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PROFITABILITY AND EFFICIENCY – AN ANALYSIS OF THE FINANCIAL IMPACT OF THE SZÉCHENYI PLAN IN THE HUNGARIAN HOSPITALITY INDUSTRY

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Abstract: Continuous changes in the market and macroeconomic factors have made a significant effect on the tourism sector in Hungary. A heavily growing number of hotels could be observed in the past decade. The main question about the hotels built with high investment costs was their expected time of return. Keeping Hungary's natural conditions in mind, is it more expedient to build new hotels or refurbish old ones? I was seeking answers for these questions during my work. My research was aiming to explore the *impacts of the non-refundable subsidies* – financed by the government – *provided for new health and wellness hotel projects* carried out within the framework of the Széchenyi Plan. On the other hand, my study was expanded to the analysis of balance sheets and profit and loss accounts data of the hotels of Hungary according to their star (quality) rating.

The major findings of the research:

Considering high developmental costs *subsidies play an important role* in the hotel industry. *It is impossible to carry out such investments using internal sources only.* However, *exclusive bank loans finance* could drive insolvency so it is *extremely risky.*

Non-refundable subsidies provided for hotel investments created stable, countable payroll taxes and other forms of incomes for the country.

In order to achieve more *profitable operation*, providing *higher quality of services* is indispensable. Taking Hungary's conditions into account this *can be reached more likely among four star rated hotels than any other star (quality) ranked establishments.*

Keywords: Széchenyi Plan, health tourism, hotel, subsidy, efficiency, profitability indicators

Introduction

Primary research began in 2005¹ with the analysis of the tenders declared within the framework of "Health Tourism Ten Year Development Program" as part of *Széchenyi Plan*. As for the hotels examined, the impact study questionnaire sent out comprised five areas: economic data and indicators, data referring to the investment, data referring to the hotel, the guest turnover, data on health tourism services, data on future prospects.

Besides the information obtained from the questionnaires sent back, the material gained from the in-depth interviews was also utilized in analyzing the economic effects². Works on the hotel construction were completed in 2002-2004, so, in favour of the comparability of data, the year of putting into operation (the basic time data) and the data of the subsequent years were analyzed.

Due to the growing number of guests arrivals even in the year of 2000 movements to quality tourism get into mind. Thanks to this new hotels was built and some was

reconstructed. Developments to stay in the more and more fierce competition is needed undoubtedly (Magyar Turisztikai Hivatal 2005).

But there is a question as well, whether building new hotels or refurbishment of some is more expedient? Taking into account Hungary's economic situation and our's place in the EU I set up my hypothesis.

Hypothesis 1

Subsidies play an indispensable role in tourism, and, especially, in the development of the hotel industry, also allowing for the fiscal considerations. The building and the renovation of hotels is impracticable relying exclusively on the enterprise's own capital, due to the low profitability of the hotel industry today.

I underpin my hypothesis with the results of the efficiency analysis of the hotels built or renovated with the support of

¹The research was conducted by the author on behalf of the Hungarian Bureau of Tourism. thus I worked out the questionnaires, sent them out, and processed them as well, as part of my own research program.

²In the article only the direct effects are presented. The examination of the indirect and the induced effects may lead to further research.

the Széchenyi Plan. Within the framework of the "Health Tourism Ten Year Development Program" six new hotels were built and two were renovated (Széchenyi Terv 2000). Of the newly built hotels five met the requirements of the four-star category, while one fell into the five-star category.

The average investment cost of the four-star hotels was HUF 2.46 bn, while the only five-star hotel cost HUF 3.24 bn. In view of the high investment costs characterizing the hotel industry today, apart from the subsidies and the involvement of the builder's own sources, they were also bound to take up sizeable loans. The planned value of the bank loans was HUF 7.77 bn, but in reality the size of the loan turned out to be HUF 8.74 bn. The loans amounted to 56-58 pc of the overall investment costs, which can be considered rather a high rate. In view of this it was not surprising that the running time of the loans was on a scale between 120-191 months. The expiry of the bank loans exceeding 12 years on average seems relatively long but, on top of the rather high loan amount, it must not be forgotten that the return on the investment is very difficult to estimate here.

