

PRIVATIZATION EFFICACY FINANCIAL ANALYSIS AND THE CURRENT SITUATION OF THE PHARMACEUTICAL INDUSTRY IN SERBIA

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Abstract: *The pharmaceutical industry is an economic branch that is primarily concerned with the production of pharmaceutical preparations, medicines and other products, and at the same time it is one of the strategic branches of the economy of each state. Observing the problem, through systematic analysis, the focus in the paper was put on the time interval in the last ten years when the privatization procedures were intensively implemented over the largest Serbian pharmaceutical companies. Through the econometric indicators, the influence and consequences on the current state of the pharmaceutical industry in the Republic of Serbia have been also highlighted.*

In the course of the research, through financial analysis, the most successful companies from the pharmaceutical sector of the economy of the Republic of Serbia are pointed out through the financial indicators the liquidity and the performance of the business were analyzed. Also, by economic and financial approach, the share that the former holders of the pharmaceutical industry had in production in relation to the current situation, where the processing sector prevails, will be highlighted.

Keywords: *pharmaceutical industry, Republic of Serbia, analysis, finance, economy*

1. INTRODUCTION

The world pharmaceutical market has undergone rapid, unprecedented, tremendous and complex changes in the last few years. Nowadays, the pharmaceutical industry is still one of the most inventive, innovative and lucrative of the so-called "high-tech" industries; however, we can say that the pharmaceutical industry has been adapting itself more and more to the strategic trends and market demands. Further strategic development of the global pharmaceutical industry clearly shows its consolidation, concentration and strong market orientation. The pharmaceutical industry today, with no doubt, unites one of the biggest potentials of all humanity. Considering that a country like Serbia has recognized the advantages of having a business change, it realized that the biggest contribution to the competitiveness of the then key strategic carriers in the pharmaceutical industry will be the privatization process, which will enrich the capital of the company and the production process, given that many of them have been unprofitable for years, and through the sale of their participation and ownership, the state will acquire financial resources that will create the conditions for further development and research through investments and the formation of a sustainable development strategy. The development of a brand new drug is estimated to require an investment of more than \$ 1.2

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billion and takes more than 12 years to bring it as a finished, legally registered and approved product to the marketplace [2]. This is a very complex, comprehensive and highly risky job with no final guarantee that the potential new product could succeed on the market and bring back revenues [1].

We may argue that competitiveness has been growing tremendously, thus there is an urgent need for pharmaceutical companies to behave in a good, sharp and fast manner (Kesić, 2009). We can forecast that, taking into account the described elements, realistic trends of further consolidation and concentration of the world pharmaceutical industry. We can expect the formation of even more pharmaceutical concerns in all three sectors of the pharmaceutical industry. In addition, further lack of new products is expected with high competitiveness and furious fight for market share and global customer loyalty [1]. The conducted analysis in the work focused on the effectiveness of the privatization carried out over the pharmaceutical companies, as well as the current situation in the pharmaceutical market of Serbia. Through financial and business analysis, a review of the companies after the global economic crisis was given, and what influenced their liquidity, and at the same time, from the economic point of view, could be implemented to improve the situation in Serbia.

2. FINANCIAL ANALYSIS

The pharmaceutical market is highly profitable, with an average annual growth rate of around 6% [5]. The United States stands out as a leader with a 45% share in the world market, with Pfizer, Merck & Co and Johnson & Johnson highlighting. The EU countries, with 29% of the shares, are also important players in the market. The major pharmaceutical companies GlaxoSmithKline, AstraZeneca and Novartis contributed the most to this, with realized revenues from sales of its product range.

