FINANCIAL PERFORMANCE ANALYSIS BASED ON THE FINANCIAL STATEMENTS FOR THE COMPANIES LOCATED IN THE BIHOR - HAJDU BIHAR EUROREGION

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This paper will be later used within the Doctoral thesis: "The Mechanism of Financing Investment Projects by Usage of European Structural Funds", which is currently under development at the University Babeş Bolyai Cluj Napoca, Faculty of Economics and Business Management, under the coordination of the prof. univ. dr. Ioan Trenca. This paper comes also as a result of the European Funded project PERINPRO "Cross-Border Research Programme - Performance Indicators of the Economic Entities from Bihor-Hajdu Bihar Euroregion". The goal of the project was to identify of a set of common indicators that characterizes companies in the Bihor-Hajdu Bihar Euroregion and which will be used to analyze the financial health of the economic entities in the Euroregion of Hajdu-Bihar- Bihor.
The first chapter of the paper will introduce the research and also will present the literature review and the methodological framework: by establishing a common set of indicators for the financial analysis of the companies located in the Bihor-Hajdu Bihar Euroregion. Seven of these indicators considered to be highly important will also briefly described and defined. Some of these indicators are used for the first time in a trans-national analysis over companies located in the Romanian-Hungarian cross border area. In the second chapter the research will be focused over establishing a common ground for usage of the financial reporting documents as basis for the analysis. Several characteristics which differentiate the financial reporting documents from Romania and Hungary will be identified and measures for correction of the values of the indicators will be proposed. This comparative study can be considered an innovation, as well, in the cross-border area since in the past no other studies of this types were performed between Romania and Hungary. The third chapter will be focused over the application of seven identified common indicators to companies based in the cross-border area. In the last part of the paper these results will be analyzed and presented.
Key words: G30, G32, O16, C63, C61
JEL Codes: Corporate finance, Financial Statements, Performance Analysis, Performance Indicators

1. Introduction

The project PERINPRO *"Cross-Border Research Programme - Performance Indicators of the Economic Entities from Bihor-Hajdu Bihar Euroregion"* was developed under the framework of **Hungary-Romania Cross-Border Co-operation Programme 2007-2013** by a joint team of scientists from University of Oradea- Faculty of Economics and University of Debrecen – Faculty of Applied Economics and Rural Development. The goal of the project was to identify of a set of common indicators that characterizes companies in the Bihor-Hajdu Bihar Euroregion and which will be used to analyze the financial health of the economic entities in the Euroregion of Hajdu-Bihar- Bihor.

The methodological approach for the determination of a common set of indicators was based on the requirements of local companies located in inter-connection areas of the Romanian-Hungarian border, to establish a set of criteria, jointly accepted, for the analysis of private companies' performances. Based on this was tried to identify a set of indicators jointly accepted both from the academic point of view, but also which can be used in practical life and which can be transferred for usage in the real economy by the companies within the region.

The set of indicators have been selected based on various criteria which are presented below:
- the relevance of indicators for the subject
- their potential of usage in the economic-financial analysis carried out in the two countries
- their potential of transferability to their real economic use
- the possibility of usage of the financial - accounting databases on both sides of the border.

In this work, the author focused on the presentation, from a theoretical point of view, of the set of indicators used in performance analysis. Also practical application of the proposed indicators was realized and briefly presented in the case study. The proposed indicators were: solvability, liquidity and return indicators and will be described in this chapter and briefly presented from the theoretical point of view. For their determination, national and international specialized economic literature has been studied and the main opinions on the subject have been used to establish the analysis indicators: especially Stancu (2006), Trenca (2006), Pierre(2004), Lezeu (2004), Chirila and Droj(2010) and Brealey et. all(2004). In this study from the 18 selected common indicators were used only 7 indicators. The methodology for calculating these indicators will be presented below. The case study will be generated and presented in the 3rd chapter of this study. The indicators used in the case study are:

- **Global financial autonomy rate (RAFG)** - shows how much of the company's assets are financed from their own resources. By reflecting the weight of the shared capital in total financing sources, it is desirable that the rate is as high as possible.

$$R_{AFG} = \frac{Equity}{Total\ liabilities} x100 \quad (1)$$

- General liquidity rate (RL) compares the current assets with short-term debts. This rate reflects the capacity or incapacity of the company to pay its short-term debts only from the current assets possessed in its patrimony.

