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ENTERPRISE PERFORMANCE ANALYSIS OF THE SLOVAK HEALTH SPA SECTOR BY APPLYING SELECTED MODERN FINANCIAL METHODS

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Abstract

Nowadays, the analysis and management of enterprise performance is getting more and more attention than in the past due to the constantly changing global business environment bringing new, modern approaches to solve the issue in question. The main aim of this paper is to evaluate the financial performance of the health spa sector in Slovakia over the years 2012 - 2016 with use of selected modern financial methods. Based on the results, relatively identical values were achieved within the application of both modern methods (EVA in \in and RONA in %). When evaluating the performance of Slovak spa sector as a whole, the best results were achieved in year 2015 and, on the contrary, year 2012 was identified as the worst-performing one. In this regard, a positive continuous performance growth was recorded over the period of 2012 - 2015, but this optimistic trend was influenced negatively by a sharp drop in net profit in the following year 2016. According to the results of EVA and RONA application, the best-performing enterprises within the analysed spa sector were Spa Bojnice, Spa Lúčky, Spa Dudince and Spa Štós. Contrary, the worst-performing enterprises over the years 2012 - 2016 were Spa Brusno, Spa Sliač, Horezza and Spa Číž. To conclude, some recommendations for improving the current financial performance of the selected group of spa enterprises in Slovakia were formulated.

Keywords: enterprise performance, modern methods of evaluation, health spa enterprises, EVA, RONA

1 INTRODUCTION

Spa tourism is getting more and more attention as people started to prefer healthy lifestyle, taking care of their mind, body and spirit. Due to rich abundance of healing resources on the relatively small territory, Slovakia is one of the major and the most interesting spa countries in Europe. In addition, spa tourism is one of the economy sectors with high growth potential and the main product line of tourism in Slovakia. For this reason, we focused especially on the evaluation of health spa sector in Slovakia and identification of the best and the worst-performing enterprises in the case of application of both modern financial methods.

2 ENTERPRISE PERFORMANCE AND METHODS OF ITS MEASUREMENT

Currently, when measuring and evaluating the enterprise performance is highly up-to-date, companies are forced to use always new methods, metrics and indicators. Reaching and maximization of profit as the major business goal has not been considered as a top business goal for a long time. Contrary, enterprise development activities should support the growth of enterprise performance within the financial as well as non-financial perspectives. As reported by author Šalaga (2016), there are many management styles supporting the above-mentioned enterprise development growth, but at first the performance should be quantified correctly, then compared in the individual time periods and finally increased with use of specific selected tools and methods.

2.1 Definition of the performance

According to Wagner (2009), performance can be defined generally as a characteristic describing the process by which the observed subject realizes the activity on the basis of similarity to the recommended way of performing this activity. Suchánek (2013) likens this term to the production capacity of the enterprise in terms of achieving the performance as the on-going production process result. Souček (2010) acknowledges performance as the enterprise ability to produce a certain amount of goods and services over the given period, whereas an enterprise striving for the highest long-term performance should achieve the performance at least twice as high as the average value of the analysed industry.

Business performance and its growth is one of the main objectives of company's financial management. In this context, enterprises should constantly monitor, evaluate and increase their level of performance (Pavelková, Knápková, 2009). Durkáčová (2010) states that the organization is considered to be well-performing only if it achieves the performance objectives pre-defined in its strategy. According to Niznikova, Feranecova, Sabolova, Staskova (2015), the enterprise performance represents one of the crucial factors for responsible company governance, especially from the perspective of valuation in the current competitive environment. For this reason, all enterprises have to dispose of a set of financial and non-financial indicators that can characterize its performance as accurately as possible. As reported by Dluhošová (2007), the definition of business performance is generally understood as the ability of a company to utilize invested capital. In this context, Wagner (2011) adds that the development of economic environment also reflects the development of all performance measurement system components, including the most visible part of this process – performance measures and their methods.

2.2 Traditional vs. modern performance measurement methods

The most important criterion of measuring the performance of business entity is certainly the monitoring its financial performance. However, quantification of performance is not easy task as the shareholders, managers, employees, customers and other stakeholders often perceive it differently (Šulák, Vacík, 2005; Stýlo, 2008). In general, measuring and increasing the enterprise performance is represented as its ability to achieve objectives in an optimal way (Grell, Hyránek, 2012). There are many different classifications of the enterprise performance indicators in the literature. The following figure (Fig. 1) presents basic classification of the enterprise performance indicators.



