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Economic impact of hotels and similar establishments in Veszprém District

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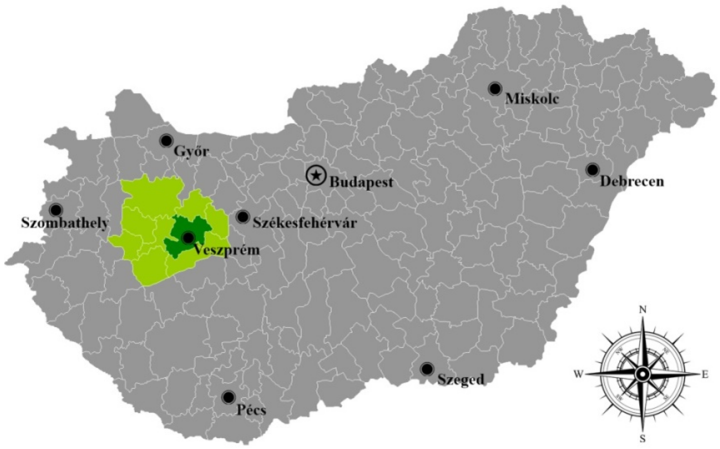
Abstract. This study measures the economic impact of hotels and similar establishments on the overall economy of the Hungarian Veszprém District. It is considered to be an individual part of the total hospitality sector. In the study, the 'Local Multiplier' is utilized from three perspectives: direct, indirect and induced effects. Both secondary public data as well as primary data sources, merely questionnaires, were used to collect data. The resulting score for the induced impact (*LM3*) is 1.96, meaning that for every Forint brought into the economy of the district of Veszprém by the hotels and similar establishments, another extra Forint is generated. The study also finds that revenues of the Veszprém district as share of the national figures have shrunk significantly and development has stagnated in absolute terms over the past four years.

Key words: hotel, local multiplier, Veszprém, hospitality industry

1 Introduction

Tourism has been presented as a critical driving force in economic development of a region (Lea 1988). However, as Mayer, Vogt (2016, p. 170) write, "more often than not these high hopes fall short and either the number of visitors or the resulting economic contribution or even both do not meet earlier expectations" pointing at research by Vogt (2008), Blake et al. (2008) and Lehmeier (2015) supporting this view. Still, it is held as one of the major service sectors (Bansal, Eiselt 2004). To illustrate, the tourism and travel sector played an important role in the world economy by generating 334 million jobs, contributing 10.4% of the global GDP in 2019 (WTTC 2021).

Overall, tourism is considered to have a positive impact by several different ways: (1) by increasing the income of households, (2) it bolsters the state budget by providing tax collection from the tourism establishments and (3) as a suitable way to prevent joblessness (Andriotis 2002). It also is found to have significant spillover effects on nearly every other sector in a given region or country (Mansfeld, Winckler 2008). Furthermore, being a service industry, it possesses a potential in terms of significantly multiplying national and regional incomes of related economic activities as well (Balaguer, Cantavella-Jordá 2002). Hence, a fair rise in tourism expenditure should boost further activities in connected businesses in the region. Because of this, tourism is now increasingly seen as a policy tool to influence the future of different regions as well as their economy (Van Leeuwen et al. 2009). The Hungarian government also considers tourism to be a strategic priority in terms of future economic development of the country (OECD 2018).



Source: Wikipedia page of Veszprém district

Figure 1: Veszprém district (dark green) within Veszprém County (light green) and Hungary

In line with the statement by Mayer, Vogt (2016, p. 170) that "one of the most important drivers is the spending behavior of visitors", the multiplication effect is the main focus of this study: by direct, indirect, and induced impacts that are the mere consequences of the tourism expenditure in the region (Vogel 2001).

While the importance of the tourism industry as a whole has been underlined, this study will focus on the hotel industry within the whole tourism industry. According to the study of Zion Market Research (ZMR 2019), the assessed value of the worldwide hotels market was about 147.57 billion USD in 2018 and this number is expected to reach approximately 211.54 billion USD till the year 2026.

