\hat{\delta}(-1)$ has a positive value (0.695) and is statistically significant (p -value < 0.01). Such a finding can be explained by the fact that successful business in the previous period contributed to building a positive hotel

reputation, loyalty, and word of mouth through writing a commentary on social networks, which very quickly became the dominant opinion and a good criterion for choosing a destination and hotel [82]. Another possible reason is that successful business increases the confidence of investors, so hotels can obtain funds on more favourable terms. If they have in mind the problems that arise as a consequence of the dominance of the banking system in these countries, on the one hand, and the acute lack of capital, on the other hand, the aforementioned represents a valid argument for explaining the influence of success from the previous period on success from the current one.

Table 5. A one-step GMM model.

| Variables | Coefficient | Std. Error | z | p-Value | |
|---|-------------|------------|--------|---------|-----|
| const | −0.002 | 0.026 | −0.069 | 0.945 | |
| $\hat{\delta}(-1)$ | 0.695 | 0.123 | 5.658 | 0.000 | *** |
| Size | 0.083 | 0.037 | 2.224 | 0.026 | ** |
| Age | 0.000 | 0.001 | −0.093 | 0.926 | |
| Sol | −0.007 | 0.004 | −1.904 | 0.057 | * |
| CF | 0.486 | 0.0676 | 7.181 | 0.000 | *** |
| Lev | −0.032 | 0.016 | −1.996 | 0.046 | ** |
| LP | −0.007 | 0.013 | −0.548 | 0.584 | |
| CP | −0.006 | 0.003 | −1.661 | 0.097 | *** |
| CSR | 0.056 | 0.024 | 2.375 | 0.018 | ** |
| EC | −0.309 | 0.317 | −0.974 | 0.330 | |
| Test for AR (1) errors: | | | −7.708 | 0.000 | |
| Test for AR (2) errors: | | | −1.294 | 0.196 | |
| Sargan overidentification test: Chi-square (43) = | | | 48.470 | 0.261 | |

Note: *, **, and *** indicate the statistical significance of the coefficients of the model for 10, 5, and 1%, respectively. Source: Author's calculation.

H1 is proven to be valid since the coefficient of hotel size has a positive value (0.083) and is statistically significant (p -value: $0.026 < 0.1$). This means that hotel size has a positive impact on hotel business success. The reason can be found in the fact that larger hotels have access to capital and other resources under more favourable conditions, taking advantage of economies of scale.

H2 was not proven valid because the coefficient of hotel age is not statistically significant (p -value: $0.926 > 0.1$). This means that hotel age does not have a statistically significant effect on the success of the hotel business. This finding is unexpected when considering the specific business conditions of hotels in the rural areas of the WBC, which result, among other things, from the lack of internationally qualified hotel and tourism managers. In these conditions, it is realistic to expect that the accumulated knowledge and experience have a significant impact on the success of the business. However, the obvious experience gained during business is not enough to use it as a specific and unique resource. In the context of the efforts of social policymakers in WBC to use the advantages of tourism, the findings indicate that, in parallel with the development of institutional infrastructure that will support the development of tourism in rural areas, it is necessary to work on the development of institutions that will work on the education of personnel in this area.

H3 was not proven valid because the coefficient of hotel solvency is statistically significant (p -value: $0.057 < 0.1$), but it has a negative value (−0.007). This means that hotel solvency has a negative impact on the success of a hotel business. The finding is unexpected. However, when it is taken into account that the debt ratio was used as a proxy for solvency, this kind of finding is in line with the expectation because with the growth of the debt ratio of the hotel, the borrowing costs increase, which results in a decrease in the profitability rate. For that reason, one of the incentive measures must be the provision of a cheaper source of capital. High interest costs not only increase the total debt but also increase the level of financial risk, which puts hotels in an even more unfavourable position in front of sources of financing because they are often forced to pay additional penalties due

to non-payment of debt on due dates. They are often forced to refinance the debt, which further increases the costs.

