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Financial analysis as a business management tool on the example of a company from the energy industry

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ABSTRACT

The elaboration below concerns to explain the essence of financial analysis and its significance for making decisions in the organization. The financial analysis forms part of the economic analysis that deals with the assessment of the financial and economic situation of the company. The empirical part of the study presents a financial analysis of a company belonging to the energy sector, taking into account key indicators that enable its activity to be assessed. The research period covers the years 2014-2016.

***Keywords*:** Financial analysis, enterprise management, enterprise management tools

1. INTRODUCTION

The current economy is characterized by certain specific features such as changing environment, growing competition and responsibility for the actions taken. This causes the need for rational management by entities that are market participants in order to prevent the elimination by competition and bankruptcy, which will result in the end of business.

Appropriate and rational management should be based on up-to-date and reliable information, reflecting the situation of the individual, enabling making rational decisions that

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positively affect the enterprise in the future. It is also necessary to be aware of the volatility of the value of money over time and the occurrence of risk.

The demand for analytical information is growing steadily, and is often perceived as a tool to stay on the market. They are used by managers at various levels and provide knowledge about changes in the environment, the consequences of actions taken and factors that interfere with planned processes and tasks. The financial analysis is a tool used to examine the financial situation and results of the conducted activity, which enables the assessment of economic processes and the identification of relationships between occurring phenomena. (White, G. L., Sondh, A. C., Fried, D. (2005), p. 20).

Making accurate and quick business decisions requires constant inflow of comprehensive and reliable business information. Based on strategic decisions are taken, that is, those that define the basic ones parameters of the economic system, as well as tactical and operational decisions, regarding the current operations of the company and the elimination of undesirable ones deviations from the assumed patterns. Information used in decision-making processes they can be synthetic and analytical. (Richard, P. J., Devinney, T. M., Yip, G. S., Johnson, G., 2009, 718-804). Synthetic information they are processed based on available accounting and analytical tools. Analytical information is used to explain the causes of changes and effects and factors shaping the company's economic results. The economic and financial analysis is perceived as the most important tool research used to control and evaluate the company's operations allowing to present the company's financial situation through the size and indicators economic.

The effects of all decisions made in the company, regardless of the area they concern, focus on the financial aspect. Therefore, they must, in addition to legal, personnel or organizational aspects, take into account the financial criterion. The ability to carry out the right one Substantially and methodically assessing the financial condition of the company is one of the most important premises of management.

The growing importance of financial analysis in managing business entities means that it occupies a high position in the management of the organization and is increasingly recognized as the basis for making decisions.

2. THE ESSENCE OF THE FINANCIAL ANALYSIS

Economic analysis is a tool for learning about phenomena and processes by dividing them into smaller parts and investigating cause-and-effect relations between them (Fernández, P., 2007, 449.). It enables recognizing the course of economic processes in organizations and defining the relationship between them (Schumpeter, J. A., 2006, p 22).

The functioning and development of an enterprise depend on its economic and financial condition and market conditions. Business decisions are significantly affected by decisions made in the process of managing an enterprise. They require a lot of internal and external information that must be collected in a timely manner. Therefore, it is necessary to constantly observe changes taking place in the internal and external environment and to assess their impact on the company's development opportunities (Bierman Jr, H., & Smidt, S., 2012, p. 30).

