FINANCIAL ANALYSIS OF URBAN TRANSPORT COMPANIES

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Abstract

Financial analysis is an important part of financial management. Results of financial analysis serve as a base for decision-making of managers, owners and other external interested parties. It represents a set of activities the aim of which is to find out financial situation of a company or a group of enterprises, and evaluate it in a complex way. The paper is focused on financial analysis of county towns' urban transport companies within the Czech Republic between 2011–2015. The goal of the paper is to judge financial health of a group of selected enterprises. Financial analysis is realized as an external financial analysis; it proceeds from publicly available sources (annual reports of urban transport companies). Within its framework basic methods of financial analysis (horizontal and vertical analysis of financial statements and ratio analysis) are used above all. Ratio analysis describes important corporate financial health areas. It tracks profitability of doing business (profitability ratios) and activity (activity ratios) as well as short-term and long-term ability to pay for liabilities (liquidity ratios and leverage ratios).

Key words: financial analysis, urban transport companies, public transport

JEL Code: M19, M21

Introduction

Financial analysis is an important part of financial management. Results of financial analysis serve as a starting point for decision-making executed by managers, owners and other external stakeholders (Kislingerová et al., 2010). A financial analysis represents a set of activities. The objective of these activities is to identify and to evaluate, in a complex manner, financial situation of an enterprise (Blaha and Jindřichovská, 2006; Mrkvička and Kolář, 2006). The objective of a financial analysis is thus to get information about financial health of an enterprise, to identify its weaknesses that could potentially threaten the analysed enterprise in the future, and at the same time to identify strengths that could potentially represent a solid base for this enterprise in the future. The focus of any financial analysis is a short-term financial situation (ability to pay its liabilities in one year horizon) as well as a long-term financial situation (ability to pay for its long-term liabilities). Financial health of an enterprise is also influenced by effectiveness of its operations. Profitability represents a measure of enterprise's ability to create new sources that means to achieve profit with the help of invested capital. The indicators of corporate performance that are often used are return on assets and return on equity (Hall and Weiss, 1967; Kesner, 1987; Capon, Farley and Hoenig, 1990; Kang and Stulz, 1997; Persons, 1999; Athanasoglou, Brissimis and Delis, 2008).

This paper focuses on financial analysis of selected urban transport companies in the period from year 2011 to 2015. Our financial analysis is executed as an external analysis. It is based on publicly available information (annual reports provided by selected urban transport companies for the individual years). The objective of this analysis is to assess financial situation of the selected group of enterprises.

1 Materials and methods

Financial analysis is executed for county towns' urban transport companies (= transport companies of regional towns). These companies have the legal form of "joint stock companies" (a.s. in Czech). 12 urban transport companies are in focus. This financial analysis is executed for a group of selected companies. These companies are selected to be a representative sample for this industry. First, basic methods of financial analysis are applied: a horizontal analysis (as a trend analysis dealing with comparison of changes of individual items on a time sequence) and a vertical analysis (as a percentage based – structural – analysis showing ratio of individual items to the defined base). Both the horizontal and the vertical analyses are based on summary financial statements (balance sheet and profit/loss account) for all selected companies (for instance the item own capital for all selected companies is defined as the sum of own capital of the individual enterprises put into the assessed group).

After this, a ratio analysis is executed (profitability, liquidity, activity and leverage ratios). For this group of companies this analysis is executed in such manner that selected ratios are calculated for the individual urban transport companies and their median is selected as the group's ratio. This chosen approach is based on professional literature – see Kislingerová and Hnilica (2008).

Ratio analysis describes all important enterprise's financial health areas. It tracks profitability of doing business (profitability ratios) and activity (activity ratios) as well as short-term and long-term ability to pay for liabilities (liquidity ratios and leverage ratios). Basic overview of used ratios is presented in Table 1.

