

HOLDING COMPANY AND ITS PERFORMANCE

David Ficbauer¹, Mária Režňáková¹

¹ Department of Finance, Faculty of Business and Management, Brno University of Technology, Kolejní 2906/4, 612 00 Brno, Czech Republic

Abstract

FICBAUER DAVID, REŽŇÁKOVÁ MÁRIA. 2014. Holding Company and Its Performance. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 62(2): 329–337.

Research projects on the performance of companies search for the relationships between the methods of managing a company and the results. This paper presents a research on holding companies. The aim is to analyse the reasons for and purposes of holding companies being established and the advantages they may bring to the owners trying to find out whether the level of association between the companies influences their performance. The research was carried out in two stages. First a questionnaire enquiry was made with interviews and, subsequently, financial ratios were quantified and their correlation investigated with the extent of efficient cash flow management. The correlation was expressed by Spearman's rank coefficient. The benefits of creating a holding company were mostly found in the owners' investment risk diversification, reduction of the capital invested, and improved negotiating position of a holding company. Also, a correlation was determined between the method of cash flow management and financing strategy (measured by net working capital – the value of Spearman's coefficient is 0.761849 in average and by ratio debt to assets – the value of Spearman's coefficient is 0.813525 in average), liquidity of companies (measured by cash liquidity the value of Spearman's coefficient is –0.800436 in average) and performance (measured by return on assets – the value of Spearman's coefficient is 0.474 in average).

Keywords: holding company, reasons for creating a holding company, diversification of business risk, performance of holding companies, net working capital, efficient cash management, indebtedness

INTRODUCTION

A factor of company size can be considered as one of the key factors of business prosperity. (e.g. Shumway, 2001; Niemann *et al.*, 2008; Wu, Gaunt, Gray, 2010; Kočenda, Hanousek, 2012a; Karas, Režňáková, 2013 etc.). A company with strong capital and high market share has better access to supply and sales channels, which improves its position in negotiations with suppliers and customers. Another advantage strengthening the company's position is the creation of barriers preventing the competitors from entering the market.

The size of a company can be increased through investment in the development of an existing business, but, more often, also by joining companies. Research in this area, however, shows that fusions of companies do not bring the desired effects. According to Cartwright and Schoenberg (2006), for instance, the percentage of unsuccessful fusions is relatively high, in the long run, closely approaching 50 percent.

In their research of the performance of companies in the post-privatisation decade of 1995–2005, Kočenda and Hanousek (2012, a) were also concerned with the efficiency of Czech commercial enterprises with joint capital. According to the authors, a corporate pyramid existed for a long time, with the state on top of the ownership structure. State-owned enterprises brought about a degraded and sometimes even negative performance of companies. As the most likely reasons for this, the authors named the absence of clear trends of enterprises and the state bureaucracy. In their next research, the same authors analysed the breaking down of the original state-owned holding companies and its impact on the performance of the newly created companies. For this, they used data from the 1996–2000 period. According to their findings, the initial action of the breaking down was positive but, after a certain point in time, it quickly disappeared (for details see Kočenda and Hanousek, 2012, b).

This paper presents the results of a research on the performance of holding companies. It concentrates on stock trading companies (joint-stock companies, limited companies) that, although being legally independent, have a common capital in that the parent company (holder, controlling entity) may economically control subsidiaries (controlled entities).

The research aims to describe and analyse the reasons for holding companies being established, the advantages of their organisational structure as seen by the managers of companies, and to identify the synergic effects given by the association of commercial enterprises. Next it aims to find out whether a correlation exists between the level of association of companies and their performance. The authors presume that this level can be judged by the method they use to control the cash flows i.e., the cash management.

SAMPLE AND METHODOLOGY

The key problem in researching holding companies in the Czech Republic is the difficulty in identifying them. Unless a company declares itself to be part of a holding structure, there is no way to find this out. Under the Czech legislation, business enterprises are obliged to publish the financial and legal information to prove the transparency of their business activities. The documents to be published in a business register also include a contract to control the company or a controlling report on the relationships between the controlling and controlled entities and other entities controlled by the same entity. The problem is the very low number of companies that do publish this information. According to an inspection made by the Supreme Audit Office in 2012, 74.01 percent of limited companies and 57.33 joint-stock companies did not publish their final statement or annual report for 2010.