$$R_{LC} = \frac{\text{Current Assets}}{\text{Short term debts}} \quad (2)$$

-Fast or reduced liquidity rate (RLR) - If the value of the rate is higher than 1, than the rate highlights the fact that stocks are not financed through short-term debts.

$$R_{LR} = \frac{\text{Receivables} + Cash\ and\ bank\ accounts}{\text{Short term debts}} \quad (3)$$

- **Immediate liquidity rate (RLI)** reflects the capacity of the company to pay current debts only based on its current cash and bank accounts. The value of this rate provides little relevant information because of the unpredictability of its cash flow management; usually additional information is needed regarding its activity (Trenca, 2006).

$$R_{LI} = \frac{Cash\ and\ bank\ accounts}{\text{Short term debts}} \quad (4)$$

- **Solvability rate(RSV)** - shows the extent to which total debts are covered by total assets, and reflects the security enjoyed by creditors, as well as the creditworthiness of the company.

$$R_S = \frac{\text{Total assets}}{\text{Total debts}} \times 100 \quad (5)$$

- The **Return of Assets** reflects the difference between an economic result: net profit, known in specialized literature as EBIT and the assets used for its achievement (Pierre, 2004).

$$ROA = \frac{\text{Net Profit}}{\text{Total Assets}} \quad (6)$$

- The **Return on Equity**, also known in French economic literature as "financial return rate", and abbreviated in the specialized literature as ROE. This indicator shows the efficiency of the capital

invested by shareholders. ROE constitutes one of the most important return indicators, being used by company owners and potential investors in the investment decision-making process.

$$ROE = \frac{\text{Net Profit}}{\text{Equity}} \quad (7)$$

2. Comparative practical study on the profit and loss account used by companies in the Bihor–Hajdú-Bihar Euroregion

The need for comparing the two documents occurred after deciding to realize a joint research over the performance of companies within Bihor–Hajdú-Bihar Euroregion on the basis of the financial statements. For the most effective and equivalent comparison of economic performances of companies present in the study set, the first step was the comparison and the transformation to same standards of the evaluation data contained in the two annual financial reporting documents: from Romania and from Hungary. This approach has been used by other European authors such as: Cole & Branson (2011), Nobes (2006), Roberts et all (2008) and even Nobes (2008), authors which brought to attention the main issues of the comparative analysis of data contained in financial documents in various countries, caused particularly by practices or customs carried out at national level before the adoption, starting from 2005, of the IFRS standards in all EU Member States (Commission of the European Communities, 2007).

In addition, these studies is also highlighted the impact of national subsidies or tax deductions in various Member States as having a key importance on how the economic performance was reported (Christensen et al., 2008). The different practices in the taxation and accounting fields, were also analyzed in a study presented by KPMG & von Keitz (2006) and were later mentioned by Cole & Branson (2011). Thus, by following the same analysis phases, and based on the methodology presented in the specialized literature was observed that both the profit & loss account in Romania and the models currently used in Hungary, have been created and developed based on the IFRS standards, as they were introduced and applied all over the EU, starting from 2005. Otherwise were observed several differences, although they may seem insignificant, but which can lead to the degradation of financial results and later, in distorsion at the level of financial analysis indicators. When analyzing the case of Romania, it can be discovered that the profit & loss account uses only one standard model, while in Hungary, as shown by several studies in the field such as the one carried out by Deloitte Magyarország (2009), there are frequent changes in the way the elements of profit & loss account are introduced and analyzed, and two models exists: Model A and Model B. Several critics highlighted that the frequent changes in the legislation regarding accounting report in Hungary, have been caused by observations made by the World Bank and European Union regarding the differences between the Hungarian legislation and IFRS standards. Also these organizations provided Hungary suggestions and the method for modifying them, according to IFRS.

Therefore, as presented in the Deloitte Magyarország (2009) study, in Hungary two models for profit and loss account are being used:

- *Profit & loss account - Model A - "Total costs"*- where the operating result is determined using costs accounts from the 5th category accounts, according to the Hungarian Chart of Accounts. In this case, the determination of costs is based on their nature and destination: raw materials costs, payment of wages, etc.
- *Profit & loss account - Model B - "Turnover costs, sale costs"*- where the operation results are calculated using category 9th category cost accounts, according to the Hungarian Chart of Accounts. In this case, are used principles corresponding to internal management accounting: costs are classified in 2 important groups – direct costs and indirect costs.