Table 1. Planned and realised sources of investments (data in e HUF)

Code numbers	Subsidy (planned)	Subsidy (realised)	Bank loans (planned)	Bank loans (realised)	Internal sources (planned)	Internal sources (realised)
Total:	2 680 248	2 670 142	7 776 837	8 747 039	3 523 927	3 895 812

Source: Own Calculation according to impact study questionnaire

With the newly-built hotels, the net earning is always negative, which indicates that in the years following the investment the hotels work at a deficit. The high tax and payroll tax burden can be mentioned as the main factor of the deficitous management. *As a result of the high number of employees, aside from the contribution payments, the tax liabilities go up to a significant measure.* Examining the tax liabilities (central and local) and the payroll taxes suggests that the return on investment costs in the case of the newly-built hotels is as much as 26 years, provided that the current conditions (rate of capacity utilization, room rates etc) remain

constant. *At the same time the subsidy accounting for over 17 pc of the investment costs return in 4.5 years, given the above-mentioned payment liabilities* (Böcskei 2008).

Hypothesis 2

Without subsidies, due to the high investment costs, the implementation of the investment is rather risky and might lead to the hotel becoming indebted. This mainly affects five-star hotels.

As evidence proving the above statement we can refer to the high investment and development loans of the hotels built in the framework of the Széchenyi Plan on one hand, and to the examination of the property status of the hotels operating in Hungary, on the basis of the star categories³. In order to be able to accomplish the investment, the hotels built under the Széchenyi Plan were forced to take up loans amounting to more than 50 pc of the investment.

The largest loan was linked to the building of the five-star hotel where the construction cost exceeded the planned expenditure only by 26.8 pc, whereas they spent more than treble of the planned amount on machinery and equipment. The overall finance requirement of the investment exceeded the planned expenditure by 47 pc. To cover the costs they had to take 42 pc more loans than they had originally intended to.⁴ In the years following the installation of the hotel, only the interest payment of the bank loan exceeded 2.3 pc of the total investment value. The high interest burden also had its part in the fact that every year of the examined period was finished with a negative balance sheet result. In spite of the budgetary support, the first years following the installation were not free from financing problems.

Beyond the analysis of particular cases, the assets and liabilities structure of the domestic hotel industry was analysed over a period of more than 15 years (1995-2010).

$$\text{Leverage ratio} = \frac{\text{Long-term liabilities} + \text{Short-term liabilities}}{\text{Shareholders' equity}}$$

Table 2. Leverage ratio

Star categories	1995	1997	1999	2000	2002	2004	2006	2008	2010
5	2,54	1,93	1,34	1,54	4,61	1,37	1,66	1,54	1,62
4	1,19	1,00	0,32	0,67	0,62	1,07	1,04	1,02	1,16
3	0,69	0,75	0,43	0,72	0,83	0,77	0,67	0,62	0,70

Source: Own table

³The specific corporate statistical data necessary for the investigation were provided by Ecostat Research Institute. While systematizing the data, I had to pay attention that the huge quantity of specific corporate data should be made suitable for comprehensive analysis as well as for determining individual attributes. So that this can be done, it is necessary to classify the hotels in star categories and to review this categorization every year, so that changes are monitored and data bases are updated. Thanks to the developments in the past years, more and more hotels met the requirements of the higher star categories. Besides the star-based categorization, hotels were also classified by regions, regarding that in some cases the head office and the place of operation were different. Considering the large data-base, the indicators were calculated nationwide. The rate of three- four- and five-star hotels among those examined reached 45 pc, thus the analysis can be considered representative.

⁴2.5 years moratorium, followed by a 20 pc balloon added to the repaid amount annually were stipulated as conditions of the loan repayment.

In order to be able to qualify the equilibrium between assets and liabilities, the examination also covered to what extent own capital and long-term alien capital served as collateral for the assets invested. *In the case of the four-star hotels the collateral was sufficient for financing the instruments with a longer-than-one-year expiration.*

On the basis of the *leverage index*, the three- and four-star hotels have the most favourable values. With five-star hotels, the most critical periods were the mid -1990s as well as 2002–2003, (2002 was the time when the hotel built with Széchenyi Plan support was built). The index reached a height which almost questioned whether the enterprise was able to meet its debt liabilities. These findings made further analyses necessary.

