

**ANALYSIS OF FINANCIAL REPORTS OF  
MINERAL WATER PRODUCERS IN SERBIA**

**ANALIZA FINANSIJSKIH IZVEŠTAJA PROIZVOĐAČA  
MINERALNIH VODA U SRBIJI**

*Ljiljana Dmitrović Šaponja<sup>1</sup>, Sunčica Milutinović<sup>2</sup>, and Saša Gravorac<sup>3</sup>*

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**Abstract**

*The stress in this paper will be placed on the analysis of financial reports as one of the numerous scientific methods that have found their application in the business practices for gathering significant accounting information on the state and success of the corporate entities whose reports are the subject of analysis. The article will use vertical and horizontal analyses of balance sheets, vertical and horizontal analyses of profit and loss statements, asset and capital management efficiency analysis, and profitability analysis. The analysis will encompass data from the financial reports of four largest mineral water producers, over a three-year period, from 2008 till 2010. The paper used a deliberate sample, because complete data from the financial statements only were available for observed four major manufacturers for the three analyzed years. All used data from the financial statements are taken from the official website of the Belgrade Stock Exchange. The paper takes into consideration the total production of mineral water in Serbia. The sample is representative since these four producers are covering 66% or two-thirds of domicile market of mineral water production (Knjaz Miloš 31%, 22% BB Minaqua, Voda Vrnjci 10%, and Palanački Kiseljak 3%).*

**Key words:** *analysis, financial reports, financial equilibrium, result, cost-effectiveness*

**Apstrakt**

*Cilj ovog rada jeste da prikaže posledice globalne ekonomsko-finansijske krize na poslovanje i ostvarene rezultate proizvođača mineralnih voda u Srbiji, budući da poslovni subjekti predstavljaju sastavni deo privrede i da se delovanje ove krize posebno ispoljava na poslovanje svakog od njih. Analiza će obuhvatiti podatke iz finansijskih izveštaja četiri najveća proizvođača mineralnih voda u trogodišnjem periodu od 2008. godine do 2010. godine. Prova godina iz koje će analizom biti obrađeni podaci iz finansijskih izveštaja jeste upravo 2008 – godina kada se pojavila globalna ekonomsko-finansijska kriza, koja je najpre uticala na privrede SAD i zemalja Evropske Unije, a potom i na našu privredu.*

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<sup>1</sup> University of Novi Sad, Faculty of Economics Subotica, Serbia, e-mail: ljiljanad@ef.uns.ac.rs

<sup>2</sup> University of Novi Sad, Faculty of Economics Subotica, Serbia, e-mail: suncica@ef.uns.ac.rs

<sup>3</sup> University of Novi Sad, Faculty of Economics Subotica, Serbia, e-mail: sasa.gravorac@ef.uns.ac.rs

Neki od efekata ove krize, kao što su smanjenje kupovne moći domaćeg stanovništva i opadanje njihove tražnje za proizvodima i uslugama, neminovno su ostavili posledice i na ostvarene rezultate u poslovanju pretežno svih poslovnih subjekata u našoj zemlji. U ovom radu akcenat će biti stavljen na analizu finansijskih izveštaja kao jednu od mnogobrojnih naučnih metoda koju su svoju primenu našli u poslovnoj praksi. Putem analize finansijskih izveštaja prikupljaju se značajne računovodstvene informacije o stanju i uspehu poslovnih subjekata čiji su finansijski izveštaji predmet analize. Finansijski izveštaji i u njima sadržani podaci, koji će analizom postati informacije, osim primarne funkcije polaganja računa, imaju važnu ulogu u procesu upravljanja, planiranja i kontrole aktivnosti u poslovnom subjektu. Osim toga, ove informacije predstavljaju značajnu podršku menadžmentu prilikom poslovnog odlučivanja. U radu će biti korišćene vertikalna i horizontalna analiza bilansa stanja, vertikalna i horizontalna analiza bilansa uspeha, analiza efikasnosti upravljanja imovinom i kapitalom, kao i analiza rentabilnosti. Primena analize na podatke iz zvaničnih finansijskih izveštaja poslovnih subjekata, čija je osnovna delatnost proizvodnja mineralnih voda, treba da pruži odgovor na pitanje da li je globalna ekonomsko-finansijska kriza imala značajan uticaj na ovaj sektor srpske privrede.

**Ključne reči:** analiza, finansijski izveštaji, finansijska ravnoteža, rezultat, rentabilnost, kriza

## 1. INTRODUCTION

In the present-day business environment, which is under a strong influence of economic financial crisis, it is highly challenging to manage a corporate entity, especially in terms of steadily maintaining successful operations and further improving them. Besides that, operations are in the focus of interest of many interest groups, whose needs for information should be adequately satisfied by the system of financial reporting. Information available in financial reports is necessary, but not sufficient for today's highly complex, demanding and comprehensive needs for information by both internal and external interest groups. This is why it is necessary to apply various kinds and methods of analysis to particular basic information from financial reports, in order to derive more specific and useful information that will be used for the purpose of business decision making.