1.1 Research Question

Hence, the main objective of this study is to evaluate the economic impact of hotels and similar establishments, resulting in the following Research Question:

> What is the economic impact of the hotels and similar establishments on the local economy in the Veszprém district of Hungary in 2019?

By stating hotels and similar establishments, all commercial accommodation establishments are included (hotels and guest houses). Short-term rental apartments such as Airbnb are excluded, as they have quite a different business model and classification in the database as well. The acquired results will be helpful for policy makers regarding support of the local economy and well-being of the local community by making appropriate decisions for the hotel sector.

Section 2 gives a literature review discussing similar studies. Section 3 will discuss the role and features of tourism multipliers as an explanatory coefficient in the economy as well as factors that may affect them. Section 4 is on the methodology used and the data collection, while Section 5 presents results including a discussion. Section 6 provides the conclusions.

2 Literature Review

In general, the trend that tourism is perceived as a powerful economic driver has sparked a lot of policy and research interest in recent years with regards to taking advantage of its benefits of boosting the economy (Van Leeuwen et al. 2009, Teigeiro, Díaz 2013). However, while numerous studies exists dealing with the economic impact of tourism on the economy, there are fewer studies dealing with merely the impact of the hotel

industry, especially from a regional perspective. One of the examples that dealt with the regional impact of the hotel industry is conducted by Kim, Kim (2015). They studied the economic impact of two hotel industries of Texas (USA) by utilizing input-output (IO) analysis which made it quite convenient to look for the connections between the hotel industry and other industries. The authors have achieved multipliers based on IO tables and concluded that both hotel industries (hotels and motels; other accommodations) have a significant induced effect on the economy of Texas. Another research done by Mitchell et al. (2014) applied value chain analysis for a single hotel located in Southern Turkey in order to find ways to increase the impact on the local economy and hence provide more benefits to local people and retailers.

When it comes to analyze the regional impact of the tourism sector as a whole, Kronenberg et al. (2017) investigated the economic impact of tourism in the Jamtland region of Sweden from a multi-period perspective. Similarly, Tohmo (2017) looked for the regional economic contribution of tourism in Central Finland and compared the impact with national domestic and international tourism. In addition, Gelan (2003) and Daniels, Norman (2003) quantified the local economic impact of major sporting events in Angus (Scotland) and South Carolina (USA).

All these studies have in common that they aimed to produce results based on calculated multipliers that can be helpful for policy makers.

3 Economy and Multipliers in Tourism Sector

There are several concepts in the literature that investigate the impact of the tourism industry on economic development of a specific area. Nonetheless, multipliers are especially useful in these terms because they are looking at direct leakages of income from the economy of the local community since they are usually taken and paid outside the local area (Wanhill 1994). In addition, when it comes to regional economic development initiatives by government authorities, the size of local multipliers is critical in this regard (Moretti 2010). As the leakages from the local economy increase, the calculated coefficients of the local and regional multipliers decrease accordingly, especially in the case of import leakages (Glasson 2018) which make the economy less capable to be self-sufficient and able to retain the generated revenues. However, also other types of leakages exist, such as savings and taxation (Vellas, Bécherel 1995). That is why it is fruitful to utilize multipliers in terms of measuring local impacts. In this regard, the question might be which features of the economy or area effect the multiplier coefficients (see Mayer, Vogt 2016). For instance, according to the meta-analysis on the tourism sector in six Dutch towns made by Van Leeuwen et al. (2009), the larger the size of the economy being examined, the larger the multiplier accordingly is. Of course, it should be noted that identifying "regional activities" – hence the economic base – depends on where the local market ends and the export market begins (Thulin 2015). Hence, in most cases, regional multipliers are lower than that of the national multipliers (Van Leeuwen et al. 2009) and larger regions are more capable to be self-sufficient (Thulin 2015). Because of this, we should not expect high coefficients in our study as the economy of only one District is the point of focus.