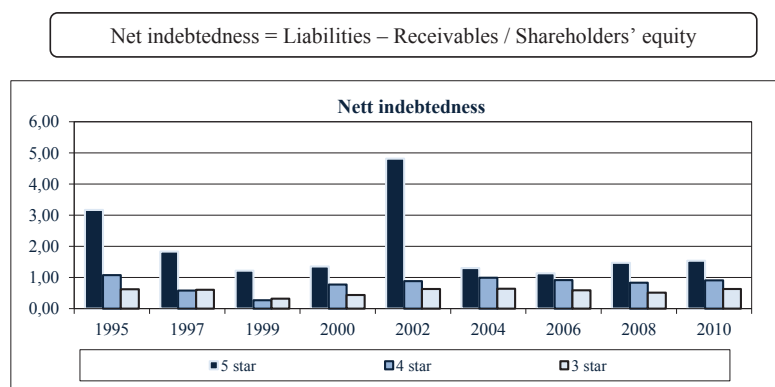


Figure 1. Net indebtedness ratio

While examining the *net indebtedness*, subtracting the accounts receivable from the liabilities shows the rate at which all this is covered by the own capital. The values found confirmed the findings of the previous analyses, that the indebtedness of five-star hotels was around the critical value, the own capital no longer covers the liabilities.

Hypothesis 3

The non-refundable subsidies granted to the developments ensure reliable and calculable short-term tax and contribution revenues.

The return on non-refundable subsidies was also examined both in the case of newly built hotels, both for the existing ones that require reconstruction or development. For newly built hotels, private capital activated with 17 pc state subsidy generated more than HUF 15 bn worth of development, which also created jobs, so the payroll and other tax payments increased the budget revenue. Beyond that, the local governments' sources of revenue were also raised.

Examining the tax liabilities (central and local) and the payroll tax liabilities it turns out that the investment costs of the newly built hotels get recovered in more than 26 years provided that the current conditions (rate of capacity utilization, room rates etc) remain constant. At the same time *the subsidy accounting for over 17 pc of the investment*

costs return in 4.5 years, given the above-mentioned payment liabilities.

Under the support program of the Széchenyi Plan there were two hotels renovated – one of them three-star, the other a four-star hotel. The reconstruction of medicinal and wellness hotels relied on three main sources: non-refundable development subsidies, bank loans and own sources (Széchenyi Terv - 2001 Programok – Trendek – Eredmények 2001). In the case of the *renovated hotels*, in view of the extra tax liabilities (business and other local tax liabilities) and the additional payroll taxes, *the subsidy got recovered in two years*, while the total renovation cost is expected to be recovered in more than 8 years.

The support policy of the Széchenyi Plan shed light on the fact that *building a hotel requires an investment of several millions, while the return on the investment may take decades. Under the domestic conditions, however, developing the existing facilities can be the more effective, suitable solution.*

In order to get an overall picture of the management of Hungarian hotels, it became inevitable to *examine them with regard to wealth, financial management and profitability.*

The rate of three- four- and five-star hotels among those examined reached 45 pc – 56 pc of the five star hotels, 35 pc of four star hotels and 40 pc of three star hotels –, thus the analysis can be considered representative. Through analysing the balance sheet and the profit and loss data of Hungarian hotels, I have examined the developmental tendencies of over 15 years in the hotels' star classification system. So that this can be done, it is necessary *to classify the hotels in star categories and to review this categorization every year*, so that changes are monitored and data bases are updated.

I paid particular attention to applying and working with indicators that best characterize the specific features of the hotel industry.

Analysis focuses on three well-distinguishable areas:

- analysis of wealth position,
- examination of economic efficiency,
- presentation of profitability.

Hypothesis 4

Developing three- and four-star rather than five-star hotels can be the most expedient solution. Considering the property structure and economic efficiency of three- and four-star hotels, the dynamically growing guest turnover of four-star hotels and the favourable tendency of room capacity utilization are beneficial for the reclassification of three-star hotels into a higher star category

The analysis of efficiency, as well as the property position of the enterprise, is necessary to decide which star category of hotels is worth investing more capital, with regard to the existing supply. The analysis of the property position includes both the examination of the asset structure and the liability

structure. The indicators of the liability structure most characteristic from an efficiency point of view can back the statement that *developing three- and four-star rather than five-star hotels can be the most expedient solution.*

During the analysis of indicators of the liability structure, like in examining the asset structure, the analysis comprises tendency-like changes. As for the proportion of own and alien sources, it is not possible to take a clear position as to which value can be considered exclusively acceptable, but the gradual increase of own capital as opposed to alien sources is definitely favourable. In assessing the indicators it must not be forgotten that from the year 2000 on there were large-scale developments in four-star hotels, and by 2006 their number doubled to reach a nationwide 16 pc ratio. Investigating the wealth structure by the star classification of hotels it can be stated that the ratio of own capital is lowest in five-star hotels (30 pc), while in three- and four-star hotels the values are over 50 pc.