According to Oestreicher, A. and Koch, R. (2008), who used data from February 2005, there were 28 international and 247 domestic holding companies in the Czech Republic. The number of the Czech-Republic-based holding companies was also checked against the data published in the Analyse Major Database for European Sources (AMADEUS) provided by Bureau Van Dijk, using the number of companies publishing consolidated income statements. For the period 2009–2012, the following number of records was found of companies reporting consolidated statements – see Tab. I.

Our research included 15 groups comprising 188 business enterprises on the date of the research.

In 12 holding companies, the research was carried out at the holder. Only in three holding companies, it was carried out only in one of their subsidiaries as these were international holding companies including the subsidiary.

The research was carried out in the form of a questionnaire enquiry and phone interviews, email correspondence, and during short meetings held to specify details of the answers received. We note that all the questionnaires analysed were completed by some of the above methods of enquiry. As the respondents were audited companies, we assume that the facts were not intentionally misrepresented and the information may be taken for correct. The research was carried out in 2011 and 2012.

The enquiry can be divided into the following parts:

1. The first part of the questions was about the identification of the scope of business, duration of the holding company, number of companies of the entire group, the consolidated sales, the company's registered office, etc.
2. The questions in the second part were about the ownerships and organisational structures of the holding companies in question.
3. The third part contained questions about the purposes of creating a holding company and their fulfilment. The wordings of these particular questions were "What advantage do you expect of being part of a holding company?", "What disadvantage do you expect of being part of a holding company?", and "Do you consider any changes in the holding company now (splits, fusions, acquisitions, etc.)?". When formulating the questions, we kept to the resources found in the literature that summarize the purposes of holding companies (see, for example, Machoň, 1997; Marek, 2009; Mařík *et al.*, 2011; Pavelková, 2009; Valach *et al.*, 1999).

The results of the enquiry completed by interviews were analysed by the frequencies of answers.

At the next stage, research utilized secondary resources such as financial statements, annual reports, and controlling reports on the relationships between the controlling and controlled entities and other entities controlled by the same entity. Investigated were data of Czech-based companies. In this case, 32 businesses were investigated. The aim was to determine whether any synergic effects could be identified of the association of companies. According to the economic theory, for a company, synergic effect means the growth of its value and the authors assume that the value of a company is given by its viability to create profit for further development and for revenues for all its stakeholders. As measuring the value of companies with non-marketable stock is problematic, an alternative method was chosen

I: Numbers of records of companies reporting consolidated statements

	2009	2010	2011	2012
Number of records	45	43	37	26

Source: Amadeus

consisting in investigating some partial factors that can influence the value of a company.

The authors of the paper assume that grouped companies want to profit mostly by a central cash flow and income tax savings thanks to a higher rate of indebtedness of subsidiaries (see, for instance, Režňáková M. *et al.*, 2010). To this end, the cash-flow management methods they use were determined first. Then the relationship was investigated between the level of efficient management of cash flow and the company performance indicators belonging to the value-driver category, that is, net working capital, cash liquidity, structure of financing resources. This leads to the formulation of the following hypotheses:

Hypotheses H1: Those subsidiaries of the holders that efficiently manage their cash flows maintain a low level of cash.

The level of cash available was measured by the cash liquidity index, which is the ratio of the short-term financial assets to short-term liabilities.

Hypotheses H2: The holding company subsidiaries that efficiently manage their cash flows operate with low net working capital while the holders operate with higher net working capital.

The net working capital was measured by the proportion of the net working capital in assets.

Hypotheses H3: Those holding companies that efficiently manage their cash flows achieve higher ratio return of assets (ROA).

Hypotheses H4: The holding company subsidiaries that efficiently manage their cash flows use less bank loans for financing than independent companies. Here "internal liabilities" are used. Internal liabilities are meant to be loans among the enterprises grouped into a holding company.

The debt ratio of the enterprises was established either as the liabilities to assets ratio or, separately, as the long-term liabilities to assets ratio and short-term liabilities to assets ratio.

To assess the efficiency of cash flow management, the following scale was used with a holding company that only sporadically manages cash flow

in the group receiving the lowest rating (see Tab. II). The highest rating was given to a zero-balancing cash pooling, which means real cash transfers between the grouped enterprises according to their real needs.