H4 is proven to be valid since the coefficient of hotel liquidity has a positive value (0.486) and is statistically significant (p -value: $0.000 < 0.1$). This means that hotel liquidity has a positive impact on the hotel's business success. The seasonal nature and price elasticity of tourist demand in rural areas mean that maintaining current liquidity is a big challenge in the business of these hotels. Hence, it is understandable that liquidity has a positive impact on business success because, if for no other reason, liquidity relaxes hotels from taking expensive short-term loans from banks, which significantly affects their overall operating costs.

H5 is proven to be valid since the coefficient of leverage has a negative value (-0.032) and is statistically significant (p -value: $0.046 < 0.1$). This means that leverage has a negative impact on the hotel's business success. The lack of liquid assets and a large share of short-term liabilities influence that leverage represents a significant business factor, which is not supported by the theoretical aspects of Modigliani and Miller's theory of capital structure. The finding can be justified by leverage's impact on capital costs. High costs of borrowing capital reduce profits, even in a situation where an increase in income is achieved, because interest costs exceed the benefits of additional capital. For this reason, it is important that the creators of social policies work to secure cheaper sources of capital. Burdened with already existing debt, hotels are often unable to enter new, more profitable opportunities and miss certain opportunities on the market. In addition, the poor structure of capital financing and failure to observe the golden rule of financing lead to additional financing costs, which contribute to the negative impact of leverage on the success of the hotel business.

H6 was not proven valid because the coefficient of labour productivity is not statistically significant (p -value: $0.584 > 0.1$). Although in these countries the lack of skilled labour is an evident problem, the results show that labour productivity is not a significant factor. This implies that hotels manage to provide an authentic and local experience, perhaps not relying so much on labour productivity but more on the quality and service they provide through promotions of local tradition, culture, and natural beauty.

H7 was not proven valid because the coefficient of capital productivity is statistically significant (p -value: $0.097 < 0.1$), but it has a negative value (-0.006). This means that capital productivity has a negative impact on the success of a hotel business. The finding should be accepted with caution since capital productivity is expressed through the turnover ratio of total business assets. It is common in rural areas that resources are not used often or efficiently enough, indicating low capital productivity. The reason for this can be primarily insufficient demand, which is often a consequence of insufficiently developed infrastructure or a consequence of weak management. These two reasons imply that more effort needs to be invested in the education of the workforce, as well as infrastructure, if tourism is to be used as an instrument for strengthening rural areas.

H8 is proven to be valid since the coefficient of CSR has a positive value (0.056) and is statistically significant (p -value: $0.018 < 0.1$). The positive impact of CSR on hotel business suggests that hotels actively engaged in socially responsible practices tend to achieve better business results. This implies that tourists value and support hotels committed to sustainable practices, indicating a sensitivity to social responsibility. Theoretical connections between hotel image, tourist loyalty, and perceptions of sustainability and environmental practices are often intertwined. The premise of community benefits from socially responsible behaviour [83] emphasises that organisations participating in CSR can enhance their image and consumer loyalty. The environmental ethical framework [84] suggests that tourists increasingly value environmentally responsible practices and choose destinations that promote sustainability. This integrated approach of CSR, green business, and ethical frameworks provides a theoretical context for interpreting GMM results regarding their impact on hotel business, image, tourist loyalty, and ecological interactions.

