The Issues of Identification of Key Factors Influencing Productivity of Companies

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Abstract

The article focuses on the application of benchmarking diagnostic system of financial indicators on selected retail units. We apply the benchmarking of selected indicators, namely benchmarking profitability, activity, liquidity and indebtedness. By means of these indicators, we verify the financial state of the companies. In addition to this, we make a comparison with the results of the branch leader, alternatively with the average results accomplished within the branch. The aim of this article is to analyse selected retail units and, based on application of benchmarking diagnostic system, to carry out an analysis with comparison and with evaluation of the present state of the selected retail units on the relevant market. The data for our decision-making process were taken from public sources – final accounts of the selected companies from the period of 2008-2013. The final solution provides a complex overview of the application of benchmarking with a focus on retail units in the Czech Republic.

Key words: effectiveness of the company, generators of value, financial ratios, benchmarking.

JEL Classification: M41, M49, M210

1 Introduction

The indicators of financial analysis are currently the most widely recognised tools when the company market performance is measured. Based on these indicators, we can deduce whether the company generates values or not. Subsequently, the managers get down to the analysis of the factors influencing the company market performance and take appropriate measures which contribute to the generation (production) and growth of the company value. The managers can sometimes demonstrate discontent with these financial indicators. The underlying reason is simply the fact that they realize that the performance is influenced by several external factors that cannot be subject to financial analysis and must be taken into consideration in a completely different way rather than just based on the analysis of the outcomes and assumptions based on the financial statement.

The goal of this article is to evaluate the selected indicators with consequent application of intercompany comparison. Furthermore, this article evaluates the team leaders of retail units by using benchmarking. The results of this work is of benefit not only to the branch but also to the company practice in those cases where it is possible to apply this flexible methodology.

2 Current State of the Researched Problematics

The market performance shall be understood as a certain quality of the company to evaluate the assets invested into it. One must realize that the market performance of the enterprise can be assessed from different perspectives – particularly from costumer point of view (quality, delivery dates, prices, payment terms), the managers (prosperity, customer satisfaction, liquidity, profitability, balanced cash flow), the company owners (the evaluation of the invested capital), etc. Therefore, it is vitally important to measure these constantly and repeatedly to guarantee a constant growth of company performance. Only effective market performance measurement secures achievement of previously set targets and promising future development of the company.

Considering the historical view as seen by Pavelková and Knápková (2009) aiming at the market performance measurement, one must notice a remarkable shift of opinions ranging from considering it as a simple profit margin and profit growth measurement towards the measurement of the profitability of the invested capital to modern concepts based on the creation of values for the owners and management assessment. Apparently, there are several factors (indicators) of market success. Therefore, it is not easy to judge the company performance.

Measuring and managing the market performance basically means the measurement of objective reality. Based on the market observation, the understanding of some parts of market phenomena clears up. Such a situation helps us to categorize them properly with a higher probability. The occurrence of such market phenomena disposing of certain qualities gives us an opportunity to measure them. The market phenomena with such qualities shall be coined “classifiable”.

Dealing with the existing diagnostic system of market performance, we can come across such extremes whereby either all could be determined based on some algorithm or on the contrary all will be indefinable from a market point of view. In such cases, the solution might be the dynamic models enabling the connection between the classifiable and algorithmized market phenomena. Dynamic models in the form of managerial simulators are powerful managerial tools for the measurement and management of the company market performance. Currently, a dynamic SCORECARD INFA is being developed which is a tool for the measurement and management of a net present value that the company generates for the owner. The adjective “dynamic” is used because it is understood as a part of the dynamic model of the company (strategic managerial simulation) and the term SCORE CARD because it enables to apply the philosophy of BALANCED SCORECARD. INFA is a diagnostic tool for the analysis of weak and strong sides of the company market performance.

