

COMPARISON OF THE LEADING VEHICLE MANUFACTURERS IN HUNGARY AND ROMANIA BASED ON THEIR FINANCIAL POSITION SITUATION

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Abstract: *In the ever-accelerating world of our time, competition is getting larger and stronger, where it is important for managers to make fast and high-quality decisions. Economic analysis helps management to identify and evaluate the factors that affect its operations and effectiveness, thereby ensuring that management is properly informed. In the course of the economic analysis, information is obtained about the actual situation of the company, which helps in making management decisions as well as the activities of the management. However, in addition to understanding the internal processes, it is important to examine the operation of companies with the same activities within the industry, to which results can be compared and, if necessary, strategies can be changed. In the scope of the present study, the aim was to compare the leading vehicle manufacturing companies in Hungary and Romania based on their financial position.*

Keywords: *analysis of financial position; economic analysis; capital strength; liabilities.*

JEL Classification: G30.

1. Literature review

In terms of the scope of the analysis, it can be comprehensive or partial analysis. In the case of a comprehensive or overall analysis, the entire business activity is examined, usually relying on the data of the accounting statement (hence also referred to as statement analysis). Analysis of annual statements helps to identify anomalies and find the sources of problems, but rather it allows the emergence of questions, a more detailed analysis is needed to explore the actual causes (Musinszki, 2014; Fenyves et al., 2019, Béresné, 2017). In a comprehensive analysis, the goal is to explore critical points for further, more in-depth analysis. During the partial analysis, each organizational unit and management sub-process of the company are analysed, i.e. the points that are found problematic during the comprehensive analysis (Blumné et al., 2011).

The analysis of the report is retrospective, as the statement is past-oriented, always containing only the data of the previous year. "Analyses can be performed of the data of the statements very quickly for the past years (Böcskei et al., 2015)". As a result, the analysis of the statement is a relatively simple, fast process, but at the same time requires adequate expertise (Fenyves, 2014). Its aim should be to draw conclusions, which can be helpful in the later stages of the design work (Körmendi – Kresalek, 2006, Orbán - Kiss, 2017, Kerezsi et al, 2018, Kerezsi et al, 2019).

In the analysis of the financial position, primarily the data of the balance sheet are examined, and in addition the studies rely on the information of the notes to the financial statement (Béresné – Darabos, 2016).

According to Musinszki (2014), in the scope of the examination of the property situation the following can be observed:

- the composition of assets and liabilities,
- change in assets (from the previous period to the current period),
- consistency (adjustment) of the maturity of assets and liabilities
- the ratio of certain significant balance sheet entries to each other (provided that the formulated indicators have an economically meaningful content).

In terms of the scope and depth of the analysis, the balance sheet can also be analysed comprehensively and in detail. In the course of the comprehensive analysis, the balance sheet is analysed, trends and significant processes (e.g. how the proportion and value of subordinated, long-term and short-term liabilities developed within liabilities) are observed, i.e. points which are worth paying attention to during the detailed analysis are designated (Musinszki, 2016).

In the course of the detailed analysis, a more thorough analysis of each balance sheet item is performed, focusing on those points that were found “interesting” during the comprehensive analysis, i.e., where negative trends were suspected to be discovered (Böcskei et al., 2015). In the course of the comprehensive analysis, vertical and horizontal analysis can be distinguished, which will be discussed in more detail below.

Vertical balance sheet analysis

In the case of the vertical (structural) balance sheet analysis, the balance sheet is analysed vertically. This means that only the asset side or only the liabilities side is examined.

In the vertical analysis of the asset side, the following can be examined according to Adorján et al. (2011):

- ratio of the most important asset groups (e.g. the ratio of current assets to fixed assets),
- ratio of the (main) asset groups and its change (e.g. fixed assets as compared to total assets)
- composition within asset groups and its change (e.g. the proportion of investments within tangible assets),
- other vertical indicators (e.g. the ratio of purchased inventories).

There are no generally accepted values for the values of individual indicators, as they are also influenced by the nature of the activities of the company, so it is worth comparing the indicators with the data of the previous year or comparing them with other similar activities (Fenyves et al., 2020). At the same time, the composition of assets can provide an answer to the question of how stable or flexible an enterprise is (for example, a large proportion of fixed assets leads to inflexibility), and even by examining the assets, we can determine what the actual activity of the enterprise can be (Musinszki, 2014).

In the case of the vertical examination of the liabilities side, Böcskei - Kádasné (2014) distinguish two groups of indicators:

- debt to equity (i.e. the ratio of debt to equity),

- ratio of the source (main) groups (capital structure indicators) and its change (e.g.: capital strength, indebtedness, capital growth rate)

There are guidelines for the expected values of the liability-side indicators (e.g. the ratio of liabilities is critical over 70%), but the composition of liabilities also helps to get to know the capital strength, viability and debt dependence of the company (Böcskei, 2014, Hegedűs - Zéman, 2016).