4 Methodology

4.1 Local multiplier

Many types of multipliers are available and discussed in literature (Archer 1984, Fletcher, Archer 1991, Briassoulis 1991, Fletcher 1994, Frechtling 1994, Horváth, Frechtling 1999). Fletcher, Snee (1989) for instance distinguish between six tourism multipliers: a change in output, sales or transaction, income, employment, government revenue or imports. Hughes (1994) describes the income multiplier as "perhaps the most frequently encountered" which for a good reason is mentioned as the 'normal' multiplier by Archer (1982).

While the study originally envisaged to use a micro based input-output analysis (see Kamann, Krolis 1991, Oosterhaven 2019), this had to be abandoned because of uncertainty about the expected reliability of the data made available. Moreover, no official

input-output data at a regional level existed, let alone at a district level. And, as Horváth, Frechtling (1999, p. 325) remark "they are expensive to develop at the regional level given their extensive data requirements". This left the present methodology as sole opportunity to shed light on the economic impact of the hotels and similar establishments, maintaining the same 'bottom-up micro based philosophy'.

Hence, in order to measure the economic impact of the hotels and similar establishment in Veszprém, the Local Multiplier (LM) which was developed by the New Economics Foundation (NEF) (Sacks 2002) was selected for this study. From a micro viewpoint, this local multiplier is an appropriate instrument for quantifying economic efficiency at the local level (Feagan 2008).

In this study, 3 types of impacts are distinguished. They coincide with the phases of the methodology of calculating the local multiplier according to Sacks (2002): Direct impact ($LM1$), Indirect impact ($LM2$) and Induced impact ($LM3$)

The first phase of the calculation consists of determination of the direct effects which are the straightforward to determine since they are the result of visitors spending money in enterprises (Goeldner, Ritchie 2009). In this case, this is the revenue of the hotels and similar establishments of the Veszprém District (Round 1). Therefore, $LM1$ is going to be equal to the total revenue of the hotels and similar establishments (Initial revenue or Round 1) in Veszprém.

The second phase includes indirect effects which are the related local expenditures from the initial revenues (Goeldner, Ritchie 2009) of the commercial accommodations (Round 2). The calculation of the indirect impacts ($LM2$) is according to the following formula (Sacks 2002):

$$LM2 = \frac{\text{Round 1} + \text{Round 2}}{\text{Round 1 (initial revenue)}} \tag{1}$$

Finally, in the third and last phase of the calculation of the local multiplier – $LM3$, induced effects are also being included which indicates the assessment of how much money has been spent in Veszprém by local employees (Round 3) (Březina et al. 2013). The final calculation of the $LM3$ will be as follows (Sacks 2002):

$$LM3 = \frac{\text{Round 1} + \text{Round 2} + \text{Round 3}}{\text{Round 1 (initial revenue)}} \tag{2}$$

The final coefficient of $LM3$, should be interpreted that a score of for example 2.5 means that every Forint earned by the hotels and similar establishments created an extra 1.5 Forint in the local economy.

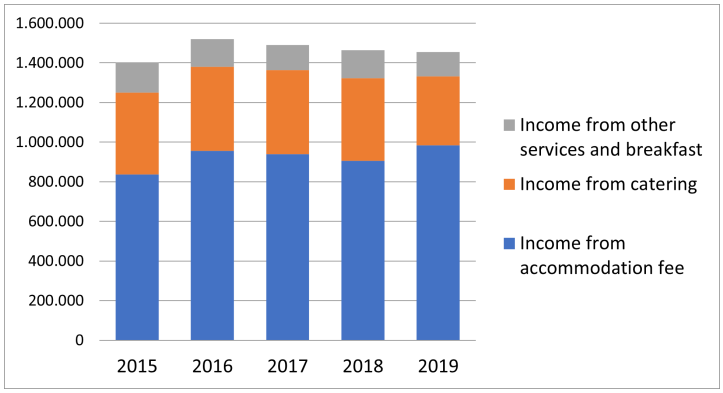
4.2 Data

In this study, both preliminary data based on questionnaires and secondary public data from the Hungarian Central Statistical Office (HCSO, https://www.ksh.hu/?lang=en) have been used. In addition, several estimations have been made which will be elaborated in the next paragraphs.