The system of financial indicators that explains the amount of the net present value (NPV) achieved by the company is described as the centroid of this diagnostic tool for the company market measurement - Malach (2004). It points out four basic factors influencing the long-term performance of the company (NPV). These factors are the profitability of equity capital (hereinafter referred to as ROE), alternative costs for equity capital, equity capital (hereinafter referred to as VK) and net present value of growth opportunities. The value of the first two factors is explained as the way of the generation and the division of the company output and the financial stability of the enterprise. These two values represent the intensive dimension of doing business. The difference in their margins shows to which extent of the enterprise is able to evaluate VK in comparison with the prospective evaluation corresponding

with the undertaken risk. The third factor is the amount of the kept equity capital in the company which represents the extensive dimension of doing business. The first three factors provide the information and an explanation about the current company market performance. The fourth factor addresses the anticipated future of the company market performance. It calculates the net present value of the prospective opportunities for the company growth.
When carrying out the company performance measurement, one must also deal with the identification of value generators. Mařík (2007) denotes these as business scales which in summary determine the value of the company.

Among the most important value generators belong the profit and its growth or the margin from the operating profit. We must divide the assets for the operational necessity and operational obsolescence to be able to carry out the analysis of the value generators and to forecast them subsequently. We only work with assets in question that are connected with the main business activities of the company. Furthermore, we arrange the operational business results which will reflect the operational-necessary assets and then we carry out the analysis and the prognosis of the value generators.

2 Benchmarking

All the collected data were gathered from publicly available sources for the purpose of our research, particularly account statements of the analysed companies. The researched companies were Globus ČR, k.s. (hereinafter referred to as Globus), Kaufland Česká republika, v.o.s. (hereinafter referred to as Kaufland), Lidl Česká republika, v.o.s. (hereinafter referred to as Lidl), and Tesco Stores ČR, a.s. (hereinafter referred to as Tesco). These are the only companies that made all the accounting statements from 2008 to 2013 public. Benchmarking shall be the applied method for the purposes of their comparison. Using this indicator, we shall be able to identify the market leader of the whole retail group. It is necessary to have the background documents which could be obtained only if we follow the changes in the company and/or carry out a detailed analysis in order to obtain more thorough financial planning and financial decision-making,. We then apply these ratio indicators such as profitability, activity, liquidity, indebtedness and market value.

When dealing with the **benchmarking of rentability**, we must realize that the rentability according to Růčková (2011) is the measurement that shows us whether the company is able to generate new sources and make profit by using the invested capital. It is a form of the profit expression. Our sources in this respect are two basic accounting statements, particularly the profit-an-loss account and the balance sheet. These two indicators are used when carrying out complete company effectivity. They should have increasing tendency over the time. The first indicator is ROA expressing the complete company effectivity. Applying this indicator allows us to obtain information about the what generates the company value and what is subsequently divided into the net profit, paid interests, and the income tax. It shall be used solely for the purposes of measuring the complete effectivity and evaluating the effectivity of the entire paid-up capital. The capital reproduction ability is being evaluated in this part. The development of the ROA is to be seen in the following Figure No. 1 depicting the results of all our researched retail units.

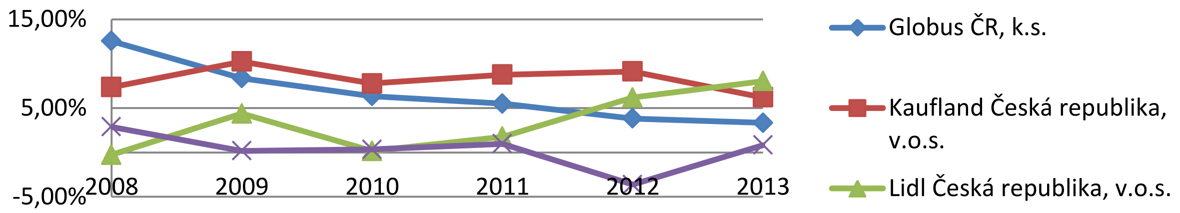

Fig. 1 ROA
Source: Privately processed data

The best results were accomplished by Kaufland within the researched six years period. Kaufland performed the highest figures in the long-term perspective. The worst results were achieved by Tesco where the profitability of its assets proved long-term decreasing tendencies. A long-term increasing trend of the assets profitability was recorded at only one researched company – Lidl, which in our case is desirable. It is also necessary to take into consideration the impact of the economic crisis that has been accompanied by increasing purchasing power of the inhabitants.

