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Working Paper



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## Working Papers in Interdisciplinary Economics and Business Research

Microeconomics of tourism among selected CEE  
countries: What influences profitability  
in a case of those profitable firms?

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## **Working Papers in Interdisciplinary Economics and Business Research**

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## **Abstract**

Tomáš Heryán: **Microeconomics of tourism among selected CEE countries: What influences profitability in a case of those profitable firms?**

*The paper has focused on financial management of medium-sized hotels and travel agencies in eight selected Central and Eastern European (CEE) countries. According to a business finance theory, there should be inverse relation between liquidity and profitability of companies. In general, if managers decrease firm's liquidity through investing into the fixed assets they should increase firm's profitability, which is caused by possible higher earnings from those investments. The aim of the study is to estimate how is profitability of those profitable tourism companies affected by selected financial variables, and decide whether the business finance theory is valid also within tourism industry among selected CEE countries. Annual data from Amadeus, the international statistical database are obtained from 1,957 hotels and 785 travel agencies from Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia. General Methods of Moments (GMM) with panel data is used as the main estimation method for period from 2006 to 2015. However, results of the paper have shown that the business finance theory is not valid either within both types of tourism companies nor among all selected CEE countries. Furthermore, it is obvious that a conflict between managers of tourism companies and their owners should have been paid more attention. A creating of retained earnings within the stockholders' funds when owners had reinvested the earnings back to the business had particular significance for tourism companies' profitability within the period affected by the global financial crisis, even in the case of those profitable companies.*

### *Key words*

CEE countries, tourism, financial management, cash conversion cycle, stockholders' funds

*JEL: C50, D20, Z33*

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## **Introduction**

Tourism as a business industry has become highly frequented topic among scientific literature. Development of tourism, as an element of the economic system, is limited by the level of the economic system as a whole. The understanding that it is possible to develop tourism in countries without the adequate level of social and economic development, is wrong. (Gržinić and Saftić, 2012) From that point of view, Central and Eastern European (CEE) countries are suitable for tourism development. Issues connected to business finance are important even within tourism industry. However, there is still a huge lack within the literature in this field. Even though the costs structures and revenues flows are obtained among business model's components (Pfeifer et al., 2017), the financial analysis is efficient tool for financial management of the companies. According to both, combining of the financial analysis also together with econometric tools as well as comparing financial ratios among eight CEE countries (Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia), contributes to research connected to tourism. In particular, current results might be useful to financial managers, owners and also to creditors of tourism companies in selected countries.

This paper aims to estimate how is profitability of those profitable tourism companies, affected by selected financial variables and decide whether the business finance theory is valid also within tourism industry among selected CEE countries. Tourism companies are divided into two main groups according to their type to medium-sized hotels and medium-sized travel agencies. Each of these group then consists from firms divided according to their domestic country.

The text is structured as follows. Next Section briefly analyses recent literature, Section 3 describes data and methods used for investigation, Section 4 contains empirical results and Section 5 concludes with the discussion.

### **1. Review of Relevant Literature**

The economy of tourism gathers a wide range of very diverse studies highlighting the importance of tourism as an economic activity and as an economic sector with high social and even cultural implications in communities' forms of organization (Silva, Ferreira, Filipe, and Coelho, 2017). Tourism exerts a great impact on employment and output and as a result, it may constitute a basic tool for economic recovery after a period of recession. Therefore, apart from its economic dimension tourism has a major social impact (Rontos, Salvati, Syrmali, Vavouras, and Karagkouni, 2017). Nevertheless, managers of tourism companies must control the financial health of the companies. Financial managers and their external financial analyst counterparts recognize, at least intuitively, that all working capital investments do not enjoy the same life expectancy, nor are they transformed into usable liquidity flows at the same speed. A cash conversion cycle approach to working capital management illustrates the potential danger of an intuitive approach to liquidity analysis. (Richards and Laughlin, 1980)