The pharmaceutical market of Serbia is a generic market, which accounts for most of the consumption of medicines from domestic production. The share of generic drugs in total drug consumption is over 55-60%. The greatest video demand for medicines is provided from domestic production (55-60%), while import medicines account for 40-55% of the market. Of the total amount of cells, about 85% are prescription drugs, while about 15% of medicines can be bought without prescription at the OTC market (Over-the-Counter Drugs). Of this, about 220-230 million euro's are state-owned for financing medicines on positive lists, representing 33-38% of the total size of the pharmaceutical market. It can be noted that the growth of government expenditure on financing leaked by positive lists is lower than the growth of the pharmaceutical market, which indicates that the participation of medicines with compensation in the overall size of the market is increasing. The pharmaceutical market of Serbia is a complex market in which wholesale and distribution of medicines is significant. According to official statistics, wholesale and retail sales of medicines make almost the same turnover as in the "first sale of medicines", which is generated by domestic manufacturers and importers [3] - [4].

By the beginning of the global economic crisis in 2008, from the macroeconomic point of view, the turbulence was determined in the Serbian economy, whereby the pharmaceutical sector was hit, specifically considering the profitability analysis of 9 pharmaceutical companies, through 3 indicators - ROA, ROE I ROI, the trend is falling in most of the analyzed entities. Certain negative ones were also noticed, which should alert the relevant ministries and specific entities to react [5].

In order to increase profitability, it was necessary to reduce the costs associated with invested funds and increase the sales volume of producers and distribution channels with wholesalers. In this case, the pharmaceutical sector would be more attractive to potential investors, as the increase in net profit leads to a potential increase in profits per share of the company operating as a joint-stock company.

Table 1: Financial analysis of profitability of pharmaceutical companies in the Republic of Serbia in the period 2009-2011 business year

Pharmaceutical company	<i>Hemofarm a.d.</i>	<i>Galenika a.d.</i>	<i>Zdravlje a.d. Leskovac</i>	<i>Jugoremedija a.d.</i>	<i>Velefarm</i>	<i>Vetfarm a.d.</i>	<i>Srbolek a.d.</i>	<i>Farmalogist d.o.o.</i>	<i>Unihemkom</i>	
No.	1	2	3	4	5	6	7	8	9	
INDICATOR		ROA (Return on assets)								
Business year	2011	12.83%	-12.66%	1.18%	-4.67%	-2.93%	-11.04%	-2.76%	-0.41%	-4.06%
	2010	5.56%	-2.78%	10.11%	-1.46%	-2.00%	-3.74%	-2.52%	-1.99%	-2.13%
	2009	10.87%	5.06%	5.03%	-6.26%	1.21%	-2.94%	-3.56%	2.55%	0.06%
INDICATOR		ROE (Return on equity)								
Business year	2011	-38.34%	-325.90%	-10.17%	-61.10%	negative equity	negative equity	-409.83%	17.89%	negative equity
	2010	-4.23%	-6.65%	0.05%	-24.11%	negative equity	-441.75%	-129.08%	11.43%	negative equity
	2009	16.84%	3.67%	1.06%	-11.99%	-76.36%	-184.49%	-67.60%	9.68%	99.73%
INDICATOR		ROI (Return on investment)								
Business year	2011	17.46%	-16.76%	1.39%	-6.13%	-5.02%	-34.66%	-20.40%	-1.27%	18.21%
	2010	7.59%	-3.57%	12.38%	-1.61%	-2.60%	-8.37%	-12.36%	-6.06%	39.33%
	2009	15.31%	7.18%	5.70%	-6.92%	1.75%	-6.38%	-9.21%	7.20%	4.49%

By applying a systematic financial analysis of the operations of pharmaceutical companies, one can see the state of liquidity of the same, which also reflects the state of the pharmaceutical industry as a whole, especially in the period preceding the final privatization procedures over some of them, but at the same time, they look at the operations of the companies that were privatized. In principle, the business indicators of most of the companies that were doing business in the 2009-2011 business year, recorded a downward trend, which can be seen by looking at the values in the table 2. Revenue from sales, net gain or loss, net working capital showed an alarming situation that was on the market, under the influence of the global economic crisis, but also among the causes could include oversized wholesale and retail network, as well as the non-compliance of payment deadlines, but also the illiquidity of health institutions and the republican health insurance fund [3]. Taking into account the specific indicators, although some companies reported balanced profit, the EBDITA values recorded a significant downward trend, even the negative values. This was logically reflected in the variation in the employment rate, since by reducing it, it tried to influence the reduction of obligations and duties, and at the same time contributing, and reducing the passive, that is, personal expenditures.