The second indicator is the ROE (which as the other profitability indicator is expressed in percentage) and the calculation implies that it grows along with the increasing profit and falls with the amount of equity capital used for its generation as pictured Figure No. 2.

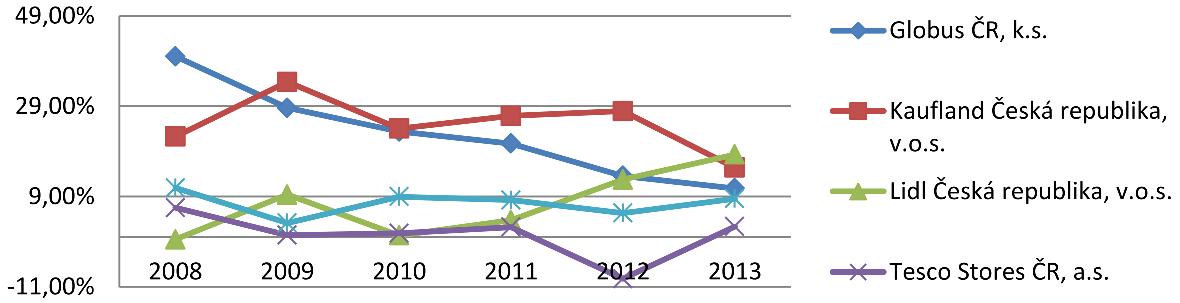

Fig. 2 ROE
Source: Privately processed data

The data indicate that the best market performance was achieved by Kaufland. We can assume that its capital was reproduced in accordance with the intensity corresponding to the investment risk. The only exception was the year 2008 when Kaufland faced a fierce competition of its market rival Globus. The profitability of the equity capital should fluctuate between – 10% up to 40%. Accordingly, all the researched units meet this criteria.

The increasing tendency of the rentability would be desirable for all companies researched in this article. The rentability may be ensured by further lowering of the costs higher product sale and decrease of its own/equity sources of financing. This would result in a more balanced financial situation due to the usage of the external sources of financing.

Allow us to introduce you to the **benchmarking of the activities,** particularly the indicators of activities. These are applied when measuring the ability of the company to utilize the invested financial means and when measuring the connection of all capital items among all individual parts of assets and liabilities. **The asset turnover** states the number of turnovers, normally stated within a yearly period. For better visualization, see the Figure No.3.

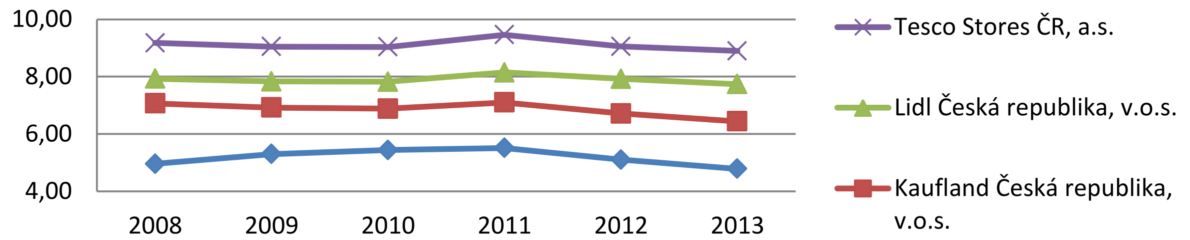

Fig. 3 Asset turnover
Source: Privately processed data

From the market point of view, it is really important to show the highest level of the asset turnover. On the one hand, very positive condition is attained by Tesco but on the other hand, very low asset turnover was indicated at Globus.