Financial analysis is the examination of a company's financial statements in order to determine, how well that company is doing and to get a sense of how the company can be expected to perform in the subsequent period. A commonly used technique for evaluating financial statement data is ratio analysis. Profitability ratios indicate the success of the company in earning a net return on sales or on investment. These ratios are the ones investors usually look at, because their main concern is a company's ability to earn profits. The return

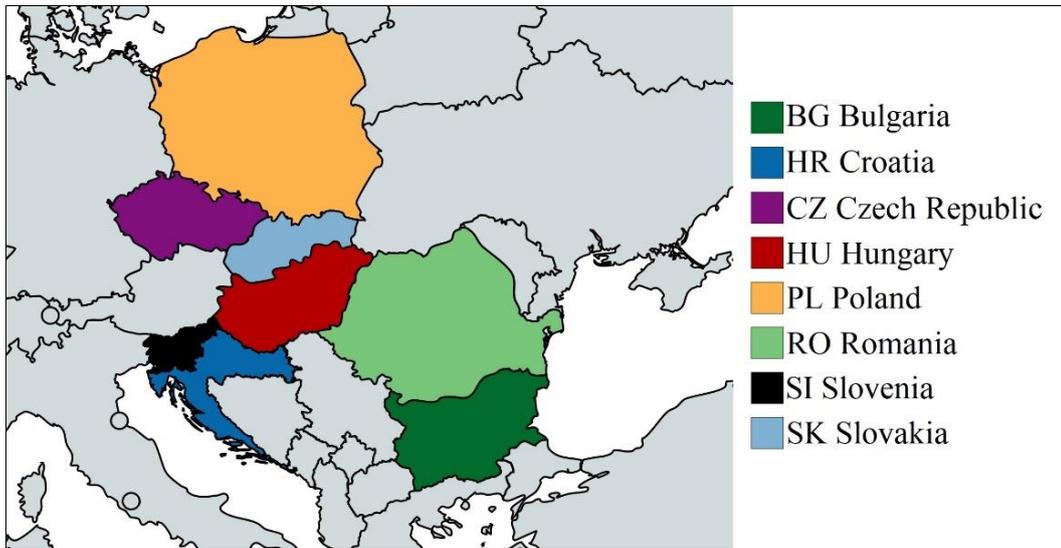
on assets (ROA) ratio measures the management's ability to earn a return on the use of the firm's assets. In basic terms, a liquidity ratio is used to measure a company's ability to pay its bills on time. In this sense, a liquidity ratio measures the company's capacity to meet short-term obligations out of its liquid assets. The quick (or L2, acid-test) ratio measures the company's ability to meet its short term obligations using those current assets deemed most liquid. The term "liquid" refers to assets that may be quickly converted into cash. Managers should be familiar with activity ratios because they reflect the intensity with which the company uses its assets to generate sales. Neither the current nor the quick ratio considers this movement in current assets. Therefore, short-term creditors should use additional tests in considering the liquidity of two significant working capital items: receivables and inventories. Activity ratios—also known as asset utilization ratios, asset management ratios, or just utilization ratios—measure the effectiveness of a company's asset management. A company's assets should be deployed to generate profits and benefits for the shareholders, whose money has been used to acquire the assets. When a company is not successful at managing its assets, costs tend to overwhelm profits and performance suffers. On the other hand, when assets are managed well, the company requires less capital, costs are generally better controlled, and the results are not only favorable but tend to improve over time. The activity ratios provide insight into management's effectiveness, and also into the quality of the assets and the reliability of the values assigned to them. Together, these measures create the cash conversion cycle, the amount of time from the outflow of cash until it is recovered. (Sherman, 2015)