If accounting is the "language" of business, than financial reports analysis is a tool that facilitates the application of that "language" in everyday business environment. Although based on historical data (accounting information pertaining to past events), financial reports analysis is also an insight into the future, for it highlights exactly those business performance indicators which are vital for maintaining a corporate entity in operation. However, the analysis is not focused solely on weaknesses in operations that should be removed, but also explores business advantages, which should be used, maintained and developed.

## 2. FINANCIAL REPORTS ANALYSIS

In this paper, highlight will be placed on the *analysis of financial reports*, as one of numerous scientific methods that have found their application in the business practices, "Financial reports analysis can be described as a process of applying various analytical instruments and techniques used do derive useful information,

relevant for management, from data in financial reports" (Žager, 2010, 32). The most important advantage of this analysis is that it is engaged in exploring states (or phenomena) which are expressed in monetary units. This significantly eases the analysis, because the states (or phenomena) expressed in monetary units, are mutually comparable. However, this exact feature of financial reports analysis is at the same time its greatest shortcoming. "An aggravating circumstance stems from of two problems: first, because the decomposition is burdened by the fact that phenomena, or elements of phenomena, are expressed in values, and therefore homogenous, which makes expressing them in quantity harder; second, because a phenomenon, or an element is often expressed in monetary units of different value, due to the effect of inflation and deflation on the value of monetary unit" (Rodić, 2011, 96).

Apart from the above, another shortcoming of financial reports is that it does not provide information enabling insight into the overall business of a corporate entity. It only provides financial information, which is important, but not all-embracing. This, however, does not lessen the importance of the role this analysis plays in business decision-making and management. All that is necessary is supplement information obtained by analysing financial reports with non-financial information.

The aim of financial reports analysis can be set differently by the entity for which the analysis is executed. However, all analyses share certain goals that can be divided into three large groups, which, at the same, time represent fields of analysis: cost-effectives analysis, equity analysis, and financial position analysis.

General goals of financial reports analysis are most commonly in complete coherence with any corporate entity's goals. The most important goals of a corporate entity are profitability, solvency and liquidity. In order for these goals to be achieved, it is necessary to continuously keep track of the factors that affect these three indicators. It is the data from the balance sheet and the profit and loss account that are used for this purpose. Of course, mere data from financial reports does not reveal much until they are placed in relations of interdependence. The comparison of interconnected statement data (so-called ratios), comparison of data in financial reports from a series of consecutive periods (most commonly calendar/fiscal year), as well as the comparative analysis of financial reports' data with other corporate entities within the same industry or business<sup>4</sup>, significantly improves the quality of information acquired this way.

Application of financial reports analysis provides significant accounting information on the state and success of corporate entity whose statements are the subject of analysis. This information is support to the management in business decision making. It can be therefore concluded that, besides their primary function as reports, financial reports and data they contain (which will become information

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<sup>4</sup> Comparing the results of a corporate entity with competitors from the same industry is popularly known as benchmarking.

by means of analysis) have a significant role in the process of managing, planning and controlling activities within a corporate entity. Explaining the significance of information derived by financial reports analysis, Prof. Stevanović points to the “existence of a specific ‘world’ of causality and rules of behaviour within data in financial reports. The one who gets to discover this world, comprehend it and reach better conclusion by means of synthesizing, will be more successful in making decisions, planning and controlling company’s activities and their relations with the company (investor, creditor, syndicate, business partner, etc).” This is where the enterprise’s overall need for annual financial report lies (Stevanović, 2004, 145).

The existence of a wide range of techniques, instruments and methods for analysis gives interest groups the opportunity to choose those that will provide them with specific information. For example, investors are interested in the increase in corporate entity’s value, its profitability and the possibility of increase in stock price and dividends. Creditors are interested in liquidity, solvency and corporate entity’s capability to generate short-term and long-term cash flow. Regulatory bodies, government institutions and fiscal authorities use the data obtained by means of financial reports analysis in creating economic policies, rules of market behaviour and parameters of sustainable economic growth and economic development. A corporate entity’s management is interested in all aspects of business, especially efficiency and effectiveness, because they are, on the one hand, responsible for managing and increasing the capital they are entrusted with, while on the other, have a motive and interest to achieve best results and successfully lead a corporate entity through an environment of uncertainty, turbulence and crisis, which is characteristic of all economies today.

The existence of numerous interest groups and the diversity of their needs for information inevitably lead to opposed goals and conflicts of interest. In this sense, corporate management is prevalent today, for it represents a “set of relations between managers, creditors, government, employees and other internal and external interest groups. Corporate management also perceives a company as a system in which the rights and the responsibilities of participants are monitored” (Žager, 2010, 38). Interest groups that entrust, validate, control and keep attention to a corporate entity’s resources are in the focus of corporate management’s interest. The association between financial reports analysis and corporate management is very clear, more than necessary, and is, by nature, indispensable. It is therefore of great importance for all participants in the process of corporate management within a corporate entity to comprehend both accounting (its principles, rules, standards and policies), and financial reports analysis (its instruments, techniques and methods).