Another indicator is the inventory turnover which describes the number of company inventory turnovers within a certain observed period of time (most commonly it is annually). The basic equation says that each company thrives when it increases the number of the inventory turnovers (in other words, when it shortens the inventory turnover period). Consequently, this usually leads to the profit growth or prospectively to the decrease of the necessary capital. The development of this indicator is depicted in Figure No. 4.

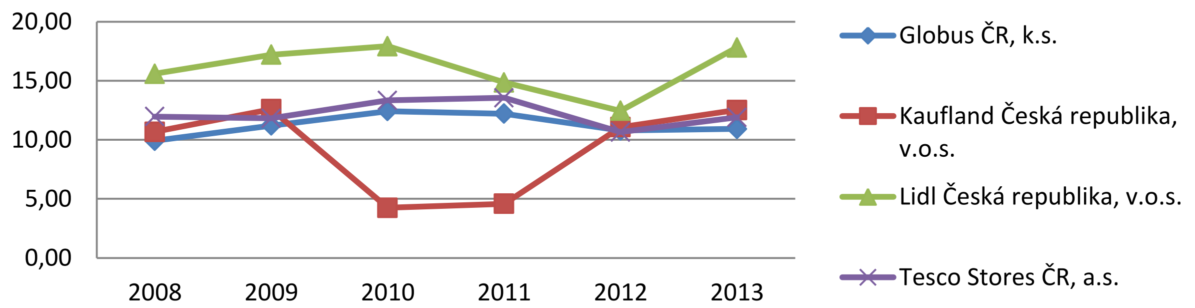

Fig. 4 Inventory turnover
Source: Privately processed data

The best results were undeniably achieved by Lidl which reached its maximum point in inventory turnover in 2010. To put it simply, higher inventory turnover within a shorter period generally indicates better market situation. Kaufland was showing the lowest level of inventory turnover which is primarily caused by high amount of inventory – the highest within the researched period. We must realize that the inventory as part of liquid assets does not generate any profit and it is therefore more profitable to keep its level as low as possible.

The last of the indicators for the measurement of the market activity **is the indicator of period of the maturity** of receivables. According to Vochozka (2011), this indicator observes the number of days that pass between issuing the invoice for the goods or for the finished products and the moment of the corresponding money transfer to the back account. The basic rule says that the longer the interval is, the longer the company unintentionally provides a free business credit/loan to its business partners. The Figure No. 5 depicts the period of the maturity of receivables.

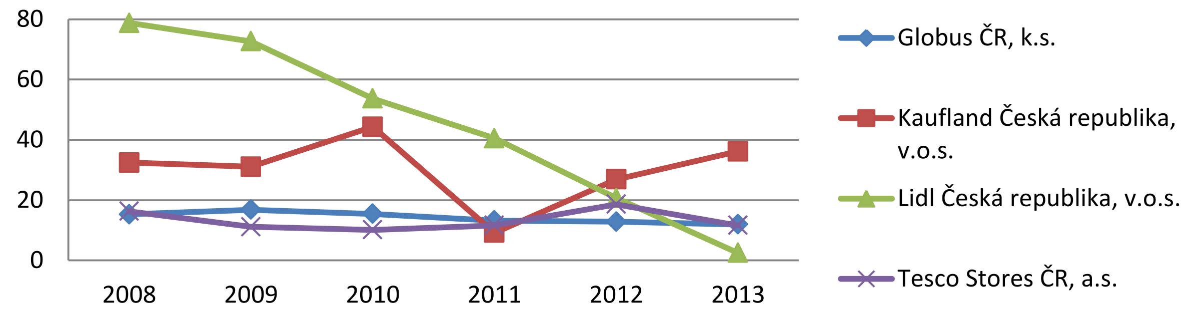

Fig. 5 Period of maturity of receivables
Source: Privately processed data

The shortest period for the payment of receivables is indicated at Tesco. It simply means that the company pays off its liabilities quickly. Within the last researched period, we can notice a rapid decrease in the period of the payment of receivables by Lidl and the highest figures shows Kaufland in a long-term period.