H9 was not proven valid because the coefficient of energy consumption is not statistically significant (p -value: $0.330 > 0.1$). Since there was a high correlation between energy consumption and CO₂ emissions, CO₂ emissions were excluded from the analysis. For that reason, H10 was not tested. This is a consequence of the limitations of this research regarding the way of expressing energy consumption and CO₂ emissions in Equations (4) and (5). Namely, the same activities are included in these two equations, but only different units of measure are used. Hence, there is a high correlation between these two indicators. However, the lack of statistically significant impact of energy consumption may suggest that these factors may not be crucial in attracting guests or influencing their loyalty assessments. Also, the finding implies that the share of other costs is much higher, so that energy costs, and hence changes in energy costs, do not have such an impact on hotel operations or are not immediately noticeable, i.e., there is a certain time lag when the effects of the change in energy consumption will be noticed. Closely related to this is the method of accounting for the use of energy. Many hotels are not subject to double bookkeeping and record these costs in different ways, which makes it difficult to assess their true effects. This does not mean that sustainable practices related to energy and CO₂ emissions are not important, but currently, they may not be the primary indicators for guests. However, the results of the ANOVA analysis show that there are statistical differences in the attitude of the guests towards energy consumption and CO₂ emissions depending on whether they are leisure travellers, business travellers, or digital nomads. The results of the ANOVA analysis are shown in Table A1 in Appendix A, with a note that Levene's test of homogeneity of variance was conducted before the ANOVA analysis. The existence of differences in views towards these two factors among guests is in accordance with the findings of similar research [85].

In the context of sustainable behaviour, the finding that CSR, which incorporates the dimension of responsibility towards employees, has a positive impact on the success of the hotel business, as well as the knowledge that modern tourists appreciate when hotels treat employees with responsibility, implies that serving such guests should have a positive impact on improving employee productivity. Low labour productivity in the hotel industry is often caused by burnout at work as a consequence of the dysfunctional behaviour of hotel guests (DFB) towards employees [86]. Over 82% of hotel employees face this kind of guest behaviour [86]. It is expected that guests who value responsibility towards employees will not express DFB towards employees but will positively influence their performance at the workplace. For this reason, we believe that the productivity of employees should be expressed in such a way that everything that leads to a decrease in labour productivity but is a consequence of one of the three forms of DFB towards employees should be excluded: verbal abuse, disproportionate demand, illegitimate complaint [87]. To be precise, all costs arising from absence from work due to burnout at the workplace as a result of DFB guests to employees are excluded. In other words, net sales revenue is increased by these costs. In this way, model (7) was modified by including an IV for labour productivity.

Since the eco-design of the work environment positively affects the performance of employees [19,88], it is important to see how this aspect of socially responsible behaviour affects the productivity of employees. For this reason, another IV for labour productivity is included in the model (7), which shows that the net sales revenue increased by the costs related to the interest costs for investments in the eco-design of the working environment, the amount of depreciation of the eco-design equipment, and maintenance costs of eco-design equipment. The model was re-estimated using GMM. The results of the estimation of the variable LP show that labour productivity has a positive influence (coefficient: 0.52; std. error: 0.120; z -test: 4.328; p -value: 1.50×10^{-5}). This finding implies that the socially responsible behaviour of the hotel not only attracts tourists who are ready to pay a higher price for services for this behaviour of the hotel but will also lead to (1) a decrease in the DFB of hotel guests, which will lead to a decrease in employee burnout at the workplace and in the last resort to increase their productivity; and (2) through the eco-design of the work environment, it will influence not only the attraction of eco-tourists

but also the increase in the productivity of employees by increasing their job satisfaction and organisational commitment.

5. Conclusions

Most of the results obtained in this research are in line with expectations and have a theoretical basis in the theories of the company and organisation. However, the findings that the age of the hotel, as well as the productivity, do not have a significant impact on the success of hotels in the rural regions of the Western Balkan countries have no theoretical foundations but indicate a significant impact on the macroeconomic conditions in which hotels operate in these countries. There are two significant implications for this. First, macroeconomic business conditions affect the importance and direction of the influence of certain microeconomic factors, which implies that a universal conclusion regarding their influence cannot be drawn, but the influence of these factors must be studied on a case-by-case basis. Second, the findings provide clear guidelines for social policymakers in the creation of macroeconomic measures aimed at supporting the development of tourism and hospitality in rural areas. The creators of social policies must work to ensure more favourable conditions under which hotels can borrow, as well as to work on ensuring an adequate infrastructure, primarily of official institutions. Namely, high interest costs represent a significant problem, as well as the lack of educational staff.

