COMPARATIVE ANALYSIS OF PERFORMANCE INDICATORS OF THE ENTITIES FROM WOOD PROCESSING FIELD

Camelia MIHALCIUC, cameliam@seap.usv.ro,
Laura BARNEA, barnealaura1995@gmail.com
Stefan cel Mare University of Suceava, Romania

Abstract. *One way of making as efficiently as possible the historical data from accounting is the comparative analysis, the comparative computation, also conducting a study of the dynamics of the researched problem. From this point of view, we distinguish two types of approaches: in time and in space. Thus, the comparative analysis over time aims to investigate the dynamics of the phenomenon, process or of the researched sizes at the level of the enterprise or at a hierarchically superior level, and the comparative analysis in space addresses the evolution of two or more economic entities operating in the same field of activity, this type of analysis having the role of generalizing the achievements achieved in one field of activity. Starting from these aspects, only with the help of these can be highlighted the influences related to: the geographical position of the economic entities, the technical endowment and the technological processes, the volume and the range of production. Regarding the performance of an economic entity, we can say that it is performing, if it is profitable, liquid or able to pay its due debts in the short-term and solvent, which makes it able to pay its due debts long term. The applicative approach of the paper is based on a comparative study that will highlight the analysis of the financial performance of two economic entities in the field of wood processing through the following pertinent indicators in assessing the performance of economic entities: profitability, liquidity and solvency.*

Keywords:*wood industry, profitability, financial performance*
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Introduction

Regardless of the accounting system in which we are positioned, we can easily ascertain that accounting policies support the imputation of the effects of a transaction or event on the financial position of the enterprise and / or its financial performance.

Changes in results based on market values (the so called fair value) transform the economic performance of an economic entity. Referred to this, the profit and loss account summarizes the result of the economic and financial flows for a given period, the information provided through the profit and loss account allowing on the one hand the financial-accounting information users to know the performances of the economic entity and to assess the future results, and on the other hand allowing a post-factum analysis, as well as a prospective analysis.

Informational flags of the concept of financial performance

"Recognizing the extent of the scope of the economic entity's activity from interest-holders, including investors, customers, employees, expanding communities in the context of globalizing trends, requires a complex approach to its performance analysis." Performance has the ability to access resources, distribute and use them optimally to ensure sufficient return to cover the risk and motivate the interest on a path of solid future development. Performance results, therefore, in the efficiency and effectiveness with which resources are used, and generates results to deliver and develop its sphere of interest.

The concept of performance is marked by the economic, political system and governance modes of an economic entity and the dominant factor in a company wants to measure it according to its own interests. These elements represent the "subjective" aspects that influence the definition and measurement of the result. Practice and accounting theory have imposed certain conventions, principles and concepts that provide an objective basis for defining and measuring performance, taking into account the economic and political context specific to each accounting system.

Financial performance shows the extent to which an economic entity has achieved its goal of achieving profit. Economic theory considers that for any economic entity this goal involves maximizing profits. There are, however, managers who want to get only a satisfactory profit. However, the recognition of the maximum profit point is an extremely subjective operation. For this reason, it is assumed that an economic entity has achieved its objectives in terms of profit making, if the shareholders are satisfied.

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In particular, the enterprise's performance is aimed at making it profitable. Hence, the potential dimension of the resources the entity will hold and verify in the future. "Strictly speaking, performance is an effect, a result of action; in the broad sense, it can be considered that a result is nothing in itself, being dependent on its means. Performance is the whole of the elementary logical stages of the action, of the intent of the actual result. Performance is subjective because it is the product of the operation, by subjective nature, which is to bring a reality of desire.