Another group is the **benchmarking of liquidity** where the liquidity of the tested companies will be put under scrutiny in relation to three basic indicators which are currentcash and quick ratio. Liquidity of some of the basic measures depends on the company success as it reveals its ability to meet its short-term liabilities. The analysis of these factors should be carried out (if possible) in the shortest time intervals and with a regular repetition.

The indicator of the common liquidity measures how many times the liquid assets cover the short-term liabilities of the company. It also elaborates on how many times the company would be able to satisfy the creditor providing that all liquid assets were turned into cash. This indicator should ideally fluctuate between the border limits of 1,5 – 2,5. For a better visualisation, let us demonstrate that on Figure No. 6:

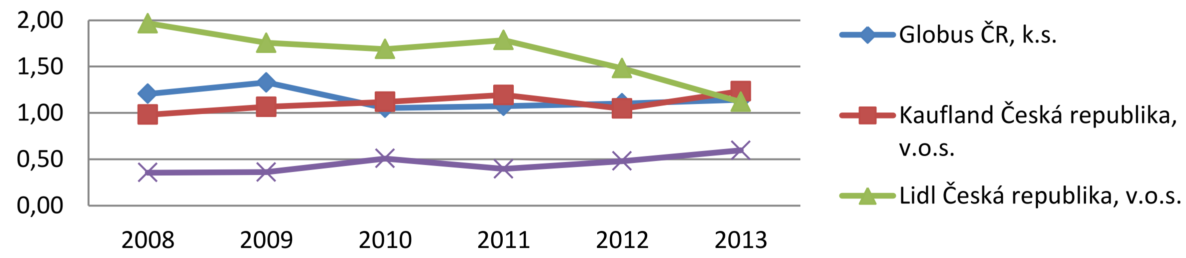

Fig. 6 Current ratio
Source: Privately processed data

The indicator of current ratio can be evaluated as relatively stable. The only company that has met the recommended interval was Lidl. As mentioned above, all values dropping below 1 are to be considered problematic. This concerns particularly Tesco which impaled that the company was not able to pay off its liquid liabilities and used for this purpose long-term sources of financing. It could also turn to the sale of the long-term property. The higher the value of this indicator is, the probability that the company shall stick to the due payment of its receivables increases.

Another important liquidity indicator is the **acid test** which denotes the ability of the company to meet its short-term liabilities. The inventory item of lower quality has been cleansed from it. The equation for the calculation is as follows:

$$Acid\ test = \frac{current\ assets - inventory}{short - term\ liabilities}$$

The recommended values for the acid test fall within the interval from 1 to 1,5. Providing that it equals exactly figure 1, it basically means that the company is able to meet all its liabilities without the need to sell its inventory. Providing that the company does not meet the recommended standards, it does not necessarily reflect that the company has any financial problems. It is caused mainly by the fact that there is a chance of the bank overdraft or cash pooling in the accounting which might not be visible straightaway from the account balance. The development of this indicator is depicted in Figure No. 7.