For testing the correlation between the extent of notional cash flow management and selected indicators, Spearman's correlation coefficient was used, which, in contrast to Pearson's correlation coefficient, does not require bivariate normal distribution and can also be used for variables with unknown distribution (see, e.g. Hebák, P., 2007). At a significance level of 5 percent, using Student's t-distribution and Statistica 10, the correlation hypothesis was tested separately for the holders and subsidiaries.

Characteristics of the Sample Data

As mentioned above, investigated were 15 holding companies. Even if the size of such sample is not large, we consider the information obtained relevant as no previous research of this type has been done in the Czech Republic.

Based on information provided by the Ministry of Justice in the Czech Republic, dated 31 4th 2014, there are 719 consolidated subjects. If we start from the assumption that a similar number were in the period under research, the research sample is 2% of the population.

The sample contained 60 percent of holding companies with Czech-Republic-based holders. The other holders were based in the Slovak Republic, the Netherlands, Japan, and the USA. In terms of specialisation, the majority of companies operated in manufacturing industry (43%) and trade (28%). In this case, the total number of specialisations was higher than the number of holding companies investigated. This is caused by the conglomerate structure of a part of the holding companies investigated.

Concerning the numbers of subsidiaries of a holder, the holders researched had mostly one to five subsidiaries (53 percent), followed by those with six to ten subsidiaries (27 percent). One holder reported up to 80 subsidiaries. Also the sizes

II: *Rating of the cash management tools usage*

Cash flow management tools	Rating
Cash flow not managed	1
Separate receivables and liabilities set off against each other	2
Receipts and expenditures planned in each company of the holder	3
Loan agreements	4
Credit management for some of controlled companies	5
Overall credit management for entire holding company	6
Internal factoring of the holding company	7
Netting	8
Notional cash pooling	9
Zero-balancing cash pooling	10

Source: own processing

of the holding companies in terms of the sales were different. One third of the respondents reported sales of up to 100 million CZK, next third from 101 to 500 million CZK.

The companies participating in the enquiry have been grouped in a holding company for more than five years except one company created in 2011.

RESULTS AND DISCUSSION

1. Organisational and Ownership Structure of Holding Companies

According to the research, 47 percent of the respondents are hundred-percent owners of the subsidiaries, only one-fifth of the holders own less than 60 percent of each subsidiary. All respondents said that they were trying to increase their ownership share as much as possible to curb the participation of other owners in decision making. Concerning the organisational structure, most of the holding companies investigated are grouped in a pyramid. This form of arrangement of holding companies in developing marketplaces is also confirmed by Khanna, Yafeh (2005). In terms of the diversity of business branch, there were slightly more holding companies with similar business branches, i.e. horizontal organizational structure (40 percent), with one third of the holding companies having a vertical organizational structure.

2. Purposes of Creating a Holding Company

Regardless of its form, the grouping of commercial enterprises is seen as a method of obtaining a synergic effect of economized size, better negotiating position, increased innovation potential, etc. (see Pavelková, 2009, p. 18; Mařík, 2011, p. 457; Marek, 2009, p. 570; and others). The results of the research are summarized in Tab. III.

The most frequent purpose was identified as strengthening of the holding company's

negotiating position. This may be thought of as a multiple corroboration of the positive effect of the size of the grouping on the efficiency of management and on company performance. In interviews, the respondents saw the competitive advantage mostly in negotiations with business partners. Companies coordinate their strategies for negotiations with partners, thus maintaining the impression that each of the holder's subsidiaries acts in the negotiations with suppliers and customers as if the order or supply was for the entire holding company.

Similarly, in answers to the question about increased market share, the respondents said that this had an effect on negotiations with partners. To this end, business policy and marketing communication are coordinated. When the share in the market is to be increased or a new market entered, priority is given to acquiring a well-established company over building an entirely new undertaking.

3. Positives and Negatives of Holding Companies (of Holding Organizational Structure)

Although "optimised liability" was given as the purpose of establishing a holding company only in a quarter of respondents, when asked about the advantages of a holding company, this was the answer given with the highest frequency, given by one third of the respondents (see Tab. IV).