From the theoretical point of view, in general, if managers would like to maximize profitability of a company, they are in need to have sufficient amount of liquidity for investments. Theoretical suggested range for the L2 is therefore from 1.00 to 1.50, which means having 100-150% current assets of short-term obligations. Whether they invest into fixed assets (tangible or intangible), it should mean possible higher revenues and then earnings of the company. Richards and Laughlin (1980) argue that evaluating the interrelated cash inflow-outflow pattern underlying a more complete approach to liquidity analysis requires an additional flow indicator for current liabilities, however. According to them the cash conversion cycle, by reflecting the net time interval between actual cash expenditures on a firm's purchase of productive resources and the ultimate recovery of cash receipts from product sales, establishes the period of time required to convert a currency of cash disbursements back into a currency money of cash inflow from a firm's regular course of operations. Nonetheless, if managers are able to have the sufficient amount of liquidity, its decreasing through investments would mean increasing of fixed assets and increasing of profitability. Such increasing of profits also increases a possible conflict between management and the owners of companies who want returns from their investments, which decreases liquidity of companies as well. On the other hand, if the owners will reinvest the earnings back into the business, especially in the global financial crisis time, it should support their companies to survive and even to bring higher returns in future. Creating or non-creating of retained earnings could have a key role in crisis time.

## **2. Data and Methods**

Annual data has been obtained for 1,957 hotels and 785 travel agencies from AMADEUS, the international statistical database. The estimated period is from 2006 to 2015. In Figure 1 are highlighted selected CEE countries, later included within estimations. It has been used data

from Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia in particular.



**Fig. 1: Selected CEE countries for the analysis**  
(Source: Author's illustration)

Amounts of medium-sized hotels and travel agencies are included in Table 1. However, just 1,109 hotels and 663 agencies have been found to be profitable. In particular, the amounts for companies' earnings before interests and taxes (EBIT), turnover (both from their profit and loss statements), assets in total, fixed assets, current assets, inventories, short-term receivables, stockholders' funds, current liabilities, short-term payables (all from their balance sheets), have been collected. According to this data, it is able to explore the next few selected ratios used in equation (5).

**Tab. 1: Amount of tourism companies in selected countries**

	Hotels	Profitable hotels	Tourism agencies	Profitable agencies
BG	592	393	109	100
CZ	441	191	159	131
HR	171	119	129	112
HU	87	45	22	18
PL	332	204	116	92
RO	54	32	120	100
SI	77	37	55	46
SK	203	88	75	64
$\Sigma$	<b>1957</b>	<b>1109</b>	<b>785</b>	<b>663</b>

Source: Author's calculations.

The inventory turnover ratio represents the relationship between the cost of merchandise inventory sold and the ending inventory for the period. The inventory turnover ratio measures how efficiently the overall inventory is sold. (Sherman, 2015, p. 61) The Days Purchases in Inventory is explored as in Zeidan and Shapir (2017) through equation (1):

$$DPI_{it} = \frac{365}{OT_{it}/IN_{it}}, \quad (1)$$

where  $DPI_{it}$  is days purchases in inventories of  $i$  companies at time  $t$ ,  $OT_{it}$  means operating turnover and the variable  $IN_{it}$  is inventory or stock in the company.

According to Sherman (2015, p. 56), the average collection period (also known as days sales outstanding) measures the time it takes to collect cash from customers once the sales have been made. Many analysts calculate the average collection period by first finding the average credit sales per day and then dividing the average accounts receivable by the average credit sales per day. The Average Collection Period in days is examined according to Zeidan and Shapir (2017) through equation (2):

$$ACP_{it} = \frac{365}{OT_{it}/DR_{it}}, \quad (2)$$

where  $ACP_{it}$  means the average collection period of  $i$  companies at time  $t$ ,  $OT_{it}$  is operating turnover and  $DR_{it}$  means debtors' receivables.

Days purchases in payables or the Average Purchase's Period is then explained simultaneously as in Zeidan and Shapir (2017) through equation (3) as:

$$APP_{it} = \frac{365}{OT_{it}/CP_{it}}, \quad (3)$$

where  $APP_{it}$  is the average purchase's period of  $i$  companies at time  $t$ ,  $OT_{it}$  means operating turnover and  $CP_{it}$  is creditors' payables.