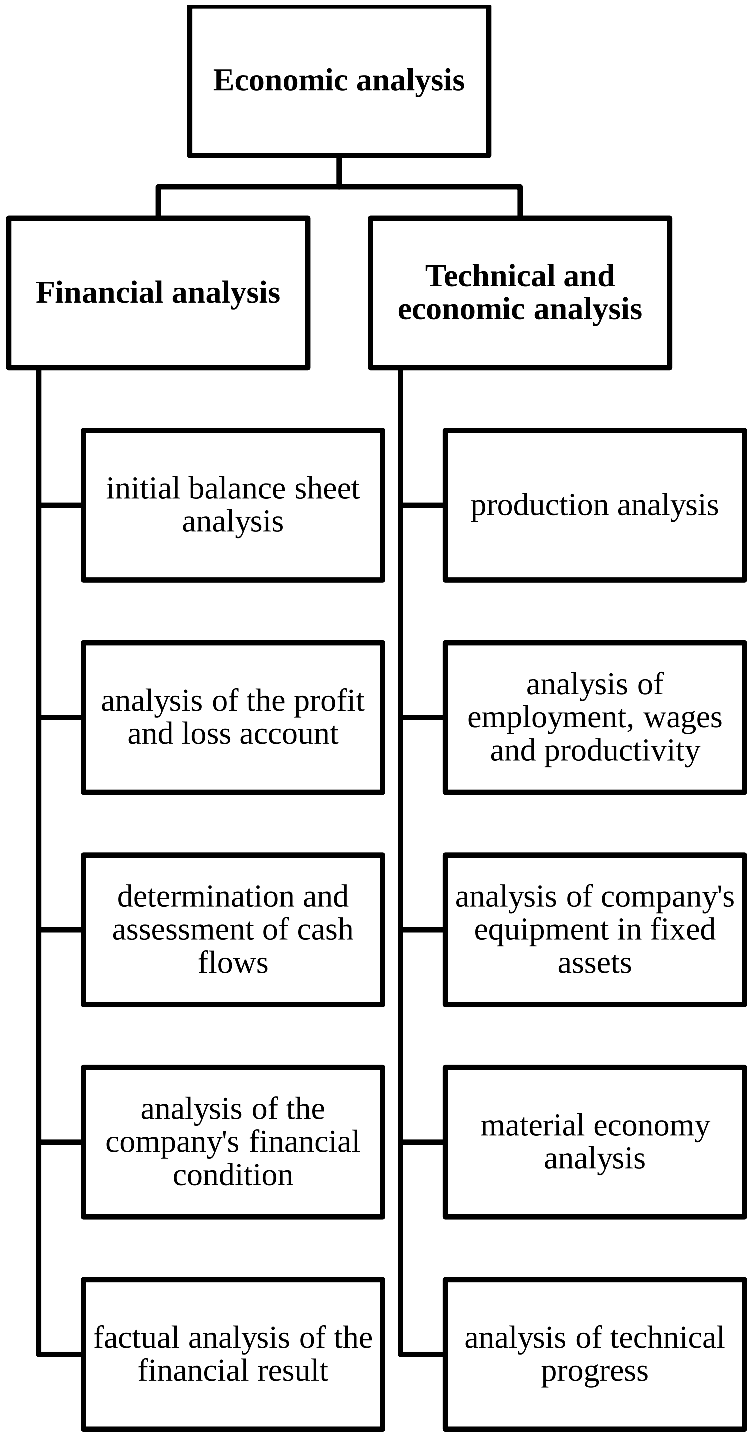

Figure 1. Economic analysis

A company operating in a market economy makes profit-oriented decisions. All activities should be aimed at improving management processes. The dynamic and changing environment of the company will make it more difficult to improve economic efficiency. The rapid changes taking place outside the organization and the rapid development of technology make the decision making process more and more difficult, which is why their undertaking at the management level in the company should be based on full information about the ongoing economic processes. It enables economic analysis of economic activity, which is defined as a set of research activities concerning physical and financial results, economic condition and position on the market as well as organization of processes and methods of operation (Paduszyńska 2017, p. 27-18).

The economic analysis deals with searching for and measuring phenomena occurring in enterprises, as well as determining deviations from specific values and identifying solutions contributing to the proper shape of economic processes (White, G. L., Sondh, A. C., Fried, D., 2004, p. 5):

- Financial analysis,
- Technical and economic analysis,
- Strategic analysis.

In Figure 1, a detailed breakdown of the economic analysis is presented.

Financial analysis deals with the study of phenomena related to the overall activity of the company. It uses metrics to assess the company's operations both in the long-term and in individual short periods (Bell, T. B., Landsman, W. R., & Shackelford, D. A., 2001, pp. 35-43.). An important role in performing the financial analysis is performed by the method of comparison, according to which the size of individual indicators can be compared with the reference base, which can be the values from previous periods or the values postulated (Orlitzky, M., Schmidt, F. L., & Rynes, S. L., 2003, pp. 403-441.).