First of all, in terms of the total revenues of the hotels and similar establishments in the region, the data have been derived from the website of the Hungarian Central Statistical Office. In fact, in the database, the data of income of commercial accommodation establishments is classified into 3 types: as income of accommodation fee, income of catering and income of other services and breakfast.

As the aim of this study is to trail all of the income that has been earned by the hotels and similar establishments, we need the total respective revenues. That is why all three types of incomes have been summed up for the first step (Figure 2).

In the second phase we need data regarding the local expenditures that have been made within the borders of the District of Veszprém of the commercial accommodation establishments. Precise measurement of local expenditures for all of the commercial establishments would be quite arduous and time-consuming, not to mention the data is sensitive for commercial establishments. For these reasons, estimations have been made according to the online questionnaires that were filled in by the representatives of the establishments.



Source: HCSO

Figure 2: Income of accommodation establishments of Veszprém district (thousand HUF)

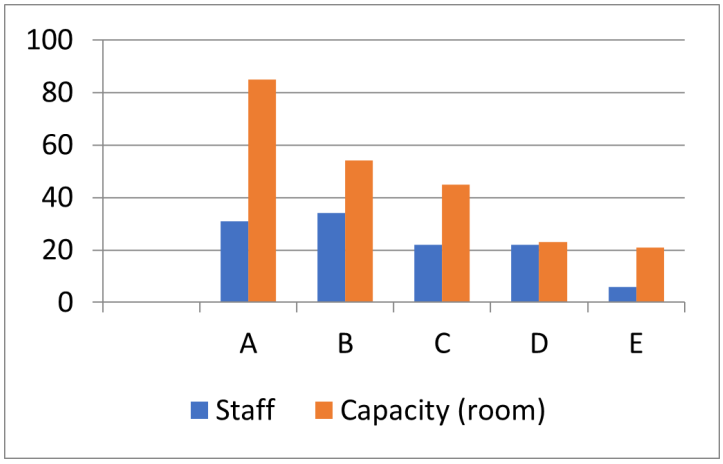


Figure 3: Four hotels (A, B, C, D) and one guest house (E) in Veszprém District

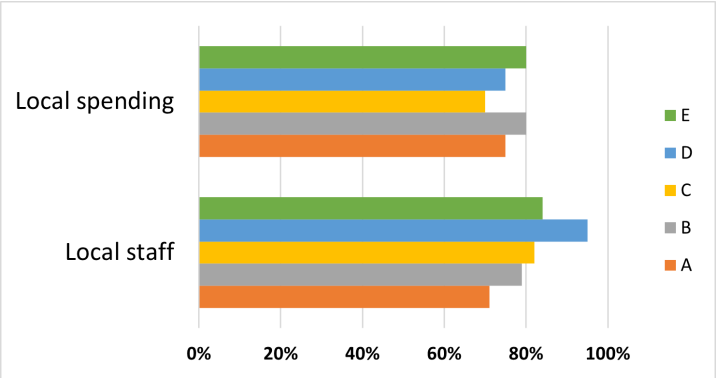
Questionnaires have been sent to mail addresses of 20 of the 29 registered establishments in Veszprém. With 7 replies the initial response rate is 35%. Only 5 respondents filled in the questionnaires completely which produces an effective response rate of 25%. These five respondents cover 29 percent of all registered rooms in the district. This is a reasonable rate in case of the tourism industry, given that most tourism surveys have poor response rates, especially from the small and medium tourism firms, as indicated by Buhalis (2003) who received a response rate of 25,2%. Louvieris et al. (2001) also received quite a low response rate of 21,7%.