When asked about the details of this question, the respondents gave two variants of perceiving the advantages of liability:

- Each company has its own liabilities, which is thought of as the main advantage in the event that a subsidiary is unsuccessful (such as lack of liquidity, problems with payments, failed business plan).
- Each company stands for its sister companies in tenders, and applications for loans.

III: Purposes of and reasons for creating a holding company

Answer to the question, what are the purposes of creating a holding company	Relative frequency of answers
Optimized liability	26.7%
Optimized capital costs	20.0%
Consequence of acquisition	26.7%
Tax planning	6.7%
Winning competition advantage in ...	46.7%
Better position in negotiating with business partners	40.0%
Cost savings	26.7%
Increased market share	46.7%
Entering a new market	40.0%
Joint research and development	13.3%
Joint logistics, marketing	26.7%
Others	20.0%

Source: authors' own analysis

IV: *Advantages of a holding company*

Answer to the question, what are the advantages of a holding company	Relative frequency of answers
Optimised liability	33.33%
Optimised capital cost	26.67%
Synergic effects in ...	26.67%
Tax savings	20.00%
Others (to be specified)	33.33%

Source: authors' own analysis

This all implies that a holding company ownership structure diversifies business risk.

The respondents gave the answer "optimised capital costs" in connection with reducing the holding company's dependence on bank loans as a consequence of cash transfers between subsidiaries. Their answers implied that these were only transfers of small amounts used mostly to finance short term assets. This also reduced the capital invested by the holding company as a whole.

Other than the reduction of the influence of competitors, the advantages listed by the respondents mainly included direct influence on the management in the subsidiary and optimized cash flows.

On the other hand, the most often mentioned drawback of a holding company structure is the complexity of management (80 percent of respondents) and the impossibility to affect short-term decision making (53 percent of respondents). It seems that, unless the competences and responsibilities are adequately distributed within the holding company as a whole, the overall management becomes exceedingly demanding as the size of the holding company grows. This shows mainly by the growing difficulty in taking strategic decisions and in financial and personal management. This inevitably leads to the respondents being interested in increasing the shares of the holder in the basic capital of the subsidiaries.

When answering "synergic effects in ..." the respondents mentioned mostly increased returns, costs savings, and reduced tax burden. Returns were increased mainly by horizontal mergers bringing an increase in the share of a given market. Cost savings can be made in administration and research and development. In research and development, this does not involve an absolute reduction of costs, but rather costs that are lower relative to the larger production and, thus, returns enabled by research.

Despite the above-mentioned negatives, the respondents think that being part of a holding company is good. Eighty-seven percent of the respondents do not consider any major changes in the holding company structure such as mergers, splits, or acquisitions.

Surprising is also the rather low frequency of answers that the establishment of a holding

company was prompted by "tax planning" although in the literature, this is often mentioned as a factor very important for deciding about mergers (e.g., Oestreicher and Koch, 2008; Zimmerman, 1983; and others). From this, it may be deduced that an important reason for merging companies is to gain edges over the competitors through more efficient coordination of activities with respect to business partners. Tax reductions are an accompanying effect supporting the growth of the company value.

On the other hand, the research has shown that this area is thought of by the respondents as the least satisfactory. This is indicated by the answers to the question, which expectations of being part of a holding company have not been met. According to them, the overall tax of the subsidiaries has not diminished as expected. As a condition necessary for achieving tax savings, they see concerted action of all subsidiaries and continual evaluation mostly of their returns and costs.

4. Impact of Cash Flow Management on the Company Performance

The purpose of a commercial undertaking is the growth of its performance, which can be achieved also by tools typical for managing a holding company. On the grounds of previous research, the authors believe that cash flow management is the principal tool for managing the subsidiaries of a holding company. Therefore, the correlation was tested between the methods of cash flow management and the company performance indicators. These included indicators of the value drivers category (Mařík *et al.*, 2011; Damodaran, 2012; and others) in the form of ratios. This form was chosen to eliminate the differences in the indicator values due to the different sizes. The indicators used are decisive for the growth of the company value because, while characterizing the performance of a company with respect to the capital invested (Return on Assets, ROA), they also reflect the company's solvency (Net Working Capital to Assets, Cash Liquidity). The last of the of the key value drivers is the weighted average cost of capital (WACC). However, as this indicator cannot be obtained from the company's financial statements, it was replaced by an indicator of the structure of financing resources. Considering the way the WACC is calculated, this is method is justified as the weighted average cost of capital is in direct