The operating cycle recognizes the total elapsed time from the ordering of raw materials through the receipt and availability of customer payments. As this time period increases, there are more opportunities for delays in processing or cash receipts to drain financial resources. However, at least partially offsetting the limitations in available cash are the payment policies of the company. Together, these measures create the cash conversion cycle, the amount of time from the outflow of cash until it is recovered. (Sherman, 2015, p. 61) The Cash Conversion Cycle is calculated according to Zeidan and Shapir (2017) as well as Sherman (2015) within equation (4):

$$CCC_{it} = DPI_{it} + ACP_{it} - APP_{it}, \quad (4)$$

where  $CCC_{it}$  stands for the cash conversion cycle,  $DPI_{it}$  means days purchases in inventory calculated through equation (1),  $ACP_{it}$  the average collection period for debtors' receivables according to equation (2), and  $APP_{it}$  means the average purchase's period for creditors' payables according to equation (3).

According to Heryán and Tzeremes (2017), the main estimation is a two-step model using the orthogonal deviations through the Generalized Method of Moments (GMM model) with panel data of medium-sized hotels and travel agencies. To reach the aim of this paper the relations are estimated through equation (5):

$$ROA_{it} = \beta \cdot ROA_{i(t-1)} + \alpha_{it} + \gamma \cdot CCC_{it} + \delta \cdot L2_{it} + \varphi \cdot FAR_{it} + \omega \cdot SFR_{it} + \varepsilon, \quad (5)$$

where  $ROA_{it}$  is return on assets calculated as the EBIT on total assets of  $i$  companies at time  $t$ ,  $CCC_{it}$  means the cash conversion cycle,  $L2_{it}$  means a quick test for liquidity when

inventories are excluded from a share of current assets on current liabilities,  $FAR_{it}$  means a fixed asset ratio on total assets and  $SFR_{it}$  means a stockholders' funds ratio on total assets. Symbols  $\alpha_{it}$  and  $\varepsilon$  are a constant and residuals of panel regression, respectively. Because of the usage of this GMM specification it is able to include lagged endogenous  $ROA_{i(t-1)}$  among the exogenous regressors.

### 3. Empirical Results

Better presentation of panel data of tourism companies through comparing median values have proven differences between particular CEE countries from the financial analysis point of view. Table 2 represents median values of hotels against to those profitable hotels.

**Tab. 2: Median values among hotels (data in panels)**

	ROA	CCC	L2	FAR	RER
BG	1.47	6.44	1.01	79.67	37.05
BG profit	12.72	67.53	5.35	64.00	40.76
CZ	0.00	5.84	0.75	76.05	19.23
CZ profit	4.51	5.84	1.00	70.85	33.13
HR	0.22	10.61	0.72	91.97	40.87
HR profit	2.24	13.53	0.95	90.62	44.30
HU	1.47	6.44	1.01	79.67	37.05
HU profit	5.78	6.33	1.27	75.97	47.90
PL	0.81	6.65	0.70	87.96	41.83
PL profit	4.68	8.98	0.87	85.51	48.49
RO	1.09	42.82	0.88	81.84	35.17
RO profit	4.02	43.94	1.00	79.75	44.27
SI	0.00	-30.38	0.38	93.58	33.73
SI profit	13.85	0.00	1.55	19.50	41.59
SK	-1.27	-4.79	0.31	84.97	15.97
SK profit	2.73	1.66	0.47	82.76	26.17

Source: Author's calculations.

According to tests of all hotels against to these profitable, ROA medians are higher among all selected CEE countries in Table 2. Only positive ROA values have been investigated in the case of profitable tourism companies. According to medians, we see that most profitable are BG hotels (1.47), while those CZ (0.00), SK (-1.27), and SI (0.00) are the least if we are comparing the group of all companies. The highest spread between all hotels and these profitable is evident in the case of SI (13.85) and BG (12.72). In these two countries are evident biggest differences. The highest CCC median is definitely for RO hotels (42.82), while SK (-1.27) and SI (-30.38) are even negative. It means that SK and SI hotels are able to use debt sources from through maximizing period of cash flow for their payables, whereas RO hotels seem to be in a danger of secondary insolvency. The biggest spread to CCC medians of profitable hotels is obvious in BG, but we can argue that profitable hotels have higher CCC (except of those from HU). Lower level of L2 medians are common among all selected medium-sized hotels. On the other hand, we can argue that much better medians have these profitable hotels. However, too high L2 median is also not good such as in the case of BG (5.35) profitable hotels. What is typical for the hotels and their business is the necessity of fixed assets in form of