In the horizontal balance sheet analysis, indicators are formed “horizontally” from the balance sheet, i.e. asset and liability entries are compared.

By comparing liabilities to assets, the coverage (capital requirement) of assets with liabilities can be determined, while comparing resources to assets results in the asset requirement (coverage) of liabilities (Béhm et al, 2016).

2. Material and method of the study

Successful businesses contribute to the economic growth of a country. In the rapidly and dynamically developing environment of our time, enterprises achieve their results by maintaining, increasing and continuously developing their market competitiveness (Nagy - Tobak, 2016). The aim of the present study is to compare the leading Hungarian and Romanian vehicle manufacturer companies in terms of assets. As the Romanian statements (unlike the Hungarian statements) are not public, the analysis relied on the EMIS database, as this database contains data on many Central and South-Eastern European companies, so it also contains data on Hungarian and Romanian companies. Data from the annual statements of the companies included in the analysis were collected for the last 5 years (2014 to 2018). After collecting the data in a Microsoft Excel spreadsheet software and collecting it in spreadsheets, the software was used to calculate the indicators for assessing the financial situation.

During the selection of the companies to be analysed, the scope of the EMIS database was narrowed based on the NAICS classification system first to Industry (31), then to Automotive and Other Automotive Manufacturing (336), and finally to Road Vehicle Manufacturing (3361). Road vehicle manufacturing (based on the NAICS classification) includes enterprises the primary activity of which is the manufacture of passenger cars, light commercial vehicles and heavy vehicles, and which are exclusively engaged in the manufacture of chassis for motor vehicles (NAICS, 2019). Automotive manufacturing is a key industry for the economy of Central and Eastern Europe, and the countries of the region are significant players in the studied area in the world (Németh - Kőmíves, 2020a; Németh - Kőmíves, 2020b). The role of passenger cars in mobility is not expected to diminish in the near future, despite issues related to the use and replacement of fossil fuels (Harangi-Rákos et al., 2017; Oláh et al., 2017; Popp et al., 2014).

Companies with similar volumes were intended to be compared, therefore companies that could be considered as “leading vehicle manufacturers” were selected from the two countries to be examined, taking into account turnover, total asset value, profit (earnings) and number of employees. Based on the criteria, it was managed to select two companies (one from Hungary, one from Romania) that fulfil the following criteria in the last two years (2017 and 2018):

- their annual net sales revenue is > 1 000 million EUR,
- their total assets (balance sheet total) > 750 million EUR,
- their annual profit is > 20 million EUR,
- number of employees > 2500.

Analysis of the collected data was performed using the most frequently used method for statement analysis, the utilisation of indicators (rate analysis). The analysis of indicators is a common practice in other sectors as well, as Fenyves et al (2017) apply in their work.

3. Analysis of the companies by quartiles

In analysing the financial situation, the study relied mainly on the balance sheets of companies (in some cases also on the notes to the financial statement).

3.1. Analysis of the financial position of Audi Hungaria cPlc

The financial position of Audi Hungaria cPlc was first examined on the basis of the absolute data of the balance sheet, thus Table 1 shows the (simplified) balance sheet of the company in 2014-2018.

The balance sheet total of the company fluctuated slightly in 2014-2016, but in 2017 its value increased significantly (by 66.31% compared to the previous year). This is mainly due to the increase in fixed assets, which is due to the merger mentioned in Section 2.1.1 Audi Hungaria Services cPlc. had a significant portfolio of financial assets, of which it sold its Volkswagen Group Services SA share to Volkswagen AG in 2017, and in connection with this provided a long-term loan to Volkswagen AG in the amount of 3,277,616 thousand EUR. This change is reflected in equity on the liabilities side, as its value increased by 78.46% in 2017.

Table 1: The main categories of the balance sheet of Audi Hungaria cPlc in 2014-2018

Name	Values of the analysed years (thousand EUR)				
	2014*	2015*	2016*	2017	2018
A) Fixed assets	4 170 033	4 088 873	3 715 162	6 609 314	8 077 873
B) Current assets	1 286 259	1 049 755	1 906 905	2 745 491	1 764 374
C) Accrued assets	9 307	5 052	8 362	9 216	11 386
Total assets	5 465 599	5 143 680	5 630 429	9 364 021	9 853 633
D) Equity	3 923 231	4 353 927	4 696 732	8 381 988	8 821 824
E) Provisions	106 680	66 343	60 259	80 341	89 189
F) Liabilities	1 209 141	506 098	460 555	524 604	617 970
G) Accrued liabilities	226 547	217 312	412 883	377 088	324 650
Total liabilities	5 465 599	5 143 680	5 630 429	9 364 021	9 853 633

Source: own editing based on the data of the EMIS database

Assets are dominated by fixed assets; the ratio of current assets to fixed assets is at most 51% in the analysed years. Within liabilities, equity is significant and the value of liabilities relative to equity can be said to be low (except for 2014), as it is only 6-11% (30.82% in 2014).