The basic source of information being the basis for making decisions are financial statements. They are prepared on a monthly and annual basis. The form of financial statements is specified in legal regulations. The balance sheet and profit and loss account are used for statistical analysis of the company's financial results (Cornett, M. M., McNutt, J. J., Strahan, P. E., Tehranian, H., 2011, pp. 297-312.). The financial statements consist of (Diamond, D. W., Rajan, R. G., 2001, pp. 287-327):

- balance sheet,
- profit and loss account,
- additional information including the introduction to the financial statements and additional information and explanations.

The financial statement is an important tool used to conduct financial analysis. It should be characterized by transparency, understandability and, above all, timeliness of information. The financial analysis should use financial statements from different periods to ensure comparability of data and the possibility of reference to similar periods from previous years.

4. FINANCIAL ANALYSIS OF THE ENTERPRISE X

The scope of the state's influence on the economy may be diverse. It determines economic development and the rate of economic growth, as well as affects the most important factors of economic growth (natural resources, labor, capital and technological progress, determining the productivity of the use of the previous three factors).

From an economic point of view, the state can be analyzed in two dimensions. In the first, as an economic system characterized by the occurrence of economic resources such as labor, capital, natural resources, technological progress, being at the disposal of entities belonging to a given country. In the second institutional dimension, state authorities set the rules for its operation. According to D. North, institutions are established rules of the game, functioning in society or more precisely - all human-defined forms of constraints that shape its behavior and interpersonal relations (Bennedsen, Malchow-Moller, Vintén 2005, p. 7). There are institutional procedures and regulations that define the economic and political structure of the country and set out the basic principles of competition and ownership on the market.

The state system and its features determine collective goals and institutional solutions within which the state's economic policy is carried out. The intensity and scope of the state's influence on the economy is often the result of adjustment processes in the field of political and economic integration, eg within the framework of Poland's functioning in the European Union. In today's economy, state control in a market economy is conducted in accordance with legal regulations and institutional requirements (Conejo, A. J., Contreras, J., Espinola, R., Plazas, M. A., 2005, 435-462). Economic regulation is all forms and ways of influencing the behavior of business entities at the disposal of state authority (Jamasb, T., Pollitt, M., 2005, pp. 11-41). Figure 2 presents the structure of the regulation process in Poland.

All forms of state intervention and the use of legal instruments to achieve the objectives of the social and economic policy of the state have a significant impact on the process of marketization of the power industry.

The energy security of the state is one of the priorities in the economy, which is why state interventionism in this area is still significant in Poland.

In recent years, global energy consumption has increased significantly. This growth was accompanied by changes in the structure of global energy consumption as well as the development and changes in the functioning of energy sector enterprises. In order to transform the energy sectors, it is necessary to take into account conditions such as (Zeng, C. L., Zhang, B. H., Xie, P. Y., & CAO, N., 2004, p. 14.) :

- shaping the change process in the energy sector in the long-term perspective (at least 25 years) and on this basis making short-term decisions regarding the energy sector,
- taking into account the behavior of all entities influencing the change in the sector on various scales,
- focusing on learning and drawing conclusions from the analysis,
- quick undertaking of corrective actions in the event of problems with making changes,
- striving to continuously introduce innovations into the system and to improve it, which allows maintaining high standards of the sector's functioning,
- maintaining many options for changes, which allows you to choose the optimal solutions that are most suitable for your situation,
- privatization of enterprises (it is necessary to determine which areas of the sector, due to their strategic importance, should be state-owned and which may be subject to privatization),
- conducting the liberalization of the energy market, allowing the creation of optimal conditions for the operation of enterprises in the sector.

Development on the energy market obligated the enterprises operating on it to use specific tools contributing to effective management and thus appropriate action. (Korpaas, M., Holen, A. T., Hildrum R., 2003, pp. 599-606). Financial analysis is one of these tools.