While further analysing the structure of own capital we also analysed *the accumulated profit reserve* (this index shows the ratio of profits and losses made in the past years and own capital).

Accumulated profit reserve ratio = Accumulated profit reserve / Shareholders' equity

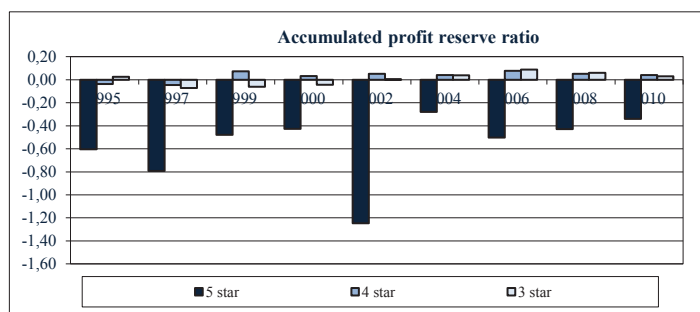


Figure 2. Accumulated profit reserve ratio

This showed the worst value for five-star hotels, the value was negative for the whole period examined. The index was the most favourable in four-star hotels, which indicates successful management in the long run.

For making a judgement about the success or failure of an enterprise, aside from examining the property structure, the economic efficiency analysis is also indispensable. It is typical of the hotel industry that more than 90 pc of their total revenue comes from the net sales turnover, so examining the revenue positions is essential.

The sales revenue per unit of asset shows to what extent the enterprise utilizes its assets, how many revolutions the assets make in the realized net sales revenue over a given period. The best values were realized by three-star hotels, realizing on average 55 forints on 100 forints fixed assets. The rate of return shows the lowest value in five-star hotels. The reason for this lies in the very valuable stock of tangible assets. The analysis of the property structure made it visible that the stock of assets significantly varies by star categories.

The number of revolutions of own capital shows how many times own capital is recovered from the sales revenue. The invested capital per unit shows an outstanding value in 2002 and 2003. Given the capital structure of five-star hotels, this cannot be regarded as a clearly positive result. While in three- and four-star hotels both the net sales turnover and own capital show a dynamic increase, five-star hotels, on the contrary, show significant fluctuation. The relatively favourable values of three-star hotels can be explained by the fact that they have low own capital, and, save the first two years of the period examined, their balance sheet shows positive results every year. In their tendency three-star hotels show a balanced performance, and the same characterizes four-star hotels as well.

The analysis of sales turnover per unit cost examines the ratio of sales revenues and costs. The index shows the sales revenue attainable with the maximum cost, ie. how many units of sales revenue the enterprise can achieve on a unit of inputs. *The pace of revenue increase lags behind the pace of the increase of expenditure, thus the value of sales turnover per unit cost has worsened. The largest degree of deterioration could be observed with five-star hotels, but as a positive fact, from 2004 on a slight improvement can be experienced.*

Typical of the cost structure of hotels is the fact that they have relatively high costs. With no regard to the star category of the hotels, material costs was the highest, followed by staff costs, and finally depreciation.

Employers' contributions, that is the public dues imposed on employers can be considered high up to the present day, that is why they try to push the number of employees to the lowest possible level.

As a first step of a more economical cost management, it is on the area of material-related costs that companies first introduce cost-trimming measures. If further austerity becomes necessary, companies start thinking about the revision of staff costs. Tourism is also special in this respect as labor leasing is quite wide-spread. This form of employment has a great advantage, notably that on a given day the employer only hires as many people as are required to complete the job. Though today it is no longer a problem to find workforce through an employment agency, the practice raises a number of management dilemmas. One of them being whether efficiency and profitability aspects can in the long term override loyalty to the company, and the quality focus. It is especially true of an industry in which direct contact with the guests and the highest possible quality standards of serving them are basic requirements.

Hypothesis 5

An essential condition of profitable hotel management is shifting toward high quality service. Given Hungary's resources, it is mainly possible in four-star hotels, rather than in lower or higher star categories

To prove our statement we overview the most characteristic indicators of the hotels' management. In analysing the revenue position of hotels, the profit figures and the factors influencing it were examined.