The role of the main economic and financial indicators that reflect the financial performance of economic entities

The distinct assumptions of performance, the diversity of economic activity and the particularities of the activity sectors of the entities guide us to the conclusion that for measuring the performance of an entity we cannot use the use of a single indicator but a lot of indicators. In addition, the objectives of users of accounting information require performance indicators to be different. The most important performance indicators grouped by user targets are briefly highlighted in Table no. 1:

Table no. 1: Indicators of performance measurement according to users' objectives

Users	Objectives pursued	Performance indicators
Shareholders	Determining the value of the enterprise and the ability to remunerate the invested capital	- net profit and rates built on its basis; - indicators that express value creation.
Managers	Estimation of strategic and tactical objectives and their degree of achievement	- indicators of resource use; - results, efficiency, and effectiveness indicators; - activity indicators; - indicators specific to sustainable development.
Creditors	Determining the enterprise's ability to generate cash or cash equivalents	- liquidity indicators; - solvency indicators; - cash flow indicators.
Emplyees	Establishing the form and level of remuneration, as well as assessing the stability of the enterprise	- activity indicators; - Efficiency indicators.
Clients	Estimating the quality of production and assessing the stability of the entity	- quality indicators of production; - total quality indicators.
Public	The appreciation of sustainable development	- indicators specific to sustainable development.

"In order to assess the economic and financial performance of an economic entity, it is necessary to take into account several categories of indicators, both quantitative and qualitative, which pursue all aspects of its activity. The system of indicators of economic and financial performance provides information to managers and third parties on the efficiency of production and marketing activity, the profitability obtained, the efficiency of the management of material and human resources, and the increase of the value of the company in the analyzed period. At the same time, this system of indicators allows the discovery of the strengths and weaknesses of the ongoing activity on the basis of which measures are taken to improve performance in the future, and underpins the development of forecasts for the company's performance in the future. "Intermediate balances take part in the description the economic behavior of a firm. These are presented as cash accumulation margins that highlight the stages of the year's earnings as a difference between the items of income and expense associated with each category of activity.

Comparative study on the financial performance analysis of SC Alfa and SC Beta SRL

In the applicative part of this paper we conducted a comparative study that will highlight the financial performance analysis of the SC Alfa SRL and SC Beta SRL entities, two economic entities active in the field of wood processing, as can be seen from the information presented in Table no. 2

Table no. 2: General characteristics of economic entities under analysis

Nr.	Informative data	SC ALFA SRL	SC BETA SRL
4.	County	SUCEAVA	SUCEAVA
10.	Nace Code	3109	1623
11.	Field Activity	furniture manufacturing	carpentry manufacture
12.	Main field	Woodworking	Woodworking

3.1 Comparative Analysis of Profitability Rates

Return rate is a ratio between a result indicator (profit or loss) and an indicator reflecting a flow of activity (net turnover, consumed resources) or a stock (equity, total assets). The rate of return is a relative amount that expresses the extent to which the capital in its entirety brings profit. In the overall economic and financial indicators the rate of profitability is among the most sophisticated indicators of the efficiency of the enterprise's activity. In profit and rate of profitability, the results of the enterprise's activity are reflected in all stages of the economic circuit. Compared with product costs, which reflects the results of the production stage, the profitability rate also synthesizes those at the distribution stage.

The rate of return, as an indicator of efficiency, can take different forms, such as taking into account gross profit or net profit on the numerator, or changing the basis of reporting that expresses the effort or expense of the production process. The different models used to express the rate of profitability have different information power, mirroring the efficiency of the different sides of the enterprise's economic activity. Forecasters built on advanced or busy capital predominantly express investor interest, while indicators built on consumed resources predominantly express the interests of managers of the economic unit.

The main rates of return used in the enterprise's economic and financial analysis are: profit rate, commercial profitability rate, economic profitability rate, financial profitability rate.