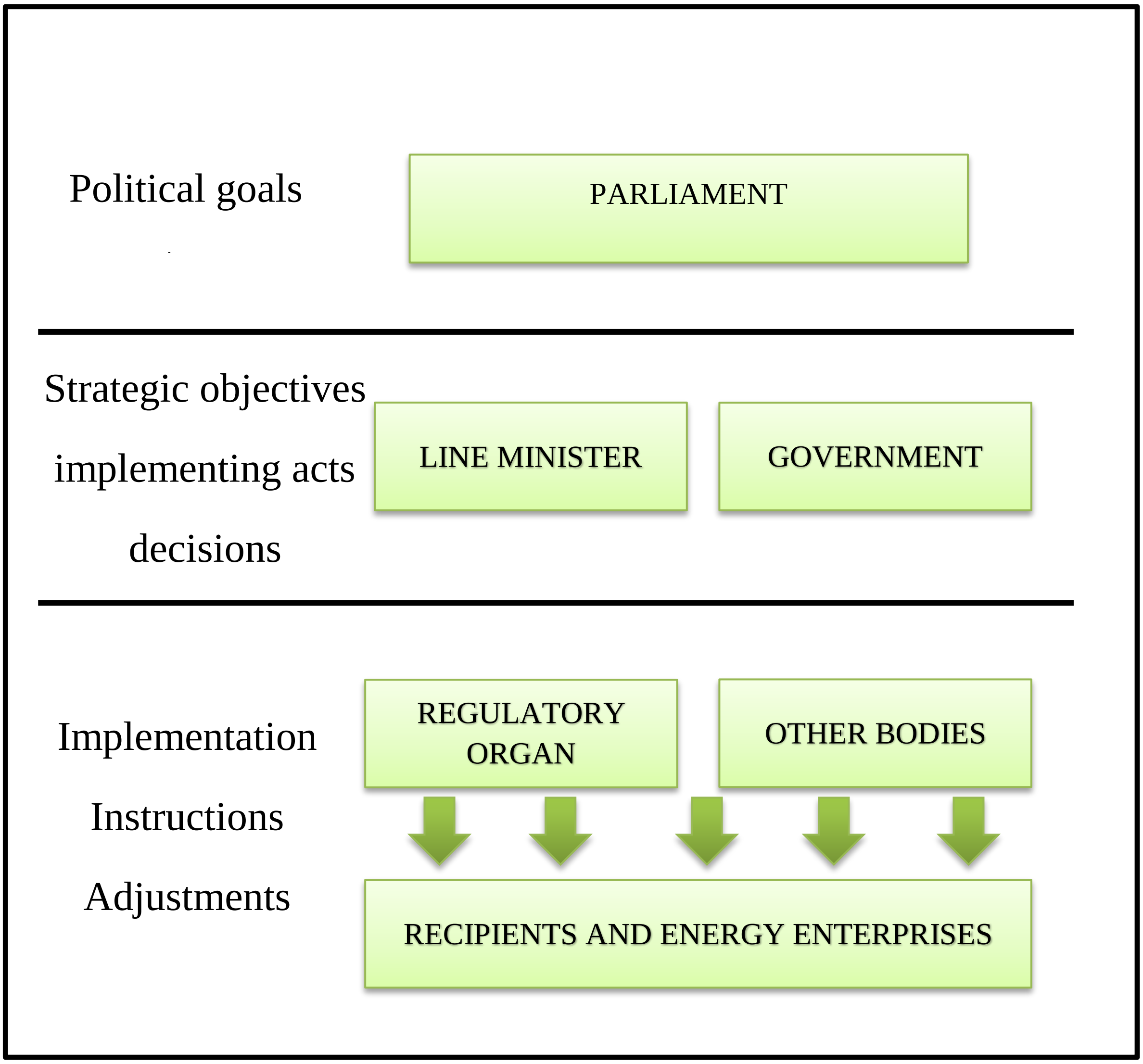

Figure 2. The institutional structure of the regulatory process in Poland
[Source: Dobroczyńska A., Energetyka w Unii Europejskiej. Droga do konkurencji na rynkach energii elektrycznej i gazu, Urząd Regulacji Energetyki, Warszawa 2003, p. 138.]