It can be said that the proportion of fixed assets exceeded 65% in the studied years, thus the business is stable. As a result, current assets accounted for less than 1/3 of the company's assets. The ratio of accrued assets is minimal and results from interest income from the associated company and proportional discounts from turnover expected from suppliers.

Examination of the ratio of fixed assets shows that the ratio of intangible assets has been declining over the years. Between 2014 and 2016, more than 65% of fixed assets were tangible assets, (property, plant and equipment, vehicles, equipment and investment), but after the merger this proportion shifted in favour of fixed assets, due to the long-term loan provided to Volkswagen AG, the amount of which increased further in 2018.

Current assets of the company consisted mainly of inventories and receivables. The value of inventories showed a significant increase in 2018 (52.74%), which is mainly due to the increase in work in progress, semi-finished products and finished products. Receivables fluctuate over time (± 23 -129%), but this does not indicate a more serious problem, as the change was due to fluctuations in receivables from affiliated companies (mainly receivables related to cash pool concern companies). The company had no securities and also tried to keep its financial assets to a minimum, as uncommitted funds do not increase profitability.

During the examination of the liabilities side, the indicators in Table 2 were analysed.

Table 2: Vertical indicators of Audi Hungaria cPlc on the liabilities side

Name	Analysed years				
	2014	2015	2016	2017	2018
Debt to equity	0.39	0.18	0.20	0.12	0.12
Capital strength (%)	71.78%	84.65%	83.42%	89.51%	89.53%
Indebtedness rate (%)	22.12%	9.84%	8.18%	5.60%	6.27%
Ratio of long-term liabilities (%)	0.00%	0.00%	0.00%	0.00%	0.00%
Ratio of short-term liabilities (%)	100.00%	100.00%	100.00%	100.00%	100.00%
Ratio of provisions (%)	1.95%	1.29%	1.07%	0.86%	0.91%

Source: Own editing based on data from the EMIS database and annual statements of the company

The Debt to equity indicator refers to the predominance of equity. A significant part of this was accounted for by reserves (capital, profit, restricted, valuation reserves), as the company's subscribed capital was or remained below 100,000 thousand EUR in the analysed years.

Examining the capital strength, the company can be said to be strongly capital-intensive, as the value of the indicator has been close to 90% in the last two years.

As a result, the trend is also favourable in terms of the level of indebtedness, as it is declining (with the exception of the minimal increase in 2018), far below the critical value of 70%.

The company had no subordinated or long-term liabilities during the studied period, only short-term ones. These were mainly due to debts to suppliers. It was only in 2014 that the company had a liability to a significant associate (726,694 thousand EUR), most of which was owed to Audi AG. The ratio of provisions is also favourable, as it remained below 2%. This was mainly due to warranty obligations, subsequent price changes, indemnities and raw material price risks due to rising energy and raw material prices (based on the Company's notes to the annual statement).

In order to analyse the financial situation more accurately, the assets and liabilities of the company were also compared, thus horizontal indicators were formed (Table 3).

Table 3: Horizontal indicators of Audi Hungaria cPlc

Name	Analysed years				
	2014	2015	2016	2017	2018
Asset coverage ratio I. (%)	94.08%	106.48%	126.42%	126.82%	109.21%
Equity multiplier	1.39	1.18	1.20	1.12	1.12
Net working capital (thousand EUR)	77 118	543 657	1 446 350	2 220 887	1 146 404

Source: Own editing based on data from the EMIS database and annual statements of the company

Based on the horizontal indicators, the equity fully covered the fixed assets from 2015, so the company was able to cover its fixed assets on its own. (Asset coverage ratio II was the same as asset coverage ratio I due to the lack of long-term liabilities). The equity multiplier is a bit low but favourable, as with a unit of equity, the company moved 1.11 to 1.39 units of assets.

Net working capital suggests that an increasing share of current assets was financed from long-term funds as its value increased until 2017. However, in 2018, net working capital decreased by 48.38% due to a 35.74% decrease in current assets and a 17.80% increase in short-term liabilities.

3.2. Analysis of the financial position of Automobile-Dacia SA

The balance sheet total increased steadily, mainly due to the increase in current assets. The ratio of fixed assets to current assets was almost the same (approximately 50-50%). The value of accrued assets is negligible (Table 4).