### 3. RESULTS OF FINANCIAL REPORTS ANALYSIS OF MINERAL WATER PRODUCERS

The following types of financial reports analysis will be applied to particular exemplary corporate entities, whose business activity concerns production of mineral water: balance sheet analysis, profit and loss account analysis, and combined analysis of balance sheet and profit and loss account (for more detail, see: Stevanović, 2004, 69-110).

From the point of time aspect of observation, emphasis will be placed on *dynamic analysis*, considering that the analysis will encompass a three-year-long reporting period, from 2008 to 2010. Besides time comparison (by year), the *spatial comparison method* will be used, where the selected compared corporate entities are the greatest competitors from the same industry. This article encompasses *analysis of assets structure and liabilities*, using data from the balance sheet, and represents a vertical, or a general horizontal balance sheet analysis. Within this analysis, the following will be particularly analyzed:

- relations between assets by liquidity (relations between fixed and current assets),
- relations between liabilities by term (relations between liabilities and owner's equity), and
- relations between liabilities by availability (relations between fixed assets and long-term liabilities, as well as relations between current assets and short-term liabilities).
- Data from the profit and loss account will be used for the purpose of financial result analysis, with a particular attention to:
  - structure and dynamics (development over the years) of total revenue,
  - structure and dynamics (development over the years) of financial result, and
  - cost-effectiveness<sup>5</sup>, or long-term return on capital, or interest on capital.

Corporate entities which will be the focus of this analysis are Voda Vrnjci from Vrnjacka Banja. Competing corporate entities included in the analysis, which will serve for comparison, are BB Minaqua from Novi Sad, Knjaz Milos from Arandjelovac and Palanacki Kiseljak from Smederevska Palanka.

#### 3.1 Balance sheet analysis results

##### 3.1.1 Vertical balance sheet analysis of Voda Vrnjci company

Table 1 was made based on balance sheet data for three consecutive years<sup>6</sup>, showing the dynamics of vertical structure of Voda Vrnjci company's balance sheet.

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<sup>5</sup> Cost-effectiveness analysis is one of the methods within the combined analyses of balance sheet and profit-and-loss account, using data from both balances.

Table 1: Dynamics of vertical structure of balance sheet (in 000 dinars)

BALANCE SHEET <i>Voda Vrnjci company</i>	2008		2009		2010	
	Value	%	Value	%	Value	%
Fixed assets	1,093,005	66.51	1,045,713	66.76	1,057,047	64.42
Current assets	550,325	33.49	520,571	33.24	583,810	35.58
<i>Total assets</i>	<i>1,643,330</i>	<i>100.00</i>	<i>1,566,284</i>	<i>100.00</i>	<i>1,640,857</i>	<i>100.00</i>
Owners' equity	953,633	58.03	993,482	63.43	1,019,001	62.10
Liabilities	689,697	41.97	572,802	36.57	621,856	37.90
<i>Total liabilities &amp; owners' equity</i>	<i>1,643,330</i>	<i>100.00</i>	<i>1,566,284</i>	<i>100.00</i>	<i>1,640,857</i>	<i>100.00</i>

By juxtaposing balance sheet data, it can be concluded that total business assets are comprised of fixed assets by 1/3 and of fixed assets by 2/3. Given the industry the company is engaged in, a high share of fixed assets in company's total assets is not surprising. However, in order to give a definite evaluation of the structure of business assets, it is necessary to include three more companies from the same industry, producing the same goods – mineral water, into the analysis, (see Table 2).

The situation regarding the structure of liabilities and owners equity is very favourable, at first sight. The share of owners' equity in total liabilities and owners' equity is exceptionally high, especially in year 2009 (63.46%). The dynamics of liabilities and owners' equity are variable. In 2009, a growth of somewhat more than 5% was recorded in the share of owners' equity, compared to the previous year, while in 2010, a minor decrease of the share of owners' equity in total liabilities and owners' equity can be noticed in comparison to the previous year (63.43% to 62.10%). Just like in the analysis of assets structure, it is also necessary to include spatial comparison with competitors, in order to get a clearer image of relations between structural elements of liabilities and owner's equity (see Table 2).