The main aim of the questionnaire was to estimate the local spending patterns of the hotels and similar establishments in Veszprém District. The need for a diverse sample was met (Figure 3) where two hotels – A and B – were premium hotels, two – C and D – offered at an average price range and one respondent – E – was a guest house.

From the questionnaire expired that the participating commercial accommodation establishments spent on average 75% of their income within the borders of the Veszprém District (Figure 4). This estimate was used for the second phase of our calculation.

The required data of the last phase consist of the amount of money that has been spent merely in the Veszprém District by the employees of the aforementioned commercial accommodation establishments.

In order to proceed, we need data on the sum of net earnings of all employees that work in the commercial accommodation establishments in Veszprém District. However, in the database of the HCSO, such data is only available at the county level, hence we have to estimate the needed amount for the Veszprém District based on the data of the



Source: Author's editing based on questionnaires

Figure 4: Percentage local embeddedness in spend and staffing¸5 establishments (2019)

Table 1: Share of accommodations among the 9 districts of Veszprém County (2019)

District	Number of commercial accommo-dations	Share (%)	Rooms	Share (%)	Estimated number of employees (capita)	Sum of estimated net earnings of employees (thou-sand HUF)
Veszprém	29	9.70%	784	9.40%	396	582,630 (9%)
Ajka	13	4.40%	215	2.60%	177	258,947 (4%)
Balatonalmadi	44	14.80%	952	11.40%	600	938,681 (14.5%)
Balatonfűred	108	36.20%	4.612	55.40%	1.473	2,913,149 (45%)
Devecser	3	1.00%	15	0.20%	41	323 (0.5%)
Papa	20	6.70%	269	3.20%	273	420,788 (6.5%)
Sumeg	6	2.00%	213	2.60%	82	129,473 (2%)
Tapolca	55	18.50%	994	11.90%	750	906,313 (14%)
Zirc	20	6.70%	269	3.20%	273	258,947 (4%)
Veszprém County (total)	298	100%	8.323	100%	4.065	6,473,664 (100%)

Source: HCSO.

Veszprém County (Table 1).

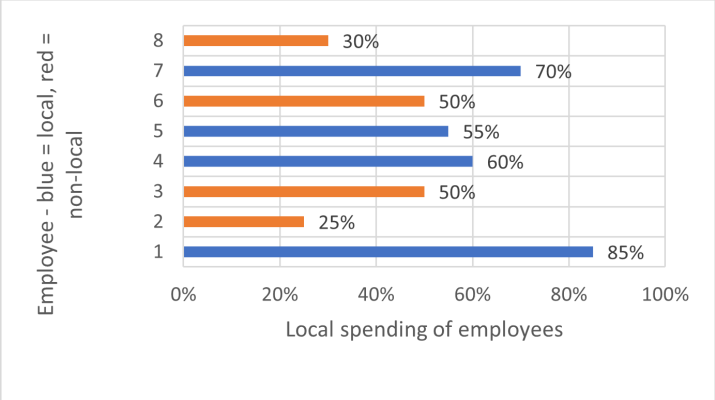
In order to estimate the right amount, Table 1 was constructed, using available data from the HCSO. Table 1 shows that both the share of number of rooms and the share of establishments of Veszprém District constitute over 9% of the total of rooms and establishments within the whole Veszprém County. As the data for Varpalota District is missing from the database and hence the calculation, a final estimation for the Veszprém District of 9% of the sum of net earnings of the commercial accommodation employees in Veszprém County seems acceptable.

Following the above calculation, the re-spending propensity has to be determined of the eight employees of the hotels and similar establishments in Veszprém according to questionnaires filled in by them. The aim of this questionnaire was simply to determine which percentage of the salary of the hotel employees of the Veszprém is spent within the borders of the district. Four employees indicated they are living outside the Veszprém district, while the other four are local residents.