The values of the profitability rates for SC ALFA and SC BETA for the period 2015-2016 are presented in table no. 3. and chart 1 shows the evolution of the rate of financial profitability:

Table no. 3: Rates of return

Crt. No.	Indicators	Formula	SC ALFA SRL		SC BETA SRL	
			2015	2016	2015	2016
1.	**Profit rate (Rp)**	Pe/Ce*100	5,00%	3,40%	2,08%	3,20%
	Definition	The profit rate reflects the degree of return of the product, the economic agent, the branch or national economy. This is very important indicator for the orientation of the economic activity structure on goods, branches and sub-branches, looking for those that offer the highest rate.				
	Interpretation	In the case of the first entity, the profit rate recorded a decrease due to the increase in operating expenses and the decrease in operating profit. Operating expenses increased as a result of the increase in staff costs (in 2016 the national minim wage increased).			The profit rate is increasing because operating profit has increased more than operating costs.	
2.	**Commercial Profitability Rate (Rc)**	Re/Ca*100	3,49%	2,26%	0,8%	1,38%
	Definition	The quality of an entity's management is validated by the appreciation of its products on the market, a situation evidenced by turnover. The ratio between the result obtained and the turnover represents the commercial profitability rate.				
	Interpretation	There is a decrease in the commercial profitability rate as a result of the decrease of the obtained result. This is due to the increase in total expenditure.			The increase in the commercial profitability rate is due to both the increase in the result obtained and to the turnover.	
3.	**Economic rate of return (Re)**	Pb/At*100	8,25%	5,70%	1,42%	1,90%
	Definition	The economic rate of return reflects the ratio between an economic result and the economic means engaged in obtaining it. The advantages introduced by the economic rate of return in the analytical field are due to the fact that it is independent of the financial structure, the fiscal policy of the state through which the profit is taxed.				
	Interpretation	The decrease of the economic rate of return is due to the decrease of the total assets and the gross profit of the company.			The increase of the economic rate of return at SC Beta is due to the substantial increase in both total assets and gross profit.	
4	**Financial rate of return (Rf)**	Pn/Cpr*100	6,00%	9,29%	3,87%	7,28%
	Definition	The financial rate of return is one of the major indicators that are tracked by investors and management. With this rate, investors can assess to what extent their investment is cost-effective or not. If the rate of financial return is higher than the cost of equity, then, through its work, the company creates an additional value for shareholders.				
	Interpretation	The increase of the shareholders' equity influences the increase of the financial rate of return of SC Alfa.			The increase of net profit of SC Beta leads to an increase in the financial rate of return.	
5	**Operating profit (Pe)**	Pe	521.701	373.261	126.163	238.492

	Definition	The operating profit is the "income" generated by the operating activity and made available to the equity and borrowed contributions. This result is therefore used to compare the performance of entities that have different financial policies.				
	Interpretation	The decrease in operating profit is due to a increase of the operating expenses to a greater extent than operating income. We can notice an increase of the employment charges as a result of the increase of the national minim wage in 2016 compared to 2015.			The operating profit increases in 2016 compared to 2015, as a result of the increase of operating income to a greater extent than the operating expenses.	
6	**Operating costs (Ce)**	Ce	10.429.904	10.990.316	6.075.118	7.460.814
	Definition	Operating costs is reflection in accounting of the costs incurred by the entity, as a result of the activities carried out according to its field of activity.				
	Interpretation	Most expenditures in the operating costs category increase in 2016 compared to 2015.			Most expenditures in the operating costs category increase in 2016 compared to 2015.	
7	**Operating Income (Ve)**	Ve	10.951.605	11.363.577	6.201.281	7.699.306
	Definition	The operating income is the income earned by a company in the course of their activity ; also called income from core business. For a production entity, operating income will be earned in relation to the products sold.				
	Interpretation	Operating income increases as a result of increased workload.			Operating income increases as a result of increased workload.	
8	**Gross profit (Pb)**	Pb	399.530	269.470	63.804	118.229
	Interpretation	Gross profit decreases as a result of increase in total expenditure in proportion to total revenues.			Gross profit recorded a significant increase over the previous year due to investments in technology and increased production.	
9	**Net profit (Pn)**	Pn	330.592	232.461	51.078	100.657
	Definition	Net profit is that part of the gross profit that remains after the entrepreneur's equity has been deducted, the salary as a reward for his activity, the lease and the rent for the land and the building that he owns, the fees and charges directly borne out of the profit.				
	Interpretation	Net profit recorded a decrease as compared to the previous year due to the increase in production costs generated by rising raw material prices (wood, timber).			Net profit recorded a significant increase due to decrease of the production costs due to technology investments.	