Table 2: Vertical balance sheet structure in 2010 (in 000 dinars)

BALANCE SHEET	<i>Voda Vrnjci</i>		<i>BB Minirapa</i>		<i>Krijez Milos</i>		<i>Palanđki Kiseljak</i>	
	Value	%	Value	%	Value	%	Value	%
Fixed assets	1,057,047	64.42	1,106,102	57.31	456,657	65.17	271,707	54.71
Current assets	583,810	35.58	824,075	42.69	2,439,024	34.83	2,249,63	45.29
<i>Total assets</i>	<i>1,640,857</i>	<i>100.00</i>	<i>1,930,177</i>	<i>100.00</i>	<i>7,001,681</i>	<i>100.00</i>	<i>4,96,670</i>	<i>100.00</i>
Owners' equity	1,019,001	62.10	1,680,752	87.08	(435,169)	(6.2)	376	0.08
Liabilities	621,856	37.90	249,425	12.92	7,436,850	106.2	4,96,294	99.92
<i>Total liabilities &amp; owners' equity</i>	<i>1,640,857</i>	<i>100.00</i>	<i>1,930,177</i>	<i>100.00</i>	<i>7,001,681</i>	<i>100.00</i>	<i>4,96,670</i>	<i>100.00</i>

<sup>6</sup> All balance sheet data used in this article were retrieved from the official web site of Belgrade Stock Exchange ([www.belex.rs](http://www.belex.rs)).

Of all competitors, only Knjaz Milos from Arandjelovac has insignificantly higher share of fixed assets in total assets – 65.17%. The reasons for this are contemporary technical equipment and the implementation of high technology in production of Arandjelovac factory. Based on all stated, it can be concluded that companies with more technically and technologically current plants and equipment have a greater share of fixed assets among their business assets,

When it comes to the structure of total liability and owners' equity from the point of ownership and indebtedness<sup>7</sup>, BB Minaqua is unrivalled in terms the share of owners' equity. While this producer's ratio of owners' equity and liabilities is nearly 7:1 in favour of owners' equity, this ratio differs considerably among other producers. Only Voda Vrnjci has a satisfactory level of indebtedness, liabilities of Palanacki Kiseljak are almost equal to total liabilities and owners' equity (loss has almost exceeded the value of capital), while Knjaz Milos holds the uncontested worst position regarding liquidity, where loss exceeds the value of capital by 435 million dinars, so this company can be considered excessively indebted and with seriously compromised solvency.

It can be concluded that the company BB Minaqua is far ahead of its market competitors in terms of investment safety for a high share of owner's equity in total liabilities and owners' equity of BB Minaqua represents a guarantee to clients, business partners, creditors that they are certain to receive payment for their receivables from this successful company from Novi Sad.

### 3.1.2 Horizontal balance sheet analysis of Voda Vrnjci company

Horizontal balance sheet analysis implies the comparison of assets and sources, in order to examine the *financial equilibrium* of a certain company. In order to carry out this analysis, it is necessary to divide assets into long-term or short-term assets, and liabilities and owners' equity into long-term and short-term sources. Long-term assets comprise fixed assets, long-term financial placements and loss, whereas short-term assets comprise cash and its equivalents, inventories, prepayments and deferred expenses, accounts receivable and placements. Long-term liabilities and owners' equity include fixed capital, long-term liabilities, long-term reserves, accrued costs and deferred revenues,

Comparison of long-term sources (long-term liabilities and owners' equity) and long-term assets provides a ratio showing the number of monetary units that are used in financing a single monetary unit of long-term assets. If this ratio is 1:1, then the *long-term financial equilibrium* exists. However, it is very hard to find a company with this exact relation of long-term assets and sources. This ratio is often shifted, so we can find companies which use a portion of their short-term sources to finance their long-term assets (e.g. when this ratio is 1:0.9), i.e. when there is a lack of long-term sources of financing. In this case, the liquidity of the company is

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<sup>7</sup> A company's indebtedness is assessed based on the structure of balance sheet in terms of ownership.

compromised. Financing can be considered secure when long-term sources are not used just for financing long-term assets, but also a portion of short-term assets (e.g. when this ratio is 1:1.2).

In order for *short-term financial equilibrium* to exist, the ratio between short-term sources of finance and short-term assets should be 1:1. This ratio can also be shifted towards short-term assets, when they are financed from long-term sources, besides short-term sources (favourable situation for company's liquidity), or towards short-term sources of finance, when these sources participate in financing a portion of fixed assets (unfavourable ratio for company's liquidity). However, the "golden rule" of financing with a ratio of 1:1 is considered to be the ideal proportion for maintaining unhampered liquidity of a certain company.

Long-term and short-term financial equilibria are co-dependent, which means that the existence of one implies the existence of another financial equilibrium, or, a compromised relation between long-term sources and assets implies the disparity between short-term assets and their sources.

Table 3: Dynamics of horizontal balance sheet structure (in 000) dinars

BALANCE SHEET Voda Vrnjci company	2008		2009		2010	
	Value	Ratio	Value	Ratio	Value	Ratio
<b>LONG-TERM FINANCIAL EQUILIBRIUM</b>						
<i>Long-term assets</i>	1,093,005	<b>1.00</b>	1,045,713	<b>1.00</b>	1,057,047	<b>1.00</b>
<i>Long-term sources</i>	1,154,733	<b>1.06</b>	1,163,998	<b>1.11</b>	1,184,848	<b>1.12</b>
<b>SHORT-TERM FINANCIAL EQUILIBRIUM</b>						
<i>Short-term assets</i>	550,325	<b>1.00</b>	520,571	<b>1.00</b>	583,810	<b>1.00</b>
<i>Short-term sources</i>	488,597	<b>0.89</b>	402,286	<b>0.77</b>	456,009	<b>0.78</b>

Table 3 presents the ratios computed by comparing long-term sources and assets of Voda Vrnjci company from Vrnjacka Banja on one side, and short-term sources and assets on the other.