Figure 1 – Basic classification of the enterprise performance indicators. Source: own processing according to Kabát et al., 2013.

The traditional performance measurement indicators still represent the significant part of financial analysis. However, there have been many significant changes in the past, not only in the performance measurement approaches, but also in the methods and instruments applied for

their evaluation (Šofranková, Kiseľáková, Horváthová, 2017). As stated by author Svobodová (2015), the traditional approaches indicate the level of company's management only from a managerial point of view, which do not take into account the risks accrued to owners by investing their funds. Závarská (2012) adds that despite of the popularity of new modern indicators, financial indicators remain irreplaceable as they truly reflect the past, give a retrospective view of the company's competitive position and can predict its short-term development. Kislingerová et al. (2011) summarized the following underlying weaknesses of the financial indicators that are used as the enterprise evaluation systems: they are confusing, unreliable and not transparent with the historical background; there is a possibility of its undesired modification by the management; they are not appropriate for predicting the future development and creation of the business strategy because they are linked to a short-term objectives and do not cover strategically significant sections.

In this regard, authors Šofranková, Kiseľáková, Horváthová (2017) emphasize that above mentioned traditional financial indicators have a low informative value in the analysis and evaluation of reporting the enterprise financial performance in terms of tactical and strategic management decisions. Contrary, approaches that quantify the key performance indicators are becoming more and more popular in order to analyse and improve the enterprise performance (Šofranková, Horváthová, Kiseľáková, 2016). Authors Zemánková, Kruntorádová, Boušková (2010) add that the financial analysis indicators do not take into account risks and income requirements of investors. It has been proved that the financial analysis indicators are insignificantly correlated with the development of companies' shareholder value, as they are based on accounting statements and do not take into account the economic point of view. According to Maříková and Mařík (2005), the above mentioned failings are covered by the selected modern performance indicators, which should have the closest possible link to the value of shares that can be demonstrated by statistical calculations; allow for using as much information and data provided by accounting as possible, including indicators based on the accounting data; overcome objections against accounting indicators affecting financial efficiency, it is necessary to include risk calculation and take into account the extent of the committed capital. In this regard, Pavelková and Knápková (2009) add that these new indicators should allow a clear identification of their links to the all management levels and they should also support company's value management.

The new financial management is based on the shareholder value management concept, which is focused on the modified financial indicators enabling the successful and better identification of activities that can increase the long-term value for shareholders as well as the overall company's value (Dluhošová, 2007). As reported by Kisel'áková, Horváthová, Šofranková (2016), actual trends of the performance evaluation are leading to useof the non-financial indicators. Attention is focused on creating the performance measurement indicators that include not only financial inputs but also non-financial inputs accepting the individual company sections and strategy.

At present, one of the most popular financial performance measurement indicators reflecting the value creation process are undoubtedly the Economic Value Added (EVA) and the Return on Net Assets (RONA). The following subchapters are devoted to their brief characteristic.

2.3 Economic Value Added (EVA)

Actually, the principle of EVA methodology is not new. In 1896, the concept of residual profit was the subject of Alfred Marshall's study (Pavelková, Knápková, 2009). The EVA indicator is based on the economic principle of the residual revenue, through which companies in order to create value added must ensure higher returns on capital than costs themselves (Hamilton, Rahman, Lee, 2009). Nowadays, there are several calculations for this indicator (equity, entity

and APV method). In this paper, we applied the equity approach and the equation for calculating the EVA indicator is following (Neumaierová, Neumaier, 2002):

 $EVAequity = (ROE - re) \cdot E$ where: ROE – return on equity, re – cost of equity, E – equity.

When calculating the EVA indicator, it is important to identify correctly the alternative rate of equity (re) value. From various ways of quantifying them, the Capital Asset Pricing Model (CAPM) should be emphasized. As reported by Damodaran (2004), the final cost of equity is quantified by the CAPM as follows:

 $re = rf + \beta \cdot ERP + CRP$

where:

rf – risk free rate of return,

 β – beta coefficient,

ERP – equity risk premium,

CRP – country risk premium.