As regarding the operating result, reflected in the profit & loss account, it must be identical, whatever the document model used. The usage of model A or B depends on the organization

form of the company, its size and its type of activity. In general, model B is used by small companies or in those carrying out trading activities. While the model A is used in medium and large companies, in multinationals or in manufacturing companies. Often, such categories of companies require additional financial information regarding costs; production centres costs, activity categories or production phases.
In order to make a better comparison between the data entered in the two financial reporting documents, especially regarding companies located in the Hajdu Bihar County, model A of the profit & loss account was used, which is comparable to the Romanian one. In terms of how the performance of profit & loss accounts is reflected on the Romanian side and on the Hungarian one, there are two major differences: the distinct reflection of operating incomes and the different calculation method of the net income. In the analysis of operational incomes, we observe that this is more detailed in the model used in Romania, but in the case of Hungarian companies, the source of internal or external income are specifically identified. Thus, in Hungary, according to both forms of profit & loss accounts, net incomes from sales are differentiated according to their source, i.e. from internal or external-export sources. Operation subsidies and commercial discounts enforced by the Romanian O.M. F. P 3055 from 2009, which in Romania are considered to be part of the operational income, have no equivalent in the case of the profit & loss account used in Hungary. The organization of operation costs in the two documents is different, but without notable impact on the final result: the operational costs at the level of companies. The main important distinction, which directly influences the analysis of financial performance in the Bihor – Hajdu Bihar Euroregion, consists in the determination of net result in the balance sheets, where, in Hungary - Mérleg szerinti eredmény – MSZE – is obtained after taxation and shareholder payouts.
The net result within the balance is determined through the increase of net profit obtained after the payment of the profit tax, with the sum or dividends granted by using the rolled-over result, and through the decrease of the sum obtained with the value of approved dividends. The sum thus obtained will be shown in the balance. In the case of Romanian companies, the net result is modified only by the profit tax; the amounts corresponding to dividends/shareholders payout would be decided afterwards. Therefore, it is recommended to use performance indicators which take into account the elements mentioned above or to correct them during the numerical analysis phase. The second stage of the analysis constituted in construction of a case study based on limited set of companies and just several relevant indicators.

3. Applied Case study – Application of the performance indicators results analysis

The case study presented in this paper is focused on analysing the sets of companies which have a specific activity in the industrial fields of industry and food processing. These companies were analysed based on the common set of indicators presented in chapter one. The period of analysis is 3 years. The results seem to be surprising especially when comparing the same results of the Romanian with the Hungarian companies. As observed several differences occurred between the financial indicators of the companies from different fields of activities. It was noted that from the point of view of values obtained in the areas studied, the best values in terms of liquidity rate indicators have been obtained in the light industry, the processing industry and service sector, following the trend of consolidation of these sectors in the Euroregion's economy and in particular in the Bihor county.

Figure 1 Financial Performance Analysis for companies operating in manufacturing industry

MANUFACTURING INDUSTRY

	RLe=$\frac{ACIRC}{DTSC}$	RLR=$\frac{CR+DD}{DTSC}$	RLI=$\frac{DISP}{DTSC}$	RSV=$\frac{DATT}{AT}$	RFAG=$\frac{CRR}{P}$	RREC=$\frac{EDE}{AT}$	ROA=$\frac{PN}{AT}$	ROE=$\frac{PN}{CRR}$
I. PLASTOR S.A.								
2008	1,78	0,99	0,09	0,23	0,77	0,1569	0,0606	0,0792
2009	2,05	1,49	0,03	0,20	0,80	0,1874	0,1127	0,1422
2010	2,58	2,08	0,70	0,19	0,81	0,2097	0,1221	0,1519
II.SINTEZA S.A								
2008	3,42	1,78	0,98	0,03	0,96	0,0075	0,0028	0,0029
2009	7,16	4,81	2,25	0,01	0,99	0,0040	0,0003	0,0003
2010	4,27	3,19	0,78	0,02	0,98	0,0069	0,0028	0,0029
III. EDITURA AQUILA								
2008	1,21	0,50	0,13	0,59	0,41	0,2657	0,1940	0,4751
2009	2,25	0,64	0,05	0,57	0,43	0,2332	0,1215	0,2851
2010	1,89	1,23	0,04	0,47	0,53	0,3694	0,0525	0,0985
IV. METALICA S.A.								
2008	1,80	0,76	0,00	0,37	0,63	0,0741	0,0060	0,0096
2009	1,64	1,02	0,01	0,43	0,57	0,0570	0,0031	0,0055
2010	1,74	1,24	0,00	0,44	0,49	0,0190	0,0033	0,0068
V. PREMAGRO S.A.								
2008	7,13	3,95	2,68	0,07	0,93	0,0311	0,0295	0,0317
2009	18,18	10,10	7,46	0,03	0,97	0,0070	0,0064	0,0066
2010	5,00	2,61	1,05	0,10	0,90	0,0231	0,0057	0,0063

Source: Made by the author

Thus, the general liquidity rate indicator has recorded the highest value, of 20.25% in the light industry and 17.17% in tourism, and in sectors such as the building materials, the highest values have been situated around 2%. As regards the minimum values, as seen in the above-mentioned analysis as well, the lowest values were obtained in the furniture industry, building materials industry, transport services and agricultural products processing.