As shown in the presented table, financing a share of short-term assets by using long-term sources of funds is present over the observed three-year period, with a mild tendency of growth of these sources in financing short-term assets. However, even with the nonexistence of financial equilibrium, in terms of the ideal proportion of 1:1, the confidence in maintaining liquidity is not compromised, because of the prevalence of long-term sources in financing company's assets.

Table 4 exhibits the situation in terms of financial equilibrium among competing companies in the industry, i.e. whether Voda Vrnjci has a better or a worse position from the point of financial situation in a narrow sense.

Upon the spatial comparison, it can be easily noticed, that two competing companies have a much worse financial situation, that is to say, their liquidity is seriously compromised. More precisely, Knjaz Milos and Palanacki Kiseljak finance a share of long-term assets using short-term sources, i.e. long-term sources of



funding are insufficient for covering long-term assets. The financial equilibrium is most compromised in Knjaz Milos, where every 100 dinars of long-term assets are financed by 2 dinars of long-term sources and as much as 98 dinars of short-term sources. So to speak, almost entire long-term assets are financed from short-term sources. This implies a seriously compromised long-term liquidity of this company. The situation in Palanacki Kiseljak is similar, where each 100 dinars of long-term assets are financed with 6 dinars of long-term sources, and 94 dinars of short-term sources.

Table 4: Horizontal structure of 2010 balance sheet (in 000 dinars)

BALANCE SHEET	Voda Vrnjci		BB Minaqua		Knjaz Milos		Palanacki Kiseljak	
	Value	Ratio	Value	Ratio	Value	Ratio	Value	Ratio
<b>LONG-TERM FINANCIAL EQUILIBRIUM</b>								
Long-term assets	1,057,047	1.00	1,106,102	1.00	4,562,657	1.00	271,707	1.00
Long-term sources	1,184,848	1.12	1,680,752	1.52	77,946	0.02	16,053	0.06
<b>SHORT-TERM FINANCIAL EQUILIBRIUM</b>								
Short-term assets	583,810	1.00	824,075	1.00	2,439,024	1.00	224,963	1.00
Short-term sources	456,009	0.78	248,828	0.30	6,923,735	2.84	480,617	2.14

On the other hand, BB Minaqua has by far the best financial equilibrium among the four observed companies. This company finances all of its long-term assets by using long-term sources, with a remaining portion for financing short-term assets. Each 100 dinars of short-term assets are financed using 30 dinars of short-term sources and as much as 70 dinars of long-term sources. Therefore, only Voda Vrnjci and BB Minaqua do not have a compromised financial equilibrium, and are far more confident in maintaining their liquidity than their competitors from the industry, whose liquidity is severely compromised because of the serious lack of long-term sources of financing.

### 3.2 Profit and loss statement analysis results

The evaluation of financial result of a certain company's is performed by analyzing data from the profit and loss account. Statement data can be opposed by using vertical and horizontal analysis.

#### 3.2.1 Vertical profit and loss account analysis of Voda Vrnjci company

Vertical balance sheet analysis provides data on the share of certain categories of revenue in the structure of total revenue, as well as the share of certain categories of expenses in the structure of total expenses. It is a general rule that operating revenue and operating expenses incurred by them should account for the majority

of a company's revenue or expenses, because they originate from activities related to company's regular business activities. Keeping in mind that financial activities do not represent a company's principal activities, revenues and expenses arising from these activities should be marginally present in the profit and loss account. In case a company acquires a substantial share of capital needed for business on the financial market, the proliferation of financial expenses (primarily because of interest expenses) is inevitable. Revenues and expenses from non-business and extraordinary events are unwanted, especially if they severely endanger the company's prospects for achieving a positive result.

Table 5: The dynamics of vertical structure of profit and loss account  
(in 000 dinars)

PROFIT AND LOSS ACCOUNT <i>Voda Vrnjci company</i>	2008		2009		2010	
	Value	%	Value	%	Value	%
Operating revenue	1,257,219	97.90	1,355,647	98.18	1,567,938	98.26
Financial revenue	4,407	0.34	7,352	0.53	3,819	0.24
Other revenue	22,574	1.76	17,839	1.29	23,951	1.50
<b>Total revenue</b>	<b>1,284,200</b>	<b>100.00</b>	<b>1,380,838</b>	<b>100.00</b>	<b>1,595,708</b>	<b>100.00</b>
Operation expenses	1,215,795	96.06	1,206,237	90.12	1,488,395	94.95
Financial expenses	26,688	2.11	76,641	5.73	23,137	1.48
Other expenses	23,125	1.83	55,621	4.15	56,029	3.57
<b>Total expenses</b>	<b>1,265,608</b>	<b>100.00</b>	<b>1,338,499</b>	<b>100.00</b>	<b>1,567,561</b>	<b>100.00</b>

Table 5 shows the vertical structure of Voda Vrnjci company's profit and loss account over a three-year period. Revenue structure is most desirable in the last year observed, for the participation of operating revenue in this year is 98%, while two remaining categories of revenue account for less than 2% of total revenue. Besides that, an increase in participation of operating revenue in the structure of total revenue can be noticed over the years. The best share of particular expenses in total expenses was recorded in 2008, when operation expenses accounted for 96% of total expenses, while other categories of expenses participated with less than 4%. 2009 was somewhat worse, considering the structure of particular categories of expenses in the structure of total expenses.