As stated by Nelson (2015), the achieved value of the EVA indicator should be positive. It means that the company actually produces economic profit and creates value for its owners even after paying salaries to employees, paying interest to demanders and shares to shareholders. Otherwise, the cost of the capital invested is higher than its returns and the wealth of shareholders is reducing.

2.4 **Return on Net Assets (RONA)**

Another value indicator measuring the percentage of the return on invested capital is the RONA indicator that provides information concerning the enterprise efficiency, the ability to generate revenue from available resources and managerial capabilities to manage enterprise costs (Hussey, 2014). According to Mulačová, Mulač et al. (2013), the RONA quantifies company's performance in %, not in € as the EVA. Generally, deviations between the RONA and WACC (Weighted average cost of capital) ratios are observed, whereas the desired relation is RONA > WACC. The RONA value is quantified on the basis of equation:

RONA = NOPAT / NA

where:

NOPAT – net operating profit after taxes,

NA – net assets.

The WACC represents the cost of the total invested long-term capital. The level of the WACC indicator depends according to Vochozka (2012) mainly on the way of using own resources equity and secondarily at resources. The construction of this indicator is following:

WACC = rd . (1 - d) . D / K + re . E / K

where:

rd - cost on debt capital, K - paid total capital,

d – tax rate,	re – cost of equity,
D – paid debt capital,	E – paid equity.

3 DATA AND METHODOLOGY

In this paper, we addressed the financial performance evaluation of the health spa sector in Slovakia over the years 2012 - 2016 with use of selected modern financial methods (the EVA and the RONA). The other purpose of this paper was to identify the best and the worst-performing enterprises in the case of application of both modern methods.

The research sample consisted of the 28 Slovak health spa enterprises with the official permission from the Ministry of Health of the Slovak Republic to operate the natural health spas and spa medical institutions in Slovakia.

The financial statements of the analysed spa enterprises' sample were drawn from a publicly available internet portal managed by the company DataSpot, Ltd. The level of "rf" indicator was determined on the basis of the rate of return on risk-free assets (10-year government bonds), whereas the values were drawn from the official website of the National Bank of Slovakia (NBS, 2018). The height of "re" indicator was determined on the basis of CAPM and risk premium values were obtained from the official websites of prof. Damodaran (Damodaran, 2018). All data obtained were processed in Microsoft Excel.

4 RESULTS AND DISCUSSION

At first, based on the financial statement data over the period of 2012 - 2016, we evaluated the performance of the health spa enterprises by applying the EVA indicator.

As the EVA reached the value of \notin -446,483 on average in 2012, this year can be considered as the worst-performing one within the whole period analysed. The average value of the ROE ranged only around 0.33 %, whereas the "re" indicator recorded its highest level at all (6.11 %). The net profit achieved by all spa enterprises was only \notin 25,635 on average, which subsequently resulted in insufficient values of the profitability indicators and primarily caused the achievement of such a high negative values of the EVA. Overall, the most progressive positive trend in the EVA development was recorded in the following year 2013, when the average value added loss decreased by \notin 256,024. This positive development was the result of significant decrease of the "re" indicator by 1.60 % compared to 2012 and another reason was also an increase in ROE to an average value of 2.15 %. Despite these positive changes and significant net profit growth of \notin 148,152 on average, analysed enterprises were not able to generate value added for shareholders. However, a positive change occurred in the following years and performance of enterprises started to get the appropriate development trend.

Re-decreasing the "re" indicator to the value of 2.27 % and increasing the ROE by 0.24 % on average in 2014 caused the improving financial performance development of the Slovak health spa sector in the following year 2015. Thus, it was considered as the best-performing year within the whole period analysed. In 2015, the EVA reached the highest (and the only positive) average value of \notin 29,171. This positive development ensured that the desired relation "ROE > re" was respected, so enterprises were able to generate added value for their shareholders. The most significant decline within the "re" components was recorded in the case of "rf" indicator that dropped by 1.19 % compared to the previous period. A more pronounced average increase in total costs (by 12.98 %) than total revenues (by 7.03 %) was the main reason for the reduction of net profit in 2016, which subsequently influenced the creation of negative ROE. Despite the continuing decline in "re" indicator and an increase in enterprises' equity, the financial

performance of the analysed medical spa sector was getting worse and the positive trend since 2012 has been significantly disrupted.