Tab. 1: Construction of ratios

Ratio name	Unit	Ratio calculation
Return on assets (ROA)	%	(profit/loss before tax and interest/ total assets) × 100
Return on equity (ROE)	%	(profit after tax / equity) × 100
Return on sales (ROS)	%	(profit after tax / sales) × 100
Current ratio	-	current assets / short-term liabilities
Quick asset ratio	-	(short-term receivables + short-term financial assets) / short-term liabilities
Cash position ratio	-	(cash + bank accounts) / short-term liabilities
Total assets turnover	days	assets / (sales / 360)
Inventory turnover	days	inventory / (sales / 360)
Average collection period	days	receivables / (sales / 360)
Equity ratio	%	(equity / assets) × 100
Debt to equity ratio	-	other sources / equity
Times interest earned ratio	-	profit/loss before tax and interest / interest expenses

Source: authors with utilization of Kislingerová et al. (2010)

The following text summarizes the results of the executed financial analysis.

Results and discussion

In Table 2 basic information about the group of selected companies are presented. Situation in assets and financial resources is always presented as of December 12 of the given year. Information about costs and revenues are always presented for the given year.

Tab. 2: Basic information about the group of enterprises

Indicator (thousands CZK)	2011	2012	2013	2014	2015
Total assets	98 330 879	97 777 214	101 555 775	105 376 712	105 949 291
Out of that:					
Long-term assets	91 658 046	89 643 965	90 464 032	94 977 029	92 377 242
Current assets	6 407 204	7 856 951	10 838 986	10 168 072	13 374 646
Equity	80 623 804	80 452 627	80 298 281	80 677 657	82 438 768
Other sources	16 633 754	16 400 220	20 345 776	23 237 339	22 531 997
Production	20 401 964	19 991 315	20 204 800	20 971 364	21 991 237
Production consumption	10 885 552	10 595 253	10 624 142	9 960 380	9 800 450
Added value	9 522 831	9 404 596	9 589 355	11 022 001	12 205 649
Profit/loss from ordinary activity	1 121 902	- 174 732	- 237 855	614 859	1 592 220
Profit/loss of current accounting period	1 121 902	- 167 122	- 220 016	611 443	1 593 051

Source: authors with utilization of annual reports for the group of enterprises on Justice.cz (n.d.)

In the period 2011 – 2015 the assessed enterprises reported increases in assets. The only exception was year 2012 where the total assets declined approximately by 0.5 billion CZK. This decline was caused by reduction of long-term assets (depreciation, or sale of not needed assets). Year 2013 was connected with new investments. Assets increased by about 4 billion CZK. However, that was caused by, in particular, an increase in current assets (short-term financial assets and short-term receivables). This group of enterprises increased its investments the most in year 2014, in the total amount of 4.5 billion CZK.

The structure of assets had been changing during the observed period. Long-term assets had the highest percentage share in the total assets, despite the fact that this share had declining trend (in year 2011 it represented 93 % of the total assets value, while in year 2015 it represented 87 % of the total assets value). Current assets had continuously grown and they represented larger and larger share in assets (in year 2011 it represented 7 % of the total assets value, in year 2015 it was already 13 %). As of December 31, 2015 the value of current assets was 13.4 billion CZK. This was by about 7 billion CZK more then was the situation of current assets as of December 31, 2011. The highest share in this increase represented short-term financial assets, the value of these assets had increased by 8 billion CZK in the observed period. The second most important element of current assets was short-term receivables. They represented 13 % of current assets in year 2015.

During the observed period also the manner of assets financing had been changing. As of December 31, 2011 equity of the group of enterprises represented 82 % of the total financial resources. As of December 31, 2015 the share of equity declined to 78 % despite the fact that for year 2015 (the only year) equity increased by about 2 billion CZK. This percentage decline was caused by the fact that during the observed period other sources increased by about 6 billion CZK. During the observed period the highest participation of other sources was reported as of December 31, 2014 (22 % of total liabilities). The observed companies used majority of other sources in the form of short-term liabilities and in the form of bank loans. While short-term bank loans represented less than 2 % of the total other sources in the observed period, short-term liabilities represented, for instance as of December 31, 2013, up to 59 % of other sources. The group reported the highest level of short-term liabilities as of December 31, 2014, when short-term liabilities represented 13.6 billion CZK and that represented nearly 13 % of the total liabilities of this group of enterprises.