In order to get a clearer image of the structure of this company's revenue and expenses in year 2010, it is necessary to conduct a comparative analysis by including competing companies from the industry, which is shown in Table 6. By analyzing profit and loss accounts structures of all four competing companies in the industry in year 2010, it can be concluded that Voda Vrnjci has a fairly similar revenue structure to its competitors', with the exception of Knjaz Milos, having a somewhat worse structure with 93% operations, over 4% financial and over 2%

other revenue in the structure of total revenue. BB Minaqua has the best revenue structure, with over 99% operations and less than 1% financial and other revenue.

BB Minaqua has the best structure of particular categories of expenses in total expenses, with 99% operation expenses, followed by Voda Vrnjci with 95%, although the latter company has a high participation of other expenses (3.57%). Palanački Kiseljak has a high participation of financial expenses (5.54%), which indicates to this company's high indebtedness due to a high share of interest expenses. Knjaz Milos has an exceptionally bad expense structure, for financial expenses (404 million of which are interest expenses, and 1,102 million are foreign exchange losses) account for more than 1/5 of company's total expenses. Considering the overall vertical structure of the profit and loss account, BB Minaqua is the best among observed companies in this industry.

Table 6: Vertical structure of profit and loss account in 2010 (in 000 dinars)

PROFIT AND LOSS ACCOUNT	Voda Vrnjci		BB Minaqua		Knjaz Milos		P. Kiseljak	
	Value	%	Value	%	Value	%	Value	%
Operating revenue	1,567,988	98.26	1,410,441	99.13	5,843,028	98.24	925,125	97.49
Financial revenue	3,819	0.24	5,984	0.42	278,430	4.44	17,608	1.85
Other revenue	23,951	1.50	6,461	0.45	145,243	2.32	6,291	0.66
<b>Total revenue</b>	<b>1,595,708</b>	<b>100.00</b>	<b>1,422,886</b>	<b>100.00</b>	<b>6,266,701</b>	<b>100.00</b>	<b>949,019</b>	<b>100.00</b>
Operation expenses	1,488,395	94.95	1,230,348	98.97	5,391,659	77.05	925,205	93.24
Financial expenses	23,137	1.48	2,176	0.17	1,506,488	21.53	54,972	5.54
Other expenses	56,029	3.57	10,671	0.86	99,189	1.42	12,138	1.22
<b>Total expenses</b>	<b>1,567,561</b>	<b>100.00</b>	<b>1,243,195</b>	<b>100.00</b>	<b>6,997,336</b>	<b>100.00</b>	<b>992,315</b>	<b>100.00</b>

### 3.2.2 Horizontal profit and loss account analysis of Voda Vrnjci company

Horizontal profit and loss account analysis involves the comparison of particular categories of revenue on the left and corresponding categories of expenses on the right side of the profit and loss account. In such way, the partial results can be derived, which altogether constitute the whole result of a company.

Total result is decomposed into as many partial results (for more detail, see: Dmitrović, 2011, 417-425) as there are categories of expenses and revenue in the official profit and loss account schema. The purpose of determining partial results is to examine their participation in the company's total result, because not all partial results have the same significance. Operating revenue and operation costs caused by it are most important for a company, and therefore, operation result should make up as much as possible of total result.

Financial and other results are calculated as difference between financial and other revenues and expenses, and these revenues and expenses are causally dependent. Other results to be present least in company's total result as least as possible, i.e. its value should be reduced to a minimum, if possible.

The movements of specific partial results in total results of Voda Vrnjci over the three-year period are shown in Table 7. Values in brackets indicate negative values, or negative financial result – loss. The financial and other results are negative in all three years and contributed to the decrease of positive operation result. By comparing data from the observed three-year period, it can be seen that the best (or better said, least bad) total result of 42 million dinars was attained in year 2009. It is structured from positive operations result and negative results originating from financial and other revenues and expenses. On the other hand, the total result from year 2008 was least reduced in relation to the operation result, i.e. the sum of negative partial results is lowest in this year and stands for 55% of the value of positive operation result.