tangible assets. They have simply lands and buildings within their property. Therefore share of fixed assets are between 75% and 93%. Two highest medians are in HR (91.97) and SI (93.58), while the smallest FAR medians are in BG (79.67) and CZ (76.05). There are no huge differences against to those profitable hotels, except SI (19.50). It could mean that the SI profitable hotels and their high RO median can be caused by selling their property, which is definitely not good signal. In the last case of RER medians are evident higher numbers in HR (40.87) and PL (41.83) hotels, while lower numbers are in CZ (19.23) and SK (15.97). However, we argue again that higher medians are evident among all selected CEE profitable hotels. A sum of FAR and RER values often exceed 100% because of working with medians.

**Tab. 3: Median values among travel agencies (data in panels)**

	ROA	CCC	L2	FAR	RER
BG	10.33	0.00	1.44	21.74	40.90
BG profit	13.85	0.00	1.55	19.50	41.59
CZ	6.21	0.00	1.18	6.90	23.76
CZ profit	10.19	0.00	1.24	6.37	25.91
HR	5.15	10.04	1.12	37.50	23.65
HR profit	8.24	10.48	1.19	35.09	26.62
HU	6.83	1.73	1.17	10.74	27.37
HU profit	9.70	2.08	1.21	10.57	30.18
PL	7.63	12.21	1.30	7.44	37.29
PL profit	11.43	14.36	1.44	7.13	42.43
RO	8.00	36.85	1.19	22.69	20.34
RO profit	10.11	36.63	1.28	22.61	24.37
SI	3.35	4.91	1.02	29.58	23.61
SI profit	4.25	4.88	1.04	28.20	24.05
SK	6.43	-0.39	1.06	12.62	15.87
SK profit	8.43	0.16	1.09	12.78	18.48

Source: Author's calculations.

In Table 3 we see similar comparison of median values between travel agencies and these profitable travel agencies from selected countries. In general, from our panel data analysis is evident the travel agencies are more profitable according to higher values of ROA medians among all countries. The highest median value is in BG (10.33), while the smallest are in HR (5.15) and SI (3.35), within the group of all travel agencies. In comparison with these profitable agencies, the biggest differences are obvious in CZ (10.19) and PL (11.43). The highest CCC medians in days are in HR (10.04), PL (12.21), and especially again in RO (36.85), while the smallest are in BG (0.00), CZ (0.00) and SK (-0.39) travel agencies. However, in the case of profitable agencies, we do not see any bigger differences. Medians for L2 are at much better level than in all cases of hotels in Table 2. In all cases of travel agencies are median values even within recommended interval for L2 (from 1.00 to 1.50). We see higher medians among all profitable agencies again, even though the differences are not such high as among the hotels. It can be caused with differences between the business of travel agencies and hotels in general which is confirmed especially within the necessity of fixed assets. All these FAR medians of travel agencies are even under 40%, the highest values are in BG (21.74), especially in HR (37.50), also in RO (22.69) and SI (29.58), while the smallest in CZ (6.90) and PL (7.44). The last case is again of RER medians. In the case of travel agencies are the highest values in BG (40.90)

and again in PL (37.29), while the smallest is SK (15.87). In comparison with profitable agencies in Table 3 are again RER medians higher in their case than in groups of all agencies.