Figure 2 Financial Performance Analysis for companies operating in the food industry

FOOD INDUSTRY

	RLe=$\frac{ACIRC}{DTSC}$	RLR=$\frac{CR+DD}{DTSC}$	RLI=$\frac{DISP}{DTSC}$	RSV=$\frac{DATT}{AT}$	RFAG=$\frac{CRR}{P}$	RREC=$\frac{EDE}{AT}$	ROA=$\frac{PN}{AT}$	ROE=$\frac{PN}{CRR}$
I. ZAHARUL S.A.								
2008	1,59	0,51	0,27	0,44	0,55	0,0943	0,0450	0,0822
2009	1,76	0,41	0,02	0,40	0,58	0,0734	0,0318	0,0549
2010	1,67	0,48	0,008	0,47	0,51	0,1044	0,0722	0,1412
II.PRO AQUA S.A CEFA								
2008	1,03	0,14	0,01	0,50	0,50	0,2540	0,0604	0,1209
2009	1,24	0,10	0,00	0,47	0,53	0,1815	0,0368	0,0702
2010	1,48	0,18	0,00	0,42	0,58	0,1715	0,0210	0,0364
III. DORBOB PROD S.R.L.								
2008	0,94	0,83	0,12	0,22	0,78	0,2641	0,1662	0,2142
2009	2,21	2,09	0,39	0,13	0,80	0,2470	0,1630	0,2045
2010	1,62	1,47	0,14	0,16	0,78	0,1599	0,0965	0,1234
IV. PROLACTA S.R.L. COPACEL								
2008	0,63	0,67	0,15	0,07	0,13	0,0599	0,0428	0,3283
2009	2,80	2,35	0,05	0,56	0,23	0,0432	0,0029	0,0125
2010	0,39	0,28	0,04	0,76	0,24	0,0484	0,0014	0,0060
V. RUBINKING S.A.								
2008	1,24	0,52	0,00	0,83	0,17	0,1397	0,0149	0,0896
2009	0,89	0,43	0,00	0,83	0,17	0,1279	0,0137	0,0829
2010	0,93	0,44	0,00	0,83	0,17	0,0900	0,0005	0,0031

Source: Made by the author

In these sectors, the values of this indicator were a lot lower than the advised values, situated between 0%-1%. As regards solvability, we observe that the processing industry recorded the most positive rate values, followed by companies in the services sector and light industry. As regards the sectors where this rate records negative trends, are those of furniture industry, commerce and agricultural products processing, whose high degree of debts generates these concerning results. In terms of profitability, largely dealt with in the studies carried out, we

observe that the rates of profitability (return) are generally low, but extremely low for companies in the services field, following the trend of the national economy, but also internal fiscal strategies of the companies.

4. Conclusions

The current paper dealt in its first chapter with establishing a common set of indicators for the financial analysis of the companies located in the Bihor-Hajdu Bihar Euroregion. Seven of these indicators considered to be highly important were also briefly presented and defined. These were used for the first time in a transnational analysis in the Romanian-Hungarian cross border area. In the second chapter the research was focused over establishing a common ground for usage of the financial reporting documents as basis for the analysis. Several characteristics which differentiate the financial reporting documents from Romania and Hungary were identified and measures for correction of the values of the indicators were proposed. It also can be considered a novelty as well in the cross-border area since in the past no other trans-national studies of this type were performed comparing the differences of financial reporting documents of these two countries. The third chapter dealt with the application of the seven identified indicators over companies based in the cross-border area. These results were analyzed and presented.

Since this is a preliminary study it will be continued further by development of an integrated indicator which will be also included in the Doctoral thesis: "The Mechanism of Financing Investment Projects by Usage of European Structural Funds", which is currently under development at the University Babeş Bolyai Cluj Napoca, Faculty of Economics and Business Management, under the coordination of the prof. univ. dr. Ioan Trenca

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