Over the years 2012 - 2016, the average level of EVA was $\in -185,487$. The relation "ROE > re" was not respected in most of the analysed years, which is a sign of non-performing sector. The average financial performance development of the Slovak spa enterprises quantified on the basis of the EVA indicator is shown in the following figure (Fig. 2).



Figure 2 – The performance development of the health spa enterprises calculated on the EVA model application. Source: own processing based on the financial statements of analysed enterprises.

The positive EVA was reached at least in one year by 18 spa enterprises during the whole period analysed, 12 enterprises were able to generate value added for shareholders at least in two years, 9 enterprises at least in three years, 4 enterprises achieved the positive EVA at least in 4 years over the analysed period and only 1 enterprise was able to generate added value for shareholders in every single year (\in 87,568 on average). However, if we have analysed more closely the development of the number of performing and non-performing enterprises evaluated by EVA model in individual years, there has been recorded a positive trend in terms of decreasing number of enterprises with negative EVA values (see Fig. 3).



Figure 3 – Comparison of the number of performing and non-performing health spa enterprises based on the EVA model application. Source: own processing based on the financial statements of analysed enterprises.

Based on the results of EVA model application, we consider the best-performing enterprises Spa Bojnice, Spa Dudince and Spa Lúčky (EVA of these enterprises reached the average value of \notin 436,638 over the analysed years). Contrary, the worst-performing enterprises were Spa Brusno, Spa Sliač and Horezza. In this case, the desired relation "ROE > re" was not respected in any of the years analysed.

The following analysis is focused on financial performance evaluation of the health spa sector in Slovakia over the years 2012 - 2016 by use of the RONA. Its essence is the same as the EVA with one simple difference: RONA is a relative ratio indicator that measures enterprise performance not in \pounds , but in %.

The most noticeable difference (4.52 %) between the RONA and WACC was recorded in the first analysed year 2012, when the RONA of enterprises operating in the Slovak health spa sector reached the average level of 1.13 %. The intense rise in the NOPAT by 106.61 % as well as an increase in the NA value of \notin 314,597 in the following year 2013 caused the RONA growth by an index of 1.9963. Contrary, the WACC dropped by 1.37 % mainly due to declining "re" value. This change caused a desired reduction in the difference between the RONA and WACC, even more than twice compared to the previous year. The positive development trend of both indicators continued in 2014 as well. The average NOPAT reached the value of \notin 249,421 and the NA ranged around \notin 10,144,670. For this reason, the RONA increased by 0.21% compared to previous year 2013.

In 2015, the RONA re-increased and reached its maximum value of 2.55 %. This positive result was mainly influenced by the average NOPAT growth of \in 15,121. In the same year, the level of NA also increased by an index of 1.0236. However, due to more noticeable NOPAT increase by 3.61 %, enterprises operating in the Slovak medical spa sector achieved again higher profitability compared to previous years and the value of WACC continued in declining up to the level of 2.22 %. In 2015, the desired relation "RONA > WACC" was respected for the first time (and only in this year during the whole period analysed) and medical spa enterprises were able to create value added to owners. This positive development trend of all indicators was disrupted in the last analysed year 2016. The decline in net profit of the enterprises by 92.31 % compared to previous years 2015 caused the decline in RONA by 2.35 % only to the level of 0.19 %. This sharp drop in the NOPAT, despite the re-reduction of "re" indicator by an index of 0.8289, did not ensure to maintain the desired relation "RONA > WACC" recorded in the previous year.

In this regard, much more important is to quantify the difference between the profitability measured by the RONA and the WACC indicator. Over the years 2012 - 2016, the RONA ranged around 1.72 % on average, whereas the WACC reached the level of 3.45 %. Therefore, the desired relation "RONA > WACC" was not respected in most of the analysed years. The average performance development of the Slovak spa sector quantified on the basis of the RONA and WACC comparison is presented in the following figure (Fig. 4).