For the period 2012–2015 this group of enterprises reported increase in production (revenues from own products and services). This reported increase was by 1 % (year on year between 2012 and 2013), by 3.8 % (year on year between 2013 and 2014) and by 4.9 % (year on year between 2014 and 2015) respectively. Increase in production in years 2014 and 2015 was accompanied by decline in production consumption. Production consumption had declined from 2011 to 2015 by about 11 % while production, in the same period, had grown by 7.8 %. Thanks to that during 2013–2015 added value grew. Added value grew year of year by 15 % (between 2013 and 2014), by 10.7 % (between 2014 and 2015) respectively. During the entire observed period added value grew by 2.7 billion CZK. The group of enterprises managed to increase production while at the same time it declined costs of consumed materials, energy and services.

For year 2012 and 2013 the group reported the worst performance. The observed enterprises did not manage to create profit, but, on the contrary, they generated loss in the amount of up to 220 million CZK. This group of enterprises had the best profit/loss after tax for year 2015, it was nearly 1.6 billion CZK. In that year the group generated also the highest revenues from services, these revenues reached nearly 22 billion CZK.

Selected ratios of the ratio analysis for the group of enterprises are summarized in Table 3.

Tab. 3: Ratio analysis

Ratio (median - group of enterprises)	**2011**	**2012**	**2013**	**2014**	**2015**
ROA (%)	0.52	0.31	0.31	0.90	0.69
ROE (%)	0.20	0.05	-0.02	0.67	0.49
ROS (%)	0.71	0.15	-0.12	2.33	1.60
Current ratio	1.49	1.63	1.89	1.95	2.03
Quick asset ratio	1.18	1.36	1.68	1.81	1.90
Cash position ratio	0.68	0.91	1.04	1.23	1.46
Total assets turnover (days)	1810.93	1723.45	1789.42	1729.49	1734.53
Inventory turnover (days)	22.40	18.04	18.28	19.33	19.75
Average collection period (days)	50.60	39.59	40.14	39.48	37.92
Equity ratio (%)	83.42	83.83	81.73	78.58	80.01
Debt to equity ratio	0.18	0.16	0.22	0.26	0.23
Times interest earned ratio	4.80	1.65	2.40	14.33	12.62

Source: authors

Within the framework of ratio analysis firstly development of profitability was observed. Indicators ROA, ROE and also ROS declined between years 2011–2013, they were the worst in year 2013 when ROE and ROS had negative values. In year 2014 the group achieved the best results in the area of profitability: the enterprises jointly with growing revenues focused their attention also to cost management, primarily to the management of production consumption and also of other operational costs. However, this group of enterprises did not manage to upkeep this performance in year 2015.

Current ratio, quick asset ratio and cash position ratio for this group of enterprises had growing character for the entire observed period, the highest values were reached in year 2015. For the period 2012 to 2015 this group of enterprises used rather an average strategy for managing working capital (the values of current ratio fluctuated from 1.6 – 2). In years 2013 to 2015 the values of quick asset ratio were too high (1.6 – 1.9). The values of cash position ratio were high compared to the recommended value (0.2) for the entire observed period. The enterprises kept too high levels of receivables and cash and bank accounts. Their capital was fixed in assets providing low profitability.

Total assets turnover was, during the entire observed period, about stable, with the exception of year 2011 when it reached the value of 1811 days, which is nearly 5 years. Total assets turnover is so high primarily because these assets also include long-term assets that are very expensive with depreciation period longer than 5 years (this covers primarily the relevant fleet vehicles needed for providing transport services of the given regional town). Also other activity ratios (inventory turnover and average collection period) reached the worst values in year 2011.