According to the answers of the 8 employees shown in Figure 5, the average spending in Veszprém for the local employees is 68% and 39% for non-local employees. The relatively high score of half of the non-locals, stating they still spend 50% of their income in Veszprém can be explained by the Central Place hierarchy of Veszprém, being county and district capital and having higher order shop offers (see Openshaw, Veneris 2003).

It is estimated – using the results so far and data available – that, employees of the hotels and similar establishments spent 308,794 thousand HUF (on average 53% of their income) merely in the District of Veszprém in the year of 2019.

Based on the elaborations above, at this stage we have all of the required data in order to calculate the *LM1*, *LM2* and *LM3* for the Veszprém District.



Source: Author's editing based on questionnaires

Figure 5: Employee spending in Veszprém

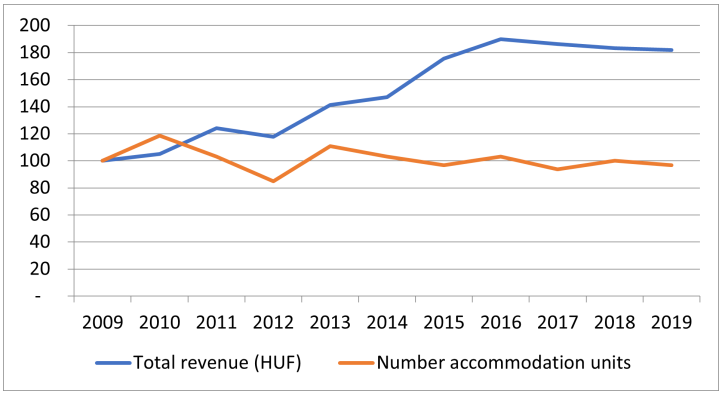


Figure 6: Total revenues in HUF of commercial accommodation establishments in Veszprém District (2009 = 100)

5 Results and Discussion

5.1 Direct impact (LM1)

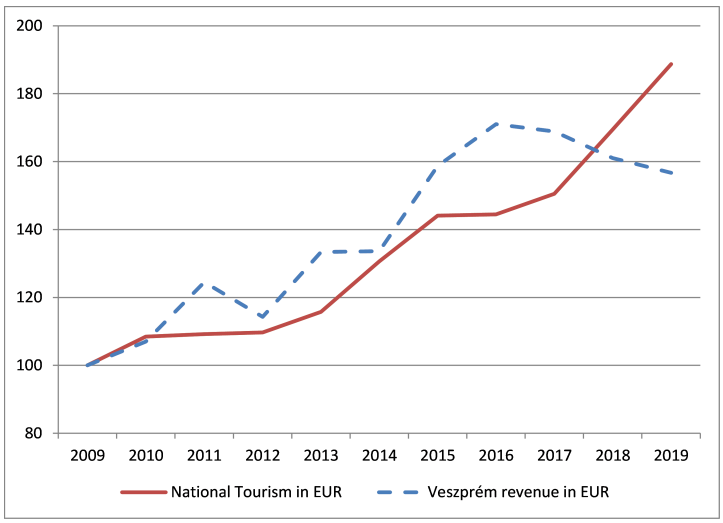
As stated, the, direct impact includes the total revenues of the hotels and similar establishments in the area. Figure 6 shows that the total revenue of the commercial accommodation establishments in Veszprém has almost doubled in 7 years and remained more or less stable since 2015. It was 1,453,982 thousand HUF in the final year of observation 2019. Therefore, the "Initial revenue" (Round 1) that we need for the calculation is 1,453,982 thousand HUF. Figure 5 also shows the lack of growth in accommodation units.