Table 7: Dynamics of structure of total result (in 000 dinars)

<i>PROFIT AND LOSS ACCOUNT</i> <i>Voda Vrnjci company</i>	2008	2009	2010
Operation result	41,424	149,410	79,543
Financial result	(22,281)	(69,289)	(19,318)
Other result	(551)	(37,782)	(32,078)
<i>Total result</i>	18,592	42,339	28,147

The structure of total result among competing companies in Table 8 provides a clearer image of Voda Vrnjci's achieved result in 2010. In comparison with its competitors, this company is the only one that succeeded in maintaining a positive total result, even with two negative partial results. Palanacki Kiseljak is the only one with all three negative partial results and, along with Knjaz Milos attained a negative total result in the observed year. Despite having the greatest operation result among competing companies (451 million), it completed the fiscal year 2010 with a negative total result due to an immense negative financial result<sup>8</sup>. BB Minaqua was the most successful company in the industry, attaining the best structure of total result, with a minimal share of negative other result (only 2.4% of the operation result).

Table 8: Structure of total result in 2010 (in 000 dinars)

<b>PROFIT AND LOSS ACCOUNT</b>	<b>Voda Vrnjci</b>	<b>BB Minaqua</b>	<b>KnjazMilos</b>	<b>Palanacki Kiseljak</b>
Operation result	79,543	180,093	451,369	(80)
Financial result	(19,318)	3,808	(1,228,057)	(37,369)
Other result	(32,078)	(4,300)	46,054	(5,847)
<b>Total result</b>	<b>28,147</b>	<b>179,601</b>	<b>(730,634)</b>	<b>(43,296)</b>

<sup>8</sup> In Knjaz Milos, losses due to exchange rate fluctuation (account 563) amounted to as much as 1,102,372,193, causing extremely high financial loss in 2010.

Voda Vrnjci was successful, compared to its competitors, and besides BB Minaqua was the only to achieve a positive total result. However, the overall impression is impaired by the fact that negative partial results from financing and other activities have a great share in total result.

### 3.3 Results of combined analysis of both statements

It is necessary to include a combined analysis of both statements into financial statement analysis, because individual analyses of balance sheet and profit and loss account cannot provide sufficient data for reliable and comprehensive informing, and also because these two balance aggregates are co-dependent. Combined analysis of balance sheet and profit and loss account implies using, that is, combining data from both balance aggregates (hence the name), and incorporates (Stevanović, 2004, 111-150):

- turnover analysis, that is, the analysis of efficiency in asset and capital management; and
- cost-effectiveness analysis, that is, the analysis of return on assets and company's capital

Table 9: The dynamics of efficiency in managing assets and capital

<i>Voda Vrnjci company</i>	2008	2009	2010
Total revenue	1,284,200	1,380,838	1,595,708
Assets	1,643,330	1,566,284	1,640,857
Total capital	953,633	993,482	1,019,001
Assets turnover indicator (1:2)	<b>0.78</b>	<b>0.88</b>	<b>0.97</b>
Capital turnover indicator (1:3)	<b>1.35</b>	<b>1.39</b>	<b>1.57</b>

*Turnover analysis* begins with data on total annual revenue, which is subsequently compared to company's assets (that is the way of determining the indicator of efficiency in asset management) or fixed capital (indicator of efficiency in capital management). These indicators of management efficiency, or turnover ratios, express how many times company managed to turn over its assets (or fixed capital) through attained annual revenue.

Ratios of assets or capital turnover of Voda Vrnjci company (see Table 9) exhibit a trend of gradual growth over the years. For example, in 2008, the observed company has managed to turn over its available assets through attained revenue 0.78 times (or total available capital through attained revenue 1.35 times). In other words, each dinar of an average of employed assets has produced 0.78 dinars of revenue in 2008; 0.88 dinars of revenue in 2009, and 0.97 dinars of revenue in 2010. Also, each dinar of employed total capital employed has resulted in 1.35 dinars of revenue in year 2008, 1.38 dinars of revenue in 2009, and even 1.57 dinars of revenue in year 2010.

By analyzing values of turnover ratios among competing companies in 2010 (see Table 10), exceptionally high values of turnover ratios can be noticed at Palanacki Kiseljak, especially capital turnover ratio (2,524). However, bearing in mind the undersized total capital of this company, along with the ratio of total capital and liabilities (see Table 2), the high turnover ratio at this company does not illustrate efficiency in capital management. On the other hand, a high level of assets turnover ratio shows a remarkable efficiency in asset management, where each dinar of an average of employed assets resulted with 2 dinars of revenue in 2010.

Table 10: Efficiency in managing assets and capital in year 2010

<i>Balance data for year 2010</i>	<i>Voda Vrnjci</i>	<i>BB Minaqua</i>	<i>Knjaz Milos</i>	<i>Palanacki Kiseljak</i>
Total revenue	1,595,708	1,422,886	6,266,701	949,019
Assets	1,640,857	1,930,177	7,001,681	496,670
Total capital	1,019,001	1,680,752	(435,169)	376
Assets turnover indicator (1:2)	<b>0.97</b>	<b>0.74</b>	<b>0.89</b>	<b>1.91</b>
Capital turnover indicator (1:3)	<b>1.57</b>	<b>0.85</b>	—	<b>2.524</b>

Remaining two competing companies, BB Minaqua and Knjaz Milos exhibited far worse results concerning assets and capital management in comparison with Voda Vrnjci company. It can therefore be concluded that Voda Vrnjci company, compared to competing companies, is the only company to achieve stable values of mentioned indicators, along with a trend of progression over the years.