On the other hand, taking into account the importance of liquidity and the size of the hotel, hotels must work on improving their strategy of maintaining liquidity in order not to expose themselves to the high costs of short-term credit and implement strategies for increasing their size in order to further use the effects of economies of scale.

In the context of sustainable development, a positive CSR impact means that CSR contributes to building a positive image of the hotel as a socially responsible place. Since hotels emphasising sustainability are expected to attract tourists who appreciate ecological practices, a positive CSR impact on a hotel's success suggests that hotels have succeeded in this. On the other hand, increased tourist attention to environmental issues can result from the hotel's recognition as an environmentally responsible place. In summary, focusing on CSR has a positive domino effect on business, image, tourist loyalty, and attracting guests interested in ecological issues. It is crucial to continue researching and monitoring these trends to maintain sustainability and a competitive edge in the tourism industry. Continuously tracking trends and adapting sustainable development strategies is important to meet guest and market expectations. The results of the survey show that sustainable practices related to energy and CO₂ emissions are currently not important for guests. This means that tourists may not currently perceive these factors as crucial in their hotel selection decisions. This scenario emphasises the complexity of tourist preferences and the multitude of factors that contribute to their decisions. It could be that other aspects of sustainability or different factors play a more prominent role in shaping the perceptions and choices of tourists. The alternative scenario indicates that hotels may not be effectively implementing measures for energy efficiency. This implies a potential gap in the execution of sustainable practices related to energy consumption. In this case, addressing and improving the implementation of energy-efficient measures may be necessary to align with the broader goals of sustainable development. These findings underscore the importance of both effective implementation of energy-efficient measures and a nuanced understanding of the diverse factors influencing tourist decisions within the context of sustainable development.

The finding that workforce productivity, when expressed in a conventional way, does not have a significant impact on business success, or when expressed in a way that respects the principles of CSR, indicates the need to review the current way of reporting the impact of this factor.

The significance of the research results is reflected in the fact that the governments of the WBC have been working for the last few years on defining strategic documents to support the development of tourism in rural areas and launching initiatives to define common policies and strategies (see Porfido, 2020 [5]). Therefore, the findings of this paper

can represent the starting point for defining these policies. Of course, with respect to the limitations, in terms of the size and type of sample, of the research. The fact that over 49% of entities that provide accommodation services in rural areas have been operating for less than 5 years and that around 71% of these entities achieve around 300 overnight stays per year [8] clearly indicates insufficient experience in this segment of catering and insufficient utilisation of potential. Therefore, the results of the research can guide them in the optimal use of resources. The significance of the research findings goes beyond the scope of the countries of the Western Balkans when they consider the similar historical heritage, the process of transition, the lack of educational institutions in the field of hospitality, and the potential of rural tourism in countries from the surrounding region.

Like any research, this has several limitations. However, a key limitation relates to sample selection. Considering that around 90% of accommodation services in these areas are provided by entities other than hotels, future researchers are recommended to broaden the sample by including them as well. This research determined that there are differences in energy consumption and CO₂ emissions among hotel guests depending on which group of tourists they belong to. However, the extent of these differences has not been determined. Therefore, we leave this task to future researchers. It would be useful to repeat this study while respecting cultural differences among hotel guests, since it is known that cultural differences influence the behaviour of tourists related to sustainable development. The findings of this research would help hotels allocate their resources towards a certain segment of tourists.

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Appendix A

Table A1. The results of the ANOVA and the Levene's test.

| | Levene's Test | | ANOVA | |
|---------------------------|---------------|---------|--------|---------|
| | F Test | p-Value | F Test | p-Value |
| Energy consumption O22 | 0.078 | 0.922 | 4.831 | 0.008 |
| CO ₂ emissions | 0.103 | 0.902 | 3.452 | 0.032 |

Note: Degrees of freedom are: Between Groups—3; Within Groups—11,147; Total—11,150. Source: Author's calculations.

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