Table 2: Business analysis of pharmaceutical companies in the Republic of Serbia in the period 2009-2011 business year

Pharmaceutical company	Hemofarm AD	Galenika AD	Zdravlje AD Leskovac	Jugoremedija AD	Velefarm	Vetfarm AD	Srbolek AD	Farmalogist d.o.o.	Unihemkom	
No.	1	2	3	4	5	6	7	8	9	
INDICATOR		Realized operating income								
Business year	2011	202,308.09 €	45,343.27 €	32,627.20 €	8,784.56 €	8,605.15 €	3,913.31 €	472.62 €	116,194.26 €	15,934.65 €
	2010	199,454.91 €	80,909.92 €	33,409.72 €	10,185.53 €	21,726.94 €	17,680.72 €	3,083.00 €	87,477.60 €	55,998.68 €
	2009	208,832.07 €	99,781.53 €	30,803.26 €	5,900.30 €	58,905.47 €	35,507.95 €	2,904.84 €	83,980.89 €	48,464.08 €
INDICATOR		EBDITA (Earnings Before Interest, Taxes, Depreciation and Amortization, in thousands)								
Business year	2011	49,566.79 €	-19,471.22 €	3,169.25 €	-626.33 €	-1,033.38 €	-2,546.08 €	-361.41 €	232.17 €	-538.80 €
	2010	29,337.27 €	-3,975.80 €	10,478.00 €	816.54 €	-1,083.97 €	-1,152.82 €	-205.34 €	-678.98 €	-541.20 €
	2009	52,825.81 €	17,196.64 €	6,352.85 €	-1,205.31 €	3,817.10 €	-969.17 €	-346.63 €	1,648.84 €	16.16 €
INDICATOR		Assets (in thousands)								
Business year	2011	334,822.02 €	195,712.49 €	56,568.13 €	29,689.44 €	99,033.71 €	27,932.83 €	16,457.69 €	64,422.98 €	16,101.54 €
	2010	395,869.28 €	286,731.22 €	78,547.15 €	30,064.29 €	132,489.28 €	39,441.29 €	17,511.83 €	55,446.88 €	27,849.03 €
	2009	407,263.44 €	283,003.95 €	71,565.77 €	35,087.70 €	173,270.36 €	45,550.23 €	17,342.07 €	48,388.78 €	17,649.86 €
INDICATOR		Number of employees								
Business year	2011	1741	2725	435	450	193	132	88	375	64
	2010	1950	2744	457	448	142	198	219	366	74
	2009	1989	2615	656	410	148	221	242	352	62

3. EFFICIENCY OF THE PRIVATIZATION PROCESS IN THE PHARMACEUTICAL INDUSTRY

Serbia, a country in transition, has opened its market to foreign pharmaceutical companies due to the economic crisis and low living standards. This has caused the weakening of domestic pharmaceutical companies on the market due to the emergence of foreign companies from more developed markets and higher financial resources available [4]. The privatization process, perhaps to a large extent, has caused the Serbian industry to return a lot of steps backwards. The privatization carried out did not, to a sufficient extent, contribute to raising the efficiency of the business of the industry or to new employment.