5.2 Indirect impact (LM2)

According to the determined initial revenue (Round 1) for our calculation, we can move on to the second phase in order to calculate the indirect impact (*LM2*). The calculation of *LM2* is as follows:

$$LM2 = \frac{145,398,200,0\ HUF + 145,398,200,0\ HUF * 75\%}{145,398,200,0\ HUF\ \text{(initial revenue)}} \tag{3}$$

Based on the calculation above, *LM2* equals to 1.75.



Source: Author's editing based on HCSO data

Figure 7: Growth patterns of the total revenues in Euro of commercial accommodation establishments in Hungary and the Veszprém district between 2009-2019. (2009=100)

5.3 Induced impact (LM3)

Since both *LM1* and *LM2* have been calculated, the complete data which is necessary to calculate the *LM3* is available. Hence, the final calculation of *LM3* is as follows:

$$LM3 = \frac{145,398,200,0\ HUF + 145,398,200,0\ HUF * 75\% + 308,794,000\ HUF}{145,398,200,0\ HUF\ \text{(initial revenue)}} \quad (4)$$

In accordance with equation (4), a coefficient of 1.96 results for *LM3*. This means that every Forint that is spent in the economy of the district of Veszprém by hotels and similar establishments in the year of 2019 almost generated another extra Forint in the local economy.

5.4 Regional development of the hospitality industry

An important aspect studied is the regional development pattern of the hospitality industry in Veszprém district. In particular: what is the position of the district within the whole country? In general, since joining the European Union in 2004, the number of individual tourist arrivals to Hungary grew considerably since then (Formadi et al. 2017). As the tourist flow increased into the country, naturally regional tourism also is expected to flourish as well. Figure 7 illustrates data of both the district and the country. It shows the development patterns – or growth rate – of the hospitality industry. To compensate for the deteriorating exchange rate of the Hungarian Forint, all figures are expressed in Euro this time, using the appropriate exchange rate of the specific periods.

Figure 7 shows that tourism at a national level shows a steady growth pattern over the years. Since 2009, there has been a continuous increase in the total revenues of commercial accommodations in Hungary till the end year of 2019. On the other hand, when we look at the data of the Veszprém district, we first of all see that up to 2016, the Veszprém district was outperforming the national figure in terms of growth, even while this growth pattern was much more volatile. However, after the peak year of 2016, the growth in revenue of the Veszprém district has significantly decreased till the end of the observed period. Revenue in HUF stabilized (Figure 6) which effectively means and constituted only 0.27% of all such revenues in Hungary by the year 2019. This share being at a consistent high level around 0.39% between 2011 and 2016 (Figure 8).

Figure 8 clearly shows how the share of Veszprém district has been significantly shrinking regarding the total revenue of hotels and similar establishments in Hungary in

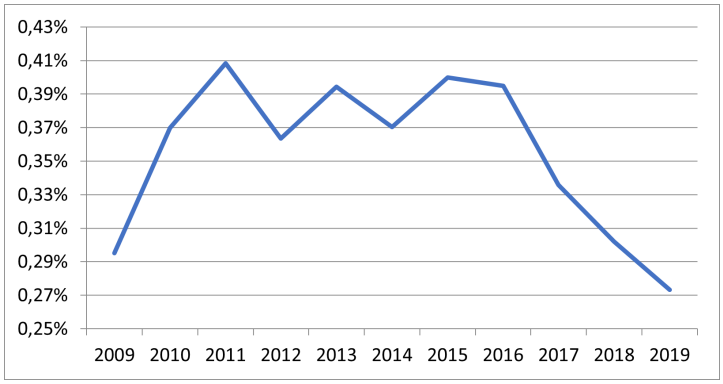


Figure 8: Share of the Veszprém District in the National Revenue of the hospitality industry

recent years. This might be a signal for the decreasing competitiveness of tourism and hospitality industry of Veszprém district. It also might be that Veszprém has historically been more oriented towards domestic tourism, combined with a steady stable flow of business visitors to any of the numerous foreign subsidiaries in the district. Domestic tourism has a trend of going abroad instead of domestic trips. In that case, it is more the maturing domestic tourism market and the increasing domestic income that may cause this relative lack of growth in Veszprém.