Figure 4 – The performance development of the health spa enterprises based on the RONA model application. Source: own processing based on the financial statements of analysed enterprises.

It is worthy to note that during the whole period analysed the desired relation "RONA > WACC" was kept in the case of 16 spa enterprises (at least in one year), 12 enterprises were able to generate value for shareholders at least in two years, 7 enterprises at least in three years, in the case of 2 spa enterprises the RONA exceeded the WACC at least in 4 years and only 1 enterprise was able to maintain this desirable status in each analysed year. However, if we have concentrated on the number of performing and non-performing enterprises development evaluated on the basis of the RONA (see Fig. 5), the positive progress was also recorded in terms of increasing number of enterprises with the positive difference between the RONA and WACC values.



Figure 5 – Comparison of the number of performing and non-performing health spa enterprises based on the RONA model application. Source: own processing based on the financial statements of analysed enterprises.

In this regard, Spa Bojnice, Spa Lúčky and Spa Štós were identified as the best-performing medical spa enterprises by comparing the financial situation of enterprises based on the RONA and WACC values. On the contrary, the worst-performing enterprises over the years 2012 - 2016 were Spa Brusno, Spa Sliač and Spa Číž.

The following table (Tab. 1) presents the average resulting order of the Slovak medical spa enterprises that was compiled by the application of selected modern methods evaluating the financial performance during the analysed period of 2012 - 2016.

Table 1 The average resulting order of the spa enterprises compiled by the application of EVA and RON	A
model. Source: own processing based on the financial statements of analysed enterprises.	

Enterprise	EVA	RONA	Enterprise	EVA	RONA
SE01	4.	7.	SE15	20.	26.
SE02	26.	20.	SE16	24.	11.
SE03	1.	3	SE17	6.	9.
SE04	28.	28.	SE18	15.	12.
SE05	2.	8.	SE19	11.	14.
SE06	7.	10.	SE20	12.	2.
SE07	3.	5.	SE21	17.	1.
SE08	18.	16.	SE22	22.	22.
SE09	13.	15.	SE23	5.	4.
SE10	27.	27.	SE24	8.	13.
SE11	9.	6.	SE25	16.	24.
SE12	25.	18.	SE26	10.	19.
SE13	23.	21.	SE27	19.	23.
SE14	14.	17.	SE28	21.	25.

Based on the results, it is obvious that spa enterprises SE04 (Spa Brusno), SE10 (Spa Sliač), SE22 (Spa Dudince) reached the same position using the both modern performance evaluation

methods – the EVA and the RONA. As we have already mentioned, the calculation of these methods is based on a bit different input data and indicators reflecting subsequently the different business performance assessment. Despite the fact that most enterprises did not reach identical performance position assessed by mentioned models, we have to emphasize the identical recognition of the best and worst-performing spa enterprise evaluated on the basis of the EVA and RONA model application.

Over the analysed period of 2012 - 2016, the worst-performing spa enterprise SE04 (Spa Brusno) was not able to generate added value for shareholders at all. In addition, the average EVA ranged around $\in -2,177,293$ and the RONA did not exceed the value of WACC, which was higher by 24.06 % on average. On the other hand, SE03 (Spa Bojnice) reached the highest average positive EVA ($\in 958,469$) and the RONA exceeded the value of WACC by 3.41 % on average. Therefore, it was identified as the best-performing health spa enterprise within the selected sector. In this case, Spa Bojnice ranked 3rd in the case of RONA model application, however, this result was markedly influenced by distorted values causing the better position of SE21 (Spa Pieniny Resort) and SE20 (Spa Kováčová).