Table 3: SWOT analysis of the company Galenika a.d. Belgrade

Strengths	Weakness
Recognizable brand in Serbia and the former Yugoslav countries, traditional presence in the Eastern European markets, a wide variety of medicines, experience and expertise in manufacturing, quality products	Lack of GMP certification, drug prices are controlled by the state and are not aligned with the prices of inputs, outdated production program
Opportunities	Threats
Modern factory for production of solid pharmaceutical preparations, high capacity and ability of service production to other pharmaceutical companies, ensuring international GMP certification which will allow penetration into new markets, the development of pallets dental and medical devices	Illiquidity caused unavailability of products and the weakening position in the domestic and international markets where the company is traditionally present, high debt to payables, as well as to banks

There were problems of post-privatization restructuring, so in 2008 even 40% of privatized companies operated unprofitably, due to high indebtedness and cumulative losses [6]. New jobs were opened mainly in sectors whose products are not intended for export (financial intermediation, trade, real estate, renting and other services). It is important to point out that in the pharmaceutical industry in the last decade significantly decreased employment, and companies that were subjected to privatization did not improve the expected effectiveness of

the business - which would be a logical consequence of the change in ownership structure, but certain new owners were not interested in intensifying the existing production [8],[9],[10].

Table 4: Review of most important privatization in the pharmaceutical sector of Serbia

Pharmaceutical company	Zdravlje a.d. Leskovac	Zorka Pharm	Jugoremedija a.d.	Galenika a.d.	Hemofarm
No.	1	2	3	4	5
City	Leskovac	Šabac	Zrenjanin	Belgrade	Vršac
Sale price (in €)	3500000	14666433.6	16800000	16000000	475000000
Number of sold shares	387258	1611696	-	-	-
Percentage of ownership	70%	70%	42%	93.73%	67%
Buyer	Pharmaco HF	Hemofarm Koncern a.d.	Many	Aelius S.A.R.L. Luxemburg	Stada Germany
Date of 1 st privatization	20.12.2002.	09.11.2002.	31.12.2002.	02.11.2017.	20.07.2006.

4. THE CURRENT SITUATION OF THE PHARMACEUTICAL INDUSTRY IN SERBIA

It is significant that the current state of the pharmaceutical industry, and also the market, shows that certain structural balance changes have been made [6]. Thus, a certain acceptable liquidity rate was established, but not solvency, as indicated by the estimates. As can be seen in the following table 5, in the last four years, from 2014 to 2017 business year, the value on the market shows the trend of growth, as well as the number of packages of medicines that were in circulation.

Table 5: Structural analysis of the pharmaceutical market in period from 2014 to 2017 business year

Number of packages	Business year	Medicament	Medicament Rx	OTC	Non-medicament (including MS)	TOTAL MARKET
	2014	251.000.000	207.000.000	44.000.000	92.000.000	323.000.000
	2015	234.000.000	188.000.000	46.000.000	93.000.000	327.000.000
	2016	239.000.000	193.000.000	46.000.000	95.000.000	334.000.000
	2017	246.000.000	200.000.000	46.000.000	95.000.000	341.000.000
Financial values (in €)	Business year	Medicament	Medicament Rx	OTC	Non-medicament (including MS)	TOTAL MARKET
	2014	640.000.000	554.000.000	86.000.000	219.000.000	859.000.000
	2015	609.000.000	518.000.000	91.000.000	210.000.000	819.000.000
	2016	652.000.000	557.000.000	95.000.000	212.000.000	857.000.000
	2017	715.000.000	615.000.000	100.000.000	212.000.000	927.000.000

At the same time, total wholesale sales at wholesale prices (medicament & non-medicament) without discounts, refunds, etc., are included and VAT excluded, amounts to EUR 927 million for 2017 (growth of 8.2% compared to 2016). The market in boxes for the same period is 341 mil. packaging (growth of 2.10% compared to 2016). The turnover of many medicines in 2017 is 715 million euro's and 246 million packages with growth compared to 2016, financially from 9.7% and in volume by 2.9% [10]. The most significant increase, compared to 2016, was recorded in the prescription drug market, which is financially 10.4% and the quantity is 3.6%.