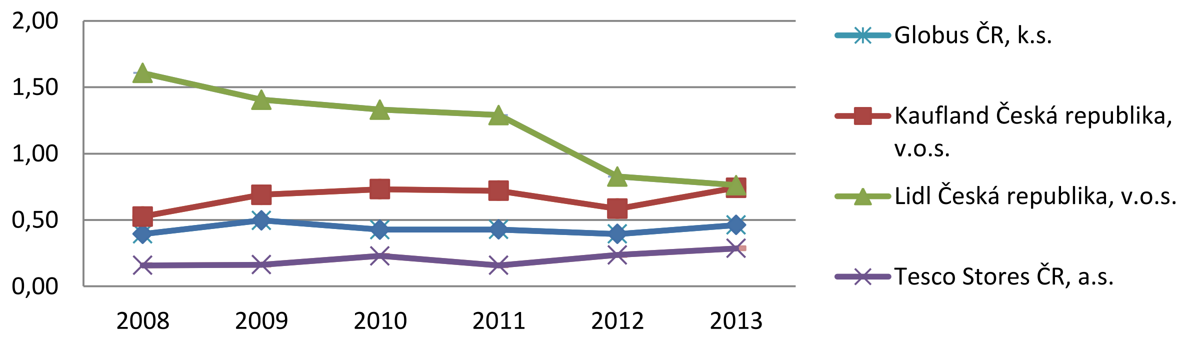

Fig. 7 Acid test
Source: Privately processed data

The basic rule of the acid test says that the higher the value of this indicator is, the more convenient the situation is for the creditors and the more inconvenient for the management of the company. It signalizes a lower profitability of the business. As it can be deduced from the Figure No. 7 above, the highest values in the long term perspective were accomplished by Lidl.

We can also notice that the recommended values were adhered to by the company Lidl from 2008 to 2011; the value of the cash position ratio dropped under the recommended value as it can be seen in case of all other companies. It must also be emphasized that the value of the cash position ratio is lower than the current ratio which is to be derived from the excessive loading of inventory or long-term liabilities in the balance sheet of the company. General recommendation for all the companies is to optimize the area of inventory, receivables and financial means in order to decrease the liquidity. It brings decrease of liquidity.

Only one of the studied companies met the recommended values. The other companies were found under recommended limits which basically signalizes high cash ratio that is accompanied by the inefficiency of the tied financial means in the circular assets. For the future reference, all companies under scrutiny are required to observe the liquidity more frequently. The more frequently they will deal with it, the better for them as it shall lead to more objective evaluation of the company value.

The last researched area is the **benchmarking of indebtedness**. The indebtedness shall be understood as the fact that the company utilizes its external financial sources for covering its liabilities, in other words, for coping with debts. The basic indicator of the indebtedness is the **creditor risk** which is deduced from the ratio of summary liabilities divided by summary assets. The higher the number is, the higher the creditor risk is. The value for this indicator is described in Figure No.8 in relation to the entities being researched.

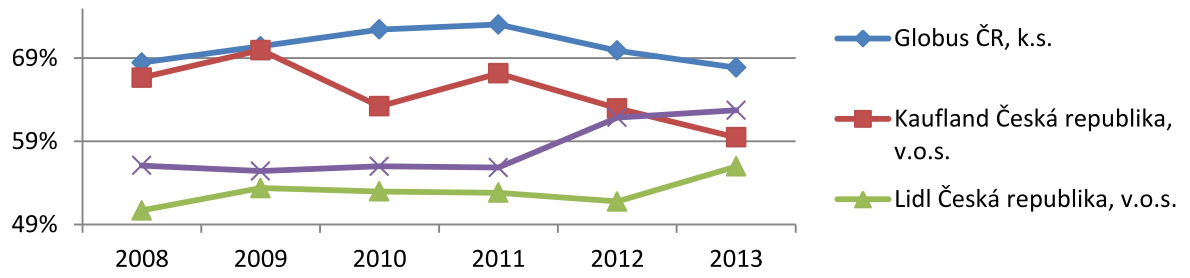

Fig. 8 Debt ratio
Source: Privately processed data

Globus was showing the highest creditor risk. On the contrary, the lowest creditor risk was achieved by Lidl. Very high value of this indicator can be positive for the company owners providing that the company is able to achieve a higher percentage of profitability than is the percentage of interests paid from the external capital. Exceeding the limit of 60 % is considered to be negative by Dvořáček (2003). Such a situation implies the need to recreate the financial structure to the benefit of our own sources. Despite this fact, this border was exceeded by Globus, Kaufland and in the last years, i. e. 2012 and 2013 even by the company Tesco. Lidl keeps the results of this indicator steadily within these limits in a long-term view. The values of this indicator highlight the current trend typical of the inclination of big companies towards the use of short-term external financial sources. These represent a less risky way of financing from the creditor point of view. However, as for the financial stability of the company, the mere use of these sources might be subject to a severe debate.