The issue of EVA calculating and its application in practice is the subject of many empirical studies. For example, Součková (2016) compared EVA and value added in industry sectors in the Czech Republic. The study results showed that the EVA equity is the most often applied method. The modified model of the financial planning based on the linking of the data to the EVA was built-up by Marková, Sedliačiková and Gurová (2016). Authors consider this model as the modern way of measuring enterprise performance and budgeting in the Slovak conditions. One of the possible methods of calculating the EVA indicator for Slovak companies in the conditions of valid accounting legislation in Slovakia were presented also in research study by Šalaga, Bartošová, Kicová (2015). Svobodová (2015) analysed the use of selected sophisticated modern financial performance indicators such as EVA, MVA and BSC in trading companies operating in the Czech Republic. The author also pointed to the inadequate use of these sophisticated tools that would help companies manage and monitor their performance more effectively. The RONA model application as a key tool for assessing the achieved level of enterprise performance was also the subject of many research papers (in different section and ways), mostly in foreign countries (Liu, An, Shen, 2015; Wang, Lin, 2012; Pei, 2012). The analysis of the correlation between the enterprise performance and the ownership structure were performed by the authors Xu, Zhang, Tang (2007), who used the above-mentioned RONA indicator to assess the enterprise performance. Assessing the enterprise performance on the basis of the RONA indicator and monitoring the relationship between the degree of internationalization and the enterprise performance was the object of Ma's (2015) research study. Miecoanski, Palavecini (2017) also focused on assessing the profitability of enterprises by applying RONA indicator.

In accordance with the above mentioned empirical studies we also consider the EVA and the RONA as a key tools for assessing and managing the enterprise performance.

5 CONCLUSION

Natural health spas in the Slovak Republic are a significant phenomenon of the national economy development due to the rich representation of natural healing resources throughout the country. The main aim of this paper is to evaluate the financial performance of the health spa sector in Slovakia over the years 2012 - 2016 with use of selected modern financial methods (the EVA and the RONA). The other purpose was to identify the best and the worst-performing enterprises in the case of application of both modern methods.

Based on the results, the positive EVA was reached at least in one year by 18 spa enterprises during the whole period analysed. However, the desired relation "ROE > re" was not respected in most of the analysed years, which is a sign of non-performing sector. Overall, the EVA reached the level of $\in -185,487$ on average. Positive values of mentioned indicator were recorded only in year 2015, which is considered to be the best-performing one. However, the positive development of the EVA since 2012 was significantly disrupted in year 2016. This trend was mainly affected by the decline in net profit by 92.31 %, which despite of continuing decline in "re" indicator negatively influenced the creation of value added for shareholders.

The level of RONA ranged around 1.72 % on average, whereas the WACC reached the average level of 3.45 %. For this reason, the desired relation "RONA > WACC" was not respected in most of the analysed years. Overall, only 16 spa enterprises were able to create value added for their shareholders and keep the mentioned relation at least in one year during the whole period analysed. A continuous increase in the RONA and a drop in the WACC since 2012 have led to a desirable approximation of these indicators and analysed spa sector was considered to be well-performing in 2015. A sharp drop in the NOPAT in 2016, despite of re-reduction of "re" indicator by an index of 0.8289, did not ensure to maintain the desired relation "RONA > WACC" and the positive performance development of the Slovak medical spa sector was significantly disrupted.

Based on the results, relatively identical values were achieved within the application of both modern methods (EVA in \notin and RONA in %). When evaluating the performance of Slovak spa sector as a whole, the best results were achieved in year 2015 and, on the contrary, year 2012 was identified as the worst-performing one. The financial performance trend of enterprises was also the same; a positive continuous performance growth was recorded over the period of 2012 – 2015, but this optimistic trend was influenced negatively by a sharp drop in net profit in the following year 2016. However, it is important to point out the declining number of enterprises reaching the negative EVA or enterprises complying the relation "RONA > WACC". According to the results of EVA and RONA model application, the best-performing enterprises within the analysed spa sector were Spa Bojnice, Spa Lúčky, Spa Dudince and Spa Štós. Contrary, the worst-performing enterprises over the years 2012 – 2016 were Spa Brusno, Spa Sliač, Horezza and Spa Číž.

The causes of declining performance in most Slovak spa enterprises can be found in several areas, not just in the financial one. However, the enterprises are able to influence their performance mainly by own business activity, therefore it is very important to focus on achieving a profit in a sufficient amount to improve the overall financial performance. One of the ways how to reach this goal can also be investment into tourist infrastructure, accommodation, catering, sport or cultural facilities.

Due to the selected methodology for calculating both modern financial methods, we also recommend applying other models and approaches to financial performance evaluation of the health spa sector in Slovakia. It will be the subject of our further research interest.

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