

ANALYSIS OF RENTABILITY IN COMPANIES OF AUTOMOTIVE INDUSTRY

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Abstract: *The rapidly expanding automotive industry has undergone significant changes during last century and has become a key sector for the development of the world economies. In recent years, the automotive industry feels effects of the global financial crisis. The world leader in the number of produced vehicles were the United States, but this position has been taken over by Japan in 2006. In the United States is still produced the largest number of commercial vehicles, mainly because of the decline in business activity in Europe, which was also a decline in the production of commercial vehicles in the EU. Overall, since 2009 most cars have been made in China, over 23.5% of world production, almost twice as much as in the second country in order Japan in 2010. The aim of the present paper is to analyze the rentability of enterprises in the automotive industry based on publicly available financial statements in the period 2002 – 2011.*

Key words: financial analysis, financial analysis indicators, rentability, automotive industry.

1 INTRODUCTION

To guide the financial situation and assess the financial health of a company are outputs of the financial analysis. Based on financial analysis it is possible to formulate conclusions and proper measures to improve the current situation in the company. Financial ratio characterize the relationship between two accounting items.

2 LITERATURE REVIEW

The term financial health indicates the company's ability to maintain a balance to changing environmental conditions and also in relation to all involved in the business. The financial health of the company is, when the company maintains its own existence and is able to assess the invested capital to the extent that is required by shareholders. The results of the financial analysis differ in enterprises of different industries, because companies have different assets and financial structure, and also the different structure of profit. Financial health requires to achieve sufficient profit, and long-term liquidity, too. Financial analysis is a part of business management and relates with financial management. In theory and in practice, there are a lot of different definitions of financial analysis.

Financial analysis as "material, which sets and evaluate results of the company for the analyzed period, identify and quantify factors which determined them, the progress and results achieved to renew the future and all that compresses the draft measures, the realization of which is to ensure the achievement of business objectives. It is a very effective appliance that enables to review the financial health of the company[1]."

Financial-economic analysis is a systematic

analysis of acquired data contained in the financial statements, and they contain evaluation of the company's past, present and predict future financial conditions [2].

Financial analysis requires a large amount of data input, data and information from different sources and of different nature. To analyze financial statements, the annual report is required, consisting of the profit-and-loss statement, balance sheet and cash flow [3].

The overall objective of the financial analysis is to know the financial health of the company, to identify weaknesses that could cause in the future result in minor or major problems and conversely determine its strengths on which it could base its future activities.

Financial statements does not compare companies in the sector. One of the reasons why it is difficult to make comparisons is that companies do not have the same income. Another reason is that companies have different financial structures [4].

Financial analysis of the company allows knowledge of levels, positioning, development and determinative factors and gives a picture of the financial situation in the past and present (financial analysis "ex-post"), but also allows to forecast the development of the company's financial situation (financial analysis "ex-ante"). Generally, it is retrospective and prospective financial analysis to [5]:

- **Retrospective** financial analysis ("ex-post") is mainly based on the data in the financial statements of the company, trying to clarify the current state, analyze the existing financial position by analyzing the causes that preceded the current state (it is oriented to the past). Basic classification of financial indicators is

based on their division by value region and assessing the financial situation.

- **Perspective** financial analysis ("ex-ante") tries to predict the evolution of the financial situation. This is a look into the future. Its mission is to predict future developments and prevent future financial crises through proper timing of preventive measures.

Assessment of the financial situation of the company is expressed by a set of financial indicators. You must be constructed and arranged so as to reflect all the important parts of the financial situation.

Indicators in the financial analysis

The main tool of the financial analysis is the construction and interpretation of the ratio indicators, difference indicators, which are grouped into logical units of financial analysis. To assess the financial health of the company are used ratio indicators the most.

The reasons for extension of using ratio indicators according are:

- ability to conduct analysis of the temporal evolution of the financial situation.
- proper tool of space analysis.
- can also be used as input to mathematical models that allow to express the dependence between cases, classify states, assess risks and predict future developments [6]. Points out that ratio indicators are indicative. They only serve as a starting base for the adoption of various decisions.

The literature identifies five basic categories of ratio indicators:

- indicators of rentability (profitability).
- indicators of activity
- debt indicators.
- indicators of liquidity.
- indicators of market value of a company.

Ratio financial indicators are generally designed to characterize the ability of the company:

- cope with their short-term liabilities and their confrontation with liquid assets (indicators of liquidity).
- use the property bound to meet profit targets (indicators of activity characterizing reasonable turnaround).
- stably operate in the market (depending on the structure of the financial resources of the company, debt ratios).

- decline consumed and bound inputs of reproduction process (indicators of rentability).

For a long time of using ratio indicators, there have been proposed a lot of indicators. It has been made a specific group by practical using, which enable to create a basic idea of the financial situation of the company. In the present paper we focus on indicators of rentability in companies of the automotive industry in the period 2002 – 2011.

3 ANALYSIS OF THE COMPANY'S RENTABILITY

Analysis of rentability reflects company's profitability. It evaluates the effectiveness of the use of capital employed in the business, irrespective of its source. Its level and development has an influence on the level, development of activity, liquidity and debt.