The last in the row of the researched indicators belonging to the category of indebtedness is **the indicator of the equity ratio**. It explores the application of the external capital in the company. Higher amount of the external capital can be considered positive as it contributes to a higher profitability of equity capital. The opposite business point of view suggests that the external capital brings about additional costs such as interests. What is more, an excessive level of external capital can lead the company into the situation where the company will not be able to settle the interest payments and will become insolvent. The following Figure No.9 represents the development of the equity ratio of the researched retail units.

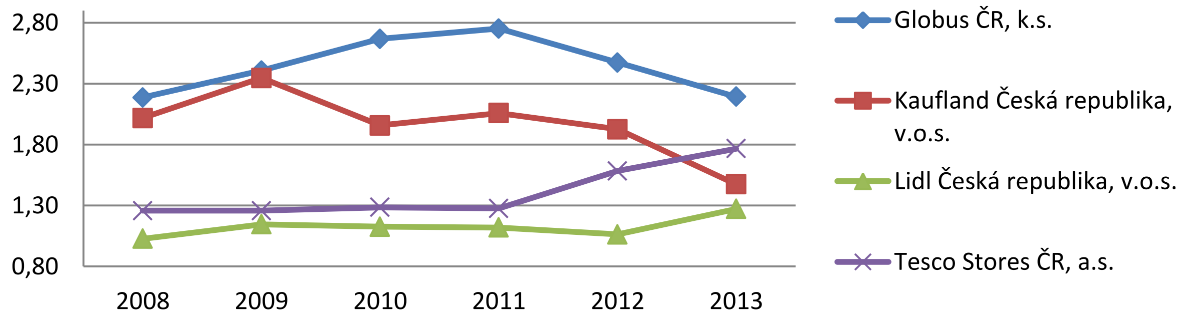

Fig. 9 Equity ratio
Source: Privately processed data

As it can be seen from the Figure No.9, there is not any company, which reached the level lower than 1. Providing that the equity ratio is lower than 1, it implies for the company that equity capital prevails over the external capital. This signifies an acceptable level of equity ratio. Globus is typical of the predomination of external sources of financing. The least indebted company is Lidl which showed the lowest level.

The last examined part of this work is the identification of the market leader and market outsider among our companies on which the benchmarking methods are used. The data must firstly be set to the standardization. The extracted data shall be the grounds for the completion of an ideal company combining the best values of all the companies. All these values will subsequently be used for the identification of the S standard which will furthermore determine the distances of the individual companies from the ideal company. To measure this distance from the market leader, we followed the Manhattan and Euclid metrics subsequently used in n-dimensional space. The Figure No. 10 depicts the final position of the retail units in 2013.