Estimation outputs for panel GMM models are included in four tables within the Appendix part of this paper. First, an investigation of hotels and those profitable has been made and compared. Second, travel agencies, as well as these profitable agencies, have been investigated. However, with using collected data for Romanian agencies the model is not able to be estimated, neither for all nor for these profitable agencies. From the technical point of view, all panels have been proven as stationary and all 30 models have been estimated as robust (except of RO travel agencies). Therefore a comparison between estimations for hotels and travel agencies is made.

We see eight models' output in columns for panels of all hotels in Table 4. Except of SI, the coefficient  $\beta$  is positive and ROA from previous year has a positive impact to its current value. Highest impact is evident in CZ, PL, RO, and especially SK, whereas a smaller in BG, HR and HU. Even though a coefficient  $\gamma$  is significant in few cases, it is close to zero. Therefore we have not proven any impact of CCC. A negative impact of the  $\delta$  coefficient for L2 was estimated only in BG and HR, whereas in PL it is positive. However, only in the case of HR and HU is evident positive impact of  $\varphi$  and FAR, whereas in BG, PL and SI are negative values. In all cases we see positive impact of RER, while a higher coefficient  $\omega$  is evident BG, especially in HU, and in SI.

As we see in Table 5, when it is included only output for those profitable hotels, a positive impact of the  $\beta$  coefficient is evident in all cases. The most stable seems to be BG and HR hotels. The CCC, with its almost zero coefficients  $\gamma$ , is without any impact. On the other hand, negative  $\delta$  coefficients for L2 are extremely high in SI and SK. However, there are no evident investments due to negative  $\varphi$  coefficients for FAR in all cases except the CZ, which is positive. Within the profitable hotels is evident a smaller positive impact of RER  $\omega$  coefficient than in previous Table 4 with groups of all hotels, except of one bigger in SK, and insignificant in BG and CZ.

In Table 6 we see the results for panels with all travel agencies in columns according to countries separately. Even though we see all  $\beta$  coefficients statistically significant, there are higher impact of one year lagged ROA Especially in BG and PL. In the case of PL agencies, we see also the highest positive impact of  $\gamma$  coefficient for CCC. We see a few statistically significant coefficients  $\delta$  and negative impact of L2, especially in the case of PL and SI, whereas in the case of SK is extremely high positive impact. However, we do not see any positive impact of the  $\varphi$  coefficient for FAR. Except of CZ and HU, we see positive impact of the  $\omega$  coefficients for RER.

As we see in Table 7 profitable travel agencies ROA is positively affected by ROA from previous year positively in all cases except the CZ with negative  $\beta$ . We see higher positive impact of  $\gamma$  coefficient for CCC in HU, especially in PL, and in SI, even higher in a comparison with the profitable hotels in Table 5. Except of CZ and HR, we see negative coefficients  $\delta$  for L2. In SI and SK is extremely high negative impact of L2 to ROA of profitable agencies and oppositely in CZ is extremely high positive impact. Except CZ and SI, there are negative  $\varphi$  coefficients for FAR. All  $\omega$  coefficients for RER, except of the CZ, are positive.

#### 4. Conclusion

The aim of the paper was to estimate how is profitability of those profitable tourism companies affected by selected financial variables, and decide whether the business finance theory is valid also within tourism industry among selected CEE countries.

In general, an argument that previous year's profitability supported profitability within those profitable tourism companies at higher level than within groups of all companies has not been proven among almost half of selected CEE countries. Even though the cash conversion cycle of tourism companies has affected returns on assets less than liquidity, it has been proven its higher positive impact within those profitable hotels and travel agencies. Aforementioned liquidity has the negative impact on profitability among those profitable companies, except the Czech and Romanian case. However, decreasing liquidity has not been supported by increasing of fixed assets in times affected with the global financial crisis. Because of positive relation between profitability and stockholders' funds among all countries except the Czech Republic, it is able to argue that owners supported their companies in these times. Nonetheless, due to lower coefficients, it is not argued that owners of those profitable tourism companies supported their hotels and travel agencies as among groups with all firms.