During the observed period equity ratio was quite stable, it fluctuated from 78 % to 84 %. This group of enterprises had the highest share of equity in year 2012 (83.83 %) and the lowest in year 2014 (78.58 %). This group of enterprises was able to cover, by generated profit, interest expenses (costs of other sources). In years 2014 to 2015 this group of enterprises generated more than 10 times higher profits before tax and interest than were interest expenses.

Based on the outputs from the individual financial analysis methods we can formulate general conclusions for this group of enterprises.

During the observed period (2011–2015) this group of enterprises reported growth in assets, the enterprises invested into long-term assets, and primarily the value of current assets had grown (short-term financial assets). This group of enterprises' assets are on a long-term basis financed by equity, however, the enterprises also, step by step, increase the use of other sources (primarily short-term liabilities).

From 2013 onwards the production of this group of urban transport companies had grown while at the same time production consumption had declined. This trend led, during the observed period, to increase in added value. Since year 2014 the group has generated profits from ordinary activity.

In the area of profitability this group of enterprises achieved the best results in year 2014. However it did not manage to upkeep this performance in 2015. This group of enterprises reported high levels of liquidity. In the period from 2013 to 2015 the values of quick asset ratio and cash position ratio were too high. This group of enterprises had their assets fixed in primarily short-term financial assets and in short-term receivables that means in the lowest profit yielding elements of their assets. Total assets turnover was very long. This happened because these assets included also long-term assets with high acquisition prices and with long depreciation periods. This group of enterprises did not have any problems with indebtedness. The assets of this group of enterprises were financed from 78 % and more by equity.

Conclusion

Certain recommendations for this group of enterprises issue from the results of the horizontal and the vertical analyses as well as from the ratio analysis.

Urban transport companies should rehabilitate their vehicle fleets and they should invest into new vehicles so that urban transport services are provided on an up-to-date technical level. They should do that also with regard to environmental protection requirements issuing from national measures in the area of climate protection. At the same time it is essential to pay attention also to investments into infrastructure and into utilized transport technologies.

With regard to gradually increasing revenues received from provided public transport services it is essential to focus on increasing levels of receivables and also on short-term financial assets. In the area of receivables it is essential to provide for their management so that enterprises do not have receivables after maturity. At the same time it is essential to focus attention on the high level of short-term financial assets. Available financial resources should be invested so that they generate higher profits than are profits generated from bank accounts' deposits.

With regard to financial resources it is essential to provide for optimum ratio between long-term and short-term financial resources. The group utilizes, first of all, financing from own resources that means financing by equity. Equity represents a long-term resource that is usually the most expensive source of financing. In case of urban transport companies where long-term assets represents a significant part of total assets (in year 2015 it was 87 % from the total assets) this method of financing is very appropriate. This manner of financing is and shall be the most advantageous manner of financing for these enterprises and is to be recommended as a way of financing also for the future. In case they shall need to increase the share of other sources in total liabilities, then it is essential to strictly stick to the following strategy: to use long-term financial resources for acquisition of long-term assets and to use short-term financial resources for acquisition of short-term assets.

Added value represents a significant indicator of company performance. The group of enterprises managed, during the observed period, to increase the added value by nearly 3 billion CZK. In order to upkeep this performance trend it is essential to continue to increase revenues from services and also to manage costs, both costs of consumed fuels and energies and costs of services purchased from business partners. In order to generate profits it is also essential to manage other costs items, in particular personnel costs and other operational costs. When other sources are used it is essential to consider the costs of capital.

If these enterprises manage their costs and they further optimize the structure of their assets needed for providing contracted transport services and their assets are financed using adequate financial resources (capital structure is optimized) then relevant and corresponding profitability, return of investments respectively, should be achieved.

In the area of short-term payment ability (that means in the area of management of net working capital) it is essential to recommend to these enterprises to use the so-called “average strategy”. The average strategy means that enterprises keep the value of current ratio in the range from 1.6 to 2.5. In the area of cash position ratio it can be recommended to keep its level at around 0.2 – that means enterprises should have 20 % of short-term liabilities value available in the form of money deposited on bank accounts or in the form of cash. Available funds should be invested in assets that generate higher yields than money deposited on bank accounts.

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