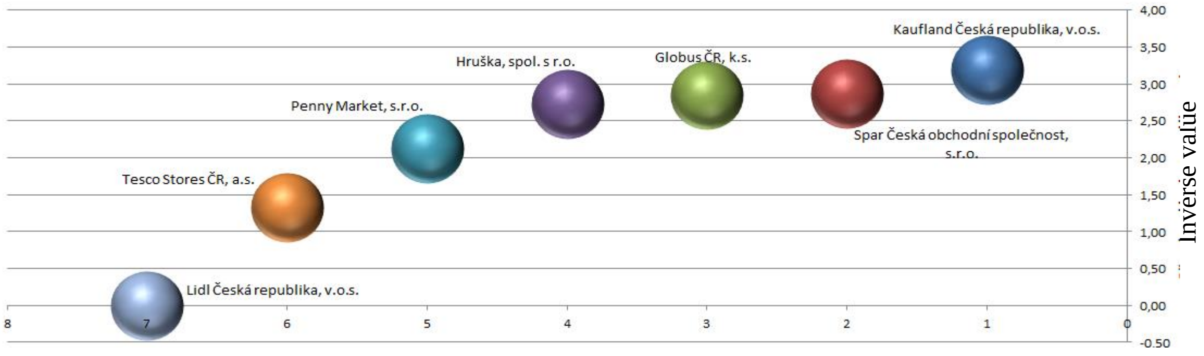

Fig. 10 The final position of the retail units in 2013
Source: Privately processed data

This Figure No.10 is the output of complete calculation of statistic data, standardization and company position according to the distance from the ideal company. The chart reads as a market leader Kaufland which achieved the highest turned value of distance. However, Lidl became the outsider of the group. If we take into consideration the previous year 2012, the Kaufland proved better results and became the market leader of analyzed group. According to Hermannová (2013), Kaufland occupied the 2nd position just behind Globus in 2012. On the other hand, the Lidl has not improved its market outsider position.

3 Results and Discussion

The most important indicator for the retail units is the indicator of profitability. In my opinion Kaufland accomplished the best results within the six observed years. The worst result was indicated by Tesco where the profitability of the assets in this company suggests long-term decreasing tendencies. There was only one company, Lidl, which has showed an increasing tendency of the asset profitability since 2010. Globus has showed a long-term decrease in the value of the ROA and ROE indicator. The analysis of the liquidity based on the ratio indicators confirmed the results of the INFA. The results of the researched companies were more or less in accordance with the results in the entire business branch. Even if the calculated figures do not comply with the recommended intervals and do not show stable results, it does not necessarily mean real problems for the enterprise to meet its liabilities.

Globus has not fallen within the recommended limits for acid test otherwise all companies met the recommended interval.

The next of the researched area is the benchmarking of the indebtedness. We analyzed the creditor risk - the basic rule, applied to it says that the higher its level is, the higher the creditor risk is – applicable to all researched units. The highest creditor risk was achieved by Globus and the lowest creditor risk level was shown by Lidl. This indicator highlights the current trend when the majority of companies incline towards the use of short-term external financing. From the creditor´s point of view, these represent a less risky source of finance. On the other hand, from the point of financial stability of the company, the applicability of these sources is doubtful.

The next of the researched indicators as for the indebtedness is the indicator of the rate of indebtedness. It elaborates on the use of the external capital in the company. Higher level of the external capital can be understood as positive as it contributes to a higher profitability of the equity capital. Globus could be indicated by a domination of external sources of financing and its rate of indebtedness has reached the maximum level within the inter-company comparison. The least indebted company became Lidl which showed the lowest level of the rate of indebtedness. The best results within the 6 year period were achieved by Kaufland. The worst figures were shown by Tesco where the asset profitability proved decreasing tendencies in a short-term. The only one company, Lidl showed an increasing trend in the asset profitability since 2010.

The last researched area was the identification of the market leader and the market outsider among the researched retail units. The market leader became Kaufland improving its position in comparison with the previous year. Quite the opposite position was occupied by Lidl just as the year before. All these data from 2012 are stated in the article by Hermannová (2013).

4 Conclusions

Benchmarking undoubtedly belongs among the modern methods used for managing the company performance and thus we focused particularly on this method. Thanks to the benchmarking method, we can gather valuable and reliable information about the company management and consequently identify weak points in the financial management of the company and help the managers take the most appropriate measures leading to their elimination. Working on this research was possible thanks to a purpose-built support from the funds for a specific academic research from the students´ grant project Nr. SGS/22/2014 called „*Mathematical methods of final account processing when comparing competition of enterprises*“.

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