In the comparison with business finance theory, there are particular differences within estimated period: (i) Decreasing liquidity among profitable companies has not supported investments into the fixed assets which would cause higher increasing of their profitability. (ii) Support of the owners of hotels and travel agencies through reinvestment their profits and increasing stockholders' funds is not obviously lower in cases of profitable companies. So, to the conflict between managers and stockholders, described by Pigé (2002) should be paid more attention. It should be done because corporate governance has become more important even among the smaller firms with one owner (Pučko, 2005). (iii) Increasing of the cash conversion cycle does not mean decreasing of firms' profitability, especially among those profitable travel agencies.

In future research, it is possible to investigate relationships against to returns on equity. It is also necessary to include analysis for the rest of CEE countries, in particular, Estonia, Latvia and Lithuania. Furthermore, it is necessary to prove what has affected the cash conversion cycle. Perhaps just a difference between the Average Purchase's Period and the Average Collection Period could be more useful.

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**Appendix:**

**Tab. 4: Panel GMM models for hotels of selected CEE countries**

	BG	CZ	HR	HU	PL	RO	SI	SK
$\beta$	0.0096	0.3637 <sup>a</sup>	0.0149 <sup>a</sup>	0.0188 <sup>a</sup>	0.1940 <sup>a</sup>	0.2068 <sup>a</sup>	-0.0500 <sup>a</sup>	0.4982 <sup>a</sup>
$\gamma$	0.0000	0.0000	0.0000	-0.0003 <sup>c</sup>	0.0000	-0.0039 <sup>b</sup>	0.0003 <sup>a</sup>	0.0000 <sup>a</sup>
$\delta$	-0.0263 <sup>b</sup>	0.0456	-0.0082 <sup>a</sup>	0.0057	0.0174 <sup>a</sup>	0.2018	0.0272 <sup>a</sup>	-0.0068
$\varphi$	-0.1684 <sup>a</sup>	0.0045	0.0225 <sup>b</sup>	0.6747 <sup>a</sup>	-0.0201 <sup>b</sup>	-0.0830 <sup>c</sup>	-0.0222 <sup>a</sup>	-0.0430
$\omega$	0.2792 <sup>a</sup>	0.0702 <sup>a</sup>	0.0656 <sup>a</sup>	0.7708 <sup>a</sup>	0.1286 <sup>a</sup>	0.1700 <sup>a</sup>	0.3850 <sup>a</sup>	0.0961 <sup>a</sup>
S-H test	0.1142	0.2354	0.1558	0.5297	0.2438	0.3659	0.1664	0.3876

Note: Symbol <sup>a</sup>, <sup>b</sup> or <sup>c</sup> means statistical significance at 1%, 5%, or 10% level.

Source: Author's calculations.

**Tab. 5: Panel GMM models for PROFITABLE hotels of selected CEE countries**

	BG	CZ	HR	HU	PL	RO	SI	SK
$\beta$	0.3477 <sup>a</sup>	0.0986 <sup>b</sup>	0.3434 <sup>a</sup>	0.2327 <sup>a</sup>	0.2479 <sup>a</sup>	0.2045 <sup>a</sup>	0.1042 <sup>a</sup>	0.2663 <sup>a</sup>
$\gamma$	0.0001 <sup>b</sup>	-0.0066 <sup>c</sup>	-0.0005	-0.0188 <sup>a</sup>	-0.0012	-0.0009 <sup>a</sup>	-0.0025 <sup>a</sup>	0.0006 <sup>a</sup>
$\delta$	-0.0210 <sup>c</sup>	0.1077 <sup>b</sup>	-0.0487 <sup>b</sup>	-0.0007 <sup>a</sup>	-0.0331	0.0634 <sup>a</sup>	-0.6022 <sup>a</sup>	-0.6246 <sup>a</sup>
$\varphi$	-0.0577 <sup>a</sup>	0.0211 <sup>a</sup>	-0.0971 <sup>a</sup>	-0.0982 <sup>a</sup>	-0.0181 <sup>a</sup>	-0.0568 <sup>a</sup>	-0.1063 <sup>a</sup>	-0.0293 <sup>b</sup>
$\omega$	-0.0014	0.0196	0.0504 <sup>a</sup>	0.1477 <sup>a</sup>	0.1032 <sup>a</sup>	0.0595 <sup>a</sup>	0.0833 <sup>a</sup>	0.1553 <sup>a</sup>
S-H test	0.3359	0.5975	0.7293	0.4642	0.3066	0.4118	0.2586	0.2943