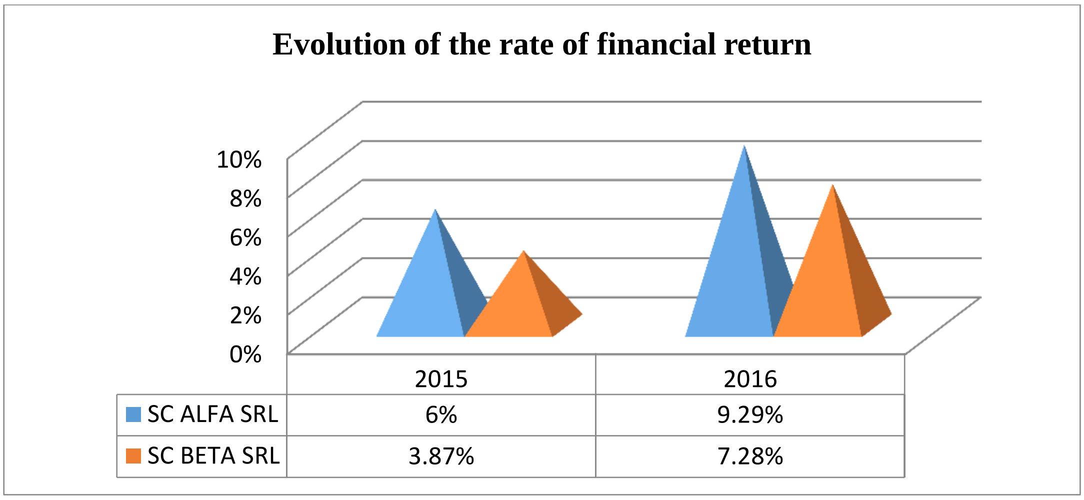


Chart no. 1. Evolution of the rate of financial retum

3.2. Comparative analysis of liquidity and solvency

Liquidity refers to the property of assets to turn into money, and this can also be a criterion for grouping positions in the balance sheet. Thus, in theory and economic practice, the term liquidity refers to rapport between assets in the sense that it can be determined how much of the asset is in the liquid form in the cash accounts and how it can become liquid immediately.

Solvency is a wider notion and represents the ability of the economic entity to deal with debt over a longer period of time. Here comes in the discussion the comparison between the assets and liabilities, respectively the availability and the obligations.

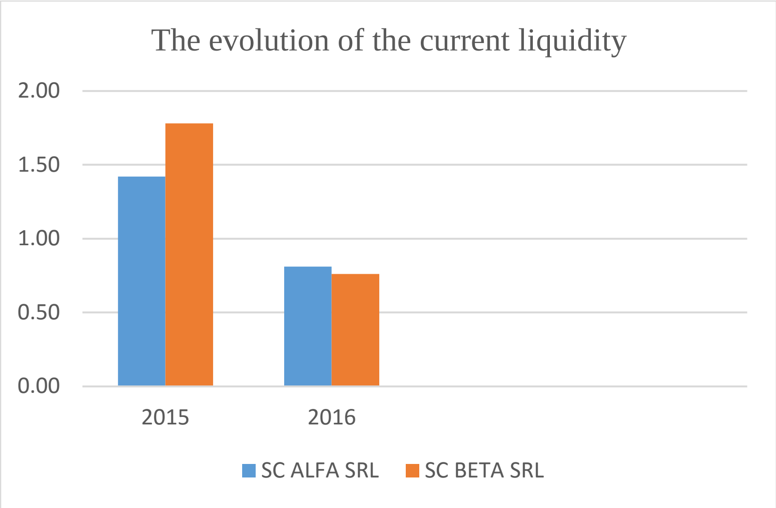
It is obvious that an economic entity is solvable if it has available means of payment. Starting from here, different indicators have been built, which include both notions, being used for different purposes. For example, at the time of declaring bankruptcy, the degree of liquidity can be calculated as a ratio between liquid assets and can become liquid to total debts.