V: Values of Spearman's coefficient of correlation and T-test for holders

Holders	NWC/Assets	Debt/Assets	Long Debt/ Assets	Short Debt/ Assets	ROA	Cash Liquidity
2010						
Spearman's coefficient	0.765563	-0.555651	-0.277825	-0.129652	0.407477	0.315827
t(N-2)	3.36567	-1.89029	-0.81801	-0.36983	1.26205	0.94148
p-value	0.009849	0.095383	0.437034	0.721106	0.24248	0.374014
2011						
Spearman's coefficient	0.769126	-0.575281	-0.392006	-0.200098	0.18134	0.504903
t(N-2)	3.40389	-1.98928	-1.20522	-0.57764	0.52155	1.65445
p-value	0.009307	0.081865	0.262555	0.579395	0.61611	0.136633
2012						
Spearman's coefficient	0.750858	-0.547757	-0.393893	-0.141555	0.19079	0.541603
t(N-2)	3.21554	-1.85181	-1.21209	-0.40445	0.54974	1.82229
p-value	0.012321	0.101196	0.260059	0.696478	1.82229	0.10588

Source: authors' own analysis

VI: Values of Spearman's coefficient of correlation and T-test for subsidiaries

Subsidiaries	NWC/Assets	Debt/Assets	Long Debt/ Assets	Short Debt/ Assets	ROA	Cash Liquidity
2010						
Spearman's coefficient	0.096785	0.906723	0.433348	0.599558	0.414955	-0.633080
t(N-2)	0.44562	9.85265	2.20350	3.43298	2.08999	-3.74782
p-value	0.660434	0.000000	0.038859	0.002497	0.048967	0.001185
2011						
Spearman's coefficient	0.37719	0.844643	0.505763	0.351472	0.59251	-0.93037
t(N-2)	1.86636	7.23038	2.68665	1.7204	3.3706	-11.6289
p-value	0.076019	0.000000	0.013812	0.100061	0.00289	0.000000
2012						
Spearman's coefficient	0.346371	0.689208	0.269849	0.494816	0.414535	-0.837860
t(N-2)	1.69200	4.359	1.2842	2.6094	2.0874	-7.0336
p-value	0.105430	0.000275	0.213044	0.016376	0.04922	0.000001

Source: authors' own analysis

proportion to the structure of financing resources. Tabs V. and VI. show the calculated results.

The bold-face values are correlations between the level of cash-flow management and the given indicator which are statistically significant at a 5-percent level. We will refer to this table in the following text.

In holders, a direct correlation was proved between the net working capital amount and the cash flow management extent. The net working capital (NWC) measures the volume of long-term resources used by the company to finance its operating needs. Some authors consider it is the main factor influencing the keeping the company's solvency (Altman, 1968; Deakin, 1972; Lin, Liang, Chen, 2011; Ohlson, 1980; and others). Its long-term insufficient level leads to problems with the payment of debts. On the other hand, a high proportion of net working capital in overall costs (or assets) entails higher financing costs. In such a case, the owners of the companies lose interest in increasing this indicator and start

to reduce it. According to the latest research, in the Czech companies, the NWC proportion in assets or sales is lower than in companies abroad (Kislingerová, Artlová, 2012; Režňáková, Svoboda, Polednáková, 2010). Tab. VII shows the values of this indicator for the research sample.

The net working capital in holders ranges between 21.3% and 32.9% of the total value of assets. In the subsidiaries, on the other hand, the average value of this indicator is negative every year. This unequivocally confirms hypothesis No. 2.