Note: Symbol <sup>a</sup>, <sup>b</sup> or <sup>c</sup> means statistical significance at 1%, 5%, or 10% level.

Source: Author's calculations.

**Tab. 6: Panel GMM models for travel agencies of selected CEE countries**

	BG	CZ	HR	HU	PL	SI	SK
$\beta$	0.2268 <sup>a</sup>	0.0003 <sup>a</sup>	0.0291	0.1487 <sup>a</sup>	0.2167 <sup>a</sup>	0.1195 <sup>a</sup>	0.0091
$\gamma$	0.0003 <sup>a</sup>	0.0106	0.0000 <sup>a</sup>	0.0053	0.0373 <sup>a</sup>	0.0149 <sup>a</sup>	0.0003
$\delta$	-0.0483 <sup>a</sup>	0.5660	-0.0809	-0.0961 <sup>a</sup>	-0.2316 <sup>a</sup>	-0.5136 <sup>a</sup>	1.2062 <sup>a</sup>
$\varphi$	-0.0962 <sup>c</sup>	-0.0381	-0.0740 <sup>b</sup>	-0.1273 <sup>a</sup>	-0.0215	-0.0220 <sup>a</sup>	-0.0825 <sup>a</sup>
$\omega$	0.1383 <sup>a</sup>	-0.3385 <sup>a</sup>	0.3740 <sup>a</sup>	-0.0353 <sup>a</sup>	0.0530 <sup>a</sup>	0.2388 <sup>a</sup>	0.0435 <sup>a</sup>
S-H test	0.2988	0.1343	0.3184	0.4916	0.2159	0.5262	0.2538

Note: Symbol <sup>a</sup>, <sup>b</sup> or <sup>c</sup> means statistical significance at 1%, 5%, or 10% level.

Source: Author's calculations.

**Tab. 7: Panel GMM models for PROFITABLE travel agencies of selected CEE countries**

	BG	CZ	HR	HU	PL	SI	SK
$\beta$	0.2009 <sup>a</sup>	-0.0013 <sup>a</sup>	0.2982 <sup>a</sup>	0.0485	0.2167 <sup>a</sup>	0.7212 <sup>a</sup>	0.3097 <sup>a</sup>
$\gamma$	-0.0017	-0.0003	-0.0224 <sup>a</sup>	0.0195 <sup>a</sup>	0.0763 <sup>a</sup>	0.0265 <sup>a</sup>	0.0037 <sup>c</sup>
$\delta$	-0.2109 <sup>a</sup>	4.4821 <sup>a</sup>	0.0953	-0.0949 <sup>a</sup>	-0.2061 <sup>a</sup>	-2.1889 <sup>a</sup>	-1.2292 <sup>a</sup>
$\varphi$	-0.1868 <sup>a</sup>	0.0167	-0.1003 <sup>a</sup>	-0.1029 <sup>a</sup>	-0.0650 <sup>a</sup>	-0.0146	-0.0702 <sup>a</sup>
$\omega$	0.0764 <sup>a</sup>	-0.8153 <sup>a</sup>	0.2013 <sup>a</sup>	0.1156 <sup>a</sup>	0.1676 <sup>a</sup>	0.1109 <sup>a</sup>	0.3216 <sup>a</sup>
S-H test	0.1403	0.1397	0.5782	0.2395	0.0735	0.4904	0.5993

Note: Symbol <sup>a</sup>, <sup>b</sup> or <sup>c</sup> means statistical significance at 1%, 5%, or 10% level.

Source: Author's calculations.