The analysis by *profit per unit sales turnover* determines what percentage of the trading profit is derived from the net sales turnover and other revenues. The analysis of the property structure led to the conclusion that real estate accounts for rather a high proportion of the hotels' asset value, which made it necessary to also calculate the EBITDA index, which ignores the profit-reducing value that arises from the depreciation of assets.

$$EBITDA = \frac{\text{Income from operations} + \text{Depreciation}}{\text{Total sales (Revenues)}}$$

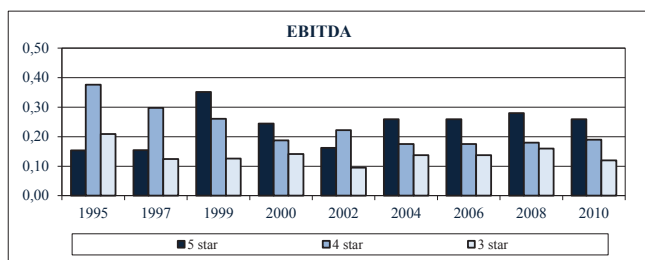


Figure 3. Accumulated profit reserve ratio

Though the index shows a decreasing value in four-star hotels, but on the whole the picture is more calculable, thus more favourable than five-star hotels. In five-star hotels the least drop in guest turnover leads to a radical drop in profits. A positive fact to be underlined can be that in the last years of the period examined they have been managing the hotel profitably, so they could show the best results.

Compared with *profit per unit sales turnover*, both *profitability per unit of assets* and *profitability per unit of capital* show a worse picture, since in the case of these indexes the trading profit served as base for comparison. In the case of *profitability per unit of assets* the pre-tax profit must be compared with the assets, while in the case of the *asset-recovery index* we should use the profit reduced by tax payment.

In the case of *profitability per unit of capital* the after-tax profit or the balance sheet profit must be compared with own capital in order to find out how much the former contribute to the increase of own capital.

Compared with *profit per unit sales turnover* the biggest deviation can be experienced in five-star hotels, which can be traced back to taking an extremely large bank loan, whose interest burden has a severe impact on profitability. They spend nearly 13 pc of their total revenue on interest payments, thus it is not surprising that the five-star hotels, which are the most sensitive to the slightest changes in guest turnover (and, within that, foreign guest turnover), produced negative results in more than half of the years examined.

The profitability of three-star hotels shows an even performance due to the graduality in the accomplishment of the reconstruction works and the surge in domestic tourism, which also favoured three- and four-star hotels.

Four-star hotels finished each year with positive after-tax profit figures over the whole period examined. From 2000 on, the signs of structural change are well discernible, though in consequence of the hotel constructions and reconstructions their profitability fell back.

Table 2. Correlation and significant between star categories of hotels and their profitability, economic efficiency

Economic efficiency and profitability indicators	Is connection significant?	Strength of correlation
Income-equity ratio	Yes	0,135
Income-costs ratio	Yes	0,254
Income-return ratio	No	0,105
EBITDA	Yes	0,153
ROA	Yes	0,148
ROI	Yes	0,149
Rate of return on taxed profit ratio	No	0,124
Rate of return on equity ratio	No	0,122

Source: Own calculation

My hypothesis was also supported by the economic efficiency and profitability examination carried out with the help of variance analysis. There is significant correlation between the classification of hotels into different star categories and efficiency on one hand and profitability on the other. In the case of four- and five-star hotels this correlation no longer exists, so it is justified to increase the number of four-star hotels, rather than five-star hotels.

The major findings of the research:

- Considering high developmental costs subsidies play an important role in the hotel industry. It is impossible to carry out such investments using internal sources only. However, exclusive bank loans finance could drive insolvency so it is extremely risky.
- Non-refundable subsidies provided for hotel investments created stable, countable payroll taxes and other forms of incomes for the country.
- In order to achieve more profitable operation, providing higher quality of services is indispensable. Taking Hungary's conditions into account this can be reached more likely among four star rated hotels than any other star (quality) ranked establishments.

The support policy of the Széchenyi Plan shed light on the fact that building a hotel requires an investment of several millions, while the return on the investment may take decades. Tourism cannot be assessed only by way of numbers, the natural resources, the location and the cultural values must not be ignored. The appreciation of health tourism has become a key factor in Hungary's touristic supply, the hotel industry based on thermal springs may become a booster industry of the country. The literature suggests that such objectives can best be served by newly built investments with a slow return. Under the domestic conditions, however, developing the existing facilities can be the more effective, suitable solution.

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