In the subsidiaries, for all the years, an indirect correlation has been proved between the cash liquidity and management level (see Tab. VI). This

VII: Net working capital to assets Ratio

	2010	2011	2012
Holders	21.33%	28.54%	32.94%
Subsidiaries	-9.79%	-2.83%	-1.10%

Source: authors' own analysis

VIII: *Financial ratios: Debt ratio and return on assets*

	Debt Ratio			Return on Assets		
	2010	2011	2012	2010	2011	2012
Holder	39.77%	42.51%	41.59%	6.78%	9.50%	10.66%
Subsidiaries	50.88%	54.65%	61.27%	1.89%	3.82%	1.16%

Source: authors' own analysis

means that, the more efficiently a company manages its cash flow, the lower value of this indicator is achieved. Generally, low liquidity is considered a sign of an aggressive financial strategy entailing a higher risk of bankruptcy. In the case of a holding company, the cash level is systematically minimized in the subsidiaries being transferred into a joint account managed by the holder. This corroborates hypothesis No. 1.

A straightforward implication of the research is that holding companies purposefully control the amount of money transferring it between individual subsidiaries. Money is taken away from the subsidiaries to be accumulated by the holder, which then decides about its re-allotment. This is often done as short-term loans, which confirms the correlation between the way specific tools of financial control of the holding company are used and the total and short-term indebtedness of the subsidiaries.

The test has proved decisively that there is a direct correlation between debt to assets and the level of cash flow management: better coordinated cash flow management entails more debt in subsidiaries. According to ratios, some subsidiaries are overburdened with debt with low equity. If such subsidiaries were to operate on their own, such debts would face considerable risks. The suppliers would hardly extend trade credit, the lenders would demand the repayment of their receivables. With the subsidiaries of a holding company, the high debt rates are purposeful. The potential risk of high debt is eliminated by the mutual guarantee for obligations. These deliberate high debt rates and transfers of cash between companies make it possible to achieve a performance per unit of capital invested higher than in the case of individual undertakings. This causes a relative decrease in the invested capital by the holding company. Interesting is also the fact that the holders maintain a relatively stable rate of debt while the debt rates of the subsidiaries grow (see Tab. VIII) at a relatively stable rate of bank financing. Holding companies make business mainly among themselves, therefore because of increased debt and stagnation of bank financing must occur to increase the internal debt in the holding. Thus, hypothesis No. 4 can be considered confirmed (see Tab. VI).

Next the correlation was tested between the company's performance as measured by the indicator ROA (i.e. earnings before interest and tax to assets) and the cash flow management. The ROA indicator makes it possible to measure

both the performance of a company and the volume of capital invested. The calculation clearly indicated a direct correlation between the factors in subsidiaries. However, this correlation was not confirmed in holders although the profitability of assets increased every year mostly in holders.

The performance growth in holders corresponds with the conclusions made by Hanousek, Kočenda, and Mašika (2012), who found out that concentrated ownership in commercial enterprises influences their performance positively.

CONCLUSION

The research of holding companies aimed to identify the reasons for companies grouping, identify the impacts and determine the correlation between the level of association and the performance of the companies. The information necessary was obtained through a questionnaire enquiry and interviews as well as by analyzing the financial statements and other documents describing the relationships between the companies in question.

The interviews confirmed the main benefits of a holding company, improved cash flow management. The most frequent cash flow management tools include loan agreements, internal factoring, dividend payment in favour of the holder, using of transfer price, and cash pooling with the subsidiaries' cash concentrated in a joint account and transferred from active companies to those with a temporary deficit.

The holders, which manage their cash flows more efficiently, operate with a higher net working capital. Towards their subsidiaries, they adopt an aggressive strategy causing low levels of net working capital. Thus, the subsidiaries operate with a lower net working capital. This leads to a drop in the capital invested, less expensive financing, and increased performance of the holding companies.

Forty-two percent of the respondents thought of the factor of decreased volume of capital invested as decisive. As a consequence of the above-mentioned possibility to transfer cash between subsidiaries, there is less need of the capital invested and bank loans.

The most important effect of holding organizational structure is thought to be a better negotiating position with business partners. When negotiating, subsidiaries can be looked upon as representing the entire holding company. This is effective despite the subsidiaries being independent entities guaranteeing alone for their obligations

and not putting in danger the owners in the event of a failure. The ownership structure of a holding company significantly reduces liability risk diversifying the overall business risk.

On the other hand, the research has shown that the total tax burden of the subsidiaries did not diminish as expected. This was because the continual coordination of revenues and costs between the participating companies was not sufficient.