Based on the examination of the composition of fixed and current assets, it can be said that the proportion of intangible assets is negligible, mainly tangible assets dominated (over 90%), within which real estate, vehicles and machinery predominated. A significant part of the financial assets invested is subsidiary investments, the value of which has not changed over the years.

Table 4: Assets of Automobile-Dacia SA in the 2014-2018 period

Name	Values of the analysed yers (thousand RON)				
	2014	2015	2016	2017	2018
A) Fixed assets	3 672 149	3 410 890	3 765 166	4 465 384	4 435 693
I. Intangible assets	764	681	791	879	1 482
II. Tangible assets	3 393 831	3 134 641	3 488 807	4 188 881	4 159 062
III. Investments and funds	277 554	275 568	275 568	275 624	275 149
B) Current assets	3 472 262	3 964 965	4 181 146	4 625 704	5 553 759
I. Inventories	479 822	515 261	548 719	614 561	606 929
II. Receivables	1 501 952	1 638 398	2 093 962	2 510 970	2 258 945
III. Stocks	0	0	0	0	0
IV. Financial assets	1 490 488	1 811 306	1 538 465	1 500 173	2 687 885
C) Accrued assets	7 512	6 590	6 416	8 283	13 548

Source: Own editing based on the EMIS database and the available annual statements of Automobile-Dacia SA (2016-2018)

Most of the current assets were receivables and financial assets, the share of inventories was 10-14%, more than half of which was raw materials. Receivables in 2014 consisted mainly of trade receivables, but later receivables from affiliated companies became dominant. This company did not have any securities held for trading, but its cash position is relatively high.

Liabilities were also examined using vertical indicators (Table 5).

Table 5: Indicators of the liabilities side of Automobile-Dacia SA

Name	Analysed years				
	2014	2015	2016	2017	2018
Debt on equity	0.94	0.94	1.04	1.09	0.96
Capital strength (%)	51.55%	51.51%	48.93%	47.85%	51.05%
Indebtedness (%)	46.17%	46.26%	49.04%	50.53%	46.85%
Ratio of long-term liabilities (%)	4.92%	4.75%	4.11%	3.52%	3.38%
Ratio of short-term liabilities (%)	95.08%	95.25%	95.89%	96.48%	96.62%
Ratio of provisions (%)	1.40%	1.28%	1.17%	0.94%	1.23%

Source: Own editing based on the EMIS database and the available annual statements of the company

The value of debt on equity is around 1, so the ratio of own and external resources is almost the same. The activity of the company is approximately financed 50-50% from own and external sources. The capital strength of the company is not critical, but it lags behind the values of Audi. Within equity, the value of the subscribed capital since 2015 is 2,541,738 thousand RON (approximately 550,000 thousand

EUR), which gives a declining amount of equity due to the successful operation of the company.

The 45-50% level of indebtedness is not critical either, but it is relatively high. The ratio of long-term liabilities to liabilities is low (3-5%). The ratio of current liabilities is 95-96%, most of which is provided by suppliers, but the company has also incurred liabilities to affiliated parties in the last 4 years. The proportion of the provision is below 2% (not significant), so it does not involve too much risk and uncertainty.

Equity covered fixed assets every year except 2017, but in addition to long-term liabilities, the coverage of fixed assets was also ensured in 2017 by the company's long-term liabilities.

Table 6: Horizontal indicators of Automobile-Dacia SA

Name	Analysed years				
	2014	2015	2016	2017	2018
Asset coverage ratio I. (%)	100.41%	111.48%	103.34%	97.51%	115.13%
Asset coverage ratio II. (%)	104.83%	116.23%	107.60%	101.13%	118.70%
Equity multiplier	1.94	1.94	2.04	2.09	1.96
Net working capital (thousand RON)	332 650	712 042	441 701	189 873	1 025 891
Net working capital (thousand EUR)	74 217	157 375	97 267	40 748	219 964

Source: Own editing based on the EMIS database and the available annual statements of the company

The value of the equity multiplier is close to 2 and it shows that the company is able to move twice its equity as an asset.

The value of net working capital fluctuated very much, but at the same time, it was positive in all the examined years, so it was able to finance a part of the company's current assets with long-term liabilities.

4. In conclusion

The aim of the study was to compare the leading vehicle manufacturers in Hungary and Romania based on their financial position. In the scope of the analysis, Audi Hungaria cPlc. and Automobile-Dacia SA were examined. The assets of the examined enterprises were mainly dominated by fixed assets, but at Dacia the ratio of assets within and over 1 year was almost the same. Within liabilities, Audi was dominated by equity, while the capital of Dacia approximately originated in equal proportions from own and external sources.

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