Table 6: Foreign trade with the analysis of countries from which medicaments are imported and to which they are exported

External trade	No.	Country	Quantity (in t)			Values (in thous. USD)		
			2015	2016	2017	2015	2016	2017
EXPORTS	1	<i>Germany</i>	2104	2132	2313	43934	45371	51965
	2	<i>Russia</i>	3359	3702	2910	28474	30913	45970
	3	<i>Montenegro</i>	497	314	333	14027	13653	16267
	4	<i>Belgium</i>	360	249	435	12253	10375	14121
	5	<i>Italy</i>	253	272	385	6171	6608	10133
	6	<i>Bosnia</i>	1890	1983	1833	8061	9092	8777
	7	<i>Other</i>	7097	7432	7827	46890	43874	58881
TOTAL (Σ)			15560	16084	16036	159810	159886	206114
IMPORTS	1	<i>Germany</i>	1514	2489	2563	86081	93934	108768
	2	<i>France</i>	1146	1062	1185	61259	76815	83233
	3	<i>Hungary</i>	257	295	268	58719	66785	72124
	4	<i>Switzerland</i>	82	89	101	57664	53473	63493
	5	<i>Slovenia</i>	405	430	502	33470	32432	39668
	6	<i>Austria</i>	316	246	374	20698	14479	31264
	7	<i>Belgium</i>	105	80	118	29107	21952	27161
	8	<i>Italy</i>	401	358	742	17595	19447	26545
	9	<i>Malta</i>	32	41	39	3711	4178	25679
	10	<i>UK</i>	95	138	182	13366	13988	19264
	11	<i>Other</i>	8143	7612	7513	144780	140671	154032
TOTAL (Σ)			12496	12840	13587	526450	538154	651231

It is important to note that in the previous three analyzed years, according to the calculation based on statistical data, the export of medicines registered a trend of growth, both in quantitative and in value terms, where Russia, and then Germany and Bosnia and Herzegovina are countries where Serbia mostly exports drugs [11]. However, it is important to note that the import of medicines also shows a growth trend of 20-25% less than it is exported, but it is worth to show that Serbia's financial expenditures are about three times higher for imports than they are realized annually through exports. Unlike other companies analyzed, Hemofarm became the leader in the pharmaceutical market of Serbia, under the leadership of Stada from Germany, with 17.3% of the value. By taking 79.1% of the total export of pharmaceutical products from the country, the Vrnjačka Company is also the largest Serbian exporter of medicines that produces more than four billion tablets and capsules per year. It operates on three continents and has a team of over 2,500 employees. Along with the fact that it is present in 38 markets of the world, Hemofarm is also one of the largest pharmaceutical manufacturers in the region.

Table 7: Comparative analysis of exports and imports of basic pharmaceutical products and preparations

Exports			share in total exports in %		Σ	
2017	2018	index	2017	2018	2017	2018
198.2	212.0	107.0	1.6	1.5	-361.1	-446.3
Imports			share in total imports in %			
2017	2018	index	2017	2018		
559.3	658.3	117.7	3.6	3.5		

5. CONCLUSION

According to the structural analysis of the pharmaceutical industry sector, it can be concluded that in relation to other sectors, in the last decades, it has shown significantly higher vitality [12]. However, in addition to stimulating research work in all areas of the pharmaceutical domain, it is also necessary to create conditions for meeting very strict requirements such as qualitative standards, thus creating a favorable and adequate business climate, restructuring and leading competitive advantages by looking at successfully implemented privatization processes and for companies like Hemofarm that have extremely profitable businesses. In the immediate realization of these goals, the state, its institutions and banks should be actively involved, which must support the production of each new industrial product, especially those that are estimated to be long-term profitable in export. It is only thus possible to create a favorable environment in which all innovators, producers and exporters, with maximum efforts to increase the competitiveness of their products, will develop on a healthy economic basis.

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