In the article, the attention was focused on the assessment of the assets and financial position of the selected enterprise based on the data contained in the financial statements (primarily balance sheet and profit and loss account). The applied method of researching the information included in the reports was the ratio analysis. The basic indicators of financial analysis were selected.

$$Golden\ balance\ sheet\ rule\ 2014 = \frac{equity\ capital}{fixed\ assets} = \frac{16523681}{17224617} \times 100\% = 0{,}96 \times 100\% = 96\%$$

$$Silver\ balance\ sheet\ rule\ \ 2014 = \frac{equity\ capital + long - term\ liabilities}{fixed\ assets} = \frac{16523681 + 848392}{17224617} \times 100\% = 1{,}01 \times 100\% = 101\%$$

The company does not meet the golden balance sheet rule. Non-current assets are covered by equity in 96%, but they meet the silver balance sheet rule. Non-current assets are fully covered by fixed capital.

$$Financial\ liquidity\ index\ 2014 = \frac{current\ asset}{current\ liabilities} = \frac{1220568}{1073112} = 1{,}14$$

The current liquidity index is 1.14 and is slightly lower than the optimal ratio of 1.2-2. This may mean that the company has problems with financial liquidity.

$$Quick\ financial\ liquidity\ ratio\ 2014 = \frac{current\ asset - stocks - accrual}{current\ liabilities}\ 2014 = \frac{1220568 - 9238 - 2822}{1073112} = 1{,}13$$

The quick financial liquidity ratio is 1.13. It is close to 1 and slightly different from the current financial liquidity indicator, which means that it is correct. This means that the company has no excess inventory or does not store money in bank accounts

$$Cash\ liquidity\ ratio\ 2014 = \frac{short - term\ investments}{current\ liabilities} = \frac{573977}{1073112} = 0{,}53$$

The cash liquidity ratio is 0.53. It is quite low, which means that the company would be able to cover a low percentage of current liabilities from the most liquid assets of current assets.

$$Debt\ ratio\ 2014 = \frac{total\ liabilities}{total\ assets} = \frac{1921504}{18445185} = 0{,}1$$

The general debt ratio is 0.1 and is very low, which indicates low debt of the enterprise.

$$Debt\ equity\ ratio\ 2014 = \frac{total\ liabilities}{equity\ capital} = \frac{1921504}{16523681} = 0{,}12$$

The debt equity ratio is 0.12 and is also low, which means that the company is able to cover a large part of its liabilities with equity.

$$The\ net\ return\ on\ sale\ (ROS)\ \ 2014 = \frac{the\ net\ profit}{the\ net\ sales} \times 100\% = \frac{190478}{7185271} \times 100\%$$
$$= 0{,}0265 \times 100\% = 2{,}65\%$$

The net return on sale (ROS) is 2.65% low, which means that a large sales value has to be realized for profit and that the company has achieved a low return on sales revenue.

$$The\ return\ on\ assets\ ratio\ (ROA)\ 2014 = \frac{the\ net\ profit}{total\ assets} \times 100\%$$
$$= \frac{190478}{18445185} \times 100\% = 0{,}0103 \times 100\% = 1{,}03\%$$

Return on assets is 1.03%. It is low which means that there is a small asset's ability to generate profits and the company could better manage its assets.

$$The\ return\ on\ equity\ (ROE)\ 2014 = \frac{the\ net\ profit}{equity\ capital} \times 100\% = \frac{190478}{16523681} \times 100\%$$
$$= 0{,}0115 \times 100\% = 1{,}15\%$$

Return on equity is 1.15%, also low, which means that the company has a low ability to earn a profit from capital. The rule ROE> ROA> ROS is not met.

$$Golden\ balance\ sheet\ rule\ 2015 = \frac{17341198}{21386633} \times 100\% = 0{,}81 \times 100\% = 81\%$$

$$Silver\ balance\ sheet\ rule\ \ \ 2015 = \frac{17341198 + 4140327}{21386633} \times 100\% = 1{,}004 \times 100\%$$
$$= 100{,}4\%$$