Table 11: Movements of rates of return at Voda Vrnjci

<i>Voda Vrnjci company</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Profit	18,592	42,339	28,147
Assets	1,643,330	1,566,284	1,640,857
Total capital	953,633	993,482	1,019,001
Rate of return on assets (1:2)	<b>1.13 %</b>	<b>2.70 %</b>	<b>1.71 %</b>
Rate of return on capital (1:3)	<b>1.95 %</b>	<b>4.26 %</b>	<b>2.76 %</b>

*Cost-effectiveness analysis* provides data on the level of return on assets and company's capital by comparing total annual profits with assets or fixed capital in the observed year.

Rates of return on assets (see Table 11) indicate that Voda Vrnjci gained 1.13 dinars of profit on each 100 dinars of average engaged assets in year 2008, 2.70 dinars of profit in 2009 and 1.71 dinars of profit in year 2010, while gaining 1.95 dinars, 4.26 dinars and 2.76 dinars respectively on each 100 dinars of average engaged capital. Therefore, the decrease in rates of return is evident in the last year, due to a sudden decline in operation result and retaining of negative values of other partial results.

To obtain more comprehensive information basis for an overall assessment of Voda Vrnjci's profitability, it is necessary to consider rates of return among competitors (see Table 12). Given that that BB Minaqua was the only company that achieved a positive financial result in 2010, it seems sensible to compute the rate of return just for this competing company. It can be concluded that this company has even five times greater rate of return on assets and four times higher rate of return on capital than Voda Vrnjci. Accordingly, BB Minaqua proved to be an exceptionally profitable company, compared to its competitors in the industry.

Table 12: Rates of return in 2010

<i>Statement data from year 2010</i>	<i>Voda Vrnjci</i>	<i>BB Minaqua</i>	<i>Knjaz Milos</i>	<i>Palanacki Kiseljak</i>
Profit	28,147	179,601	(730,634)	(43,296)
Assets	1,640,857	1,930,177	7,001,681	496,670
Total capital	1,019,001	1,680,752	(435,169)	376
Rate of return on assets (1:2)	<b>1.71 %</b>	<b>9.30 %</b>	---	---
Rate of return on capital (1:3)	<b>2.76 %</b>	<b>10.69 %</b>	---	---

#### 4. CONCLUSION

By means of financial statement analysis, this paper carried out an assessment of financial situation and profitability of Voda Vrnjci from Vrnjačka Banja, with a comparison to three competing companies from the same industry. Based on previously executed analyses, it can be concluded that Voda Vrnjci has achieved satisfactory results regarding the following indicators, in comparison with its competitors:

- favourable ratio of owners' equity and liabilities, in favour of the first: equity constitutes an average of 60% of total liabilities and equity, which is a guarantee to company's clients, creditors and business partners that they will receive payment for their financial claims;
- financial equilibrium: considering that financing is secure, due to the fact that long-term financial equilibrium is shifted towards long-term sources, Voda Vrnjci does not have a problem associated with the lack of long-term sources, for it uses these sources to finance not only long-term assets, but also short term assets;
- the portion of operating revenue in structure of total revenue: a trend of increase is operating revenue, which constitutes an average of 98% of total revenue, is evident in the observed three-year period; and
- assets and capital return ratios: a trend of positive progression over the years is apparent in these ratios, which points to the conclusion that the company effectively manages its available business assets and capital.

Besides good indicators and a whole set of advantages in comparison to competing companies, the conducted analysis has discovered some unfavourable indicators of Voda Vrnjci, particularly regarding:

- negative partial results: financial result and other result have negative values in all three years observed in the analysis, and therefore cause the decrease in the positive operation result,
- unfavourable results of profitability analysis: significant decrease of rate of return on assets and capital in 2010 can only be attributed to the decrease of attained total result in this year, for values of business assets and capital were higher than in 2009.

Voda Vrnjci has good potential in view of a satisfactory percentage of its own resources, presence of quality long-term sources, and a high share of operating income in the structure of total income. Thus, there is a good financial base for eliminating weaknesses identified in this analysis as soon as possible. This primarily refers to transforming the negative partial results into positive ones, which will contribute to the trend of increase in profits and rates of return on capital and assets.

Financial reports analysis provides important leverage in the process of business decision making, planning and control; however, its results cannot be considered separately, but only in consistency with the results reached by other analyses (market analysis, human resources analysis, organizational analysis, capacity analysis, etc.). Each company's future actions must be considered in view of their effect on the balance sheet, i.e. it necessary to recognize possible consequences to company's financial and equity situation.

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