In this context, it will be interesting to study the effects of the preparations to be the European Capital of Culture (ECOC) by the year 2023. Already, some hotels received policy oriented funds to expand and modernize; this adds 47 newly constructed modern hotel rooms. Some culture focused pubs and meeting places have been funded, potentially attracting tourists by making the city more attractive. It is expected that the tourist flow will increase towards Veszprém during and after the year when the ECOC project will take place. However, we remind the warning by Mayer, Vogt (2016, p. 170) that in many such cases, "high hopes fell short". The future will tell.

5.5 Limitations and future studies

Compared to other multiplier studies, the multiplier value calculated in this study may seem high, given the small size of the district (see Khan et al. 1995). For, in general, "A direct relationship between size and domestic effects is expected" (Robles Teigeiro, Díaz 2004, Van Leeuwen et al. 2009, Wiersma et al. 2004). However, as these authors also complain about the leakage of spending from the area studied, we could point at the strong social local network embeddedness and cohesion observed among the (hotel) managers in the Veszprém district, the relatively high local reinvestment score and local Veszprém spending by local hotels, employees and even half of the non-local employees, spending 50% of their income in Veszprém (Figure 4). In so far this amount spent also goes to multinational retail companies in food, fashion, domestic appliances and DIY-material, there would be unrecorded leakage and this could to some extent explain the higher score than expected. However, on the other hand, all hotels are local hotels; none is part of a national or international chain. Compared to other areas, this seems an exception rather than a rule and because of this may reduce leakage from Veszprém, causing a higher multiplier.

Considering all above and the results of this study, *LM3* has produced evidence of genuine economic benefit from local hotels and similar establishment in the Veszprém district.

One issue however, appears to be problematic in practice. When it comes to the employees' spending and company purchasing behaviour, this behavior appears to be challenging: an enterprise cannot order its employees to support local businesses and a local authority cannot order companies to source locally, especially when they are part of a multi-site chain.

This study has methodological shortcomings regarding the used *LM3* technique, particularly in terms of the assumptions regarding the data collection for its calculation because the most cost-effective method in this regard has been chosen and applied. Despite of this, Silovská, Kolaříková (2016) consider there is a possibility of calculating further local multipliers such as *LM4*, L*M5* and so on. However, by going through calculations of further local multipliers each time, the loss regarding the degree of accuracy in the data occurs. This argument is understandable because while at the first step it is quite easy to collect precise data regarding the revenues of the hotels and similar establishments even without getting in direct contact with them – merely by the use of official statistical database. On the other hand, as we go further, we have to rely on the personal answers of the individuals such as the data about the share of salary of hotel workers that has been spent only inside the district.

Considering the aforesaid factors, the results of *LM3* may not be considered accurate enough to be used as a progress monitor or to compare local initiatives (Thatcher, Sharp 2008). That is why, as recommended in the literature (Hewings 1985), more precise and mixed-method approaches are suggested for future attempts to measure and analyze the local impact of hospitality entrepreneurs.

6 Conclusion

In this study, the effect of the hospitality industry on the regional economy of Veszprém has been investigated for the year 2019. In this regard, the Local Multiplier has successfully been utilized and three levels of the local multiplier have been calculated based on primary and public data.

The observed findings made it clear that the hotels and similar establishments have a significant impact on the local economy of Veszprém district as every Forint that has been spent in the economy created another Forint for the economy of the region in the year 2019.

Additionally, this study also revealed that, throughout the last decade, the development pattern of the hospitality industry of Veszprém district has been stagnating. While initially outperforming the national figure, from 2016 onward a stagnating growth and shrinking share in the national revenue occurs. It will be interesting to study the impact of the new activities and services, funded by the 2023 European Capital project, which is expected to attract more tourists and help the region to overcome this stagnating situation.

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