The values of the liquidity and solvency ratios for SC ALFA and SC BETA for the period 2015-2016 are presented in Table no. 4:

Table no. 4: Solvency and liquidity ratios

<table>
<tr><th rowspan="2">Crt. No.</th><th rowspan="2">Indicator</th><th rowspan="2">Formula</th><th colspan="2">SC ALFA SRL</th><th colspan="2">SC BETA SRL</th></tr>
<tr><th>2015</th><th>2016</th><th>2015</th><th>2016</th></tr>
<tr><td>1.</td><td>Current liquidity rate (Rlc)</td><td>Ac/Dts</td><td>1,42</td><td>1,78</td><td>0,81</td><td>0,76</td></tr>
<tr><td></td><td>Definition</td><td colspan="5">The current liquidity rate is one of the most significant financial ratios of an entity and measures its ability to pay short-term debts using short-term assets of the balance sheet. The higher its value, the greater the ability of the entity to pay its current debts, without calling for long-term resources or new loans.</td></tr>
<tr><td></td><td>Interpretation</td><td colspan="3">The value of the rate is close to the minimum threshold of 1.5, which would ensure that all current debts are covered by circulating assets at least once.</td><td colspan="2">The indicator has a subunit value, indicating an imbalance in the company's treasury.</td></tr>
<tr><td>2.</td><td>Quick Liquidity Ratio (Rlr)</td><td>(Ac – St)/Dts</td><td>0,43</td><td>0,25</td><td>0,42</td><td>0,30</td></tr>
<tr><td></td><td>Definition</td><td colspan="5">The quick liquidity ratio is the indicator that measures the entity's ability, at one point, to cover its short-term liabilities by capitalizing on all current high liquidity assets.</td></tr>
<tr><td></td><td>Interpretation</td><td colspan="5">The values of this indicator are below the normal value, as the share of stocks in total current assets is significant. These companies, through their main object of activity, have to supply with large and varied quantities of raw material (wood).</td></tr>
<tr><td>3.</td><td>Immediate liquidity rate (Rli)</td><td>Db/Dts</td><td>0,26</td><td>0,91</td><td>0,09</td><td>0,21</td></tr>
<tr><td></td><td>Definition</td><td colspan="5">The immediate liquidity ratio is the indicator that measures the entity's ability, at one point, to cover its short-term liabilities with the available cash resources accessible to it.</td></tr>
<tr><td></td><td>Interpretation</td><td colspan="3">The value of the indicator in the first year is close to the optimal value (0.25), indicating that the company can cover its short-term debts from its own cash resources. In 2016, as a result of the decline in cash availability, the indicator is rising.</td><td colspan="2">In the first year, the value of the indicator is low because the cash availability is low. The following year, the value of the indicator approaches the optimal value of 0.25, as a result of the increase in the available funds.</td></tr>
<tr><td>4.</td><td>Solvency (Rs)</td><td>At/Dt*100</td><td>121,32</td><td>129,74</td><td>163,17</td><td>139,39</td></tr>
<tr><td></td><td>Definition</td><td colspan="5">Solvency is the ability of an economic agent to pay the debt it has to a creditor, at the pre-defined payment deadline.</td></tr>
<tr><td></td><td>Interpretation</td><td colspan="5">The indicator has values> 1, indicating that companies have the ability to pay current and long-term liabilities to third parties.</td></tr>
</table>

In chart no. 2, the evolution of the current liquidity ratio and the evolution of the solvency ratio will be presented as follows:



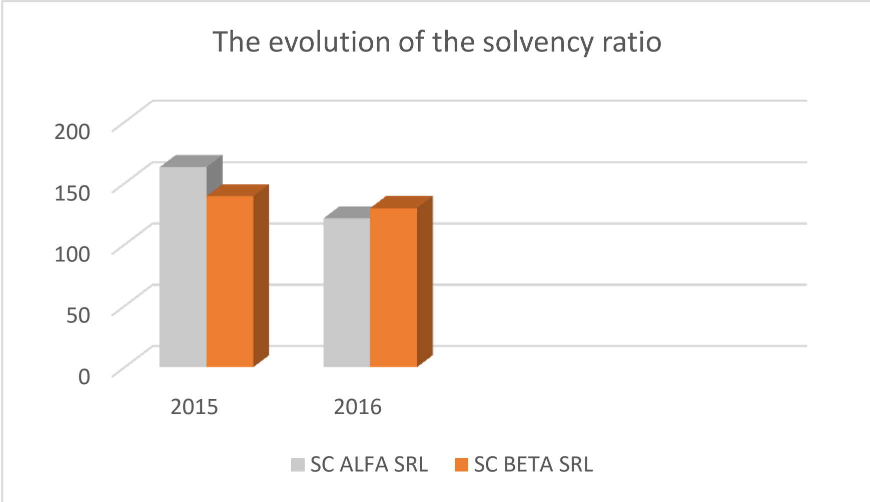


Chart no. 2. The evolution of the current liquidity ratio and the evolution of the solvency ratio

Conclusions

The analysis of financial performance is the way to identify financial strengths and weaknesses of the firm by correctly establishing the relationship between balance sheet items and the profit and loss account. Thus, the results of the analysis provided us with a long-term prognosis and the economic growth can be identified with the aid of financial performance. We can say that the analysis of financial statements is a process of assessing the relationship between the components of financial reporting in order to find out on the one hand the financial position and on the other hand the financial performance of the economic entities. The applicative approach considered the economic and financial analysis of the two economic and financial entities in the field of wood processing, but with different object of activity (SC ALFA - furniture manufacturer, and SC BETA wood-carpentry from stratified wood manufacturer).

In the Romanian market economy, all societies have the same chances and rights from the beginning but the way they are modeled by management and the fiscal framework correlated with the legal norms defines each individual entity and lead it to success or bankruptcy. The economic and financial analysis we have realized has provided us with important information regarding the two entities under review, the annual financial reports, the balance sheet and the profit and loss account and helped to determine the analysis indicators for the two entities for the analysis period 2015-2016. From the analysis, it could be noticed that in the case of SC Alfa, the decrease of the profit rate is due to the increase in operating expenses and the decrease of the operating profit, and to the SC Beta entity, the profit rate is increasing because the operating profit increased in a proportion higher than operating costs.

According to the above data, we can say that the two entities are profitable; both have the chance to expand even more on our country and internationally because they have a wide range of state-of-the-art high performance equipment and machines, eager professional employees always learn new things and stay up with the technology that evolves from day to day.

References

1. Bătrâncea, I., Larissa-Margareta Bătrâncea, Sorin Nicolae Borlea, Analiza financiară a entității economice, Editura Risoprint, Cluj-Napoca, 2007
2. Berheci, M., Valorificarea raportărilor financiare, Editura CECCAR, București, 2010.
3. Bușe Lucian, Analiză economico-financiară, Editura Economică.
4. Dragotă V. Și colectiv, Management financiar, vol. I, Editura Economică, București, 2013.
5. Jianu, I., Evaluarea, prezentarea și analiza performanței întreprinderii, Editura CECCAR, București, 2007.
6. Mihalciuc C., Valorificarea informației financiar-contabile în diagnosticul întreprinderii, Editura Sedcom Libris, Iași, 2009.
7. OMFP 1802/2014, aprobarea Reglementărilor contabile privind situațiile financiare anuale individuale și situațiile financiare anuale consolidate.
8. Petcu, M. – Analiza economico-financiară a întreprinderii, Editura Economică, București, 2003.
9. Petrescu, S., Mihalciuc, C., C., Diagnosticul financiar-contabil privind performanța întreprinderii, Editura Universității Suceava, Suceava, 2006.