The company does not meet the golden financial rule. Non-current assets are covered by equity in 81%, while they meet the silver financial rule, fixed assets are fully covered by capital. The percentage of covering fixed assets with equity is smaller than in the previous year. Also, long-term liabilities increased significantly and increased fixed assets, which may mean that the company probably covered some of the fixed assets from the loan.

$$Financial\ liquidity\ index\ \ 2015 = \frac{current\ asset}{current\ liabilities} = \frac{1436421}{1341529} = 1{,}07$$

The financial liquidity index is 1.07 which is lower than the limit of 1.2-2, which means that the company has little trouble with financial liquidity. This indicator also decreased compared to the previous year, which means that the company deteriorated its financial liquidity.

$$Quick\ financial\ liquidity\ ratio\ 2015 = \frac{1436421 - 41028 - 852}{1341529} = 1{,}04$$

The quick financial liquidity ratio is 1.04 close to 1 and slightly differs from the current liquidity ratio, which means that it is correct, but is lower than in the previous year.

$$Cash\ liquidity\ ratio\ \ 2015 = \frac{332103}{1341529} = 0{,}25$$

The cash liquidity ratio is 0.25 is low which means that the company would be able to cover a low percentage of current liabilities from short-term investments. It is lower than in 2014 because of a decrease in short-term investments and an increase in current liabilities. These funds could have been spent on supplies because they increased.

$$Debt\ ratio\ \ 2015 = \frac{5481856}{22823054} = 0{,}24$$

The general debt ratio is 0.24 and is low, which indicates a low indebtedness of the enterprise, however, it is higher than in 2014, which means that the debt has increased. This may be due to the increase in assets purchased from foreign capital.

$$Debt\ equity\ ratio\ \ 2015 = \frac{5481856}{17341198} = 0{,}32$$

The debt equity ratio is 0.32 and is low, which means that the company is able to cover a large part of its liabilities with equity. However, it is higher than in 2014, which is due to the increase in liabilities.

$$The\ net\ return\ on\ sale\ (ROS)\ \ \ 2015 = \frac{1086093}{8845148} \times 100\% = 0{,}12 \times 100\% = 12\%$$

The net return on sale is 12% is much higher than in 2014, which means that the value of sales realized to achieve profit decreased. This is due to a significant increase in the company's profit.

$$The\ return\ on\ assets\ ratio\ (ROA)\ \ 2015 = \frac{1086093}{22823054} \times 100\% = 0{,}05 \times 100\% = 5\%$$

The return on assets is 5% and has increased, which means that the ability of assets to generate profits has also increased.

$$The\ return\ on\ equity\ (ROE)\ 2015 = \frac{1086093}{17341198} \times 100\% = 0{,}06 \times 100\% = 6\%$$

Return on equity is 6% and is also higher than in 2014, which means that the company has increased the ability to earn a profit from capital.

$$Golden\ balance\ sheet\ rule\ \ 2016 = \frac{18042008}{22997644} \times 100\% = 0{,}7845 \times 100\% = 78{,}45\%$$

$$Silver\ balance\ sheet\ rule\ \ 2016 = \frac{18042008 + 5280856}{22997644} \times 100\% = 1{,}0141 \times 100\% = 101{,}41\%$$

The company does not meet the golden financial rule. Non-current assets are covered by equity in 78.45%, less than in previous years. The long-term liabilities also increased which means that the company financed fixed assets from foreign capital. The silver financial rule is fulfilled.

$$Financial\ liquidity\ index\ \ 2016 = \frac{current\ asset}{current\ liabilities} = \frac{2760425}{2435205} = 1{,}13$$

The current liquidity index is 1.13 is slightly lower than the index in 2014, but higher than the index in 2015, which means that the company improved its financial liquidity. Still, this indicator is lower than the indicator in the range of 1.2-2.

$$Quick\ financial\ liquidity\ ratio\ \ 2016 = \frac{2760425 - 176172}{2435205} = 1{,}06$$