Indicators of rentability are constructed as the ratio of income trading in relation to a base (e.g. assets, equity capital, costs, etc.). Analysis of rentability primarily pursues the following indicators:

- *Return on Investment - ROI* presents income return of capital employed in the period to business activity, that is the rate of recovery of the capital employed by business activities expressed in %. There can be used EBIT (earnings before taxes) or EBIAT (profit after tax) in the denominator. Return on Investments can be calculated by income trading with cost interest (EBT, EAT).
- *Return on Equity – ROE* is the rate of return on the capital invested by the ownership.

$$ROE = \frac{\text{net profit}}{\text{shareholder equity}}$$

- *Return on Sales – ROS* is as an indicator of a company or an industry profitability. It is mostly used to compare efficiency of the companies among the same sector.

$$ROS = \frac{\text{operating profit}}{\text{total sales}}$$

- *Return on Assets – ROA* is an indicator showing how much profit the company makes out of all assets it controls.

$$ROA = \frac{\text{net profit}}{\text{average total assets}}$$

Values of profitability's indicators should be consistent with efforts to maximize business efficiency as high as possible and in any case positive ones. A

negative value of profitability's indicators is always a loss.

Indicators of profitability are a measure of a business effort to create new resources and make a profit with capital employed. As they are synthetic indicators, levels and the development of other ratio indicators are counted in their level.

4 DATA

The aim of this paper is to analyze a rentability of enterprises in the automotive industry based on publicly available financial statements for the period 2002 – 2011.

The object of our research in this paper are 30 concerns of the automotive industry, that are contained in Table 1. Necessary data has been derived from the financial statements of 30 companies of the automotive industry for the period 2002 – 2011. Baseline data are balance sheet and profit-and-loss statement.

Toyota Motor Corporation	Suzuki Motor Co.	Tata Motors	Brilliance Auto
General Motors Corporation	Renault S.A.	Geely Group	Great Wall Motors
Volkswagen Group	Fiat Group	BYD Auto	Mahindra Group
Hyundai	Daimler AG	Fuji Heavy Industries	AB Volvo
Ford Motor Company	B.M.W. AG	Dongfeng Motor	Jiangxi Jiangling Group
Nissan Motor Co.	Mazda Motor Co.	Isuzu Motors Ltd.	Proton
Honda Motor Company	Mitsubishi Group		M.A.N. AG
PSA Peugeot Citroen	Chana Co.	Isuzu Motors Ltd.	Porsche Automobil

Table 1. Companies of automotive industry [7]

These companies are included in International Organization of Motor Vehicle Manufacturers (OICA). OICA was established in Paris in 1919. This organization is known as the "Organisation Internationale des Constructeurs d'Automobiles" (OICA), and consists of 37 national unions around the world, with 20 of these associations represent major automobile manufacturing countries in Europe, America and Asia.

5 RESULTS

We apply the indicators of rentability observed in the period 2002 – 2011 in this chapter by the research sample of 30 companies of the automotive industry, which are contained in Table 1. We choose

Return on owner's equity (ROE), Return on assets (ROA) and Return on sales (ROS). We follow the development of these indicators for the 30 companies in the period 2002 - 2011.

Profitability of own resources is the ratio, the numerator is the profit after tax in the accounting period, the denominator is the company's equity. The indicator is important for shareholders or for those, who interests in buying shares in a company.

The relationship between Return on assets (ROA) and Return on equity (ROE) shows us advantages of using foreign capital. Return on equity should be at least at the level of the normal interest rate, which can be considered as the minimum rentability.

Return on equity (ROE)

The value of ROE in 30 companies of the automotive industry for the period 2002-2011 takes different values. Return on equity shows how efficiently the company appreciates resources invested into business activities. The best value in 2002 was reached by Chana, almost 25%, and the worst result in this year had the company called Geely, the value of -196%. In 2001, the lowest value of ROE reached Mazda, -14% and the highest value, at 47%, Tata. For a monitored period, the lowest value of ROE reached Geely, and Ford declined its resources effectively the most, the value of 102%.

According to this indicator, it is possible to assess, whether the company manages effectively not only with all capital and reserves, but also with all used resources, such as investments, instruments of payment, etc.

Return on assets (ROA)

Development of indicator ROA shows us one of the strengths of the company and the ability to work effectively with their resources. In the period 2002 – 2011, companies showed values above 10% (the highest value was in the company called Brilliance, 15% in 2011). This result declares the ability of the company to assess its resources.

Return on sales (ROS)

Return on sales gives us information, how big profit must be to make a profit 1 euro. The highest value of Return on sales (ROS) was reached in 2006 in Porsche company, 102 %, so it means, that in the company must create 1,02 euros in sales in order to obtain 1 euro profit.

6 CONCLUSION

Indicators of rentability belong to the most watched indicators of measuring financial analysis in the company, as they reflect the best company's ability to achieve the greatest returns and thus fulfill a basic objective, which is to maximize the market value of the company. The rentability is calculated as the ratio of reached profit of the company to incurred capital to achieve this profit. Achieved profit is profit after tax, after deductions for costs or trading income. In

evaluating, there is necessary to be particular in the influence of the economical law about decreasing profit on scale, and according to this, profit from each additional unit of capital invested will always be smaller than profit from the previous unit of capital. According to this law, rentability of capital stronger companies must be smaller than rentability of capital weaker companies.

Generally, higher and more stable value of ROE is, more successful the company is. That does not mean, that low value of ROE must immediately mean mismanagement because the low ratio of sales to total assets may be due to high investments in fixed capital.

ROA indicator can support a better view on business including utilization company's assets. Due to economic pressure, managers should be able to correctly ask „ What kind of assets are we capable of manage? How can we let someone else to manage the company, while we focus on our own strengths?“

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