Part of the research consisted of determining the correlation between the effective cash level management as an indicator of the degree of association of the subsidiaries and the company performance indicators of the value driver category. A direct correlation was proved between the extent

of cash flow management and the amount of the net working capital of the holders. In the category of subsidiaries, a direct correlation was proved between:

- level of cash flow management and debt rate,
- level of cash flow management and profitability of a company.

Indirect correlation was in turn found between the level of cash flow management and the liquidity of the subsidiaries.

The authors admit a limited applicability of the results obtained due to the size of the sample. However, because of the difficulties in collecting the sample data, the research is the first of the kind to be published in the Czech Republic.

SUMMARY

Research of the company performance shows that it is in direct proportion to the size. A larger size of companies may be achieved by joining the capital of independent commercial undertakings in a closely tied group. This paper presents the results of a research project focusing on holding companies.

The research aims to describe and analyze the purposes of and reasons for holding companies, their benefits as seen by the company managers, and identify the synergic effects of the grouping. Another objective of the research is to find out about a possible correlation between the level of association of the companies and their performance. The authors presume that the level of association can be judged by the way the cash flow management works.

The research was carried out in two stages. At the first stage, a questionnaire enquiry was done along with interviews with the respondents. Next the secondary resources such as financial statements were analyzed. This aimed to identify possible synergic effects of the grouping of companies. To this end, relationships were analyzed between the extent of efficient cash flow management and the company performance indicators of the value generator category, that is, net working capital, cash liquidity, structure of financing resources.

During the interviews, the respondents saw the key benefits of a holding company in improved cash flow management, reduced volume of the capital invested, improved negotiating position of the holding company, and diversified risk (reduced liability risk). Tax savings were not achieved as expected.

The analysis of the secondary data showed that there was a direct correlation between the level of cash flow management and the NWC amount of the holders. In the category of subsidiaries, a direct correlation was proved between the profitability of companies and the extent of cash flow management as well as between the debt rate and level of cash flow management. Indirect correlation was in turn proved between the level of cash flow management and the liquidity.

REFERENCES

- ALTMAN, E. I., 1968: Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. *The Journal of Finance*, 23, 4: 589–609. ISSN 1540-6261.
- BUUS, T., 2007: *Oceňování koncernů*. Dissertation. Praha: Vysoká škola ekonomická v Praze, Fakulta financí a účetnictví, 212 s.
- CAMERINELLI, E., 2010: Trends in cash, liquidity and working capital management automation: The role of technology. *Journal of Corporate Treasury Management* [online], 3, 2: 141–148. [cit. 2010-8-29]. ISSN 1753-2574.
- CARTWRIGHT, S. and SCHOENBERG, R., 2006: Thirty Years of Mergers and Acquisitions Research: Recent Advances and Future Opportunities. *British Journal of Management*, 17, S1: S1–S5. ISSN 1467-8551.
- DAMODARAN, A., 2012: *Investment valuation: tools and techniques for determining the value of any asset*. 3rd edition. Hoboken, N. J.: Wiley. 974 s. ISBN 9781118011522.
- DEAKIN, E. B., 1972: A Discriminant Analysis of Predictors of Business Failure. *Journal of Accounting Research*, 10, 1: 167–179. ISSN 1475-679X.
- FICBAUER, D., 2013: *Specifika finančního řízení holdingů*. Dissertation. Brno: Vysoké učení technické v Brně, Fakulta podnikatelská. 139 s.
- HANOUSEK, J., KOČENDA, E., MAŠIKA, M., 2012: Firm Efficiency: Domestic Owners, Coalitions,