The quick financial liquidity ratio is 1.06, it is close to 1 and slightly different from the current financial liquidity ratio, so it is correct.

$$Cash\ liquidity\ ratio\ 2016 = \frac{1123769}{2435205} = 0{,}46$$

The cash liquidity ratio is 0.46 and is quite low, which means that the company would be able to cover a low percentage of current liabilities from short-term investments.

$$Debt\ ratio\ \ 2016 = \frac{zobowiązania\ ogółem}{aktywa\ ogółem} = \frac{7716061}{25758069} = 0{,}3$$

The general debt ratio is 0.3 and is low, however, higher than in 2014 and 2015 which reflects the increasing indebtedness of the enterprise. This is most probably related to loans for the purchase of assets.

$$Debt\ equity\ ratio\ \ 2016 = \frac{7716061}{18042008} = 0{,}43$$

The debt equity ratio is higher of 0.43 than in 2014 and 2015, however, it is low, which means that the company is able to cover a large part of its liabilities with equity.

$$The\ net\ return\ on\ sale\ (ROS)\ \ 2016 = \frac{1435188}{9889872} \times 100\% = 0{,}15 \times 100\% = 15\%$$

Return on net sales is 15% higher than in 2014 and 2015, which means that the value of sales realized to achieve profit decreased. This is very beneficial for the company and increases profit.

$$\text{The return on assets ratio } (ROA) \quad 2016 = \frac{1435188}{25758069} \times 100\% = 0{,}056 \times 100\% = 5{,}6\%$$

Return on assets is 5.6% and is higher than in 2014, 2015, which means that the ability of assets to generate profits has also increased and the company is managing its assets more and more.

$$\text{The return on equity } (ROE) \quad 2016 = \frac{1435188}{18042008} \times 100\% = 0{,}0795 \times 100\% = 7{,}95\%$$

Return on equity is 7.95% and is also higher than in 2014 and 2015, which means that the company has increased the ability to earn a profit from capital.

5. CONCLUSIONS

As can be seen from the examples cited, the general situation in the enterprise is good. None of the indicators differs significantly from the norm. The company has low debt ratios. The profitability of sales of property and equity increases year by year, which will result in an increase in the company's profit. Financial liquidity, although also in the norm, may be a problem for the company.

The profitability of sales in the Company increases year by year, which indicates the profitability of sales. Sales profitability has a positive impact on the company as it not only allows you to cover the costs of running the company, but also to save money for further development. The systematic increase in the ROS indicator shows that the current business is becoming more and more efficient, thanks to which a company can obtain smaller sales volumes to achieve a certain amount of profit. However, the company should constantly strive to increase the profitability of sales because the higher it is, the more stable the situation of the company is, and there is a greater chance of survival in the event of the need to lower the prices of products or increase the company's costs.

The company's problem may be low financial liquidity, the current liquidity ratio fluctuates around 1. Thus current assets barely cover current liabilities. The decrease in the current liquidity ratio may be a symptom of payment difficulties in the enterprise. A low ratio means that the company is operating day by day and does not have sufficient cash resources to settle its current liabilities. The quick financial liquidity ratio is within the norm, but its level is not satisfactory, if the company does not increase its liquidity, it may have problems with settling current liabilities without having to change cash inventories, which may not be sufficient because in the analyzed company the level of inventories does not it's too high. On the other hand, the cash liquidity ratio fluctuated significantly, when in 2014 more than half of current liabilities could be covered immediately, in 2015 this value fell by more than a half, but in 2016 almost half of the liabilities could be settled without delay.

However, the lack of funds on the account does not mean the loss of financial liquidity by the company, especially when it is guaranteed a regular cash inflow from the collected receivables.

The surveyed organization is not a heavily indebted company, however, the indicators grow year by year, which may indicate a gradual increase in debt, and an increasing share of foreign capital in financing the company's assets. The gradual increase in the equity ratio apart from the increase in the level of indebtedness informs us of the growing share of foreign sources of financing in relation to its own

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