- and FDI. *Economic Systems*, 36, 4: 471–486. ISSN 1211-3298.
- HEBÁK, P. et al., 2007: *Vícerozměrné statistické metody*. 2nd edition. Praha: Informatorium. 272 s. ISBN 978-80-7333-001-9.
- KARAS, M. and REŽŇÁKOVÁ, M., 2013: Bankruptcy Prediction Model of Industrial Enterprises in the Czech Republic. *International Journal of Mathematical Models and Methods in Applied Sciences*, 7, 5: 519–531. ISSN 1998-0140.
- KHANNA, T. and YAFEH, Y., 2005: Business Groups in Emerging Markets: Paragons or Parasites? *ECGI - Finance Working Paper*, No. 92/2005.
- KISLINGEROVÁ, E. and ARTLOVÁ, M., 2013: Forecasting the Number of Insolvency Petitions and Bankruptcies for 2013–2014. *Proceedings of the 6th International Scientific Conference „Finance and the Performance of Firms in Science, Education and Practice“*. Zlín: Tomáš Bata University in Zlín. pp. 336–347. ISBN 978-80-7454-246-6.
- KOČENDA, E. and HANOUSEK, J., 2012a: State Ownership and Control in the Czech Republic. *CESifo Working Paper Series No. 2801*, 45, 3: 157–191. ISSN 1573-9414.
- KOČENDA, E. and HANOUSEK, J., 2012b: Firm Break-up and Performance. *Economics of Governance*, 13, 2: 121–143. ISSN 1435-6104.
- LA PORTA, R., LOPEZ DE SILANES, F. and SHLEIFER, A., 1998: Corporate Ownership Around the World. *Harvard Institute of Economic Research Paper*, No. 1840.
- LIN, F., LIANG, D. and CHEN, E., 2011: Financial ratio selection for business crisis prediction. *Expert Systems with Applications*, 38: 15094–15102. ISSN 0957-4174.
- MACHOŇ, L., 1997: *Koncern, jeho cíle, organizační a řídicí struktura*. 1. vyd. Praha: VŠE. 88 s. ISBN 80-7079-224-8.
- MAREK, P. et al., 2009: *Studijní průvodce financemi podniku*. 2. vyd. Praha: Ekopress. 634 s. ISBN 978-80-86929-49-1.
- MAŘÍK, M. et al., 2011: *Metody oceňování podniku: Proces ocenění, základní metody a postupy*. 3. upr. a rozš. vyd. Praha: Ekopress. 494 s. ISBN 978-80-86929-67-5.
- NEJVYŠŠÍ KONTROLNÍ ÚŘAD, 2013: Kontrolní závěr z kontrolní akce 12/01. *Věstník nejvyššího kontrolního úřadu*. XXI. ISSN 1210-9703 (Print), ISSN 1804-0608 (On-line).
- NIEMANN, M., SCHMIDT, J. H., NEUKIRCHEN, M., 2008: Improving performance of corporate rating prediction models by reducing financial ratio heterogeneity. *Journal of Banking & Finance*, 32: 434–446. ISSN 0378-4266.
- OESTREICHER, A. and KOCH, R., 2008: Corporate Average Tax Rates Under the CCCTB and Possible Methods for International Loss-Offset [On line]. Available online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1456373.
- OHLSON, J. A., 1980: Financial Ratios and the Probabilistic Prediction of Bankruptcy. *Journal of Accounting Research*, 18, 1: 109–131. ISSN 1475-679X.
- PAVELKOVÁ, D., 2009: *Klastry a jejich vliv na výkonnost firem*. 1. vyd. Praha: Grada, 268 s. ISBN 978-80-247-2689-2.
- REŽŇÁKOVÁ, M. et al., 2010: *Řízení platební schopnosti podniku*. Praha: Grada. 190 s. ISBN 978-80-247-3441-5.
- REŽŇÁKOVÁ, M., SVOBODA, P. and POLEDNÁKOVÁ, A., 2010: Determinants of Capital Structure: Empirical Evidence from Slovakia. *Ekonomický časopis SAV*, 58, 3: 237–250. ISSN 0013-3035.
- SHUMWAY, T., 2001: Forecasting Bankruptcy More Accurately: A Simple Hazard Model. *Journal of Business*, 74, 1: 101–24. ISSN 0021-9398.
- VALACH, J. et al., 1999: *Finanční řízení podniku*. 2. vyd. Praha: Ekopress. 324 s. ISBN 0-86119-21-1.
- WU, Y., GAUNT, C., GRAY, S., 2010: A comparison of alternative bankruptcy prediction models. *Journal of Contemporary Accounting & Economics*, 6: 34–45. ISSN 1815-5669.
- ZIMMERMAN, J. L., 1983: Taxes and Firm Size. *Journal of Accounting and Economics*, 5: 119–149. ISSN 0165-4101.

Contact information

David Ficbauer: daviluci@seznam.cz

Mária Režňáková: reznakova@fbm.vutbr.cz